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Reference Tables for Thermocouple and RTD Sensors

Product Information

A Siebe Group Product

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Reference Tables Thermocouple and RTD's

1.0 Introduction

This document includes a brief discussion of thermocouple properties and reference tables for the most common types of thermocouples and resistance temperature detectors. Most of these types are currently available from the Industrial Instruments Division of Barber-Colman Company. With one exception, all of the tables have been updated to the ITS-90.

The International Temperature Scale of 1990 was adopted by the International Committee of Weights and Measurements at it's meeting in 1989. The ITS-90 was implemented at the National Institute of Standards and Technology on January 1, 1990. Differences from the IPTS-68 are less than 1°C for temperatures lower than 2400°C.

1.1 Memocal 2000

The Barber-Colman MEMOCAL 2000 is a lightweight, versatile, hand-held calibrator for use both in the field and laboratory. The small size, simple programming, friendly interface, high noise immunity and long battery life make the MEMOCAL ideal for field maintenance calibration (Reference Accuracy to 0.015%). The optional leather carrying case features an over the shoulder strap and allows for viewing of both the display and the keypad. The high accuracy, large range of I/O capabilities and digital interface make the MEMOCAL ideal for laboratory use. A standard 120/240 Vac adapter saves battery capacity when working at the bench.

The MEMOCAL 2000 simulates and measures 15 different thermocouple, 2 RTD, mA, mV, voltage and ohm signals. A built-in 24 Vdc power supply allows excitation and measurement of 2-wire and 4-wire transmitters. Standard features also include configurable internal or external cold junction compensation, square root extraction and quadratic signal generation.

Up to 50 program steps can be created in one or more programs, providing preconfigured ramp, soak and step functions for calibration zero, span and midpoints. Two dry contact inputs allow program advance and hold.

1.2 WARNING

Hazardous extraneous voltage capable of causing severe injury or death may exist between thermocouple leads and ground. Disconnecting the instrument power may not remove this voltage. Measure for the presence of voltage between each sensor lead and ground before servicing.

1.3 Thermocouples

Industrial process control usually requires that the temperature sensing device be remote from the measuring or controlling instrument. Of the various thermal sensing devices, the thermocouple is most commonly used; offering the best compromise of cost, accuracy and reliability.

A thermocouple element consists of two wires of dissimilar alloys welded together at the tip. When the ends of the element are exposed to a temperature gradient, an Electromotive Force (EMF) is generated. The EMF level is very small, amounting to microvolts per degree.

Any junction of dissimilar alloys will generate a voltage. Which is known as the "Seebeck Voltage" The amount of voltage is determined by the temperature and the composition of the alloys.

Figure 1.0 Thermocouple

All thermocouples have two junctions; the hot end and the cold end. The cold end occurs at the point of connection to temperature controller or indicator. This has the effect of a second thermocouple, in series with, and opposing the hot junction.

Figure 1.1 Thermocouple with Cold Junction

Temperature controllers and indicators have a thermal measuring device to compensate for the cold junction EMF. The device is mounted near the instruments terminal strip where the thermocouple connects to the controller.

Figure 1.2 Thermocouple Cold Junction Compensation

To insure that the Cold Junction compensator is accurate. The actual thermocouple cold junction must be located at the site of the compensator. The wire between the thermocouple and the instrument should be the same alloy as the thermocouple. This wire is called "Extension Wire".

Note: Do not us copper wire between thermocouple, panel terminal strips and instruments.

Thermocouple alloy combinations have been developed to meet specific requirements. Each alloy set has certain characteristics (cost, temperature range, corrosion resistance, etc.) that provide specific advantages for specific applications. To simplify selection and provide uniformity, several alloy combinations have had single letter code designations assigned by ANSI. For example:

Type "J" for Iron vs. Constantan
Type "K" for Chromal vs. Alumel

Each alloy set has a unique EMF output for a given temperature. The measuring instrument is calibrated for a specific Type of thermocouple. When specifying thermocouples, the element must be of the same Type as the instrument calibration.

2.0 Thermocouple Elements Groups

Thermocouples are classified into three groups.

Base Metal Thermocouples
Main advantages are economical cost, good reliability and reasonable accuracy. Used primarily for low to moderately high temperature range (-200°C to +1200°C). Over 90% of all thermocouples are in this group. Types "J" and "K" prevail.

Noble Metal Thermocouples
Elements from noble metals offer improved accuracy and stability over base metal thermocouples. Most are manufactured from combinations of Platinum and Rhodium. Commonly used in high temperature applications up to 1700°C. Also used as a reference standard when testing base metal elements. Much higher cost than base metal thermocouples.

Refractory Metal Thermocouples
Combinations of Tungsten and Rhenium. Very brittle and prone to breakage. Used for very high temperature applications up to 2300°C. Must be used in vacuum or totally inert atmosphere. Cost varies widely with the physical construction used.

Selecting the thermocouple Type is dependent on the application. Length of service, temperature, atmosphere, response time and cost must be considered. Be certain that the alloy Type matches the instrument with which it will be used.

2.1 Base Metal Element Alloys

Type E Chromal vs. Constantan
Suitable for use from -200°C to +870°C. Can be applied in atmospheres ranging from vacuum to mildly oxidizing. Excellent choice for cryogenic applications. Has the highest EMF output per degree of all the common elements.

Type J Iron vs. Constantan
The standard selection for use from 0°C to 600°C. Type J has good reliability at lower temperatures. The positive leg will oxidize rapidly above 500°C. Very economical. Used extensively in the plastics industry, but applicable to almost any process within its operating range. Available in a wide range of construction styles.

Type K Chromal vs. Alumel
Type K is the industry standard for use up to 1260°C. While stable in oxidizing atmospheres, it is prone to corrosion in reducing environments. Protection tubes are always recommended.

Type T Copper vs. Constantan
Suitable for use from -200°C to +350°C, Type T is widely used in the food processing industry. More stable than Types E or J for low temperature applications. Less prone to corrosion in humid environments. Has been used down to -269°C (boiling Helium).

Type N Nicrosil vs. Nisil
Designed at an alternative to Type K. Has improved corrosion resistance and long term stability. Although Type N operates over the same range as Type K, its EMF output is different. Cannot replace K without changing the extension wire and instrument calibration.

Nickel - 0.8% Cobalt vs. Nickel - 18% Molybdenum
Designed for operation up to 1300°C in vacuum or Hydrogen atmosphere. These are environments that will degrade most other styles. Has not been assigned an ANSI code letter. Although its EMF output is unique at higher temperatures, it is nearly identical to Type K below 120°C. This allows the use of Type K extension wire.

2.2 Noble Metal Element Alloys

Type R Platinum vs. Platinum - 13% Rhodium
Type R has long been the industrial standard noble metal alloy used for high temperature application to 1450°C. Platinum is prone to contamination if in contact with other metals. Ceramic protection tubes must be used. Very stable in an oxidizing atmosphere, but will degrade rapidly in vacuum or a reducing atmosphere.

Type S Platinum vs. Platinum - 10% Rhodium
Applications and conditions similar to Type R. Type S was applied as the "Laboratory Thermocouple" while Type R was considered the "Industrial Thermocouple". This practice was based on tradition. Type S is now used extensively as an industrial sensor.

Type B Platinum - 6% Rhodium vs. Platinum - 30% Rhodium
Applications and considerations similar to Types R and S, but useful to 1700°C. Very low output at low temperature. Also extremely nonlinear at low end. Generally not considered usable below 250°C. More stable than Type R or S at high temperature. Must be protected in a ceramic tube.

Type F Platinel II
Platinel II is a noble metal alloy designed to simulate a Type K with improved accuracy and stability. Although it can be used with instruments calibrated for Type K, some error exists. Many instruments are now available calibrated for Platinel II. Widely used in the aircraft industry. Type K extension wire may be used.

2.3 Refractory Metal Elements

Type C Tungsten - 5% Rhenium vs. Tungsten - 26% Rhenium
May be used at temperatures up to 2315°C. Brittle and prone to breakage. Generally considered a limited life product. Element must not be in contact with metal. Tungsten has no oxidation resistance and will burn up if heated in air. These elements must be used in vacuum, hydrogen or totally inert gas. Sometimes supplied with open ended protection tube for use in vacuum. Otherwise manufactured as a sealed assembly purged with argon.

3.0 Thermocouple assembly

A thermocouple generally has four major components:

The Element
The combination of wire and insulators that actually senses the temperature.

The Protection Tube
A metal or ceramic tube, usually closed at the end, that protects the element from the environment of the process.

The Head or Cold End Termination
The head is a terminal block/protective enclosure device provided for connection to thermocouple extension wire. A plug and jack configuration may also be used. In lieu of either of these, an integral extension assembly can be provided.

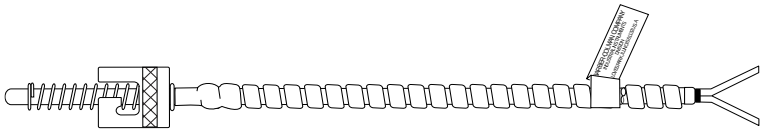
The Extension Wire
Although not a portion of the assembly itself, the extension wire is a critical part of the total circuit. The wire must be manufactured from alloys compatible with the element.

In addition, various mounting or attaching devices are offered for most assemblies.

3.1 Constructions

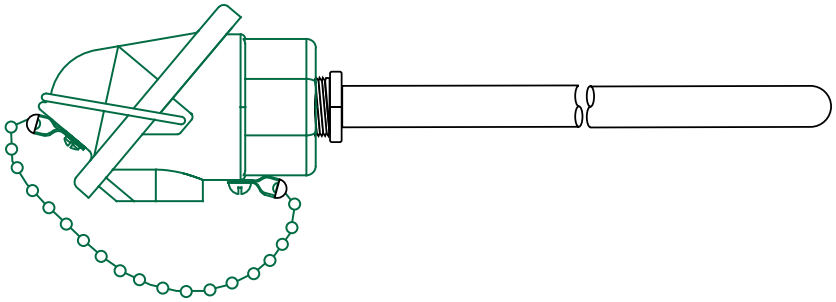
Thermocouples have been manufactured in endless combinations of construction. No single manufacturer can serve as a sole source for all styles. But four basic styles dominate.

Plastic Machinery Thermocouples
The element is made from fiberglass insulated wire in a thin-wall stainless steel tube. The element is usually brazed to the tube at the tip. Mounting is often by a twist lock fitting known as a bayonet adapter. Integral flexible extensions are normal. This form of construction is extensively used by the plastic industry, but it can be used in other applications.



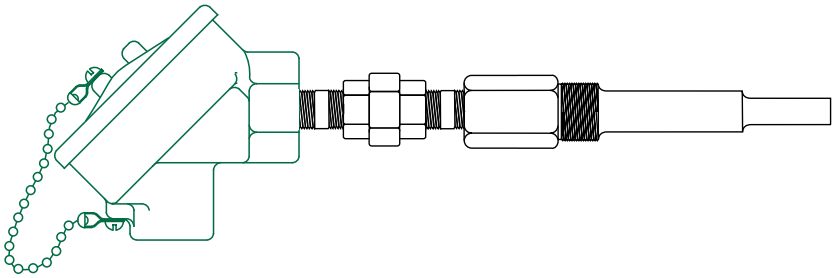
Tube and Element Construction

The protection tube, head and element are discrete components. The element is manufactured with individual conductors welded together at the tip. The protection tube can be thin-wall tubing, schedule 40 pipe, ceramic or cast iron. Cold end termination is usually with a head and terminal block assembly.



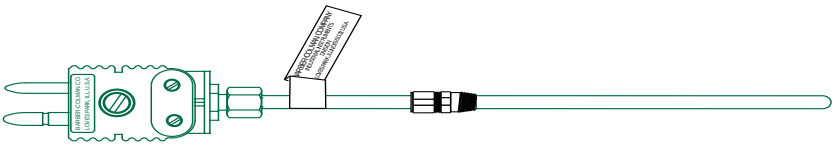
Thermowell Assemblies

Thermowells are similar to protection tubes. But are machined from solid bar stock. The center bore for the element is gun drilled. The element is usually MgO insulated and spring loaded to provide good thermal transfer at the tip. Thermowells are intended for wet process applications such as the measurement of fluids in tanks or pipes. The element can be changed without removing the well from the process.



MgO insulated assemblies

Consists of element conductors in magnesium oxide insulation with a stainless steel or inconel sheath. The assembly is then drawn down to the desired diameter. This form of construction compacts the insulation around the conductors. The result is a thermocouple with superior performance and longevity. The material can be bent to almost any desired shape without damaging the element. Diameters of .040" to .250" are available.



3.2 Protection Tubes

Protection tubes are necessary to protect the element from contamination and physical damage. Size, shape and material vary with the application. Choices vary with the style of construction.

Plastic industry thermocouples are only available with stainless steel sheaths. This material has the durability required for the limited range of conditions encountered.

MgO thermocouples are offered in a variety of stainless steels plus inconel 600. Stainless steels have excellent corrosion resistance, but are usually limited to applications below 870°C. Inconel has a high nickel content and is the preferred choice for applications to 1150°C. Typically, Type J assemblies are manufactured with stainless steel, and Type K uses inconel.

Countless combinations of assemblies manufactured from discrete element and protection tubes exist. Barber-Colman offers a selection of styles designed to meet the requirements of a broad range of applications. Protection tubes are available in metallic and nonmetallic materials. The selection of material is dependent on the environment of the process. Some materials are available in more than one size. Generally, the larger diameter tubes offer better strength and longevity. They can also accommodate heavier gauge elements. The benefit of larger tubes must be weighed against the added cost of the material. In some cases, limited life material may be more cost effective than premium grade assemblies.

3.2.1 Metal Protection Tubes

Three classifications of material are available; low alloy pipe, stainless steel and inconel.

Low Alloy Material
Black iron or welded steel pipe is a good selection for application to noncorrosive environments. Advantages include low cost, excellent abrasion resistance and good physical strength. Deteriorates above 550°C. in oxidizing atmosphere. Available in a variety of sizes.

Stainless Steel
Offers improved resistance to corrosion over welded steel pipe. It has good strength and stability to 870°C (446 SS is rated to 1100°C). Available in a variety of alloys and sizes. Cost varies from moderate to high depending of the specific alloy selected.

Inconel
Inconel is the choice for application in highly reducing atmosphere operating at higher temperatures. Has excellent strength and resistance to corrosion up to 1150°C. We offer alloy 601 which has superior characteristics than commonly used alloy 600. Cost is higher than most stainless steels. Available in 1/2" and 3/4" schedule 40 pipe.

3.2.2 Ceramic Protection Tubes

Ceramics can tolerate higher temperatures than any metal pipe. They can often withstand corrosive environments too extreme for even the best stainless alloys. All ceramics lack the resilience of metal and are prone to breakage.

Mullite
Also known as porcelain. It is a good choice for base metal thermocouples. Advantages include moderate cost, good thermal conductivity and good resistance to thermal shock. Has less physical strength than alumina. Recommended for use below 1300°C.

Alumina
Has greater strength than mullite and can be applied at higher temperatures. Use is typically restricted to noble metal thermocouples though it may be applied to base metal assemblies because of its corrosion resistance. Has less resistance to thermal shock than mullite.

Silicon Carbide
Offers greater resistance to corrosion than any commonly offer metal or ceramic material. Excellent thermal conductivity and resistance to thermal shock. Will tolerate direct flame impingement. Very brittle. Extreme care must be taken to avoid physical shock.

Metal Ceramic
A combination of chromium and alumina. Suitable for use up to 1370°C. Best choice for use with copper based alloys. Preheat to 500°C before immersing in molten metal. Cannot be used with noble metal thermocouples.

3.3 Insulated Wire

A common misconception is that the thermocouple EMF is generated at the tip. The voltage is actually produced along the entire length thermocouple circuit and is proportional to the temperature gradient from one end to the other. One end of the circuit is the junction at the hot end. The other end of the thermocouple circuit is the connection to the measuring instrument.

The extension wire between the measuring instrument and the thermocouple assembly is part of the circuit. It will supply a portion of the EMF generated.

The extension wire must be compatible with the alloys used in the thermocouple element. For base metal thermocouples, the extension wire is usually constructed of the same alloys as the element. For noble metal elements, base metal alloys are selected that match the characteristics of the element within the operating range of 0°C to 150°C.

Two types of wire are available; thermocouple grade and extension grade. Thermocouple grade wire is manufactured with alloys identical to the wire used for the elements. It is rated for accuracy over the entire operating range, though its upper limit is usually determined by the insulation material used. Extension grade wire for base metal thermocouples may be made from similar alloys, but it is not rated for use at higher temperature. Extension wire for noble and refractory metal thermocouples is manufactured from copper based alloys that are designed to match the characteristics of the element at lower temperatures.

3.3.1 Insulation Materials

Insulation is the largest factor determining the performance of extension wire. Moisture resistance, abrasion resistance, temperature rating and cost are factors to be considered.

PVC
PVC has excellent moisture and abrasion resistance but is only rated for 105°C. Its low cost makes it the best choice for most applications. UL tray rated material is available on special order.

Teflon and Kapton
These materials are alternatives to PVC when higher temperatures are encountered. Ratings as high as 315°C are available.

Braided Fiberglass
Braided insulation's have less abrasion and moisture resistance that solid plastic materials, but temperature ratings up to 700°C are available.

Braided Ceramic and Silica Fiber
These materials have the highest temperature ranges, but abrasion and moisture resistance are poor. Ceramic insulation rated at 1150°C is often used for furnace survey thermocouples.

4.0 Safety Note

Most braided insulation materials have resin based impregnation to provide improved abrasion resistance. It also provides a base for color coding. This material is not totally inert. Its activity can provide a small "battery effect". Long wire runs can cause inaccuracy at the measuring instrument. *In extreme cases, This can override the thermocouple break detection circuit of the instrument and cause the process indication to go downscale. In most cases, this will drive the control circuit to full output! The safety high limit device may be subject to the same conditions causing simultaneous failure.*

This effect is compounded by moisture. The use of braided insulation should be restricted to warm and dry environments. Connection to plastic insulated wire is recommended for long wire runs.

5.0 Resistance Temperature Detector (RTD)

RTD's are thermal sensors that change resistance proportionally with temperature. In certain applications, a RTD is a better choice than a thermocouple. All conductor materials change resistance with temperature. The amount of change is dependent on the change in temperature and the specific alloy of the conductor. RTD's are more accurate than thermocouples; especially over a narrow temperature range. Standard accuracy ratings of .25% and .10% are offered.

The RTD sensing element is a coil of wire precision wound to a specific resistance value. The element is hermetically sealed in glass or ceramic to prevent influence from moisture. The element is then installed in the tip of thin-wall protection tube for physical protection. The mechanical configuration of the complete assembly is similar to a thermocouple.

RTD's have been manufactured from several alloys including copper, nickel and platinum based material. We supply platinum based units in two different coefficients.
The industry standard is .00385 Ω/Ω/°C; also known as PT-100.

The primary advantage of using an RTD is greater accuracy, especially with narrow temperature spans. Disadvantages include higher cost, slower response time and loss of tip sensitivity. RTD's are also less resistant to physical shock. The decision whether to use an RTD or a thermocouple must be based on these factors.

5.1 RTD Construction

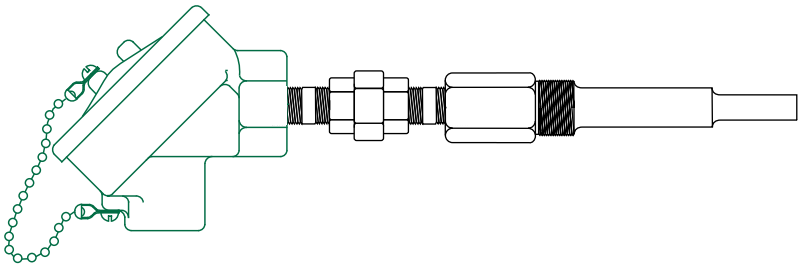
If a sensor relates resistance to temperature, then the resistance of the lead wire can affect the accuracy of the reading. Various methods have been developed to compensate. This has resulted in RTD's being manufactured in two, three and four wire configurations.

Two Wire
The two wire element has no provision for leadwire compensation other than using heavier gauge wire. It is suitable only for installation where the distance to the measuring instrument is short or accuracy is not critical.

Three Wire
The three wire configuration is the industry standard. Wire #1 is connected to one end of the element. Wires #2 and #3 are tied together at the other end of the element. The measuring instrument can sense the leadwire resistance of leads #2 & #3 and subtract this from the resistance between #1 & #2. This is accurate as long as all three wires are the same length and gauge

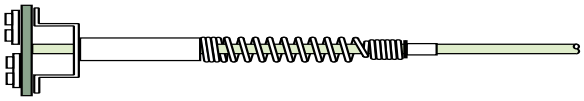
Four Wire Four wire RTD's have two leads terminated at each end of the element. The current to the sensor is supplied through one wire and the voltage value is measured at the other. Since there is no current flowing through the measuring wires, no error is contributed by leadwire resistance. Four wire sensors are commonly restricted to laboratory environments.

6.0 Thermowell Assemblies



Thermowell assemblies are available with Thermocouple or RTD elements.
RTD elements are available with either .188" or .250" diameter sheath. Two resistance coefficients are available. Two maximum temperature ratings are available. Most assemblies use .250" diameter, 500 °F rated elements (Teflon insulated conductors) and .00385 Ohm/Ohm/°C coefficient. These elements are intended for use with wells that have a .260" bore. Spring loading is recommended for best response.

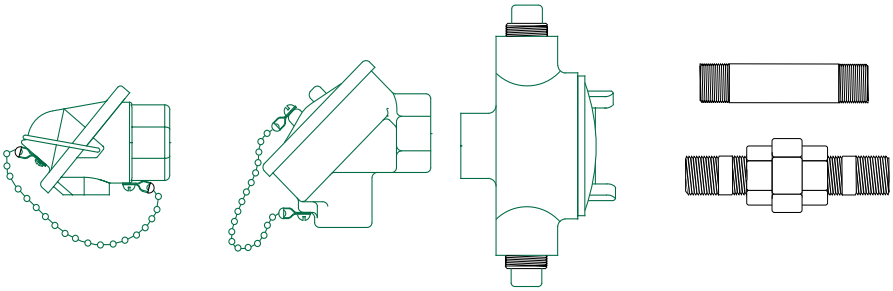
Thermocouple assemblies are available with either ceramic insulated or BarcoPac MgO elements. Ceramic insulated elements are typically used with wells that have a .385" bore. Spring loading is not available. Ceramic insulated elements are recommended for replacement use only. Industry standard is to use MgO insulated elements.



Most thermocouple well assemblies use MgO insulated elements. Several varieties of MgO material are available. Industry standard uses .250" diameter elements in wells with .260" bore. 316 SS sheath is most common except for Type K where Inconel is also popular. Both single element and isolated dual element construction are common. Ungrounded junctions are usually specified. Spring loaded elements are highly recommended.

Thermowells are available in a wide variety of styles and materials. Standard configurations in the most common materials are illustrated in the data bulletins. Consult factory for other styles and materials. Barber-Colman will quote custom assemblies. Most styles of Thermowells are available in both .260" and .385" bore diameter. Use .260" bore for all assemblies except those with ceramic insulated elements. 316SS is the most common well material.

Aluminum weatherproof heads are the most popular form of cold end termination. However, the aluminum general purpose head represents an exceptional value. Although not NEMA rated, it is gasketed and weather resistant. Both styles are also available in cast iron. Class 1 Group C & D explosion proof heads are an option. All styles are available with, or without spring loading of the element. Assume that the element is spring loaded unless otherwise specified.



4 inch nipple or nipple-union-nipple assemblies are the standard form of head to well connection. This allows adequate room for the spring loading mechanism. Unions allow for rapid changing of element-head assemblies. Nipples are available in standard steel or 304SS. Either standard or galvanized unions can be supplied. Spring loaded Double-Ended bushings are used where space is a consideration.

7.0 Initial Calibration Tolerances

The following limits of error are generally accepted as industry standard and have been listed in ASTM procedures E-230, E-988 and E-1751. Platinel II is based on manufacture's data.

Type	Material	Range	Standard Tolerance	Special Tolerance
J	Iron vs. Constantan	0 to 760ºC 32 to 1400ºF	±2.2ºC or 0.75%	±1.1ºC or 0.4%
K	Chromal vs. Alumal	-200 to 0ºC -328 to 32ºF	±2.2ºC or 2%	N/A
K	Chromal vs. Alumal	0 to 1260ºC 32 to 2300ºF	±2.2ºC or 0.75%	±1.1ºC or 0.4%
T	Copper vs. Constantan	-200 to 0ºC -328 to 32ºF	±1.0ºC or 1.5%	N/A
T	Copper vs. Constantan	0 to 370ºC 32 to 700ºF	±1.0ºC or 0.75%	±0.5ºC or 0.4%
E	Chromal vs. Constantan	-200 to 0ºC -328 to 32ºF	±1.7ºC or 1%	N/A
E	Chromal vs. Constantan	0 to 870ºC 32 to 1600ºF	±1.7ºC or 0.75%	±1.1ºC or 0.4%
N	Nicrosil vs. Nisil	0 to 1260ºC 32 to 2300ºF	±2.2ºC or 0.75%	±1.1ºC or 0.4%
R	Platinum vs. Platinum-13%Rhodium	0 to 1480ºC 32 to 2700ºF	±1.5ºC or 0.25%	±0.6ºC or 0.1%
S	Platinum vs. Platinum-10%Rhodium	0 to 1480ºC 32 to 2700ºF	±1.5ºC or 0.25%	±0.6ºC or 0.1%
B	Platinum 6% Rhodium vs. Platinum-30%Rhodium	870 to 1700ºC 1600 to 3100ºF	±0.5%	±0.25%
N/E*	Tungsten vs. Tungsten-26%Rhenium	0 to 2315ºC 32 to 4200ºF	±4.4ºC or 1%	N/E*
C**	Tungsten-5%Rhenium vs. Tungsten-26%Rhenium	0 to 2315ºC 32 to 4200ºF	±4.4ºC or 1%	N/E*
N/E*	Tungsten-3%Rhenium vs. Tungsten-25%Rhenium	0 to 2315ºC 32 to 4200ºF	±4.4ºC or 1%	N/E*
PLATINEL II	Alloy 5355 vs. Alloy 7674	0 to 600ºC 600 to 700ºC 700 to 1300ºC	±0.10mV ±0.15mV ±0.20mV	N/E*
N/E*	Nickel-0.8%Cobalt vs. Nickel-18%Molybdenum	0 to 1410ºC 32 to 2570ºF	N/E*	N/E*

* Not Established. ** Not official ANSI designation.

Initial calibration tolerances apply to new wire as delivered to the user and do not allow for calibration drift during use. Junctions to thermocouple compensating wire may cause addition error.

8.0 Upper Temperature Limits

These limits are suggested for thermocouples protected by conventional protection tubes. They do not apply to sheathed thermocouples with compacted mineral oxide insulation. Ni/Co-Ni/Mo and Tungsten based alloys must be protected with an inert atmosphere.

Type	8 Gage [0.128"]	14 Gage [0.064"]	20 Gage [0.032"]	24 Gage [0.020"]
J	760°C	590°C	480°C	
K	1260°C	1090°C	980°C	
T		370°C	260°C	
E	870°C	650°C	540°C	
N	1260°C	1090°C	980°C	
R				1480°C
S				1480°C
B				1700°C
Tungsten vs. Tungsten-6 Rhenium				2300°C
Tungsten-5%Rhenium vs. Tungsten-26 Rhenium				2300°C
Tungsten-3%Rhenium vs. Tungsten-25 Rhenium%				2300°C
Platinel II				1300°C
Nickel-0.8%Colbalt vs. Nickel-18% Molybdenum		1205°C		

* Not Established.

Type B Platinum-6% Rhodium vs Platinum-30% Rhodium ITS-90 °C

°C	0	1	2	3	4	5	6	7	8	9	10
0	0.000	0.000	0.000	-0.001	-0.001	-0.001	-0.001	-0.001	-0.002	-0.002	-0.002
10	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.003	-0.003	-0.003
20	-0.003	-0.003	-0.003	-0.003	-0.003	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002
30	-0.002	-0.002	-0.002	-0.002	-0.002	-0.001	-0.001	-0.001	-0.001	-0.001	0.000
40	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.002	0.002
50	0.002	0.003	0.003	0.003	0.004	0.004	0.004	0.005	0.005	0.006	0.006
60	0.006	0.007	0.007	0.008	0.008	0.009	0.009	0.010	0.010	0.011	0.011
70	0.011	0.012	0.012	0.013	0.014	0.014	0.015	0.015	0.016	0.017	0.017
80	0.017	0.018	0.019	0.020	0.020	0.021	0.022	0.022	0.023	0.024	0.025
90	0.025	0.026	0.026	0.027	0.028	0.029	0.030	0.031	0.031	0.032	0.033
100	0.033	0.034	0.035	0.036	0.037	0.038	0.039	0.040	0.041	0.042	0.043
110	0.043	0.044	0.045	0.046	0.047	0.048	0.049	0.050	0.051	0.052	0.053
120	0.053	0.055	0.056	0.057	0.058	0.059	0.060	0.062	0.063	0.064	0.065
130	0.065	0.066	0.068	0.069	0.070	0.072	0.073	0.074	0.075	0.077	0.078
140	0.078	0.079	0.081	0.082	0.084	0.085	0.086	0.088	0.089	0.091	0.092
150	0.092	0.094	0.095	0.096	0.098	0.099	0.101	0.102	0.104	0.106	0.107
160	0.107	0.109	0.110	0.112	0.113	0.115	0.117	0.118	0.120	0.122	0.123
170	0.123	0.125	0.127	0.128	0.130	0.132	0.134	0.135	0.137	0.139	0.141
180	0.141	0.142	0.144	0.146	0.148	0.150	0.151	0.153	0.155	0.157	0.159
190	0.159	0.161	0.163	0.165	0.166	0.168	0.170	0.172	0.174	0.176	0.178
200	0.178	0.180	0.182	0.184	0.186	0.188	0.190	0.192	0.195	0.197	0.199
210	0.199	0.201	0.203	0.205	0.207	0.209	0.212	0.214	0.216	0.218	0.220
220	0.220	0.222	0.225	0.227	0.229	0.231	0.234	0.236	0.238	0.241	0.243
230	0.243	0.245	0.248	0.250	0.252	0.255	0.257	0.259	0.262	0.264	0.267
240	0.267	0.269	0.271	0.274	0.276	0.279	0.281	0.284	0.286	0.289	0.291
250	0.291	0.294	0.296	0.299	0.301	0.304	0.307	0.309	0.312	0.314	0.317
260	0.317	0.320	0.322	0.325	0.328	0.330	0.333	0.336	0.338	0.341	0.344
270	0.344	0.347	0.349	0.352	0.355	0.358	0.360	0.363	0.366	0.369	0.372
280	0.372	0.375	0.377	0.380	0.383	0.386	0.389	0.392	0.395	0.398	0.401
290	0.401	0.404	0.407	0.410	0.413	0.416	0.419	0.422	0.425	0.428	0.431
300	0.431	0.434	0.437	0.440	0.443	0.446	0.449	0.452	0.455	0.458	0.462
310	0.462	0.465	0.468	0.471	0.474	0.478	0.481	0.484	0.487	0.490	0.494
320	0.494	0.497	0.500	0.503	0.507	0.510	0.513	0.517	0.520	0.523	0.527
330	0.527	0.530	0.533	0.537	0.540	0.544	0.547	0.550	0.554	0.557	0.561
340	0.561	0.564	0.568	0.571	0.575	0.578	0.582	0.585	0.589	0.592	0.596
350	0.596	0.599	0.603	0.607	0.610	0.614	0.617	0.621	0.625	0.628	0.632
360	0.632	0.636	0.639	0.643	0.647	0.650	0.654	0.658	0.662	0.665	0.669
370	0.669	0.673	0.677	0.680	0.684	0.688	0.692	0.696	0.700	0.703	0.707
380	0.707	0.711	0.715	0.719	0.723	0.727	0.731	0.735	0.738	0.742	0.746
390	0.746	0.750	0.754	0.758	0.762	0.766	0.770	0.774	0.778	0.782	0.787
400	0.787	0.791	0.795	0.799	0.803	0.807	0.811	0.815	0.819	0.824	0.828
410	0.828	0.832	0.836	0.840	0.844	0.849	0.853	0.857	0.861	0.866	0.870
420	0.870	0.874	0.878	0.883	0.887	0.891	0.896	0.900	0.904	0.909	0.913
430	0.913	0.917	0.922	0.926	0.930	0.935	0.939	0.944	0.948	0.953	0.957
440	0.957	0.961	0.966	0.970	0.975	0.979	0.984	0.988	0.993	0.997	1.002
450	1.002	1.007	1.011	1.016	1.020	1.025	1.030	1.034	1.039	1.043	1.048
460	1.048	1.053	1.057	1.062	1.067	1.071	1.076	1.081	1.086	1.090	1.095
470	1.095	1.100	1.105	1.109	1.114	1.119	1.124	1.129	1.133	1.138	1.143
480	1.143	1.148	1.153	1.158	1.163	1.167	1.172	1.177	1.182	1.187	1.192
490	1.192	1.197	1.202	1.207	1.212	1.217	1.222	1.227	1.232	1.237	1.242
°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10
500	1.242	1.247	1.252	1.257	1.262	1.267	1.272	1.277	1.282	1.288	1.293
510	1.293	1.298	1.303	1.308	1.313	1.318	1.324	1.329	1.334	1.339	1.344
520	1.344	1.350	1.355	1.360	1.365	1.371	1.376	1.381	1.387	1.392	1.397
530	1.397	1.402	1.408	1.413	1.418	1.424	1.429	1.435	1.440	1.445	1.451
540	1.451	1.456	1.462	1.467	1.472	1.478	1.483	1.489	1.494	1.500	1.505
550	1.505	1.511	1.516	1.522	1.527	1.533	1.539	1.544	1.550	1.555	1.561
560	1.561	1.566	1.572	1.578	1.583	1.589	1.595	1.600	1.606	1.612	1.617
570	1.617	1.623	1.629	1.634	1.640	1.646	1.652	1.657	1.663	1.669	1.675
580	1.675	1.680	1.686	1.692	1.698	1.704	1.709	1.715	1.721	1.727	1.733
590	1.733	1.739	1.745	1.750	1.756	1.762	1.768	1.774	1.780	1.786	1.792
600	1.792	1.798	1.804	1.810	1.816	1.822	1.828	1.834	1.840	1.846	1.852
610	1.852	1.858	1.864	1.870	1.876	1.882	1.888	1.894	1.901	1.907	1.913
620	1.913	1.919	1.925	1.931	1.937	1.944	1.950	1.956	1.962	1.968	1.975
630	1.975	1.981	1.987	1.993	1.999	2.006	2.012	2.018	2.025	2.031	2.037
640	2.037	2.043	2.050	2.056	2.062	2.069	2.075	2.082	2.088	2.094	2.101
650	2.101	2.107	2.113	2.120	2.126	2.133	2.139	2.146	2.152	2.158	2.165
660	2.165	2.171	2.178	2.184	2.191	2.197	2.204	2.210	2.217	2.224	2.230
670	2.230	2.237	2.243	2.250	2.256	2.263	2.270	2.276	2.283	2.289	2.296
680	2.296	2.303	2.309	2.316	2.323	2.329	2.336	2.343	2.350	2.356	2.363
690	2.363	2.370	2.376	2.383	2.390	2.397	2.403	2.410	2.417	2.424	2.431
700	2.431	2.437	2.444	2.451	2.458	2.465	2.472	2.479	2.485	2.492	2.499
710	2.499	2.506	2.513	2.520	2.527	2.534	2.541	2.548	2.555	2.562	2.569
720	2.569	2.576	2.583	2.590	2.597	2.604	2.611	2.618	2.625	2.632	2.639
730	2.639	2.646	2.653	2.660	2.667	2.674	2.681	2.688	2.696	2.703	2.710
740	2.710	2.717	2.724	2.731	2.738	2.746	2.753	2.760	2.767	2.775	2.782
750	2.782	2.789	2.796	2.803	2.811	2.818	2.825	2.833	2.840	2.847	2.854
760	2.854	2.862	2.869	2.876	2.884	2.891	2.898	2.906	2.913	2.921	2.928
770	2.928	2.935	2.943	2.950	2.958	2.965	2.973	2.980	2.987	2.995	3.002
780	3.002	3.010	3.017	3.025	3.032	3.040	3.047	3.055	3.062	3.070	3.078
790	3.078	3.085	3.093	3.100	3.108	3.116	3.123	3.131	3.138	3.146	3.154
800	3.154	3.161	3.169	3.177	3.184	3.192	3.200	3.207	3.215	3.223	3.230
810	3.230	3.238	3.246	3.254	3.261	3.269	3.277	3.285	3.292	3.300	3.308
820	3.308	3.316	3.324	3.331	3.339	3.347	3.355	3.363	3.371	3.379	3.386
830	3.386	3.394	3.402	3.410	3.418	3.426	3.434	3.442	3.450	3.458	3.466
840	3.466	3.474	3.482	3.490	3.498	3.506	3.514	3.522	3.530	3.538	3.546
850	3.546	3.554	3.562	3.570	3.578	3.586	3.594	3.602	3.610	3.618	3.626
860	3.626	3.634	3.643	3.651	3.659	3.667	3.675	3.683	3.692	3.700	3.708
870	3.708	3.716	3.724	3.732	3.741	3.749	3.757	3.765	3.774	3.782	3.790
880	3.790	3.798	3.807	3.815	3.823	3.832	3.840	3.848	3.857	3.865	3.873
890	3.873	3.882	3.890	3.898	3.907	3.915	3.923	3.932	3.940	3.949	3.957
900	3.957	3.965	3.974	3.982	3.991	3.999	4.008	4.016	4.024	4.033	4.041
910	4.041	4.050	4.058	4.067	4.075	4.084	4.093	4.101	4.110	4.118	4.127
920	4.127	4.135	4.144	4.152	4.161	4.170	4.178	4.187	4.195	4.204	4.213
930	4.213	4.221	4.230	4.239	4.247	4.256	4.265	4.273	4.282	4.291	4.299
940	4.299	4.308	4.317	4.326	4.334	4.343	4.352	4.360	4.369	4.378	4.387
950	4.387	4.396	4.404	4.413	4.422	4.431	4.440	4.448	4.457	4.466	4.475
960	4.475	4.484	4.493	4.501	4.510	4.519	4.528	4.537	4.546	4.555	4.564
970	4.564	4.573	4.582	4.591	4.599	4.608	4.617	4.626	4.635	4.644	4.653
980	4.653	4.662	4.671	4.680	4.689	4.698	4.707	4.716	4.725	4.734	4.743
990	4.743	4.753	4.762	4.771	4.780	4.789	4.798	4.807	4.816	4.825	4.834
°C	0	1	2	3	4	5	6	7	8	9	10

Type B Platinum-6% Rhodium vs Platinum-30% Rhodium ITS-90 °C

°C	0	1	2	3	4	5	6	7	8	9	10
1000	4.834	4.843	4.853	4.862	4.871	4.880	4.889	4.898	4.908	4.917	4.926
1010	4.926	4.935	4.944	4.954	4.963	4.972	4.981	4.990	5.000	5.009	5.018
1020	5.018	5.027	5.037	5.046	5.055	5.065	5.074	5.083	5.092	5.102	5.111
1030	5.111	5.120	5.130	5.139	5.148	5.158	5.167	5.176	5.186	5.195	5.205
1040	5.205	5.214	5.223	5.233	5.242	5.252	5.261	5.270	5.280	5.289	5.299
1050	5.299	5.308	5.318	5.327	5.337	5.346	5.356	5.365	5.375	5.384	5.394
1060	5.394	5.403	5.413	5.422	5.432	5.441	5.451	5.460	5.470	5.480	5.489
1070	5.489	5.499	5.508	5.518	5.528	5.537	5.547	5.556	5.566	5.576	5.585
1080	5.585	5.595	5.605	5.614	5.624	5.634	5.643	5.653	5.663	5.672	5.682
1090	5.682	5.692	5.702	5.711	5.721	5.731	5.740	5.750	5.760	5.770	5.780
1100	5.780	5.789	5.799	5.809	5.819	5.828	5.838	5.848	5.858	5.868	5.878
1110	5.878	5.887	5.897	5.907	5.917	5.927	5.937	5.947	5.956	5.966	5.976
1120	5.976	5.986	5.996	6.006	6.016	6.026	6.036	6.046	6.055	6.065	6.075
1130	6.075	6.085	6.095	6.105	6.115	6.125	6.135	6.145	6.155	6.165	6.175
1140	6.175	6.185	6.195	6.205	6.215	6.225	6.235	6.245	6.256	6.266	6.276
1150	6.276	6.286	6.296	6.306	6.316	6.326	6.336	6.346	6.356	6.367	6.377
1160	6.377	6.387	6.397	6.407	6.417	6.427	6.438	6.448	6.458	6.468	6.478
1170	6.478	6.488	6.499	6.509	6.519	6.529	6.539	6.550	6.560	6.570	6.580
1180	6.580	6.591	6.601	6.611	6.621	6.632	6.642	6.652	6.663	6.673	6.683
1190	6.683	6.693	6.704	6.714	6.724	6.735	6.745	6.755	6.766	6.776	6.786
1200	6.786	6.797	6.807	6.818	6.828	6.838	6.849	6.859	6.869	6.880	6.890
1210	6.890	6.901	6.911	6.922	6.932	6.942	6.953	6.963	6.974	6.984	6.995
1220	6.995	7.005	7.016	7.026	7.037	7.047	7.058	7.068	7.079	7.089	7.100
1230	7.100	7.110	7.121	7.131	7.142	7.152	7.163	7.173	7.184	7.194	7.205
1240	7.205	7.216	7.226	7.237	7.247	7.258	7.269	7.279	7.290	7.300	7.311
1250	7.311	7.322	7.332	7.343	7.353	7.364	7.375	7.385	7.396	7.407	7.417
1260	7.417	7.428	7.439	7.449	7.460	7.471	7.482	7.492	7.503	7.514	7.524
1270	7.524	7.535	7.546	7.557	7.567	7.578	7.589	7.600	7.610	7.621	7.632
1280	7.632	7.643	7.653	7.664	7.675	7.686	7.697	7.707	7.718	7.729	7.740
1290	7.740	7.751	7.761	7.772	7.783	7.794	7.805	7.816	7.827	7.837	7.848
1300	7.848	7.859	7.870	7.881	7.892	7.903	7.914	7.924	7.935	7.946	7.957
1310	7.957	7.968	7.979	7.990	8.001	8.012	8.023	8.034	8.045	8.056	8.066
1320	8.066	8.077	8.088	8.099	8.110	8.121	8.132	8.143	8.154	8.165	8.176
1330	8.176	8.187	8.198	8.209	8.220	8.231	8.242	8.253	8.264	8.275	8.286
1340	8.286	8.298	8.309	8.320	8.331	8.342	8.353	8.364	8.375	8.386	8.397
1350	8.397	8.408	8.419	8.430	8.441	8.453	8.464	8.475	8.486	8.497	8.508
1360	8.508	8.519	8.530	8.542	8.553	8.564	8.575	8.586	8.597	8.608	8.620
1370	8.620	8.631	8.642	8.653	8.664	8.675	8.687	8.698	8.709	8.720	8.731
1380	8.731	8.743	8.754	8.765	8.776	8.787	8.799	8.810	8.821	8.832	8.844
1390	8.844	8.855	8.866	8.877	8.889	8.900	8.911	8.922	8.934	8.945	8.956
1400	8.956	8.967	8.979	8.990	9.001	9.013	9.024	9.035	9.047	9.058	9.069
1410	9.069	9.080	9.092	9.103	9.114	9.126	9.137	9.148	9.160	9.171	9.182
1420	9.182	9.194	9.205	9.216	9.228	9.239	9.251	9.262	9.273	9.285	9.296
1430	9.296	9.307	9.319	9.330	9.342	9.353	9.364	9.376	9.387	9.398	9.410
1440	9.410	9.421	9.433	9.444	9.456	9.467	9.478	9.490	9.501	9.513	9.524
1450	9.524	9.536	9.547	9.558	9.570	9.581	9.593	9.604	9.616	9.627	9.639
1460	9.639	9.650	9.662	9.673	9.684	9.696	9.707	9.719	9.730	9.742	9.753
1470	9.753	9.765	9.776	9.788	9.799	9.811	9.822	9.834	9.845	9.857	9.868
1480	9.868	9.880	9.891	9.903	9.914	9.926	9.937	9.949	9.961	9.972	9.984
1490	9.984	9.995	10.007	10.018	10.030	10.041	10.053	10.064	10.076	10.088	10.099
°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10
1500	10.099	10.111	10.122	10.134	10.145	10.157	10.168	10.180	10.192	10.203	10.215
1510	10.215	10.226	10.238	10.249	10.261	10.273	10.284	10.296	10.307	10.319	10.331
1520	10.331	10.342	10.354	10.365	10.377	10.389	10.400	10.412	10.423	10.435	10.447
1530	10.447	10.458	10.470	10.482	10.493	10.505	10.516	10.528	10.540	10.551	10.563
1540	10.563	10.575	10.586	10.598	10.609	10.621	10.633	10.644	10.656	10.668	10.679
1550	10.679	10.691	10.703	10.714	10.726	10.738	10.749	10.761	10.773	10.784	10.796
1560	10.796	10.808	10.819	10.831	10.843	10.854	10.866	10.877	10.889	10.901	10.913
1570	10.913	10.924	10.936	10.948	10.959	10.971	10.983	10.994	11.006	11.018	11.029
1580	11.029	11.041	11.053	11.064	11.076	11.088	11.099	11.111	11.123	11.134	11.146
1590	11.146	11.158	11.169	11.181	11.193	11.205	11.216	11.228	11.240	11.251	11.263
1600	11.263	11.275	11.286	11.298	11.310	11.321	11.333	11.345	11.357	11.368	11.380
1610	11.380	11.392	11.403	11.415	11.427	11.438	11.450	11.462	11.474	11.485	11.497
1620	11.497	11.509	11.520	11.532	11.544	11.555	11.567	11.579	11.591	11.602	11.614
1630	11.614	11.626	11.637	11.649	11.661	11.673	11.684	11.696	11.708	11.719	11.731
1640	11.731	11.743	11.754	11.766	11.778	11.790	11.801	11.813	11.825	11.836	11.848
1650	11.848	11.860	11.871	11.883	11.895	11.907	11.918	11.930	11.942	11.953	11.965
1660	11.965	11.977	11.988	12.000	12.012	12.024	12.035	12.047	12.059	12.070	12.082
1670	12.082	12.094	12.105	12.117	12.129	12.141	12.152	12.164	12.176	12.187	12.199
1680	12.199	12.211	12.222	12.234	12.246	12.257	12.269	12.281	12.292	12.304	12.316
1690	12.316	12.327	12.339	12.351	12.363	12.374	12.386	12.398	12.409	12.421	12.433
1700	12.433	12.444	12.456	12.468	12.479	12.491	12.503	12.514	12.526	12.538	12.549
1710	12.549	12.561	12.572	12.584	12.596	12.607	12.619	12.631	12.642	12.654	12.666
1720	12.666	12.677	12.689	12.701	12.712	12.724	12.736	12.747	12.759	12.770	12.782
1730	12.782	12.794	12.805	12.817	12.829	12.840	12.852	12.863	12.875	12.887	12.898
1740	12.898	12.910	12.921	12.933	12.945	12.956	12.968	12.980	12.991	13.003	13.014
1750	13.014	13.026	13.037	13.049	13.061	13.072	13.084	13.095	13.107	13.119	13.130
1760	13.130	13.142	13.153	13.165	13.176	13.188	13.200	13.211	13.223	13.234	13.246
1770	13.246	13.257	13.269	13.280	13.292	13.304	13.315	13.327	13.338	13.350	13.361
1780	13.361	13.373	13.384	13.396	13.407	13.419	13.430	13.442	13.453	13.465	13.476
1790	13.476	13.488	13.499	13.511	13.522	13.534	13.545	13.557	13.568	13.580	13.591
1800	13.591	13.603	13.614	13.626	13.637	13.649	13.660	13.672	13.683	13.694	13.706
1810	13.706	13.717	13.729	13.740	13.752	13.763	13.775	13.786	13.797	13.809	13.820
1820	13.820										
°C	0	1	2	3	4	5	6	7	8	9	10

Type C Tungsten- 5% Rhenium vs Tungsten-26% Rhenium ITS-90 °C

°C	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
0	0.000	0.013	0.027	0.040	0.054	0.067	0.081	0.094	0.108	0.122	0.135
10	0.135	0.149	0.163	0.176	0.190	0.204	0.218	0.231	0.245	0.259	0.273
20	0.273	0.287	0.301	0.315	0.329	0.342	0.356	0.370	0.385	0.399	0.413
30	0.413	0.427	0.441	0.455	0.469	0.483	0.498	0.512	0.526	0.540	0.555
40	0.555	0.569	0.583	0.598	0.612	0.627	0.641	0.656	0.670	0.685	0.699
50	0.699	0.714	0.728	0.743	0.757	0.772	0.787	0.801	0.816	0.831	0.846
60	0.846	0.860	0.875	0.890	0.905	0.920	0.934	0.949	0.964	0.979	0.994
70	0.994	1.009	1.024	1.039	1.054	1.069	1.084	1.099	1.114	1.129	1.145
80	1.145	1.160	1.175	1.190	1.205	1.221	1.236	1.251	1.266	1.282	1.297
90	1.297	1.312	1.328	1.343	1.359	1.374	1.389	1.405	1.420	1.436	1.451
100	1.451	1.467	1.483	1.498	1.514	1.529	1.545	1.561	1.576	1.592	1.608
110	1.608	1.624	1.639	1.655	1.671	1.687	1.702	1.718	1.734	1.750	1.766
120	1.766	1.782	1.798	1.814	1.830	1.846	1.862	1.878	1.894	1.910	1.926
130	1.926	1.942	1.958	1.974	1.990	2.006	2.023	2.039	2.055	2.071	2.087
140	2.087	2.104	2.120	2.136	2.152	2.169	2.185	2.201	2.218	2.234	2.251
150	2.251	2.267	2.283	2.300	2.316	2.333	2.349	2.366	2.382	2.399	2.415
160	2.415	2.432	2.449	2.465	2.482	2.498	2.515	2.532	2.548	2.565	2.582
170	2.582	2.599	2.615	2.632	2.649	2.666	2.682	2.699	2.716	2.733	2.750
180	2.750	2.767	2.784	2.800	2.817	2.834	2.851	2.868	2.885	2.902	2.919
190	2.919	2.936	2.953	2.970	2.987	3.004	3.021	3.039	3.056	3.073	3.090
200	3.090	3.107	3.124	3.141	3.159	3.176	3.193	3.210	3.228	3.245	3.262
210	3.262	3.279	3.297	3.314	3.331	3.349	3.366	3.383	3.401	3.418	3.436
220	3.436	3.453	3.470	3.488	3.505	3.523	3.540	3.558	3.575	3.593	3.610
230	3.610	3.628	3.645	3.663	3.680	3.698	3.716	3.733	3.751	3.768	3.786
240	3.786	3.804	3.821	3.839	3.857	3.875	3.892	3.910	3.928	3.945	3.963
250	3.963	3.981	3.999	4.017	4.034	4.052	4.070	4.088	4.106	4.124	4.141
260	4.141	4.159	4.177	4.195	4.213	4.231	4.249	4.267	4.285	4.303	4.321
270	4.321	4.339	4.357	4.375	4.393	4.411	4.429	4.447	4.465	4.483	4.501
280	4.501	4.519	4.537	4.555	4.573	4.592	4.610	4.628	4.646	4.664	4.682
290	4.682	4.701	4.719	4.737	4.755	4.773	4.792	4.810	4.828	4.846	4.865
300	4.865	4.883	4.901	4.920	4.938	4.956	4.974	4.993	5.011	5.030	5.048
310	5.048	5.066	5.085	5.103	5.121	5.140	5.158	5.177	5.195	5.214	5.232
320	5.232	5.250	5.269	5.287	5.306	5.324	5.343	5.361	5.380	5.398	5.417
330	5.417	5.435	5.454	5.473	5.491	5.510	5.528	5.547	5.565	5.584	5.603
340	5.603	5.621	5.640	5.658	5.677	5.696	5.714	5.733	5.752	5.770	5.789
350	5.789	5.808	5.827	5.845	5.864	5.883	5.901	5.920	5.939	5.958	5.976
360	5.976	5.995	6.014	6.033	6.051	6.070	6.089	6.108	6.127	6.145	6.164
370	6.164	6.183	6.202	6.221	6.240	6.259	6.277	6.296	6.315	6.334	6.353
380	6.353	6.372	6.391	6.410	6.429	6.447	6.466	6.485	6.504	6.523	6.542
390	6.542	6.561	6.580	6.599	6.618	6.637	6.656	6.675	6.694	6.713	6.732
400	6.732	6.751	6.770	6.789	6.808	6.827	6.846	6.865	6.884	6.903	6.922
410	6.922	6.941	6.961	6.980	6.999	7.018	7.037	7.056	7.075	7.094	7.113
420	7.113	7.132	7.152	7.171	7.190	7.209	7.228	7.247	7.267	7.286	7.305
430	7.305	7.324	7.343	7.362	7.382	7.401	7.420	7.439	7.458	7.478	7.497
440	7.497	7.516	7.535	7.554	7.574	7.593	7.612	7.631	7.651	7.670	7.689
450	7.689	7.708	7.728	7.747	7.766	7.786	7.805	7.824	7.843	7.863	7.882
460	7.882	7.901	7.921	7.940	7.959	7.979	7.998	8.017	8.037	8.056	8.075
470	8.075	8.095	8.114	8.133	8.153	8.172	8.191	8.211	8.230	8.249	8.269
480	8.269	8.288	8.308	8.327	8.346	8.366	8.385	8.404	8.424	8.443	8.463
490	8.463	8.482	8.502	8.521	8.540	8.560	8.579	8.599	8.618	8.637	8.657
°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10
500	8.657	8.676	8.696	8.715	8.735	8.754	8.774	8.793	8.812	8.832	8.851
510	8.851	8.871	8.890	8.910	8.929	8.949	8.968	8.988	9.007	9.027	9.046
520	9.046	9.066	9.085	9.105	9.124	9.144	9.163	9.183	9.202	9.222	9.241
530	9.241	9.261	9.280	9.300	9.319	9.339	9.358	9.378	9.397	9.417	9.436
540	9.436	9.456	9.475	9.495	9.514	9.534	9.553	9.573	9.592	9.612	9.631
550	9.631	9.651	9.670	9.690	9.710	9.729	9.749	9.768	9.788	9.807	9.827
560	9.827	9.846	9.866	9.885	9.905	9.925	9.944	9.964	9.983	10.003	10.022
570	10.022	10.042	10.061	10.081	10.100	10.120	10.140	10.159	10.179	10.198	10.218
580	10.218	10.237	10.257	10.276	10.296	10.316	10.335	10.355	10.374	10.394	10.413
590	10.413	10.433	10.452	10.472	10.491	10.511	10.531	10.550	10.570	10.589	10.609
600	10.609	10.628	10.648	10.667	10.687	10.706	10.726	10.746	10.765	10.785	10.804
610	10.804	10.824	10.843	10.863	10.882	10.902	10.921	10.941	10.960	10.980	10.999
620	10.999	11.019	11.038	11.058	11.077	11.097	11.117	11.136	11.156	11.175	11.195
630	11.195	11.214	11.234	11.253	11.273	11.292	11.312	11.331	11.351	11.370	11.390
640	11.390	11.409	11.429	11.448	11.468	11.487	11.507	11.526	11.546	11.565	11.585
650	11.585	11.604	11.624	11.643	11.663	11.682	11.702	11.721	11.741	11.760	11.780
660	11.780	11.799	11.818	11.838	11.857	11.877	11.896	11.916	11.935	11.955	11.974
670	11.974	11.994	12.013	12.033	12.052	12.072	12.091	12.111	12.130	12.150	12.169
680	12.169	12.189	12.208	12.228	12.247	12.267	12.286	12.306	12.325	12.344	12.364
690	12.364	12.383	12.403	12.422	12.442	12.461	12.481	12.500	12.520	12.539	12.559
700	12.559	12.578	12.597	12.617	12.636	12.656	12.675	12.695	12.714	12.734	12.753
710	12.753	12.772	12.792	12.811	12.831	12.850	12.870	12.889	12.908	12.928	12.947
720	12.947	12.967	12.986	13.006	13.025	13.044	13.064	13.083	13.103	13.122	13.141
730	13.141	13.161	13.180	13.200	13.219	13.238	13.258	13.277	13.297	13.316	13.335
740	13.335	13.355	13.374	13.393	13.413	13.432	13.452	13.471	13.490	13.510	13.529
750	13.529	13.548	13.568	13.587	13.606	13.626	13.645	13.665	13.684	13.703	13.723
760	13.723	13.742	13.761	13.781	13.800	13.819	13.839	13.858	13.877	13.896	13.916
770	13.916	13.935	13.954	13.974	13.993	14.012	14.032	14.051	14.070	14.089	14.109
780	14.109	14.128	14.147	14.167	14.186	14.205	14.224	14.244	14.263	14.282	14.301
790	14.301	14.321	14.340	14.359	14.378	14.398	14.417	14.436	14.455	14.475	14.494
800	14.494	14.513	14.532	14.551	14.571	14.590	14.609	14.628	14.647	14.667	14.686
810	14.686	14.705	14.724	14.743	14.763	14.782	14.801	14.820	14.839	14.858	14.878
820	14.878	14.897	14.916	14.935	14.954	14.973	14.993	15.012	15.031	15.050	15.069
830	15.069	15.088	15.107	15.126	15.146	15.165	15.184	15.203	15.222	15.241	15.260
840	15.260	15.279	15.298	15.317	15.336	15.356	15.375	15.394	15.413	15.432	15.451
850	15.451	15.470	15.489	15.508	15.527	15.546	15.565	15.584	15.603	15.622	15.641
860	15.641	15.660	15.679	15.698	15.717	15.736	15.755	15.774	15.793	15.812	15.831
870	15.831	15.850	15.869	15.888	15.907	15.926	15.945	15.964	15.983	16.002	16.021
880	16.021	16.040	16.058	16.077	16.096	16.115	16.134	16.153	16.172	16.191	16.210
890	16.210	16.229	16.248	16.266	16.285	16.304	16.323	16.342	16.361	16.380	16.398
900	16.398	16.417	16.436	16.455	16.474	16.493	16.511	16.530	16.549	16.568	16.587
910	16.587	16.606	16.624	16.643	16.662	16.681	16.699	16.718	16.737	16.756	16.775
920	16.775	16.793	16.812	16.831	16.850	16.868	16.887	16.906	16.924	16.943	16.962
930	16.962	16.981	16.999	17.018	17.037	17.055	17.074	17.093	17.111	17.130	17.149
940	17.149	17.167	17.186	17.205	17.223	17.242	17.261	17.279	17.298	17.317	17.335
950	17.335	17.354	17.373	17.391	17.410	17.428	17.447	17.465	17.484	17.503	17.521
960	17.521	17.540	17.558	17.577	17.595	17.614	17.633	17.651	17.670	17.688	17.707
970	17.707	17.725	17.744	17.762	17.781	17.799	17.818	17.836	17.855	17.873	17.892
980	17.892	17.910	17.929	17.947	17.966	17.984	18.002	18.021	18.039	18.058	18.076
990	18.076	18.095	18.113	18.131	18.150	18.168	18.187	18.205	18.223	18.242	18.260
°C	0	1	2	3	4	5	6	7	8	9	10

Type C Tungsten- 5% Rhenium vs Tungsten-26% Rhenium ITS-90 °C

°C	0	1	2	3	4	5	6	7	8	9	10
1000	18.260	18.279	18.297	18.315	18.334	18.352	18.370	18.389	18.407	18.425	18.444
1010	18.444	18.462	18.480	18.499	18.517	18.535	18.553	18.572	18.590	18.608	18.627
1020	18.627	18.645	18.663	18.681	18.700	18.718	18.736	18.754	18.773	18.791	18.809
1030	18.809	18.827	18.845	18.864	18.882	18.900	18.918	18.936	18.955	18.973	18.991
1040	18.991	19.009	19.027	19.045	19.064	19.082	19.100	19.118	19.136	19.154	19.172
1050	19.172	19.190	19.208	19.227	19.245	19.263	19.281	19.299	19.317	19.335	19.353
1060	19.353	19.371	19.389	19.407	19.425	19.443	19.461	19.479	19.497	19.515	19.533
1070	19.533	19.551	19.569	19.587	19.605	19.623	19.641	19.659	19.677	19.695	19.713
1080	19.713	19.731	19.749	19.767	19.785	19.803	19.821	19.839	19.856	19.874	19.892
1090	19.892	19.910	19.928	19.946	19.964	19.982	19.999	20.017	20.035	20.053	20.071
1100	20.071	20.089	20.106	20.124	20.142	20.160	20.178	20.195	20.213	20.231	20.249
1110	20.249	20.267	20.284	20.302	20.320	20.338	20.355	20.373	20.391	20.409	20.426
1120	20.426	20.444	20.462	20.479	20.497	20.515	20.532	20.550	20.568	20.585	20.603
1130	20.603	20.621	20.638	20.656	20.674	20.691	20.709	20.727	20.744	20.762	20.779
1140	20.779	20.797	20.815	20.832	20.850	20.867	20.885	20.902	20.920	20.938	20.955
1150	20.955	20.973	20.990	21.008	21.025	21.043	21.060	21.078	21.095	21.113	21.130
1160	21.130	21.148	21.165	21.183	21.200	21.218	21.235	21.253	21.270	21.287	21.305
1170	21.305	21.322	21.340	21.357	21.375	21.392	21.409	21.427	21.444	21.461	21.479
1180	21.479	21.496	21.514	21.531	21.548	21.566	21.583	21.600	21.618	21.635	21.652
1190	21.652	21.670	21.687	21.704	21.721	21.739	21.756	21.773	21.790	21.808	21.825
1200	21.825	21.842	21.859	21.877	21.894	21.911	21.928	21.946	21.963	21.980	21.997
1210	21.997	22.014	22.032	22.049	22.066	22.083	22.100	22.117	22.135	22.152	22.169
1220	22.169	22.186	22.203	22.220	22.237	22.254	22.271	22.289	22.306	22.323	22.340
1230	22.340	22.357	22.374	22.391	22.408	22.425	22.442	22.459	22.476	22.493	22.510
1240	22.510	22.527	22.544	22.561	22.578	22.595	22.612	22.629	22.646	22.663	22.680
1250	22.680	22.697	22.714	22.731	22.748	22.765	22.782	22.799	22.815	22.832	22.849
1260	22.849	22.866	22.883	22.900	22.917	22.934	22.950	22.967	22.984	23.001	23.018
1270	23.018	23.035	23.052	23.068	23.085	23.102	23.119	23.136	23.152	23.169	23.186
1280	23.186	23.203	23.219	23.236	23.253	23.270	23.286	23.303	23.320	23.337	23.353
1290	23.353	23.370	23.387	23.403	23.420	23.437	23.453	23.470	23.487	23.503	23.520
1300	23.520	23.537	23.553	23.570	23.587	23.603	23.620	23.636	23.653	23.670	23.686
1310	23.686	23.703	23.719	23.736	23.753	23.769	23.786	23.802	23.819	23.835	23.852
1320	23.852	23.868	23.885	23.901	23.918	23.934	23.951	23.967	23.984	24.000	24.017
1330	24.017	24.033	24.050	24.066	24.083	24.099	24.116	24.132	24.148	24.165	24.181
1340	24.181	24.198	24.214	24.230	24.247	24.263	24.280	24.296	24.312	24.329	24.345
1350	24.345	24.361	24.378	24.394	24.410	24.427	24.443	24.459	24.476	24.492	24.508
1360	24.508	24.524	24.541	24.557	24.573	24.590	24.606	24.622	24.638	24.655	24.671
1370	24.671	24.687	24.703	24.719	24.736	24.752	24.768	24.784	24.800	24.817	24.833
1380	24.833	24.849	24.865	24.881	24.897	24.913	24.930	24.946	24.962	24.978	24.994
1390	24.994	25.010	25.026	25.042	25.058	25.075	25.091	25.107	25.123	25.139	25.155
1400	25.155	25.171	25.187	25.203	25.219	25.235	25.251	25.267	25.283	25.299	25.315
1410	25.315	25.331	25.347	25.363	25.379	25.395	25.411	25.427	25.443	25.459	25.475
1420	25.475	25.490	25.506	25.522	25.538	25.554	25.570	25.586	25.602	25.618	25.633
1430	25.633	25.649	25.665	25.681	25.697	25.713	25.729	25.744	25.760	25.776	25.792
1440	25.792	25.808	25.823	25.839	25.855	25.871	25.886	25.902	25.918	25.934	25.949
1450	25.949	25.965	25.981	25.997	26.012	26.028	26.044	26.060	26.075	26.091	26.107
1460	26.107	26.122	26.138	26.154	26.169	26.185	26.201	26.216	26.232	26.248	26.263
1470	26.263	26.279	26.294	26.310	26.326	26.341	26.357	26.372	26.388	26.403	26.419
1480	26.419	26.435	26.450	26.466	26.481	26.497	26.512	26.528	26.543	26.559	26.574
1490	26.574	26.590	26.605	26.621	26.636	26.652	26.667	26.683	26.698	26.714	26.729
°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10
1500	26.729	26.744	26.760	26.775	26.791	26.806	26.822	26.837	26.852	26.868	26.883
1510	26.883	26.899	26.914	26.929	26.945	26.960	26.975	26.991	27.006	27.021	27.037
1520	27.037	27.052	27.067	27.083	27.098	27.113	27.128	27.144	27.159	27.174	27.190
1530	27.190	27.205	27.220	27.235	27.250	27.266	27.281	27.296	27.311	27.327	27.342
1540	27.342	27.357	27.372	27.387	27.403	27.418	27.433	27.448	27.463	27.478	27.493
1550	27.493	27.509	27.524	27.539	27.554	27.569	27.584	27.599	27.614	27.629	27.645
1560	27.645	27.660	27.675	27.690	27.705	27.720	27.735	27.750	27.765	27.780	27.795
1570	27.795	27.810	27.825	27.840	27.855	27.870	27.885	27.900	27.915	27.930	27.945
1580	27.945	27.960	27.975	27.990	28.005	28.020	28.034	28.049	28.064	28.079	28.094
1590	28.094	28.109	28.124	28.139	28.154	28.169	28.183	28.198	28.213	28.228	28.243
1600	28.243	28.258	28.272	28.287	28.302	28.317	28.332	28.346	28.361	28.376	28.391
1610	28.391	28.406	28.420	28.435	28.450	28.465	28.479	28.494	28.509	28.524	28.538
1620	28.538	28.553	28.568	28.582	28.597	28.612	28.626	28.641	28.656	28.670	28.685
1630	28.685	28.700	28.714	28.729	28.744	28.758	28.773	28.787	28.802	28.817	28.831
1640	28.831	28.846	28.860	28.875	28.890	28.904	28.919	28.933	28.948	28.962	28.977
1650	28.977	28.991	29.006	29.020	29.035	29.049	29.064	29.078	29.093	29.107	29.122
1660	29.122	29.136	29.151	29.165	29.180	29.194	29.209	29.223	29.237	29.252	29.266
1670	29.266	29.281	29.295	29.309	29.324	29.338	29.353	29.367	29.381	29.396	29.410
1680	29.410	29.424	29.439	29.453	29.467	29.482	29.496	29.510	29.525	29.539	29.553
1690	29.553	29.567	29.582	29.596	29.610	29.625	29.639	29.653	29.667	29.681	29.696
1700	29.696	29.710	29.724	29.738	29.753	29.767	29.781	29.795	29.809	29.823	29.838
1710	29.838	29.852	29.866	29.880	29.894	29.908	29.922	29.937	29.951	29.965	29.979
1720	29.979	29.993	30.007	30.021	30.035	30.049	30.063	30.077	30.091	30.106	30.120
1730	30.120	30.134	30.148	30.162	30.176	30.190	30.204	30.218	30.232	30.246	30.260
1740	30.260	30.274	30.288	30.302	30.315	30.329	30.343	30.357	30.371	30.385	30.399
1750	30.399	30.413	30.427	30.441	30.455	30.469	30.482	30.496	30.510	30.524	30.538
1760	30.538	30.552	30.565	30.579	30.593	30.607	30.621	30.635	30.648	30.662	30.676
1770	30.676	30.690	30.704	30.717	30.731	30.745	30.759	30.772	30.786	30.800	30.813
1780	30.813	30.827	30.841	30.855	30.868	30.882	30.896	30.909	30.923	30.937	30.950
1790	30.950	30.964	30.978	30.991	31.005	31.019	31.032	31.046	31.059	31.073	31.087
1800	31.087	31.100	31.114	31.127	31.141	31.154	31.168	31.182	31.195	31.209	31.222
1810	31.222	31.236	31.249	31.263	31.276	31.290	31.303	31.317	31.330	31.344	31.357
1820	31.357	31.371	31.384	31.397	31.411	31.424	31.438	31.451	31.465	31.478	31.491
1830	31.491	31.505	31.518	31.532	31.545	31.558	31.572	31.585	31.598	31.612	31.625
1840	31.625	31.638	31.652	31.665	31.678	31.692	31.705	31.718	31.731	31.745	31.758
1850	31.758	31.771	31.784	31.798	31.811	31.824	31.837	31.851	31.864	31.877	31.890
1860	31.890	31.903	31.917	31.930	31.943	31.956	31.969	31.982	31.996	32.009	32.022
1870	32.022	32.035	32.048	32.061	32.074	32.087	32.101	32.114	32.127	32.140	32.153
1880	32.153	32.166	32.179	32.192	32.205	32.218	32.231	32.244	32.257	32.270	32.283
1890	32.283	32.296	32.309	32.322	32.335	32.348	32.361	32.374	32.387	32.400	32.413
1900	32.413	32.426	32.439	32.451	32.464	32.477	32.490	32.503	32.516	32.529	32.542
1910	32.542	32.554	32.567	32.580	32.593	32.606	32.619	32.631	32.644	32.657	32.670
1920	32.670	32.683	32.695	32.708	32.721	32.734	32.746	32.759	32.772	32.784	32.797
1930	32.797	32.810	32.823	32.835	32.848	32.861	32.873	32.886	32.899	32.911	32.924
1940	32.924	32.937	32.949	32.962	32.974	32.987	33.000	33.012	33.025	33.037	33.050
1950	33.050	33.063	33.075	33.088	33.100	33.113	33.125	33.138	33.150	33.163	33.175
1960	33.175	33.188	33.200	33.213	33.225	33.238	33.250	33.263	33.275	33.287	33.300
1970	33.300	33.312	33.325	33.337	33.350	33.362	33.374	33.387	33.399	33.411	33.424
1980	33.424	33.436	33.448	33.461	33.473	33.485	33.498	33.510	33.522	33.535	33.547
1990	33.547	33.559	33.571	33.584	33.596	33.608	33.620	33.632	33.645	33.657	33.669
°C	0	1	2	3	4	5	6	7	8	9	10

Type C Tungsten- 5% Rhenium vs Tungsten-26% Rhenium ITS-90 °C

°C	0	1	2	3	4	5	6	7	8	9	10
2000	33.669	33.681	33.693	33.706	33.718	33.730	33.742	33.754	33.766	33.779	33.791
2010	33.791	33.803	33.815	33.827	33.839	33.851	33.863	33.875	33.887	33.899	33.911
2020	33.911	33.923	33.936	33.948	33.960	33.972	33.984	33.996	34.008	34.019	34.031
2030	34.031	34.043	34.055	34.067	34.079	34.091	34.103	34.115	34.127	34.139	34.151
2040	34.151	34.163	34.174	34.186	34.198	34.210	34.222	34.234	34.245	34.257	34.269
2050	34.269	34.281	34.293	34.304	34.316	34.328	34.340	34.351	34.363	34.375	34.387
2060	34.387	34.398	34.410	34.422	34.433	34.445	34.457	34.468	34.480	34.492	34.503
2070	34.503	34.515	34.527	34.538	34.550	34.561	34.573	34.585	34.596	34.608	34.619
2080	34.619	34.631	34.642	34.654	34.665	34.677	34.688	34.700	34.711	34.723	34.734
2090	34.734	34.746	34.757	34.769	34.780	34.792	34.803	34.814	34.826	34.837	34.849
2100	34.849	34.860	34.871	34.883	34.894	34.905	34.917	34.928	34.939	34.951	34.962
2110	34.962	34.973	34.984	34.996	35.007	35.018	35.029	35.041	35.052	35.063	35.074
2120	35.074	35.085	35.097	35.108	35.119	35.130	35.141	35.152	35.164	35.175	35.186
2130	35.186	35.197	35.208	35.219	35.230	35.241	35.252	35.263	35.274	35.285	35.296
2140	35.296	35.307	35.318	35.329	35.340	35.351	35.362	35.373	35.384	35.395	35.406
2150	35.406	35.417	35.428	35.439	35.450	35.461	35.472	35.482	35.493	35.504	35.515
2160	35.515	35.526	35.537	35.547	35.558	35.569	35.580	35.591	35.601	35.612	35.623
2170	35.623	35.634	35.644	35.655	35.666	35.676	35.687	35.698	35.708	35.719	35.730
2180	35.730	35.740	35.751	35.762	35.772	35.783	35.793	35.804	35.814	35.825	35.836
2190	35.836	35.846	35.857	35.867	35.878	35.888	35.899	35.909	35.920	35.930	35.940
2200	35.940	35.951	35.961	35.972	35.982	35.993	36.003	36.013	36.024	36.034	36.044
2210	36.044	36.055	36.065	36.075	36.086	36.096	36.106	36.116	36.127	36.137	36.147
2220	36.147	36.157	36.168	36.178	36.188	36.198	36.208	36.219	36.229	36.239	36.249
2230	36.249	36.259	36.269	36.279	36.289	36.300	36.310	36.320	36.330	36.340	36.350
2240	36.350	36.360	36.370	36.380	36.390	36.400	36.410	36.420	36.430	36.440	36.449
2250	36.449	36.459	36.469	36.479	36.489	36.499	36.509	36.519	36.528	36.538	36.548
2260	36.548	36.558	36.568	36.577	36.587	36.597	36.607	36.616	36.626	36.636	36.645
2270	36.645	36.655	36.665	36.675	36.684	36.694	36.703	36.713	36.723	36.732	36.742
2280	36.742	36.751	36.761	36.771	36.780	36.790	36.799	36.809	36.818	36.828	36.837
2290	36.837	36.846	36.856	36.865	36.875	36.884	36.894	36.903	36.912	36.922	36.931
2300	36.931	36.940	36.950	36.959	36.968	36.978	36.987	36.996	37.005	37.015	37.024
2310	37.024	37.033	37.042	37.051	37.061	37.070					

°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10

Type E — Chromal vs. Constantan ITS-90 — °C

°C	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
-260	-9.797	-9.802	-9.808	-9.813	-9.817	-9.821	-9.825	-9.828	-9.831	-9.833	-9.835
-250	-9.718	-9.728	-9.737	-9.746	-9.754	-9.762	-9.770	-9.777	-9.784	-9.790	-9.797
-240	-9.604	-9.617	-9.630	-9.642	-9.654	-9.666	-9.677	-9.688	-9.698	-9.709	-9.718
-230	-9.455	-9.471	-9.487	-9.503	-9.519	-9.534	-9.548	-9.563	-9.577	-9.591	-9.604
-220	-9.274	-9.293	-9.313	-9.331	-9.350	-9.368	-9.386	-9.404	-9.421	-9.438	-9.455
-210	-9.063	-9.085	-9.107	-9.129	-9.151	-9.172	-9.193	-9.214	-9.234	-9.254	-9.274
-200	-8.825	-8.850	-8.874	-8.899	-8.923	-8.947	-8.971	-8.994	-9.017	-9.040	-9.063
-190	-8.561	-8.588	-8.616	-8.643	-8.669	-8.696	-8.722	-8.748	-8.774	-8.799	-8.825
-180	-8.273	-8.303	-8.333	-8.362	-8.391	-8.420	-8.449	-8.477	-8.505	-8.533	-8.561
-170	-7.963	-7.995	-8.027	-8.059	-8.090	-8.121	-8.152	-8.183	-8.213	-8.243	-8.273
-160	-7.632	-7.666	-7.700	-7.733	-7.767	-7.800	-7.833	-7.866	-7.899	-7.931	-7.963
-150	-7.279	-7.315	-7.351	-7.387	-7.423	-7.458	-7.493	-7.528	-7.563	-7.597	-7.632
-140	-6.907	-6.945	-6.983	-7.021	-7.058	-7.096	-7.133	-7.170	-7.206	-7.243	-7.279
-130	-6.516	-6.556	-6.596	-6.636	-6.675	-6.714	-6.753	-6.792	-6.831	-6.869	-6.907
-120	-6.107	-6.149	-6.191	-6.232	-6.273	-6.314	-6.355	-6.396	-6.436	-6.476	-6.516
-110	-5.681	-5.724	-5.767	-5.810	-5.853	-5.896	-5.939	-5.981	-6.023	-6.065	-6.107
-100	-5.237	-5.282	-5.327	-5.372	-5.417	-5.461	-5.505	-5.549	-5.593	-5.637	-5.681
-90	-4.777	-4.824	-4.871	-4.917	-4.963	-5.009	-5.055	-5.101	-5.147	-5.192	-5.237
-80	-4.302	-4.350	-4.398	-4.446	-4.494	-4.542	-4.589	-4.636	-4.684	-4.731	-4.777
-70	-3.811	-3.861	-3.911	-3.960	-4.009	-4.058	-4.107	-4.156	-4.205	-4.254	-4.302
-60	-3.306	-3.357	-3.408	-3.459	-3.510	-3.561	-3.611	-3.661	-3.711	-3.761	-3.811
-50	-2.787	-2.840	-2.892	-2.944	-2.996	-3.048	-3.100	-3.152	-3.204	-3.255	-3.306
-40	-2.255	-2.309	-2.362	-2.416	-2.469	-2.523	-2.576	-2.629	-2.682	-2.735	-2.787
-30	-1.709	-1.765	-1.820	-1.874	-1.929	-1.984	-2.038	-2.093	-2.147	-2.201	-2.255
-20	-1.152	-1.208	-1.264	-1.320	-1.376	-1.432	-1.488	-1.543	-1.599	-1.654	-1.709
-10	-0.582	-0.639	-0.697	-0.754	-0.811	-0.868	-0.925	-0.982	-1.039	-1.095	-1.152
0	0.000	-0.059	-0.117	-0.176	-0.234	-0.292	-0.350	-0.408	-0.466	-0.524	-0.582
°C	**-0**	**-1**	**-2**	**-3**	**-4**	**-5**	**-6**	**-7**	**-8**	**-9**	**-10**

°C	0	1	2	3	4	5	6	7	8	9	10
0	0.000	0.059	0.118	0.176	0.235	0.294	0.354	0.413	0.472	0.532	0.591
10	0.591	0.651	0.711	0.770	0.830	0.890	0.950	1.010	1.071	1.131	1.192
20	1.192	1.252	1.313	1.373	1.434	1.495	1.556	1.617	1.678	1.740	1.801
30	1.801	1.862	1.924	1.986	2.047	2.109	2.171	2.233	2.295	2.357	2.420
40	2.420	2.482	2.545	2.607	2.670	2.733	2.795	2.858	2.921	2.984	3.048
50	3.048	3.111	3.174	3.238	3.301	3.365	3.429	3.492	3.556	3.620	3.685
60	3.685	3.749	3.813	3.877	3.942	4.006	4.071	4.136	4.200	4.265	4.330
70	4.330	4.395	4.460	4.526	4.591	4.656	4.722	4.788	4.853	4.919	4.985
80	4.985	5.051	5.117	5.183	5.249	5.315	5.382	5.448	5.514	5.581	5.648
90	5.648	5.714	5.781	5.848	5.915	5.982	6.049	6.117	6.184	6.251	6.319
100	6.319	6.386	6.454	6.522	6.590	6.658	6.725	6.794	6.862	6.930	6.998
110	6.998	7.066	7.135	7.203	7.272	7.341	7.409	7.478	7.547	7.616	7.685
120	7.685	7.754	7.823	7.892	7.962	8.031	8.101	8.170	8.240	8.309	8.379
130	8.379	8.449	8.519	8.589	8.659	8.729	8.799	8.869	8.940	9.010	9.081
140	9.081	9.151	9.222	9.292	9.363	9.434	9.505	9.576	9.647	9.718	9.789
150	9.789	9.860	9.931	10.003	10.074	10.145	10.217	10.288	10.360	10.432	10.503
160	10.503	10.575	10.647	10.719	10.791	10.863	10.935	11.007	11.080	11.152	11.224
170	11.224	11.297	11.369	11.442	11.514	11.587	11.660	11.733	11.805	11.878	11.951
180	11.951	12.024	12.097	12.170	12.243	12.317	12.390	12.463	12.537	12.610	12.684
190	12.684	12.757	12.831	12.904	12.978	13.052	13.126	13.199	13.273	13.347	13.421
°C	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

°C	0	1	2	3	4	5	6	7	8	9	10
200	13.421	13.495	13.569	13.644	13.718	13.792	13.866	13.941	14.015	14.090	14.164
210	14.164	14.239	14.313	14.388	14.463	14.537	14.612	14.687	14.762	14.837	14.912
220	14.912	14.987	15.062	15.137	15.212	15.287	15.362	15.438	15.513	15.588	15.664
230	15.664	15.739	15.815	15.890	15.966	16.041	16.117	16.193	16.269	16.344	16.420
240	16.420	16.496	16.572	16.648	16.724	16.800	16.876	16.952	17.028	17.104	17.181
250	17.181	17.257	17.333	17.409	17.486	17.562	17.639	17.715	17.792	17.868	17.945
260	17.945	18.021	18.098	18.175	18.252	18.328	18.405	18.482	18.559	18.636	18.713
270	18.713	18.790	18.867	18.944	19.021	19.098	19.175	19.252	19.330	19.407	19.484
280	19.484	19.561	19.639	19.716	19.794	19.871	19.948	20.026	20.103	20.181	20.259
290	20.259	20.336	20.414	20.492	20.569	20.647	20.725	20.803	20.880	20.958	21.036
300	21.036	21.114	21.192	21.270	21.348	21.426	21.504	21.582	21.660	21.739	21.817
310	21.817	21.895	21.973	22.051	22.130	22.208	22.286	22.365	22.443	22.522	22.600
320	22.600	22.678	22.757	22.835	22.914	22.993	23.071	23.150	23.228	23.307	23.386
330	23.386	23.464	23.543	23.622	23.701	23.780	23.858	23.937	24.016	24.095	24.174
340	24.174	24.253	24.332	24.411	24.490	24.569	24.648	24.727	24.806	24.885	24.964
350	24.964	25.044	25.123	25.202	25.281	25.360	25.440	25.519	25.598	25.678	25.757
360	25.757	25.836	25.916	25.995	26.075	26.154	26.233	26.313	26.392	26.472	26.552
370	26.552	26.631	26.711	26.790	26.870	26.950	27.029	27.109	27.189	27.268	27.348
380	27.348	27.428	27.507	27.587	27.667	27.747	27.827	27.907	27.986	28.066	28.146
390	28.146	28.226	28.306	28.386	28.466	28.546	28.626	28.706	28.786	28.866	28.946
400	28.946	29.026	29.106	29.186	29.266	29.346	29.427	29.507	29.587	29.667	29.747
410	29.747	29.827	29.908	29.988	30.068	30.148	30.229	30.309	30.389	30.470	30.550
420	30.550	30.630	30.711	30.791	30.871	30.952	31.032	31.112	31.193	31.273	31.354
430	31.354	31.434	31.515	31.595	31.676	31.756	31.837	31.917	31.998	32.078	32.159
440	32.159	32.239	32.320	32.400	32.481	32.562	32.642	32.723	32.803	32.884	32.965
450	32.965	33.045	33.126	33.207	33.287	33.368	33.449	33.529	33.610	33.691	33.772
460	33.772	33.852	33.933	34.014	34.095	34.175	34.256	34.337	34.418	34.498	34.579
470	34.579	34.660	34.741	34.822	34.902	34.983	35.064	35.145	35.226	35.307	35.387
480	35.387	35.468	35.549	35.630	35.711	35.792	35.873	35.954	36.034	36.115	36.196
490	36.196	36.277	36.358	36.439	36.520	36.601	36.682	36.763	36.843	36.924	37.005
500	37.005	37.086	37.167	37.248	37.329	37.410	37.491	37.572	37.653	37.734	37.815
510	37.815	37.896	37.977	38.058	38.139	38.220	38.300	38.381	38.462	38.543	38.624
520	38.624	38.705	38.786	38.867	38.948	39.029	39.110	39.191	39.272	39.353	39.434
530	39.434	39.515	39.596	39.677	39.758	39.839	39.920	40.001	40.082	40.163	40.243
540	40.243	40.324	40.405	40.486	40.567	40.648	40.729	40.810	40.891	40.972	41.053
550	41.053	41.134	41.215	41.296	41.377	41.457	41.538	41.619	41.700	41.781	41.862
560	41.862	41.943	42.024	42.105	42.185	42.266	42.347	42.428	42.509	42.590	42.671
570	42.671	42.751	42.832	42.913	42.994	43.075	43.156	43.236	43.317	43.398	43.479
580	43.479	43.560	43.640	43.721	43.802	43.883	43.963	44.044	44.125	44.206	44.286
590	44.286	44.367	44.448	44.529	44.609	44.690	44.771	44.851	44.932	45.013	45.093
600	45.093	45.174	45.255	45.335	45.416	45.497	45.577	45.658	45.738	45.819	45.900
610	45.900	45.980	46.061	46.141	46.222	46.302	46.383	46.463	46.544	46.624	46.705
620	46.705	46.785	46.866	46.946	47.027	47.107	47.188	47.268	47.349	47.429	47.509
630	47.509	47.590	47.670	47.751	47.831	47.911	47.992	48.072	48.152	48.233	48.313
640	48.313	48.393	48.474	48.554	48.634	48.715	48.795	48.875	48.955	49.035	49.116
650	49.116	49.196	49.276	49.356	49.436	49.517	49.597	49.677	49.757	49.837	49.917
660	49.917	49.997	50.077	50.157	50.238	50.318	50.398	50.478	50.558	50.638	50.718
670	50.718	50.798	50.878	50.958	51.038	51.118	51.197	51.277	51.357	51.437	51.517
680	51.517	51.597	51.677	51.757	51.837	51.916	51.996	52.076	52.156	52.236	52.315
690	52.315	52.395	52.475	52.555	52.634	52.714	52.794	52.873	52.953	53.033	53.112
°C	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

Type E Chromal vs. Constantan ITS-90 °C

°C	0	1	2	3	4	5	6	7	8	9	10
700	53.112	53.192	53.272	53.351	53.431	53.510	53.590	53.670	53.749	53.829	53.908
710	53.908	53.988	54.067	54.147	54.226	54.306	54.385	54.465	54.544	54.624	54.703
720	54.703	54.782	54.862	54.941	55.021	55.100	55.179	55.259	55.338	55.417	55.497
730	55.497	55.576	55.655	55.734	55.814	55.893	55.972	56.051	56.131	56.210	56.289
740	56.289	56.368	56.447	56.526	56.606	56.685	56.764	56.843	56.922	57.001	57.080
750	57.080	57.159	57.238	57.317	57.396	57.475	57.554	57.633	57.712	57.791	57.870
760	57.870	57.949	58.028	58.107	58.186	58.265	58.343	58.422	58.501	58.580	58.659
770	58.659	58.738	58.816	58.895	58.974	59.053	59.131	59.210	59.289	59.367	59.446
780	59.446	59.525	59.604	59.682	59.761	59.839	59.918	59.997	60.075	60.154	60.232
790	60.232	60.311	60.390	60.468	60.547	60.625	60.704	60.782	60.860	60.939	61.017
800	61.017	61.096	61.174	61.253	61.331	61.409	61.488	61.566	61.644	61.723	61.801
810	61.801	61.879	61.958	62.036	62.114	62.192	62.271	62.349	62.427	62.505	62.583
820	62.583	62.662	62.740	62.818	62.896	62.974	63.052	63.130	63.208	63.286	63.364
830	63.364	63.442	63.520	63.598	63.676	63.754	63.832	63.910	63.988	64.066	64.144
840	64.144	64.222	64.300	64.377	64.455	64.533	64.611	64.689	64.766	64.844	64.922
850	64.922	65.000	65.077	65.155	65.233	65.310	65.388	65.465	65.543	65.621	65.698
860	65.698	65.776	65.853	65.931	66.008	66.086	66.163	66.241	66.318	66.396	66.473
870	66.473	66.550	66.628	66.705	66.782	66.860	66.937	67.014	67.092	67.169	67.246
880	67.246	67.323	67.400	67.478	67.555	67.632	67.709	67.786	67.863	67.940	68.017
890	68.017	68.094	68.171	68.248	68.325	68.402	68.479	68.556	68.633	68.710	68.787
900	68.787	68.863	68.940	69.017	69.094	69.171	69.247	69.324	69.401	69.477	69.554
910	69.554	69.631	69.707	69.784	69.860	69.937	70.013	70.090	70.166	70.243	70.319
920	70.319	70.396	70.472	70.548	70.625	70.701	70.777	70.854	70.930	71.006	71.082
930	71.082	71.159	71.235	71.311	71.387	71.463	71.539	71.615	71.692	71.768	71.844
940	71.844	71.920	71.996	72.072	72.147	72.223	72.299	72.375	72.451	72.527	72.603
950	72.603	72.678	72.754	72.830	72.906	72.981	73.057	73.133	73.208	73.284	73.360
960	73.360	73.435	73.511	73.586	73.662	73.738	73.813	73.889	73.964	74.040	74.115
970	74.115	74.190	74.266	74.341	74.417	74.492	74.567	74.643	74.718	74.793	74.869
980	74.869	74.944	75.019	75.095	75.170	75.245	75.320	75.395	75.471	75.546	75.621
990	75.621	75.696	75.771	75.847	75.922	75.997	76.072	76.147	76.223	76.298	76.373

°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10

Type J Iron vs. Constantan ITS-90 °C

°C	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
-200	-7.890	-7.912	-7.934	-7.955	-7.976	-7.996	-8.017	-8.037	-8.057	-8.076	-8.095
-190	-7.659	-7.683	-7.707	-7.731	-7.755	-7.778	-7.801	-7.824	-7.846	-7.868	-7.890
-180	-7.403	-7.429	-7.456	-7.482	-7.508	-7.534	-7.559	-7.585	-7.610	-7.634	-7.659
-170	-7.123	-7.152	-7.181	-7.209	-7.237	-7.265	-7.293	-7.321	-7.348	-7.376	-7.403
-160	-6.821	-6.853	-6.883	-6.914	-6.944	-6.975	-7.005	-7.035	-7.064	-7.094	-7.123
-150	-6.500	-6.533	-6.566	-6.598	-6.631	-6.663	-6.695	-6.727	-6.759	-6.790	-6.821
-140	-6.159	-6.194	-6.229	-6.263	-6.298	-6.332	-6.366	-6.400	-6.433	-6.467	-6.500
-130	-5.801	-5.838	-5.874	-5.910	-5.946	-5.982	-6.018	-6.054	-6.089	-6.124	-6.159
-120	-5.426	-5.465	-5.503	-5.541	-5.578	-5.616	-5.653	-5.690	-5.727	-5.764	-5.801
-110	-5.037	-5.076	-5.116	-5.155	-5.194	-5.233	-5.272	-5.311	-5.350	-5.388	-5.426
-100	-4.633	-4.674	-4.714	-4.755	-4.796	-4.836	-4.877	-4.917	-4.957	-4.997	-5.037
-90	-4.215	-4.257	-4.300	-4.342	-4.384	-4.425	-4.467	-4.509	-4.550	-4.591	-4.633
-80	-3.786	-3.829	-3.872	-3.916	-3.959	-4.002	-4.045	-4.088	-4.130	-4.173	-4.215
-70	-3.344	-3.389	-3.434	-3.478	-3.522	-3.566	-3.610	-3.654	-3.698	-3.742	-3.786
-60	-2.893	-2.938	-2.984	-3.029	-3.075	-3.120	-3.165	-3.210	-3.255	-3.300	-3.344
-50	-2.431	-2.478	-2.524	-2.571	-2.617	-2.663	-2.709	-2.755	-2.801	-2.847	-2.893
-40	-1.961	-2.008	-2.055	-2.103	-2.150	-2.197	-2.244	-2.291	-2.338	-2.385	-2.431
-30	-1.482	-1.530	-1.578	-1.626	-1.674	-1.722	-1.770	-1.818	-1.865	-1.913	-1.961
-20	-0.995	-1.044	-1.093	-1.142	-1.190	-1.239	-1.288	-1.336	-1.385	-1.433	-1.482
-10	-0.501	-0.550	-0.600	-0.650	-0.699	-0.749	-0.798	-0.847	-0.896	-0.946	-0.995
0	0.000	-0.050	-0.101	-0.151	-0.201	-0.251	-0.301	-0.351	-0.401	-0.451	-0.501
°C	**-0**	**-1**	**-2**	**-3**	**-4**	**-5**	**-6**	**-7**	**-8**	**-9**	**-10**

°C	0	1	2	3	4	5	6	7	8	9	10
0	0.000	0.050	0.101	0.151	0.202	0.253	0.303	0.354	0.405	0.456	0.507
10	0.507	0.558	0.609	0.660	0.711	0.762	0.814	0.865	0.916	0.968	1.019
20	1.019	1.071	1.122	1.174	1.226	1.277	1.329	1.381	1.433	1.485	1.537
30	1.537	1.589	1.641	1.693	1.745	1.797	1.849	1.902	1.954	2.006	2.059
40	2.059	2.111	2.164	2.216	2.269	2.322	2.374	2.427	2.480	2.532	2.585
50	2.585	2.638	2.691	2.744	2.797	2.850	2.903	2.956	3.009	3.062	3.116
60	3.116	3.169	3.222	3.275	3.329	3.382	3.436	3.489	3.543	3.596	3.650
70	3.650	3.703	3.757	3.810	3.864	3.918	3.971	4.025	4.079	4.133	4.187
80	4.187	4.240	4.294	4.348	4.402	4.456	4.510	4.564	4.618	4.672	4.726
90	4.726	4.781	4.835	4.889	4.943	4.997	5.052	5.106	5.160	5.215	5.269
100	5.269	5.323	5.378	5.432	5.487	5.541	5.595	5.650	5.705	5.759	5.814
110	5.814	5.868	5.923	5.977	6.032	6.087	6.141	6.196	6.251	6.306	6.360
120	6.360	6.415	6.470	6.525	6.579	6.634	6.689	6.744	6.799	6.854	6.909
130	6.909	6.964	7.019	7.074	7.129	7.184	7.239	7.294	7.349	7.404	7.459
140	7.459	7.514	7.569	7.624	7.679	7.734	7.789	7.844	7.900	7.955	8.010
150	8.010	8.065	8.120	8.175	8.231	8.286	8.341	8.396	8.452	8.507	8.562
160	8.562	8.618	8.673	8.728	8.783	8.839	8.894	8.949	9.005	9.060	9.115
170	9.115	9.171	9.226	9.282	9.337	9.392	9.448	9.503	9.559	9.614	9.669
180	9.669	9.725	9.780	9.836	9.891	9.947	10.002	10.057	10.113	10.168	10.224
190	10.224	10.279	10.335	10.390	10.446	10.501	10.557	10.612	10.668	10.723	10.779
200	10.779	10.834	10.890	10.945	11.001	11.056	11.112	11.167	11.223	11.278	11.334
210	11.334	11.389	11.445	11.501	11.556	11.612	11.667	11.723	11.778	11.834	11.889
220	11.889	11.945	12.000	12.056	12.111	12.167	12.222	12.278	12.334	12.389	12.445
230	12.445	12.500	12.556	12.611	12.667	12.722	12.778	12.833	12.889	12.944	13.000
240	13.000	13.056	13.111	13.167	13.222	13.278	13.333	13.389	13.444	13.500	13.555
250	13.555	13.611	13.666	13.722	13.777	13.833	13.888	13.944	13.999	14.055	14.110
°C	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

°C	0	1	2	3	4	5	6	7	8	9	10
260	14.110	14.166	14.221	14.277	14.332	14.388	14.443	14.499	14.554	14.609	14.665
270	14.665	14.720	14.776	14.831	14.887	14.942	14.998	15.053	15.109	15.164	15.219
280	15.219	15.275	15.330	15.386	15.441	15.496	15.552	15.607	15.663	15.718	15.773
290	15.773	15.829	15.884	15.940	15.995	16.050	16.106	16.161	16.216	16.272	16.327
300	16.327	16.383	16.438	16.493	16.549	16.604	16.659	16.715	16.770	16.825	16.881
310	16.881	16.936	16.991	17.046	17.102	17.157	17.212	17.268	17.323	17.378	17.434
320	17.434	17.489	17.544	17.599	17.655	17.710	17.765	17.820	17.876	17.931	17.986
330	17.986	18.041	18.097	18.152	18.207	18.262	18.318	18.373	18.428	18.483	18.538
340	18.538	18.594	18.649	18.704	18.759	18.814	18.870	18.925	18.980	19.035	19.090
350	19.090	19.146	19.201	19.256	19.311	19.366	19.422	19.477	19.532	19.587	19.642
360	19.642	19.697	19.753	19.808	19.863	19.918	19.973	20.028	20.083	20.139	20.194
370	20.194	20.249	20.304	20.359	20.414	20.469	20.525	20.580	20.635	20.690	20.745
380	20.745	20.800	20.855	20.911	20.966	21.021	21.076	21.131	21.186	21.241	21.297
390	21.297	21.352	21.407	21.462	21.517	21.572	21.627	21.683	21.738	21.793	21.848
400	21.848	21.903	21.958	22.014	22.069	22.124	22.179	22.234	22.289	22.345	22.400
410	22.400	22.455	22.510	22.565	22.620	22.676	22.731	22.786	22.841	22.896	22.952
420	22.952	23.007	23.062	23.117	23.172	23.228	23.283	23.338	23.393	23.449	23.504
430	23.504	23.559	23.614	23.670	23.725	23.780	23.835	23.891	23.946	24.001	24.057
440	24.057	24.112	24.167	24.223	24.278	24.333	24.389	24.444	24.499	24.555	24.610
450	24.610	24.665	24.721	24.776	24.832	24.887	24.943	24.998	25.053	25.109	25.164
460	25.164	25.220	25.275	25.331	25.386	25.442	25.497	25.553	25.608	25.664	25.720
470	25.720	25.775	25.831	25.886	25.942	25.998	26.053	26.109	26.165	26.220	26.276
480	26.276	26.332	26.387	26.443	26.499	26.555	26.610	26.666	26.722	26.778	26.834
490	26.834	26.889	26.945	27.001	27.057	27.113	27.169	27.225	27.281	27.337	27.393
500	27.393	27.449	27.505	27.561	27.617	27.673	27.729	27.785	27.841	27.897	27.953
510	27.953	28.010	28.066	28.122	28.178	28.234	28.291	28.347	28.403	28.460	28.516
520	28.516	28.572	28.629	28.685	28.741	28.798	28.854	28.911	28.967	29.024	29.080
530	29.080	29.137	29.194	29.250	29.307	29.363	29.420	29.477	29.534	29.590	29.647
540	29.647	29.704	29.761	29.818	29.874	29.931	29.988	30.045	30.102	30.159	30.216
550	30.216	30.273	30.330	30.387	30.444	30.502	30.559	30.616	30.673	30.730	30.788
560	30.788	30.845	30.902	30.960	31.017	31.074	31.132	31.189	31.247	31.304	31.362
570	31.362	31.419	31.477	31.535	31.592	31.650	31.708	31.766	31.823	31.881	31.939
580	31.939	31.997	32.055	32.113	32.171	32.229	32.287	32.345	32.403	32.461	32.519
590	32.519	32.577	32.636	32.694	32.752	32.810	32.869	32.927	32.985	33.044	33.102
600	33.102	33.161	33.219	33.278	33.337	33.395	33.454	33.513	33.571	33.630	33.689
610	33.689	33.748	33.807	33.866	33.925	33.984	34.043	34.102	34.161	34.220	34.279
620	34.279	34.338	34.397	34.457	34.516	34.575	34.635	34.694	34.754	34.813	34.873
630	34.873	34.932	34.992	35.051	35.111	35.171	35.230	35.290	35.350	35.410	35.470
640	35.470	35.530	35.590	35.650	35.710	35.770	35.830	35.890	35.950	36.010	36.071
650	36.071	36.131	36.191	36.252	36.312	36.373	36.433	36.494	36.554	36.615	36.675
660	36.675	36.736	36.797	36.858	36.918	36.979	37.040	37.101	37.162	37.223	37.284
670	37.284	37.345	37.406	37.467	37.528	37.590	37.651	37.712	37.773	37.835	37.896
680	37.896	37.958	38.019	38.081	38.142	38.204	38.265	38.327	38.389	38.450	38.512
690	38.512	38.574	38.636	38.698	38.760	38.822	38.884	38.946	39.008	39.070	39.132
700	39.132	39.194	39.256	39.318	39.381	39.443	39.505	39.568	39.630	39.693	39.755
710	39.755	39.818	39.880	39.943	40.005	40.068	40.131	40.193	40.256	40.319	40.382
720	40.382	40.445	40.508	40.570	40.633	40.696	40.759	40.822	40.886	40.949	41.012
730	41.012	41.075	41.138	41.201	41.265	41.328	41.391	41.455	41.518	41.581	41.645
740	41.645	41.708	41.772	41.835	41.899	41.962	42.026	42.090	42.153	42.217	42.281
°C	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

Type J Iron vs. Constantan ITS-90 °C

°C	0	1	2	3	4	5	6	7	8	9	10
750	42.281	42.344	42.408	42.472	42.536	42.599	42.663	42.727	42.791	42.855	42.919
760	42.919	42.983	43.047	43.111	43.175	43.239	43.303	43.367	43.431	43.495	43.559
770	43.559	43.624	43.688	43.752	43.817	43.881	43.945	44.010	44.074	44.139	44.203
780	44.203	44.267	44.332	44.396	44.461	44.525	44.590	44.655	44.719	44.784	44.848
790	44.848	44.913	44.977	45.042	45.107	45.171	45.236	45.301	45.365	45.430	45.494
800	45.494	45.559	45.624	45.688	45.753	45.818	45.882	45.947	46.011	46.076	46.141
810	46.141	46.205	46.270	46.334	46.399	46.464	46.528	46.593	46.657	46.722	46.786
820	46.786	46.851	46.915	46.980	47.044	47.109	47.173	47.238	47.302	47.367	47.431
830	47.431	47.495	47.560	47.624	47.688	47.753	47.817	47.881	47.946	48.010	48.074
840	48.074	48.138	48.202	48.267	48.331	48.395	48.459	48.523	48.587	48.651	48.715
850	48.715	48.779	48.843	48.907	48.971	49.034	49.098	49.162	49.226	49.290	49.353
860	49.353	49.417	49.481	49.544	49.608	49.672	49.735	49.799	49.862	49.926	49.989
870	49.989	50.052	50.116	50.179	50.243	50.306	50.369	50.432	50.495	50.559	50.622
880	50.622	50.685	50.748	50.811	50.874	50.937	51.000	51.063	51.126	51.188	51.251
890	51.251	51.314	51.377	51.439	51.502	51.565	51.627	51.690	51.752	51.815	51.877
900	51.877	51.940	52.002	52.064	52.127	52.189	52.251	52.314	52.376	52.438	52.500
910	52.500	52.562	52.624	52.686	52.748	52.810	52.872	52.934	52.996	53.057	53.119
920	53.119	53.181	53.243	53.304	53.366	53.427	53.489	53.550	53.612	53.673	53.735
930	53.735	53.796	53.857	53.919	53.980	54.041	54.102	54.164	54.225	54.286	54.347
940	54.347	54.408	54.469	54.530	54.591	54.652	54.713	54.773	54.834	54.895	54.956
950	54.956	55.016	55.077	55.138	55.198	55.259	55.319	55.380	55.440	55.501	55.561
960	55.561	55.622	55.682	55.742	55.803	55.863	55.923	55.983	56.043	56.104	56.164
970	56.164	56.224	56.284	56.344	56.404	56.464	56.524	56.584	56.643	56.703	56.763
980	56.763	56.823	56.883	56.942	57.002	57.062	57.121	57.181	57.240	57.300	57.360
990	57.360	57.419	57.479	57.538	57.597	57.657	57.716	57.776	57.835	57.894	57.953
1000	56.657	56.692	56.726	56.760	56.794	56.827	56.860	56.893	56.925	56.956	56.987
1010	56.987	58.604	58.663	58.722	58.781	58.840	58.899	58.957	59.016	59.075	59.134
1020	59.134	59.193	59.252	59.310	59.369	59.428	59.487	59.545	59.604	59.663	59.721
1030	59.721	59.780	59.838	59.897	59.956	60.014	60.073	60.131	60.190	60.248	60.307
1040	60.307	60.365	60.423	60.482	60.540	60.599	60.657	60.715	60.774	60.832	60.890
1050	60.890	60.949	61.007	61.065	61.123	61.182	61.240	61.298	61.356	61.415	61.473
1060	61.473	61.531	61.589	61.647	61.705	61.763	61.822	61.880	61.938	61.996	62.054
1070	62.054	62.112	62.170	62.228	62.286	62.344	62.402	62.460	62.518	62.576	62.634
1080	62.634	62.692	62.750	62.808	62.866	62.924	62.982	63.040	63.098	63.156	63.214
1090	63.214	63.271	63.329	63.387	63.445	63.503	63.561	63.619	63.677	63.734	63.792
1100	63.792	63.850	63.908	63.966	64.024	64.081	64.139	64.197	64.255	64.313	64.370
1110	64.370	64.428	64.486	64.544	64.602	64.659	64.717	64.775	64.833	64.890	64.948
1120	64.948	65.006	65.064	65.121	65.179	65.237	65.295	65.352	65.410	65.468	65.525
1130	65.525	65.583	65.641	65.699	65.756	65.814	65.872	65.929	65.987	66.045	66.102
1140	66.102	66.160	66.218	66.275	66.333	66.391	66.448	66.506	66.564	66.621	66.679
1150	66.679	66.737	66.794	66.852	66.910	66.967	67.025	67.082	67.140	67.198	67.255
1160	67.255	67.313	67.370	67.428	67.486	67.543	67.601	67.658	67.716	67.773	67.831
1170	67.831	67.888	67.946	68.003	68.061	68.119	68.176	68.234	68.291	68.348	68.406
1180	68.406	68.463	68.521	68.578	68.636	68.693	68.751	68.808	68.865	68.923	68.980
1190	68.980	69.037	69.095	69.152	69.209	69.267	69.324	69.381	69.439	69.496	69.553
°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10
°C	0	1	2	3	4	5	6	7	8	9	10

Type K Chromal vs. Alumal ITS-90 °C

°C	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
-260	-6.441	-6.444	-6.446	-6.448	-6.450	-6.452	-6.453	-6.455	-6.456	-6.457	-6.458
-250	-6.404	-6.408	-6.413	-6.417	-6.421	-6.425	-6.429	-6.432	-6.435	-6.438	-6.441
-240	-6.344	-6.351	-6.358	-6.364	-6.370	-6.377	-6.382	-6.388	-6.393	-6.399	-6.404
-230	-6.262	-6.271	-6.280	-6.289	-6.297	-6.306	-6.314	-6.322	-6.329	-6.337	-6.344
-220	-6.158	-6.170	-6.181	-6.192	-6.202	-6.213	-6.223	-6.233	-6.243	-6.252	-6.262
-210	-6.035	-6.048	-6.061	-6.074	-6.087	-6.099	-6.111	-6.123	-6.135	-6.147	-6.158
-200	-5.891	-5.907	-5.922	-5.936	-5.951	-5.965	-5.980	-5.994	-6.007	-6.021	-6.035
-190	-5.730	-5.747	-5.763	-5.780	-5.797	-5.813	-5.829	-5.845	-5.861	-5.876	-5.891
-180	-5.550	-5.569	-5.588	-5.606	-5.624	-5.642	-5.660	-5.678	-5.695	-5.713	-5.730
-170	-5.354	-5.374	-5.395	-5.415	-5.435	-5.454	-5.474	-5.493	-5.512	-5.531	-5.550
-160	-5.141	-5.163	-5.185	-5.207	-5.228	-5.250	-5.271	-5.292	-5.313	-5.333	-5.354
-150	-4.913	-4.936	-4.960	-4.983	-5.006	-5.029	-5.052	-5.074	-5.097	-5.119	-5.141
-140	-4.669	-4.694	-4.719	-4.744	-4.768	-4.793	-4.817	-4.841	-4.865	-4.889	-4.913
-130	-4.411	-4.437	-4.463	-4.490	-4.516	-4.542	-4.567	-4.593	-4.618	-4.644	-4.669
-120	-4.138	-4.166	-4.194	-4.221	-4.249	-4.276	-4.303	-4.330	-4.357	-4.384	-4.411
-110	-3.852	-3.882	-3.911	-3.939	-3.968	-3.997	-4.025	-4.054	-4.082	-4.110	-4.138
-100	-3.554	-3.584	-3.614	-3.645	-3.675	-3.705	-3.734	-3.764	-3.794	-3.823	-3.852
-90	-3.243	-3.274	-3.306	-3.337	-3.368	-3.400	-3.431	-3.462	-3.492	-3.523	-3.554
-80	-2.920	-2.953	-2.986	-3.018	-3.050	-3.083	-3.115	-3.147	-3.179	-3.211	-3.243
-70	-2.587	-2.620	-2.654	-2.688	-2.721	-2.755	-2.788	-2.821	-2.854	-2.887	-2.920
-60	-2.243	-2.278	-2.312	-2.347	-2.382	-2.416	-2.450	-2.485	-2.519	-2.553	-2.587
-50	-1.889	-1.925	-1.961	-1.996	-2.032	-2.067	-2.103	-2.138	-2.173	-2.208	-2.243
-40	-1.527	-1.564	-1.600	-1.637	-1.673	-1.709	-1.745	-1.782	-1.818	-1.854	-1.889
-30	-1.156	-1.194	-1.231	-1.268	-1.305	-1.343	-1.380	-1.417	-1.453	-1.490	-1.527
-20	-0.778	-0.816	-0.854	-0.892	-0.930	-0.968	-1.006	-1.043	-1.081	-1.119	-1.156
-10	-0.392	-0.431	-0.470	-0.508	-0.547	-0.586	-0.624	-0.663	-0.701	-0.739	-0.778
0	0.000	-0.039	-0.079	-0.118	-0.157	-0.197	-0.236	-0.275	-0.314	-0.353	-0.392
°C	**-0**	**-1**	**-2**	**-3**	**-4**	**-5**	**-6**	**-7**	**-8**	**-9**	**-10**

°C	0	1	2	3	4	5	6	7	8	9	10
0	0.000	0.039	0.079	0.119	0.158	0.198	0.238	0.277	0.317	0.357	0.397
10	0.397	0.437	0.477	0.517	0.557	0.597	0.637	0.677	0.718	0.758	0.798
20	0.798	0.838	0.879	0.919	0.960	1.000	1.041	1.081	1.122	1.163	1.203
30	1.203	1.244	1.285	1.326	1.366	1.407	1.448	1.489	1.530	1.571	1.612
40	1.612	1.653	1.694	1.735	1.776	1.817	1.858	1.899	1.941	1.982	2.023
50	2.023	2.064	2.106	2.147	2.188	2.230	2.271	2.312	2.354	2.395	2.436
60	2.436	2.478	2.519	2.561	2.602	2.644	2.685	2.727	2.768	2.810	2.851
70	2.851	2.893	2.934	2.976	3.017	3.059	3.100	3.142	3.184	3.225	3.267
80	3.267	3.308	3.350	3.391	3.433	3.474	3.516	3.557	3.599	3.640	3.682
90	3.682	3.723	3.765	3.806	3.848	3.889	3.931	3.972	4.013	4.055	4.096
100	4.096	4.138	4.179	4.220	4.262	4.303	4.344	4.385	4.427	4.468	4.509
110	4.509	4.550	4.591	4.633	4.674	4.715	4.756	4.797	4.838	4.879	4.920
120	4.920	4.961	5.002	5.043	5.084	5.124	5.165	5.206	5.247	5.288	5.328
130	5.328	5.369	5.410	5.450	5.491	5.532	5.572	5.613	5.653	5.694	5.735
140	5.735	5.775	5.815	5.856	5.896	5.937	5.977	6.017	6.058	6.098	6.138
150	6.138	6.179	6.219	6.259	6.299	6.339	6.380	6.420	6.460	6.500	6.540
160	6.540	6.580	6.620	6.660	6.701	6.741	6.781	6.821	6.861	6.901	6.941
170	6.941	6.981	7.021	7.060	7.100	7.140	7.180	7.220	7.260	7.300	7.340
180	7.340	7.380	7.420	7.460	7.500	7.540	7.579	7.619	7.659	7.699	7.739
190	7.739	7.779	7.819	7.859	7.899	7.939	7.979	8.019	8.059	8.099	8.138
200	8.138	8.178	8.218	8.258	8.298	8.338	8.378	8.418	8.458	8.499	8.539
210	8.539	8.579	8.619	8.659	8.699	8.739	8.779	8.819	8.860	8.900	8.940
220	8.940	8.980	9.020	9.061	9.101	9.141	9.181	9.222	9.262	9.302	9.343
230	9.343	9.383	9.423	9.464	9.504	9.545	9.585	9.626	9.666	9.707	9.747
240	9.747	9.788	9.828	9.869	9.909	9.950	9.991	10.031	10.072	10.113	10.153
250	10.153	10.194	10.235	10.276	10.316	10.357	10.398	10.439	10.480	10.520	10.561
260	10.561	10.602	10.643	10.684	10.725	10.766	10.807	10.848	10.889	10.930	10.971
270	10.971	11.012	11.053	11.094	11.135	11.176	11.217	11.259	11.300	11.341	11.382
280	11.382	11.423	11.465	11.506	11.547	11.588	11.630	11.671	11.712	11.753	11.795
290	11.795	11.836	11.877	11.919	11.960	12.001	12.043	12.084	12.126	12.167	12.209
300	12.209	12.250	12.291	12.333	12.374	12.416	12.457	12.499	12.540	12.582	12.624
310	12.624	12.665	12.707	12.748	12.790	12.831	12.873	12.915	12.956	12.998	13.040
320	13.040	13.081	13.123	13.165	13.206	13.248	13.290	13.331	13.373	13.415	13.457
330	13.457	13.498	13.540	13.582	13.624	13.665	13.707	13.749	13.791	13.833	13.874
340	13.874	13.916	13.958	14.000	14.042	14.084	14.126	14.167	14.209	14.251	14.293
350	14.293	14.335	14.377	14.419	14.461	14.503	14.545	14.587	14.629	14.671	14.713
360	14.713	14.755	14.797	14.839	14.881	14.923	14.965	15.007	15.049	15.091	15.133
370	15.133	15.175	15.217	15.259	15.301	15.343	15.385	15.427	15.469	15.511	15.554
380	15.554	15.596	15.638	15.680	15.722	15.764	15.806	15.849	15.891	15.933	15.975
390	15.975	16.017	16.059	16.102	16.144	16.186	16.228	16.270	16.313	16.355	16.397
400	16.397	16.439	16.482	16.524	16.566	16.608	16.651	16.693	16.735	16.778	16.820
410	16.820	16.862	16.904	16.947	16.989	17.031	17.074	17.116	17.158	17.201	17.243
420	17.243	17.285	17.328	17.370	17.413	17.455	17.497	17.540	17.582	17.624	17.667
430	17.667	17.709	17.752	17.794	17.837	17.879	17.921	17.964	18.006	18.049	18.091
440	18.091	18.134	18.176	18.218	18.261	18.303	18.346	18.388	18.431	18.473	18.516
450	18.516	18.558	18.601	18.643	18.686	18.728	18.771	18.813	18.856	18.898	18.941
460	18.941	18.983	19.026	19.068	19.111	19.154	19.196	19.239	19.281	19.324	19.366
470	19.366	19.409	19.451	19.494	19.537	19.579	19.622	19.664	19.707	19.750	19.792
480	19.792	19.835	19.877	19.920	19.962	20.005	20.048	20.090	20.133	20.175	20.218
490	20.218	20.261	20.303	20.346	20.389	20.431	20.474	20.516	20.559	20.602	20.644
°C	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

Type K Chromal vs. Alumal ITS-90 °C

°C	0	1	2	3	4	5	6	7	8	9	10
500	20.644	20.687	20.730	20.772	20.815	20.857	20.900	20.943	20.985	21.028	21.071
510	21.071	21.113	21.156	21.199	21.241	21.284	21.326	21.369	21.412	21.454	21.497
520	21.497	21.540	21.582	21.625	21.668	21.710	21.753	21.796	21.838	21.881	21.924
530	21.924	21.966	22.009	22.052	22.094	22.137	22.179	22.222	22.265	22.307	22.350
540	22.350	22.393	22.435	22.478	22.521	22.563	22.606	22.649	22.691	22.734	22.776
550	22.776	22.819	22.862	22.904	22.947	22.990	23.032	23.075	23.117	23.160	23.203
560	23.203	23.245	23.288	23.331	23.373	23.416	23.458	23.501	23.544	23.586	23.629
570	23.629	23.671	23.714	23.757	23.799	23.842	23.884	23.927	23.970	24.012	24.055
580	24.055	24.097	24.140	24.182	24.225	24.267	24.310	24.353	24.395	24.438	24.480
590	24.480	24.523	24.565	24.608	24.650	24.693	24.735	24.778	24.820	24.863	24.905
600	24.905	24.948	24.990	25.033	25.075	25.118	25.160	25.203	25.245	25.288	25.330
610	25.330	25.373	25.415	25.458	25.500	25.543	25.585	25.627	25.670	25.712	25.755
620	25.755	25.797	25.840	25.882	25.924	25.967	26.009	26.052	26.094	26.136	26.179
630	26.179	26.221	26.263	26.306	26.348	26.390	26.433	26.475	26.517	26.560	26.602
640	26.602	26.644	26.687	26.729	26.771	26.814	26.856	26.898	26.940	26.983	27.025
650	27.025	27.067	27.109	27.152	27.194	27.236	27.278	27.320	27.363	27.405	27.447
660	27.447	27.489	27.531	27.574	27.616	27.658	27.700	27.742	27.784	27.826	27.869
670	27.869	27.911	27.953	27.995	28.037	28.079	28.121	28.163	28.205	28.247	28.289
680	28.289	28.332	28.374	28.416	28.458	28.500	28.542	28.584	28.626	28.668	28.710
690	28.710	28.752	28.794	28.835	28.877	28.919	28.961	29.003	29.045	29.087	29.129
700	29.129	29.171	29.213	29.255	29.297	29.338	29.380	29.422	29.464	29.506	29.548
710	29.548	29.589	29.631	29.673	29.715	29.757	29.798	29.840	29.882	29.924	29.965
720	29.965	30.007	30.049	30.090	30.132	30.174	30.216	30.257	30.299	30.341	30.382
730	30.382	30.424	30.466	30.507	30.549	30.590	30.632	30.674	30.715	30.757	30.798
740	30.798	30.840	30.881	30.923	30.964	31.006	31.047	31.089	31.130	31.172	31.213
750	31.213	31.255	31.296	31.338	31.379	31.421	31.462	31.504	31.545	31.586	31.628
760	31.628	31.669	31.710	31.752	31.793	31.834	31.876	31.917	31.958	32.000	32.041
770	32.041	32.082	32.124	32.165	32.206	32.247	32.289	32.330	32.371	32.412	32.453
780	32.453	32.495	32.536	32.577	32.618	32.659	32.700	32.742	32.783	32.824	32.865
790	32.865	32.906	32.947	32.988	33.029	33.070	33.111	33.152	33.193	33.234	33.275
800	33.275	33.316	33.357	33.398	33.439	33.480	33.521	33.562	33.603	33.644	33.685
810	33.685	33.726	33.767	33.808	33.848	33.889	33.930	33.971	34.012	34.053	34.093
820	34.093	34.134	34.175	34.216	34.257	34.297	34.338	34.379	34.420	34.460	34.501
830	34.501	34.542	34.582	34.623	34.664	34.704	34.745	34.786	34.826	34.867	34.908
840	34.908	34.948	34.989	35.029	35.070	35.110	35.151	35.192	35.232	35.273	35.313
850	35.313	35.354	35.394	35.435	35.475	35.516	35.556	35.596	35.637	35.677	35.718
860	35.718	35.758	35.798	35.839	35.879	35.920	35.960	36.000	36.041	36.081	36.121
870	36.121	36.162	36.202	36.242	36.282	36.323	36.363	36.403	36.443	36.484	36.524
880	36.524	36.564	36.604	36.644	36.685	36.725	36.765	36.805	36.845	36.885	36.925
890	36.925	36.965	37.006	37.046	37.086	37.126	37.166	37.206	37.246	37.286	37.326
900	37.326	37.366	37.406	37.446	37.486	37.526	37.566	37.606	37.646	37.686	37.725
910	37.725	37.765	37.805	37.845	37.885	37.925	37.965	38.005	38.044	38.084	38.124
920	38.124	38.164	38.204	38.243	38.283	38.323	38.363	38.402	38.442	38.482	38.522
930	38.522	38.561	38.601	38.641	38.680	38.720	38.760	38.799	38.839	38.878	38.918
940	38.918	38.958	38.997	39.037	39.076	39.116	39.155	39.195	39.235	39.274	39.314
950	39.314	39.353	39.393	39.432	39.471	39.511	39.550	39.590	39.629	39.669	39.708
960	39.708	39.747	39.787	39.826	39.866	39.905	39.944	39.984	40.023	40.062	40.101
970	40.101	40.141	40.180	40.219	40.259	40.298	40.337	40.376	40.415	40.455	40.494
980	40.494	40.533	40.572	40.611	40.651	40.690	40.729	40.768	40.807	40.846	40.885
990	40.885	40.924	40.963	41.002	41.042	41.081	41.120	41.159	41.198	41.237	41.276
°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10
1000	41.276	41.315	41.354	41.393	41.431	41.470	41.509	41.548	41.587	41.626	41.665
1010	41.665	41.704	41.743	41.781	41.820	41.859	41.898	41.937	41.976	42.014	42.053
1020	42.053	42.092	42.131	42.169	42.208	42.247	42.286	42.324	42.363	42.402	42.440
1030	42.440	42.479	42.518	42.556	42.595	42.633	42.672	42.711	42.749	42.788	42.826
1040	42.826	42.865	42.903	42.942	42.980	43.019	43.057	43.096	43.134	43.173	43.211
1050	43.211	43.250	43.288	43.327	43.365	43.403	43.442	43.480	43.518	43.557	43.595
1060	43.595	43.633	43.672	43.710	43.748	43.787	43.825	43.863	43.901	43.940	43.978
1070	43.978	44.016	44.054	44.092	44.130	44.169	44.207	44.245	44.283	44.321	44.359
1080	44.359	44.397	44.435	44.473	44.512	44.550	44.588	44.626	44.664	44.702	44.740
1090	44.740	44.778	44.816	44.853	44.891	44.929	44.967	45.005	45.043	45.081	45.119
1100	45.119	45.157	45.194	45.232	45.270	45.308	45.346	45.383	45.421	45.459	45.497
1110	45.497	45.534	45.572	45.610	45.647	45.685	45.723	45.760	45.798	45.836	45.873
1120	45.873	45.911	45.948	45.986	46.024	46.061	46.099	46.136	46.174	46.211	46.249
1130	46.249	46.286	46.324	46.361	46.398	46.436	46.473	46.511	46.548	46.585	46.623
1140	46.623	46.660	46.697	46.735	46.772	46.809	46.847	46.884	46.921	46.958	46.995
1150	46.995	47.033	47.070	47.107	47.144	47.181	47.218	47.256	47.293	47.330	47.367
1160	47.367	47.404	47.441	47.478	47.515	47.552	47.589	47.626	47.663	47.700	47.737
1170	47.737	47.774	47.811	47.848	47.884	47.921	47.958	47.995	48.032	48.069	48.105
1180	48.105	48.142	48.179	48.216	48.252	48.289	48.326	48.363	48.399	48.436	48.473
1190	48.473	48.509	48.546	48.582	48.619	48.656	48.692	48.729	48.765	48.802	48.838
1200	48.838	48.875	48.911	48.948	48.984	49.021	49.057	49.093	49.130	49.166	49.202
1210	49.202	49.239	49.275	49.311	49.348	49.384	49.420	49.456	49.493	49.529	49.565
1220	49.565	49.601	49.637	49.674	49.710	49.746	49.782	49.818	49.854	49.890	49.926
1230	49.926	49.962	49.998	50.034	50.070	50.106	50.142	50.178	50.214	50.250	50.286
1240	50.286	50.322	50.358	50.393	50.429	50.465	50.501	50.537	50.572	50.608	50.644
1250	50.644	50.680	50.715	50.751	50.787	50.822	50.858	50.894	50.929	50.965	51.000
1260	51.000	51.036	51.071	51.107	51.142	51.178	51.213	51.249	51.284	51.320	51.355
1270	51.355	51.391	51.426	51.461	51.497	51.532	51.567	51.603	51.638	51.673	51.708
1280	51.708	51.744	51.779	51.814	51.849	51.885	51.920	51.955	51.990	52.025	52.060
1290	52.060	52.095	52.130	52.165	52.200	52.235	52.270	52.305	52.340	52.375	52.410
1300	52.410	52.445	52.480	52.515	52.550	52.585	52.620	52.654	52.689	52.724	52.759
1310	52.759	52.794	52.828	52.863	52.898	52.932	52.967	53.002	53.037	53.071	53.106
1320	53.106	53.140	53.175	53.210	53.244	53.279	53.313	53.348	53.382	53.417	53.451
1330	53.451	53.486	53.520	53.555	53.589	53.623	53.658	53.692	53.727	53.761	53.795
1340	53.795	53.830	53.864	53.898	53.932	53.967	54.001	54.035	54.069	54.104	54.138
1350	54.138	54.172	54.206	54.240	54.274	54.308	54.343	54.377	54.411	54.445	54.479
1360	54.479	54.513	54.547	54.581	54.615	54.649	54.683	54.717	54.751	54.785	54.819
1370	54.819	54.852	54.886								
°C	0	1	2	3	4	5	6	7	8	9	10

Type N — Nicrosil vs. Nisil ITS-90 — °C

°C	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
-260	-4.336	-4.337	-4.339	-4.340	-4.341	-4.342	-4.343	-4.344	-4.344	-4.345	-4.345
-250	-4.313	-4.316	-4.319	-4.321	-4.324	-4.326	-4.328	-4.330	-4.332	-4.334	-4.336
-240	-4.277	-4.281	-4.285	-4.289	-4.293	-4.297	-4.300	-4.304	-4.307	-4.310	-4.313
-230	-4.226	-4.232	-4.238	-4.243	-4.248	-4.254	-4.258	-4.263	-4.268	-4.273	-4.277
-220	-4.162	-4.169	-4.176	-4.183	-4.189	-4.196	-4.202	-4.209	-4.215	-4.221	-4.226
-210	-4.083	-4.091	-4.100	-4.108	-4.116	-4.124	-4.132	-4.140	-4.147	-4.154	-4.162
-200	-3.990	-4.000	-4.010	-4.020	-4.029	-4.038	-4.048	-4.057	-4.066	-4.074	-4.083
-190	-3.884	-3.896	-3.907	-3.918	-3.928	-3.939	-3.950	-3.960	-3.970	-3.980	-3.990
-180	-3.766	-3.778	-3.790	-3.803	-3.815	-3.827	-3.838	-3.850	-3.862	-3.873	-3.884
-170	-3.634	-3.648	-3.662	-3.675	-3.688	-3.702	-3.715	-3.728	-3.740	-3.753	-3.766
-160	-3.491	-3.506	-3.521	-3.535	-3.550	-3.564	-3.578	-3.593	-3.607	-3.621	-3.634
-150	-3.336	-3.352	-3.368	-3.384	-3.400	-3.415	-3.431	-3.446	-3.461	-3.476	-3.491
-140	-3.171	-3.188	-3.205	-3.221	-3.238	-3.255	-3.271	-3.288	-3.304	-3.320	-3.336
-130	-2.994	-3.012	-3.030	-3.048	-3.066	-3.084	-3.101	-3.119	-3.136	-3.153	-3.171
-120	-2.808	-2.827	-2.846	-2.865	-2.883	-2.902	-2.921	-2.939	-2.958	-2.976	-2.994
-110	-2.612	-2.632	-2.652	-2.672	-2.691	-2.711	-2.730	-2.750	-2.769	-2.789	-2.808
-100	-2.407	-2.428	-2.448	-2.469	-2.490	-2.510	-2.531	-2.551	-2.571	-2.592	-2.612
-90	-2.193	-2.215	-2.237	-2.258	-2.280	-2.301	-2.322	-2.344	-2.365	-2.386	-2.407
-80	-1.972	-1.995	-2.017	-2.039	-2.062	-2.084	-2.106	-2.128	-2.150	-2.172	-2.193
-70	-1.744	-1.767	-1.790	-1.813	-1.836	-1.859	-1.882	-1.905	-1.927	-1.950	-1.972
-60	-1.509	-1.533	-1.557	-1.580	-1.604	-1.627	-1.651	-1.674	-1.698	-1.721	-1.744
-50	-1.269	-1.293	-1.317	-1.341	-1.366	-1.390	-1.414	-1.438	-1.462	-1.485	-1.509
-40	-1.023	-1.048	-1.072	-1.097	-1.122	-1.146	-1.171	-1.195	-1.220	-1.244	-1.269
-30	-0.772	-0.798	-0.823	-0.848	-0.873	-0.898	-0.923	-0.948	-0.973	-0.998	-1.023
-20	-0.518	-0.544	-0.569	-0.595	-0.620	-0.646	-0.671	-0.696	-0.722	-0.747	-0.772
-10	-0.260	-0.286	-0.312	-0.338	-0.364	-0.390	-0.415	-0.441	-0.467	-0.492	-0.518
0	0.000	-0.026	-0.052	-0.078	-0.104	-0.131	-0.157	-0.183	-0.209	-0.234	-0.260
°C	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10

°C	0	1	2	3	4	5	6	7	8	9	10
0	0.000	0.026	0.052	0.078	0.104	0.130	0.156	0.182	0.208	0.235	0.261
10	0.261	0.287	0.313	0.340	0.366	0.393	0.419	0.446	0.472	0.499	0.525
20	0.525	0.552	0.578	0.605	0.632	0.659	0.685	0.712	0.739	0.766	0.793
30	0.793	0.820	0.847	0.874	0.901	0.928	0.955	0.983	1.010	1.037	1.065
40	1.065	1.092	1.119	1.147	1.174	1.202	1.229	1.257	1.284	1.312	1.340
50	1.340	1.368	1.395	1.423	1.451	1.479	1.507	1.535	1.563	1.591	1.619
60	1.619	1.647	1.675	1.703	1.732	1.760	1.788	1.817	1.845	1.873	1.902
70	1.902	1.930	1.959	1.988	2.016	2.045	2.074	2.102	2.131	2.160	2.189
80	2.189	2.218	2.247	2.276	2.305	2.334	2.363	2.392	2.421	2.450	2.480
90	2.480	2.509	2.538	2.568	2.597	2.626	2.656	2.685	2.715	2.744	2.774
100	2.774	2.804	2.833	2.863	2.893	2.923	2.953	2.983	3.012	3.042	3.072
110	3.072	3.102	3.133	3.163	3.193	3.223	3.253	3.283	3.314	3.344	3.374
120	3.374	3.405	3.435	3.466	3.496	3.527	3.557	3.588	3.619	3.649	3.680
130	3.680	3.711	3.742	3.772	3.803	3.834	3.865	3.896	3.927	3.958	3.989
140	3.989	4.020	4.051	4.083	4.114	4.145	4.176	4.208	4.239	4.270	4.302
150	4.302	4.333	4.365	4.396	4.428	4.459	4.491	4.523	4.554	4.586	4.618
160	4.618	4.650	4.681	4.713	4.745	4.777	4.809	4.841	4.873	4.905	4.937
170	4.937	4.969	5.001	5.033	5.066	5.098	5.130	5.162	5.195	5.227	5.259
180	5.259	5.292	5.324	5.357	5.389	5.422	5.454	5.487	5.520	5.552	5.585
190	5.585	5.618	5.650	5.683	5.716	5.749	5.782	5.815	5.847	5.880	5.913
200	5.913	5.946	5.979	6.013	6.046	6.079	6.112	6.145	6.178	6.211	6.245
210	6.245	6.278	6.311	6.345	6.378	6.411	6.445	6.478	6.512	6.545	6.579
220	6.579	6.612	6.646	6.680	6.713	6.747	6.781	6.814	6.848	6.882	6.916
230	6.916	6.949	6.983	7.017	7.051	7.085	7.119	7.153	7.187	7.221	7.255
240	7.255	7.289	7.323	7.357	7.392	7.426	7.460	7.494	7.528	7.563	7.597
250	7.597	7.631	7.666	7.700	7.734	7.769	7.803	7.838	7.872	7.907	7.941
260	7.941	7.976	8.010	8.045	8.080	8.114	8.149	8.184	8.218	8.253	8.288
270	8.288	8.323	8.358	8.392	8.427	8.462	8.497	8.532	8.567	8.602	8.637
280	8.637	8.672	8.707	8.742	8.777	8.812	8.847	8.882	8.918	8.953	8.988
290	8.988	9.023	9.058	9.094	9.129	9.164	9.200	9.235	9.270	9.306	9.341
300	9.341	9.377	9.412	9.448	9.483	9.519	9.554	9.590	9.625	9.661	9.696
310	9.696	9.732	9.768	9.803	9.839	9.875	9.910	9.946	9.982	10.018	10.054
320	10.054	10.089	10.125	10.161	10.197	10.233	10.269	10.305	10.341	10.377	10.413
330	10.413	10.449	10.485	10.521	10.557	10.593	10.629	10.665	10.701	10.737	10.774
340	10.774	10.810	10.846	10.882	10.918	10.955	10.991	11.027	11.064	11.100	11.136
350	11.136	11.173	11.209	11.245	11.282	11.318	11.355	11.391	11.428	11.464	11.501
360	11.501	11.537	11.574	11.610	11.647	11.683	11.720	11.757	11.793	11.830	11.867
370	11.867	11.903	11.940	11.977	12.013	12.050	12.087	12.124	12.160	12.197	12.234
380	12.234	12.271	12.308	12.345	12.382	12.418	12.455	12.492	12.529	12.566	12.603
390	12.603	12.640	12.677	12.714	12.751	12.788	12.825	12.862	12.899	12.937	12.974
400	12.974	13.011	13.048	13.085	13.122	13.159	13.197	13.234	13.271	13.308	13.346
410	13.346	13.383	13.420	13.457	13.495	13.532	13.569	13.607	13.644	13.682	13.719
420	13.719	13.756	13.794	13.831	13.869	13.906	13.944	13.981	14.019	14.056	14.094
430	14.094	14.131	14.169	14.206	14.244	14.281	14.319	14.356	14.394	14.432	14.469
440	14.469	14.507	14.545	14.582	14.620	14.658	14.695	14.733	14.771	14.809	14.846
450	14.846	14.884	14.922	14.960	14.998	15.035	15.073	15.111	15.149	15.187	15.225
460	15.225	15.262	15.300	15.338	15.376	15.414	15.452	15.490	15.528	15.566	15.604
470	15.604	15.642	15.680	15.718	15.756	15.794	15.832	15.870	15.908	15.946	15.984
480	15.984	16.022	16.060	16.099	16.137	16.175	16.213	16.251	16.289	16.327	16.366
490	16.366	16.404	16.442	16.480	16.518	16.557	16.595	16.633	16.671	16.710	16.748
°C	0	1	2	3	4	5	6	7	8	9	10

Type N — Nicrosil vs. Nisil ITS-90 — °C

°C	0	1	2	3	4	5	6	7	8	9	10
500	16.748	16.786	16.824	16.863	16.901	16.939	16.978	17.016	17.054	17.093	17.131
510	17.131	17.169	17.208	17.246	17.285	17.323	17.361	17.400	17.438	17.477	17.515
520	17.515	17.554	17.592	17.630	17.669	17.707	17.746	17.784	17.823	17.861	17.900
530	17.900	17.938	17.977	18.016	18.054	18.093	18.131	18.170	18.208	18.247	18.286
540	18.286	18.324	18.363	18.401	18.440	18.479	18.517	18.556	18.595	18.633	18.672
550	18.672	18.711	18.749	18.788	18.827	18.865	18.904	18.943	18.982	19.020	19.059
560	19.059	19.098	19.136	19.175	19.214	19.253	19.292	19.330	19.369	19.408	19.447
570	19.447	19.485	19.524	19.563	19.602	19.641	19.680	19.718	19.757	19.796	19.835
580	19.835	19.874	19.913	19.952	19.990	20.029	20.068	20.107	20.146	20.185	20.224
590	20.224	20.263	20.302	20.341	20.379	20.418	20.457	20.496	20.535	20.574	20.613
600	20.613	20.652	20.691	20.730	20.769	20.808	20.847	20.886	20.925	20.964	21.003
610	21.003	21.042	21.081	21.120	21.159	21.198	21.237	21.276	21.315	21.354	21.393
620	21.393	21.432	21.471	21.510	21.549	21.588	21.628	21.667	21.706	21.745	21.784
630	21.784	21.823	21.862	21.901	21.940	21.979	22.018	22.058	22.097	22.136	22.175
640	22.175	22.214	22.253	22.292	22.331	22.370	22.410	22.449	22.488	22.527	22.566
650	22.566	22.605	22.644	22.684	22.723	22.762	22.801	22.840	22.879	22.919	22.958
660	22.958	22.997	23.036	23.075	23.115	23.154	23.193	23.232	23.271	23.311	23.350
670	23.350	23.389	23.428	23.467	23.507	23.546	23.585	23.624	23.663	23.703	23.742
680	23.742	23.781	23.820	23.860	23.899	23.938	23.977	24.016	24.056	24.095	24.134
690	24.134	24.173	24.213	24.252	24.291	24.330	24.370	24.409	24.448	24.487	24.527
700	24.527	24.566	24.605	24.644	24.684	24.723	24.762	24.801	24.841	24.880	24.919
710	24.919	24.959	24.998	25.037	25.076	25.116	25.155	25.194	25.233	25.273	25.312
720	25.312	25.351	25.391	25.430	25.469	25.508	25.548	25.587	25.626	25.666	25.705
730	25.705	25.744	25.783	25.823	25.862	25.901	25.941	25.980	26.019	26.058	26.098
740	26.098	26.137	26.176	26.216	26.255	26.294	26.333	26.373	26.412	26.451	26.491
750	26.491	26.530	26.569	26.608	26.648	26.687	26.726	26.766	26.805	26.844	26.883
760	26.883	26.923	26.962	27.001	27.041	27.080	27.119	27.158	27.198	27.237	27.276
770	27.276	27.316	27.355	27.394	27.433	27.473	27.512	27.551	27.591	27.630	27.669
780	27.669	27.708	27.748	27.787	27.826	27.866	27.905	27.944	27.983	28.023	28.062
790	28.062	28.101	28.140	28.180	28.219	28.258	28.297	28.337	28.376	28.415	28.455
800	28.455	28.494	28.533	28.572	28.612	28.651	28.690	28.729	28.769	28.808	28.847
810	28.847	28.886	28.926	28.965	29.004	29.043	29.083	29.122	29.161	29.200	29.239
820	29.239	29.279	29.318	29.357	29.396	29.436	29.475	29.514	29.553	29.592	29.632
830	29.632	29.671	29.710	29.749	29.789	29.828	29.867	29.906	29.945	29.985	30.024
840	30.024	30.063	30.102	30.141	30.181	30.220	30.259	30.298	30.337	30.376	30.416
850	30.416	30.455	30.494	30.533	30.572	30.611	30.651	30.690	30.729	30.768	30.807
860	30.807	30.846	30.886	30.925	30.964	31.003	31.042	31.081	31.120	31.160	31.199
870	31.199	31.238	31.277	31.316	31.355	31.394	31.433	31.473	31.512	31.551	31.590
880	31.590	31.629	31.668	31.707	31.746	31.785	31.824	31.863	31.903	31.942	31.981
890	31.981	32.020	32.059	32.098	32.137	32.176	32.215	32.254	32.293	32.332	32.371
900	32.371	32.410	32.449	32.488	32.527	32.566	32.605	32.644	32.683	32.722	32.761
910	32.761	32.800	32.839	32.878	32.917	32.956	32.995	33.034	33.073	33.112	33.151
920	33.151	33.190	33.229	33.268	33.307	33.346	33.385	33.424	33.463	33.502	33.541
930	33.541	33.580	33.619	33.658	33.697	33.736	33.774	33.813	33.852	33.891	33.930
940	33.930	33.969	34.008	34.047	34.086	34.124	34.163	34.202	34.241	34.280	34.319
950	34.319	34.358	34.396	34.435	34.474	34.513	34.552	34.591	34.629	34.668	34.707
960	34.707	34.746	34.785	34.823	34.862	34.901	34.940	34.979	35.017	35.056	35.095
970	35.095	35.134	35.172	35.211	35.250	35.289	35.327	35.366	35.405	35.444	35.482
980	35.482	35.521	35.560	35.598	35.637	35.676	35.714	35.753	35.792	35.831	35.869
990	35.869	35.908	35.946	35.985	36.024	36.062	36.101	36.140	36.178	36.217	36.256
°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10
1000	36.256	36.294	36.333	36.371	36.410	36.449	36.487	36.526	36.564	36.603	36.641
1010	36.641	36.680	36.718	36.757	36.796	36.834	36.873	36.911	36.950	36.988	37.027
1020	37.027	37.065	37.104	37.142	37.181	37.219	37.258	37.296	37.334	37.373	37.411
1030	37.411	37.450	37.488	37.527	37.565	37.603	37.642	37.680	37.719	37.757	37.795
1040	37.795	37.834	37.872	37.911	37.949	37.987	38.026	38.064	38.102	38.141	38.179
1050	38.179	38.217	38.256	38.294	38.332	38.370	38.409	38.447	38.485	38.524	38.562
1060	38.562	38.600	38.638	38.677	38.715	38.753	38.791	38.829	38.868	38.906	38.944
1070	38.944	38.982	39.020	39.059	39.097	39.135	39.173	39.211	39.249	39.287	39.326
1080	39.326	39.364	39.402	39.440	39.478	39.516	39.554	39.592	39.630	39.668	39.706
1090	39.706	39.744	39.783	39.821	39.859	39.897	39.935	39.973	40.011	40.049	40.087
1100	40.087	40.125	40.163	40.201	40.238	40.276	40.314	40.352	40.390	40.428	40.466
1110	40.466	40.504	40.542	40.580	40.618	40.655	40.693	40.731	40.769	40.807	40.845
1120	40.845	40.883	40.920	40.958	40.996	41.034	41.072	41.109	41.147	41.185	41.223
1130	41.223	41.260	41.298	41.336	41.374	41.411	41.449	41.487	41.525	41.562	41.600
1140	41.600	41.638	41.675	41.713	41.751	41.788	41.826	41.864	41.901	41.939	41.976
1150	41.976	42.014	42.052	42.089	42.127	42.164	42.202	42.239	42.277	42.314	42.352
1160	42.352	42.390	42.427	42.465	42.502	42.540	42.577	42.614	42.652	42.689	42.727
1170	42.727	42.764	42.802	42.839	42.877	42.914	42.951	42.989	43.026	43.064	43.101
1180	43.101	43.138	43.176	43.213	43.250	43.288	43.325	43.362	43.399	43.437	43.474
1190	43.474	43.511	43.549	43.586	43.623	43.660	43.698	43.735	43.772	43.809	43.846
1200	43.846	43.884	43.921	43.958	43.995	44.032	44.069	44.106	44.144	44.181	44.218
1210	44.218	44.255	44.292	44.329	44.366	44.403	44.440	44.477	44.514	44.551	44.588
1220	44.588	44.625	44.662	44.699	44.736	44.773	44.810	44.847	44.884	44.921	44.958
1230	44.958	44.995	45.032	45.069	45.105	45.142	45.179	45.216	45.253	45.290	45.326
1240	45.326	45.363	45.400	45.437	45.474	45.510	45.547	45.584	45.621	45.657	45.694
1250	45.694	45.731	45.767	45.804	45.841	45.877	45.914	45.951	45.987	46.024	46.060
1260	46.060	46.097	46.133	46.170	46.207	46.243	46.280	46.316	46.353	46.389	46.425
1270	46.425	46.462	46.498	46.535	46.571	46.608	46.644	46.680	46.717	46.753	46.789
1280	46.789	46.826	46.862	46.898	46.935	46.971	47.007	47.043	47.079	47.116	47.152
1290	47.152	47.188	47.224	47.260	47.296	47.333	47.369	47.405	47.441	47.477	47.513
°C	0	1	2	3	4	5	6	7	8	9	10

Type Nickel-0.8% Cobalt vs. Nickel-18% Molybdenum ITS-90 °C

°C	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
-40	-1.404	-1.437	-1.470	-1.503	-1.536	-1.569	-1.602	-1.635	-1.667	-1.700	-1.732
-30	-1.067	-1.101	-1.135	-1.169	-1.203	-1.237	-1.270	-1.304	-1.337	-1.371	-1.404
-20	-0.720	-0.755	-0.790	-0.825	-0.860	-0.895	-0.929	-0.964	-0.998	-1.033	-1.067
-10	-0.365	-0.401	-0.437	-0.472	-0.508	-0.544	-0.579	-0.615	-0.650	-0.685	-0.720
0	0.000	-0.037	-0.074	-0.110	-0.147	-0.183	-0.220	-0.256	-0.292	-0.329	-0.365
°C	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10

°C	0	1	2	3	4	5	6	7	8	9	10
0	0.000	-0.037	-0.074	-0.110	-0.147	-0.183	-0.220	-0.256	-0.292	-0.329	-0.365
10	0.373	0.336	0.298	0.261	0.223	0.186	0.148	0.111	0.074	0.037	0.000
20	0.756	0.717	0.678	0.640	0.602	0.563	0.525	0.487	0.449	0.411	0.373
30	1.146	1.107	1.067	1.028	0.989	0.950	0.911	0.872	0.833	0.794	0.756
40	1.545	1.504	1.464	1.424	1.384	1.344	1.305	1.265	1.225	1.186	1.146
50	1.951	1.910	1.869	1.828	1.788	1.747	1.706	1.666	1.625	1.585	1.545
60	2.365	2.324	2.282	2.240	2.199	2.157	2.116	2.075	2.033	1.992	1.951
70	2.787	2.744	2.702	2.660	2.617	2.575	2.533	2.491	2.449	2.407	2.365
80	3.215	3.172	3.129	3.086	3.043	3.000	2.957	2.915	2.872	2.829	2.787
90	3.650	3.606	3.563	3.519	3.475	3.432	3.388	3.345	3.302	3.258	3.215
100	4.092	4.047	4.003	3.959	3.914	3.870	3.826	3.782	3.738	3.694	3.650
110	4.539	4.494	4.449	4.404	4.360	4.315	4.270	4.225	4.181	4.136	4.092
120	4.993	4.947	4.901	4.856	4.811	4.765	4.720	4.675	4.630	4.584	4.539
130	5.451	5.405	5.359	5.313	5.267	5.221	5.175	5.130	5.084	5.038	4.993
140	5.915	5.868	5.821	5.775	5.729	5.682	5.636	5.590	5.543	5.497	5.451
150	6.383	6.336	6.289	6.242	6.195	6.148	6.101	6.055	6.008	5.961	5.915
160	6.855	6.808	6.760	6.713	6.666	6.618	6.571	6.524	6.477	6.430	6.383
170	7.331	7.283	7.236	7.188	7.140	7.093	7.045	6.997	6.950	6.902	6.855
180	7.811	7.763	7.714	7.666	7.618	7.570	7.523	7.475	7.427	7.379	7.331
190	8.293	8.245	8.196	8.148	8.100	8.052	8.003	7.955	7.907	7.859	7.811
200	8.778	8.730	8.681	8.633	8.584	8.535	8.487	8.438	8.390	8.342	8.293
210	9.266	9.217	9.168	9.119	9.070	9.022	8.973	8.924	8.876	8.827	8.778
220	9.755	9.706	9.657	9.608	9.559	9.510	9.461	9.412	9.363	9.314	9.266
230	10.245	10.196	10.147	10.098	10.049	10.000	9.951	9.902	9.853	9.804	9.755
240	10.736	10.687	10.638	10.588	10.539	10.490	10.441	10.392	10.343	10.294	10.245
250	11.227	11.178	11.129	11.080	11.031	10.981	10.932	10.883	10.834	10.785	10.736
260	11.718	11.669	11.620	11.571	11.522	11.472	11.423	11.374	11.325	11.276	11.227
270	12.208	12.159	12.110	12.061	12.012	11.963	11.914	11.865	11.816	11.767	11.718
280	12.696	12.647	12.598	12.550	12.501	12.452	12.403	12.354	12.305	12.257	12.208
290	13.182	13.133	13.085	13.036	12.988	12.939	12.891	12.842	12.793	12.745	12.696
300	13.665	13.617	13.569	13.520	13.472	13.424	13.376	13.327	13.279	13.230	13.182
310	14.144	14.097	14.049	14.001	13.953	13.905	13.857	13.809	13.761	13.713	13.665
320	14.619	14.572	14.524	14.477	14.430	14.382	14.335	14.287	14.240	14.192	14.144
330	15.088	15.041	14.995	14.948	14.901	14.854	14.807	14.760	14.713	14.666	14.619
340	15.551	15.505	15.459	15.413	15.366	15.320	15.274	15.228	15.181	15.135	15.088
350	16.005	15.960	15.915	15.870	15.824	15.779	15.733	15.688	15.642	15.596	15.551
360	16.451	16.407	16.363	16.319	16.274	16.229	16.185	16.140	16.095	16.050	16.005
370	16.887	16.927	16.970	17.013	17.056	17.099	17.142	17.185	17.228	17.271	17.314
380	17.314	17.357	17.400	17.443	17.487	17.530	17.573	17.616	17.659	17.703	17.746
390	17.746	17.789	17.833	17.876	17.920	17.963	18.007	18.050	18.094	18.137	18.181
°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10
400	18.181	18.225	18.268	18.312	18.356	18.399	18.443	18.487	18.531	18.575	18.618
410	18.618	18.662	18.706	18.750	18.794	18.838	18.882	18.926	18.971	19.015	19.059
420	19.059	19.103	19.147	19.192	19.236	19.280	19.325	19.369	19.413	19.458	19.502
430	19.502	19.547	19.592	19.636	19.681	19.725	19.770	19.815	19.860	19.904	19.949
440	19.949	19.994	20.039	20.084	20.129	20.174	20.219	20.264	20.309	20.354	20.399
450	20.399	20.445	20.490	20.535	20.580	20.626	20.671	20.717	20.762	20.808	20.853
460	20.853	20.899	20.944	20.990	21.035	21.081	21.127	21.173	21.218	21.264	21.310
470	21.310	21.356	21.402	21.448	21.494	21.540	21.586	21.632	21.678	21.725	21.771
480	21.771	21.817	21.863	21.910	21.956	22.002	22.049	22.095	22.142	22.188	22.235
490	22.235	22.282	22.328	22.375	22.422	22.468	22.515	22.562	22.609	22.656	22.703
500	22.703	22.750	22.797	22.844	22.891	22.938	22.985	23.032	23.080	23.127	23.174
510	23.174	23.221	23.269	23.316	23.364	23.411	23.459	23.506	23.554	23.601	23.649
520	23.649	23.697	23.744	23.792	23.840	23.888	23.936	23.984	24.032	24.079	24.127
530	24.127	24.176	24.224	24.272	24.320	24.368	24.416	24.465	24.513	24.561	24.610
540	24.610	24.658	24.706	24.755	24.803	24.852	24.900	24.949	24.998	25.046	25.095
550	25.095	25.144	25.193	25.241	25.290	25.339	25.388	25.437	25.486	25.535	25.584
560	25.584	25.633	25.682	25.732	25.781	25.830	25.879	25.929	25.978	26.027	26.077
570	26.077	26.126	26.176	26.225	26.275	26.324	26.374	26.423	26.473	26.523	26.573
580	26.573	26.622	26.672	26.722	26.772	26.822	26.872	26.922	26.972	27.022	27.072
590	27.072	27.122	27.172	27.222	27.272	27.323	27.373	27.423	27.474	27.524	27.574
600	27.574	27.625	27.675	27.726	27.776	27.827	27.877	27.928	27.979	28.029	28.080
610	28.080	28.131	28.182	28.232	28.283	28.334	28.385	28.436	28.487	28.538	28.589
620	28.589	28.640	28.691	28.742	28.794	28.845	28.896	28.947	28.999	29.050	29.101
630	29.101	29.153	29.204	29.256	29.307	29.358	29.410	29.462	29.513	29.565	29.616
640	29.616	29.668	29.720	29.772	29.823	29.875	29.927	29.979	30.031	30.083	30.135
650	30.135	30.187	30.239	30.291	30.343	30.395	30.447	30.499	30.552	30.604	30.656
660	30.656	30.708	30.761	30.813	30.865	30.918	30.970	31.023	31.075	31.128	31.180
670	31.180	31.233	31.285	31.338	31.391	31.443	31.496	31.549	31.601	31.654	31.707
680	31.707	31.760	31.813	31.866	31.919	31.972	32.025	32.078	32.131	32.184	32.237
690	32.237	32.290	32.343	32.396	32.450	32.503	32.556	32.609	32.663	32.716	32.769
700	32.769	32.823	32.876	32.930	32.983	33.037	33.090	33.144	33.197	33.251	33.304
710	33.304	33.358	33.412	33.465	33.519	33.573	33.627	33.681	33.734	33.788	33.842
720	33.842	33.896	33.950	34.004	34.058	34.112	34.166	34.220	34.274	34.328	34.382
730	34.382	34.436	34.491	34.545	34.599	34.653	34.708	34.762	34.816	34.871	34.925
740	34.925	34.979	35.034	35.088	35.143	35.197	35.252	35.306	35.361	35.415	35.470
750	35.470	35.525	35.579	35.634	35.689	35.743	35.798	35.853	35.908	35.962	36.017
760	36.017	36.072	36.127	36.182	36.237	36.292	36.347	36.402	36.457	36.512	36.567
770	36.567	36.622	36.677	36.732	36.787	36.842	36.898	36.953	37.008	37.063	37.119
780	37.119	37.174	37.229	37.284	37.340	37.395	37.451	37.506	37.561	37.617	37.672
790	37.672	37.728	37.783	37.839	37.894	37.950	38.006	38.061	38.117	38.173	38.228
800	38.228	38.284	38.340	38.395	38.451	38.507	38.563	38.618	38.674	38.730	38.786
810	38.786	38.842	38.898	38.954	39.010	39.066	39.122	39.178	39.234	39.290	39.346
820	39.346	39.402	39.458	39.514	39.570	39.626	39.682	39.739	39.795	39.851	39.907
830	39.907	39.964	40.020	40.076	40.132	40.189	40.245	40.301	40.358	40.414	40.471
840	40.471	40.527	40.583	40.640	40.696	40.753	40.809	40.866	40.923	40.979	41.036
850	41.036	41.092	41.149	41.205	41.262	41.319	41.375	41.432	41.489	41.546	41.602
860	41.602	41.659	41.716	41.773	41.829	41.886	41.943	42.000	42.057	42.114	42.171
870	42.171	42.228	42.284	42.341	42.398	42.455	42.512	42.569	42.626	42.683	42.740
880	42.740	42.797	42.855	42.912	42.969	43.026	43.083	43.140	43.197	43.255	43.312
890	43.312	43.369	43.426	43.483	43.541	43.598	43.655	43.712	43.770	43.827	43.884
°C	0	1	2	3	4	5	6	7	8	9	10

Type Nickel-0.8% Cobalt vs. Nickel-18% Molybdenum ITS-90 ºC

ºC	0	1	2	3	4	5	6	7	8	9	10
900	43.884	43.942	43.999	44.057	44.114	44.171	44.229	44.286	44.344	44.401	44.459
910	44.459	44.516	44.574	44.631	44.689	44.746	44.804	44.861	44.919	44.976	45.034
920	45.034	45.092	45.149	45.207	45.264	45.322	45.380	45.438	45.495	45.553	45.611
930	45.611	45.668	45.726	45.784	45.842	45.899	45.957	46.015	46.073	46.131	46.189
940	46.189	46.246	46.304	46.362	46.420	46.478	46.536	46.594	46.652	46.710	46.768
950	46.768	46.826	46.884	46.942	47.000	47.058	47.116	47.174	47.232	47.290	47.348
960	47.348	47.406	47.464	47.522	47.580	47.639	47.697	47.755	47.813	47.871	47.929
970	47.929	47.988	48.046	48.104	48.162	48.220	48.279	48.337	48.395	48.454	48.512
980	48.512	48.570	48.628	48.687	48.745	48.803	48.862	48.920	48.979	49.037	49.095
990	49.095	49.154	49.212	49.271	49.329	49.387	49.446	49.504	49.563	49.621	49.680
1000	49.680	49.738	49.797	49.855	49.914	49.972	50.031	50.090	50.148	50.207	50.265
1010	50.265	50.324	50.383	50.441	50.500	50.558	50.617	50.676	50.734	50.793	50.852
1020	50.852	50.911	50.969	51.028	51.087	51.145	51.204	51.263	51.322	51.380	51.439
1030	51.439	51.498	51.557	51.616	51.674	51.733	51.792	51.851	51.910	51.969	52.027
1040	52.027	52.086	52.145	52.204	52.263	52.322	52.381	52.440	52.499	52.558	52.617
1050	52.617	52.676	52.735	52.793	52.852	52.911	52.970	53.029	53.089	53.148	53.207
1060	53.207	53.266	53.325	53.384	53.443	53.502	53.561	53.620	53.679	53.738	53.797
1070	53.797	53.856	53.916	53.975	54.034	54.093	54.152	54.211	54.271	54.330	54.389
1080	54.389	54.448	54.507	54.567	54.626	54.685	54.744	54.803	54.863	54.922	54.981
1090	54.981	55.041	55.100	55.159	55.218	55.278	55.337	55.396	55.456	55.515	55.574
1100	55.574	55.634	55.693	55.752	55.812	55.871	55.930	55.990	56.049	56.109	56.168
1110	56.168	56.227	56.287	56.346	56.406	56.465	56.525	56.584	56.644	56.703	56.762
1120	56.762	56.822	56.881	56.941	57.000	57.060	57.119	57.179	57.238	57.298	57.357
1130	57.357	57.417	57.477	57.536	57.596	57.655	57.715	57.774	57.834	57.894	57.953
1140	57.953	58.013	58.072	58.132	58.191	58.251	58.311	58.370	58.430	58.490	58.549
1150	58.549	58.609	58.669	58.728	58.788	58.848	58.907	58.967	59.027	59.086	59.146
1160	59.146	59.206	59.265	59.325	59.385	59.444	59.504	59.564	59.624	59.683	59.743
1170	59.743	59.803	59.863	59.922	59.982	60.042	60.102	60.161	60.221	60.281	60.341
1180	60.341	60.400	60.460	60.520	60.580	60.640	60.699	60.759	60.819	60.879	60.939
1190	60.939	60.998	61.058	61.118	61.178	61.238	61.297	61.357	61.417	61.477	61.537
1200	61.537	61.597	61.656	61.716	61.776	61.836	61.896	61.956	62.015	62.075	62.135
1210	62.135	62.195	62.255	62.315	62.375	62.434	62.494	62.554	62.614	62.674	62.734
1220	62.734	62.794	62.854	62.913	62.973	63.033	63.093	63.153	63.213	63.273	63.333
1230	63.333	63.392	63.452	63.512	63.572	63.632	63.692	63.752	63.812	63.872	63.931
1240	63.931	63.991	64.051	64.111	64.171	64.231	64.291	64.351	64.411	64.470	64.530
1250	64.530	64.590	64.650	64.710	64.770	64.830	64.890	64.950	65.009	65.069	65.129
1260	65.129	65.189	65.249	65.309	65.369	65.429	65.488	65.548	65.608	65.668	65.728
1270	65.728	65.788	65.848	65.907	65.967	66.027	66.087	66.147	66.207	66.267	66.326
1280	66.326	66.386	66.446	66.506	66.566	66.626	66.686	66.745	66.805	66.865	66.925
1290	66.925	66.985	67.045	67.104	67.164	67.224	67.284	67.344	67.404	67.463	67.523
1300	67.523	67.583	67.643	67.703	67.762	67.822	67.882	67.942	68.002	68.061	68.121
1310	68.121	68.181	68.241	68.301	68.360	68.420	68.480	68.540	68.599	68.659	68.719
1320	68.719	68.779	68.839	68.898	68.958	69.018	69.078	69.137	69.197	69.257	69.317
1330	69.317	69.376	69.436	69.496	69.556	69.615	69.675	69.735	69.795	69.854	69.914
1340	69.914	69.974	70.034	70.093	70.153	70.213	70.272	70.332	70.392	70.452	70.511
1350	70.511	70.571	70.631	70.691	70.750	70.810	70.870	70.930	70.989	71.049	71.109
1360	71.109	71.169	71.228	71.288	71.348	71.408	71.467	71.527	71.587	71.647	71.707
1370	71.707	71.766	71.826	71.886	71.946	72.005	72.065	72.125	72.185	72.245	72.305
1380	72.305	72.364	72.424	72.484	72.544	72.604	72.664	72.724	72.783	72.843	72.903
1390	72.903	72.963	73.023	73.083	73.143	73.203	73.263	73.323	73.383	73.443	73.503
ºC	0	1	2	3	4	5	6	7	8	9	10

ºC	0	1	2	3	4	5	6	7	8	9	10
1400	73.503	73.563	73.623	73.683	73.743	73.803	73.863	73.923	73.984	74.044	74.104
ºC	0	1	2	3	4	5	6	7	8	9	10

Type Platinel II Alloy 5355 vs Alloy 7674 ITS-90 ºC

ºC	0	1	2	3	4	5	6	7	8	9	10
0	0.000	0.030	0.060	0.090	0.120	0.150	0.180	0.210	0.241	0.271	0.302
10	0.302	0.332	0.363	0.394	0.424	0.455	0.486	0.517	0.548	0.579	0.610
20	0.610	0.641	0.673	0.704	0.735	0.767	0.798	0.830	0.862	0.894	0.925
30	0.925	0.957	0.989	1.021	1.053	1.085	1.117	1.150	1.182	1.214	1.247
40	1.247	1.279	1.312	1.345	1.377	1.410	1.443	1.476	1.509	1.542	1.575
50	1.575	1.608	1.641	1.674	1.707	1.741	1.774	1.808	1.841	1.875	1.908
60	1.908	1.942	1.976	2.010	2.044	2.078	2.112	2.146	2.180	2.214	2.248
70	2.248	2.282	2.317	2.351	2.386	2.420	2.455	2.489	2.524	2.559	2.593
80	2.593	2.628	2.663	2.698	2.733	2.768	2.803	2.838	2.874	2.909	2.944
90	2.944	2.980	3.015	3.050	3.086	3.122	3.157	3.193	3.229	3.264	3.300
100	3.300	3.336	3.372	3.408	3.444	3.480	3.516	3.553	3.589	3.625	3.661
110	3.661	3.698	3.734	3.771	3.807	3.844	3.881	3.917	3.954	3.991	4.028
120	4.028	4.064	4.101	4.138	4.175	4.212	4.250	4.287	4.324	4.361	4.399
130	4.399	4.436	4.473	4.511	4.548	4.586	4.623	4.661	4.699	4.736	4.774
140	4.774	4.812	4.850	4.888	4.925	4.963	5.001	5.039	5.078	5.116	5.154
150	5.154	5.192	5.230	5.269	5.307	5.346	5.384	5.422	5.461	5.500	5.538
160	5.538	5.577	5.615	5.654	5.693	5.732	5.771	5.810	5.848	5.887	5.926
170	5.926	5.965	6.005	6.044	6.083	6.122	6.161	6.201	6.240	6.279	6.319
180	6.319	6.358	6.398	6.437	6.477	6.516	6.556	6.596	6.635	6.675	6.715
190	6.715	6.755	6.794	6.834	6.874	6.914	6.954	6.994	7.034	7.074	7.115
200	7.115	7.155	7.195	7.235	7.275	7.316	7.356	7.396	7.437	7.477	7.518
210	7.518	7.558	7.599	7.639	7.680	7.721	7.761	7.802	7.843	7.884	7.924
220	7.924	7.965	8.006	8.047	8.088	8.129	8.170	8.211	8.252	8.293	8.334
230	8.334	8.375	8.416	8.458	8.499	8.540	8.582	8.623	8.664	8.706	8.747
240	8.747	8.788	8.830	8.871	8.913	8.955	8.996	9.038	9.079	9.121	9.163
250	9.163	9.205	9.246	9.288	9.330	9.372	9.414	9.456	9.498	9.540	9.581
260	9.581	9.624	9.666	9.708	9.750	9.792	9.834	9.876	9.918	9.961	10.003
270	10.003	10.045	10.087	10.130	10.172	10.214	10.257	10.299	10.342	10.384	10.427
280	10.427	10.469	10.512	10.554	10.597	10.639	10.682	10.725	10.767	10.810	10.853
290	10.853	10.896	10.938	10.981	11.024	11.067	11.110	11.153	11.196	11.238	11.281
300	11.281	11.324	11.367	11.410	11.453	11.497	11.540	11.583	11.626	11.669	11.712
310	11.712	11.755	11.799	11.842	11.885	11.928	11.972	12.015	12.058	12.102	12.145
320	12.145	12.188	12.232	12.275	12.319	12.362	12.405	12.449	12.492	12.536	12.580
330	12.580	12.623	12.667	12.710	12.754	12.798	12.841	12.885	12.929	12.972	13.016
340	13.016	13.060	13.104	13.147	13.191	13.235	13.279	13.323	13.366	13.410	13.454
350	13.454	13.498	13.542	13.586	13.630	13.674	13.718	13.762	13.806	13.850	13.894
360	13.894	13.938	13.982	14.026	14.070	14.114	14.159	14.203	14.247	14.291	14.335
370	14.335	14.379	14.424	14.468	14.512	14.556	14.601	14.645	14.689	14.733	14.778
380	14.778	14.822	14.866	14.911	14.955	15.000	15.044	15.088	15.133	15.177	15.222
390	15.222	15.266	15.311	15.355	15.400	15.444	15.489	15.533	15.578	15.622	15.667
400	15.667	15.711	15.756	15.800	15.845	15.890	15.934	15.979	16.023	16.068	16.113
410	16.113	16.157	16.202	16.247	16.291	16.336	16.381	16.425	16.470	16.515	16.560
420	16.560	16.604	16.649	16.694	16.739	16.784	16.828	16.873	16.918	16.963	17.008
430	17.008	17.052	17.097	17.142	17.187	17.232	17.277	17.321	17.366	17.411	17.456
440	17.456	17.501	17.546	17.591	17.636	17.681	17.726	17.771	17.816	17.860	17.905
450	17.905	17.950	17.995	18.040	18.085	18.130	18.175	18.220	18.265	18.310	18.355
460	18.355	18.400	18.445	18.490	18.535	18.580	18.625	18.670	18.715	18.760	18.806
470	18.806	18.851	18.896	18.941	18.986	19.031	19.076	19.121	19.166	19.211	19.256
480	19.256	19.301	19.346	19.391	19.437	19.482	19.527	19.572	19.617	19.662	19.707
490	19.707	19.752	19.797	19.843	19.888	19.933	19.978	20.023	20.068	20.113	20.158
ºC	0	1	2	3	4	5	6	7	8	9	10

ºC	0	1	2	3	4	5	6	7	8	9	10
500	20.158	20.204	20.249	20.294	20.339	20.384	20.429	20.474	20.519	20.565	20.610
510	20.610	20.655	20.700	20.745	20.790	20.835	20.880	20.926	20.971	21.016	21.061
520	21.061	21.106	21.151	21.196	21.242	21.287	21.332	21.377	21.422	21.467	21.512
530	21.512	21.557	21.603	21.648	21.693	21.738	21.783	21.828	21.873	21.918	21.963
540	21.963	22.009	22.054	22.099	22.144	22.189	22.234	22.279	22.324	22.369	22.414
550	22.414	22.459	22.504	22.550	22.595	22.640	22.685	22.730	22.775	22.820	22.865
560	22.865	22.910	22.955	23.000	23.045	23.090	23.135	23.180	23.225	23.270	23.315
570	23.315	23.360	23.405	23.450	23.495	23.540	23.585	23.630	23.675	23.720	23.765
580	23.765	23.810	23.855	23.900	23.945	23.990	24.035	24.080	24.125	24.169	24.214
590	24.214	24.259	24.304	24.349	24.394	24.439	24.484	24.528	24.573	24.618	24.663
600	24.663	24.708	24.753	24.797	24.842	24.887	24.932	24.977	25.021	25.066	25.111
610	25.111	25.156	25.201	25.245	25.290	25.335	25.379	25.424	25.469	25.514	25.558
620	25.558	25.603	25.648	25.692	25.737	25.782	25.826	25.871	25.915	25.960	26.005
630	26.005	26.049	26.094	26.138	26.183	26.228	26.272	26.317	26.361	26.406	26.450
640	26.450	26.495	26.539	26.584	26.628	26.673	26.717	26.762	26.806	26.850	26.895
650	26.895	26.939	26.984	27.028	27.072	27.117	27.161	27.205	27.250	27.294	27.338
660	27.338	27.383	27.427	27.471	27.515	27.560	27.604	27.648	27.692	27.737	27.781
670	27.781	27.825	27.869	27.913	27.957	28.002	28.046	28.090	28.134	28.178	28.222
680	28.222	28.266	28.310	28.354	28.398	28.442	28.486	28.530	28.574	28.618	28.662
690	28.662	28.706	28.750	28.794	28.838	28.882	28.925	28.969	29.013	29.057	29.101
700	29.101	29.145	29.188	29.232	29.276	29.320	29.363	29.407	29.451	29.494	29.538
710	29.538	29.582	29.625	29.669	29.713	29.756	29.800	29.843	29.887	29.930	29.974
720	29.974	30.017	30.061	30.104	30.148	30.191	30.235	30.278	30.322	30.365	30.408
730	30.408	30.452	30.495	30.538	30.582	30.625	30.668	30.711	30.755	30.798	30.841
740	30.841	30.884	30.928	30.971	31.014	31.057	31.100	31.143	31.186	31.229	31.272
750	31.272	31.315	31.358	31.401	31.444	31.487	31.530	31.573	31.616	31.659	31.702
760	31.702	31.745	31.788	31.831	31.874	31.916	31.959	32.002	32.045	32.088	32.130
770	32.130	32.173	32.216	32.258	32.301	32.344	32.387	32.429	32.472	32.514	32.557
780	32.557	32.600	32.642	32.685	32.727	32.770	32.812	32.855	32.897	32.940	32.982
790	32.982	33.025	33.067	33.110	33.152	33.195	33.237	33.279	33.322	33.364	33.406
800	33.406	33.449	33.491	33.533	33.575	33.618	33.660	33.702	33.744	33.786	33.828
810	33.828	33.871	33.913	33.955	33.997	34.039	34.081	34.123	34.165	34.207	34.249
820	34.249	34.291	34.333	34.375	34.417	34.459	34.501	34.543	34.585	34.626	34.668
830	34.668	34.710	34.752	34.794	34.836	34.877	34.919	34.961	35.002	35.044	35.086
840	35.086	35.127	35.169	35.211	35.252	35.294	35.336	35.377	35.419	35.460	35.502
850	35.502	35.543	35.585	35.626	35.668	35.709	35.750	35.792	35.833	35.875	35.916
860	35.916	35.957	35.999	36.040	36.081	36.122	36.164	36.205	36.246	36.287	36.328
870	36.328	36.370	36.411	36.452	36.493	36.534	36.575	36.616	36.657	36.698	36.739
880	36.739	36.780	36.821	36.862	36.903	36.944	36.985	37.026	37.067	37.108	37.148
890	37.148	37.189	37.230	37.271	37.312	37.352	37.393	37.434	37.474	37.515	37.556
900	37.556	37.596	37.637	37.678	37.718	37.759	37.799	37.840	37.880	37.921	37.961
910	37.961	38.002	38.042	38.083	38.123	38.163	38.204	38.244	38.284	38.325	38.365
920	38.365	38.405	38.446	38.486	38.526	38.566	38.606	38.647	38.687	38.727	38.767
930	38.767	38.807	38.847	38.887	38.927	38.967	39.007	39.047	39.087	39.127	39.167
940	39.167	39.207	39.247	39.287	39.327	39.367	39.406	39.446	39.486	39.526	39.565
950	39.565	39.605	39.645	39.685	39.724	39.764	39.804	39.843	39.883	39.922	39.962
960	39.962	40.001	40.041	40.080	40.120	40.159	40.199	40.238	40.278	40.317	40.356
970	40.356	40.396	40.435	40.474	40.514	40.553	40.592	40.631	40.671	40.710	40.749
980	40.749	40.788	40.827	40.866	40.906	40.945	40.984	41.023	41.062	41.101	41.140
990	41.140	41.179	41.218	41.257	41.295	41.334	41.373	41.412	41.451	41.490	41.529
ºC	0	1	2	3	4	5	6	7	8	9	10

Type Platinel II Alloy 5355 vs Alloy 7674 ITS-90 ºC

ºC	0	1	2	3	4	5	6	7	8	9	10
1000	41.529	41.567	41.606	41.645	41.684	41.722	41.761	41.800	41.838	41.877	41.915
1010	41.915	41.954	41.993	42.031	42.070	42.108	42.147	42.185	42.223	42.262	42.300
1020	42.300	42.339	42.377	42.415	42.454	42.492	42.530	42.569	42.607	42.645	42.683
1030	42.683	42.721	42.760	42.798	42.836	42.874	42.912	42.950	42.988	43.026	43.064
1040	43.064	43.102	43.140	43.178	43.216	43.254	43.292	43.330	43.368	43.405	43.443
1050	43.443	43.481	43.519	43.557	43.594	43.632	43.670	43.707	43.745	43.783	43.820
1060	43.820	43.858	43.895	43.933	43.971	44.008	44.046	44.083	44.120	44.158	44.195
1070	44.195	44.233	44.270	44.307	44.345	44.382	44.419	44.457	44.494	44.531	44.568
1080	44.568	44.605	44.643	44.680	44.717	44.754	44.791	44.828	44.865	44.902	44.939
1090	44.939	44.976	45.013	45.050	45.087	45.124	45.161	45.198	45.235	45.272	45.308
1100	45.308	45.345	45.382	45.419	45.455	45.492	45.529	45.565	45.602	45.639	45.675
1110	45.675	45.712	45.748	45.785	45.822	45.858	45.895	45.931	45.967	46.004	46.040
1120	46.040	46.077	46.113	46.149	46.186	46.222	46.258	46.295	46.331	46.367	46.403
1130	46.403	46.439	46.476	46.512	46.548	46.584	46.620	46.656	46.692	46.728	46.764
1140	46.764	46.800	46.836	46.872	46.908	46.944	46.980	47.016	47.051	47.087	47.123
1150	47.123	47.159	47.194	47.230	47.266	47.302	47.337	47.373	47.409	47.444	47.480
1160	47.480	47.515	47.551	47.586	47.622	47.657	47.693	47.728	47.764	47.799	47.835
1170	47.835	47.870	47.905	47.941	47.976	48.011	48.046	48.082	48.117	48.152	48.187
1180	48.187	48.222	48.258	48.293	48.328	48.363	48.398	48.433	48.468	48.503	48.538
1190	48.538	48.573	48.608	48.643	48.678	48.713	48.747	48.782	48.817	48.852	48.887
1200	48.887	48.921	48.956	48.991	49.026	49.060	49.095	49.129	49.164	49.199	49.233
1210	49.233	49.268	49.302	49.337	49.371	49.406	49.440	49.475	49.509	49.543	49.578
1220	49.578	49.612	49.646	49.681	49.715	49.749	49.783	49.818	49.852	49.886	49.920
1230	49.920	49.954	49.988	50.023	50.057	50.091	50.125	50.159	50.193	50.227	50.261
1240	50.261	50.294	50.328	50.362	50.396	50.430	50.464	50.498	50.531	50.565	50.599
1250	50.599	50.632	50.666	50.700	50.733	50.767	50.801	50.834	50.868	50.901	50.935
1260	50.935	50.968	51.002	51.035	51.069	51.102	51.136	51.169	51.202	51.236	51.269
1270	51.269	51.302	51.336	51.369	51.402	51.435	51.468	51.502	51.535	51.568	51.601
1280	51.601	51.634	51.667	51.700	51.733	51.766	51.799	51.832	51.865	51.898	51.931
1290	51.931	51.963	51.996	52.029	52.062	52.095	52.127	52.160	52.193	52.226	52.258
1300	52.258	52.291	52.323	52.356	52.389	52.421	52.454	52.486	52.519	52.551	52.584
1310	52.584	52.616	52.648	52.681	52.713	52.745	52.778	52.810	52.842	52.875	52.907
1320	52.907	52.939	52.971	53.003	53.035	53.067	53.100	53.132	53.164	53.196	53.228
1330	53.228	53.260	53.292	53.323	53.355	53.387	53.419	53.451	53.483	53.515	53.546
1340	53.546	53.578	53.610	53.641	53.673	53.705	53.736	53.768	53.800	53.831	53.863
1350	53.863	53.894	53.926	53.957	53.989	54.020	54.051	54.083	54.114	54.145	54.177
1360	54.177	54.208	54.239	54.270	54.302	54.333	54.364	54.395	54.426	54.457	54.488
1370	54.488	54.519	54.550	54.581	54.612	54.643	54.674	54.705	54.736	54.767	54.798
1380	54.798	54.828	54.859	54.890	54.921	54.951	54.982	55.013	55.043	55.074	55.104
1390	55.104	55.135	55.165	55.196	55.226	55.257					

ºC	0	1	2	3	4	5	6	7	8	9	10

ºC	0	1	2	3	4	5	6	7	8	9	10

ºC	0	1	2	3	4	5	6	7	8	9	10

Type R Platinum vs. Platinum-13% Rodium ITS-90 °C

°C	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
-40	-0.188	-0.192	-0.196	-0.200	-0.204	-0.208	-0.211	-0.215	-0.219	-0.223	-0.226
-30	-0.145	-0.150	-0.154	-0.158	-0.163	-0.167	-0.171	-0.175	-0.180	-0.184	-0.188
-20	-0.100	-0.105	-0.109	-0.114	-0.119	-0.123	-0.128	-0.132	-0.137	-0.141	-0.145
-10	-0.051	-0.056	-0.061	-0.066	-0.071	-0.076	-0.081	-0.086	-0.091	-0.095	-0.100
0	0.000	-0.005	-0.011	-0.016	-0.021	-0.026	-0.031	-0.036	-0.041	-0.046	-0.051
°C	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10

°C	0	1	2	3	4	5	6	7	8	9	10
0	0.000	0.005	0.011	0.016	0.021	0.027	0.032	0.038	0.043	0.049	0.054
10	0.054	0.060	0.065	0.071	0.077	0.082	0.088	0.094	0.100	0.105	0.111
20	0.111	0.117	0.123	0.129	0.135	0.141	0.147	0.153	0.159	0.165	0.171
30	0.171	0.177	0.183	0.189	0.195	0.201	0.207	0.214	0.220	0.226	0.232
40	0.232	0.239	0.245	0.251	0.258	0.264	0.271	0.277	0.284	0.290	0.296
50	0.296	0.303	0.310	0.316	0.323	0.329	0.336	0.343	0.349	0.356	0.363
60	0.363	0.369	0.376	0.383	0.390	0.397	0.403	0.410	0.417	0.424	0.431
70	0.431	0.438	0.445	0.452	0.459	0.466	0.473	0.480	0.487	0.494	0.501
80	0.501	0.508	0.516	0.523	0.530	0.537	0.544	0.552	0.559	0.566	0.573
90	0.573	0.581	0.588	0.595	0.603	0.610	0.618	0.625	0.632	0.640	0.647
100	0.647	0.655	0.662	0.670	0.677	0.685	0.693	0.700	0.708	0.715	0.723
110	0.723	0.731	0.738	0.746	0.754	0.761	0.769	0.777	0.785	0.792	0.800
120	0.800	0.808	0.816	0.824	0.832	0.839	0.847	0.855	0.863	0.871	0.879
130	0.879	0.887	0.895	0.903	0.911	0.919	0.927	0.935	0.943	0.951	0.959
140	0.959	0.967	0.976	0.984	0.992	1.000	1.008	1.016	1.025	1.033	1.041
150	1.041	1.049	1.058	1.066	1.074	1.082	1.091	1.099	1.107	1.116	1.124
160	1.124	1.132	1.141	1.149	1.158	1.166	1.175	1.183	1.191	1.200	1.208
170	1.208	1.217	1.225	1.234	1.242	1.251	1.260	1.268	1.277	1.285	1.294
180	1.294	1.303	1.311	1.320	1.329	1.337	1.346	1.355	1.363	1.372	1.381
190	1.381	1.389	1.398	1.407	1.416	1.425	1.433	1.442	1.451	1.460	1.469
200	1.469	1.477	1.486	1.495	1.504	1.513	1.522	1.531	1.540	1.549	1.558
210	1.558	1.567	1.575	1.584	1.593	1.602	1.611	1.620	1.629	1.639	1.648
220	1.648	1.657	1.666	1.675	1.684	1.693	1.702	1.711	1.720	1.729	1.739
230	1.739	1.748	1.757	1.766	1.775	1.784	1.794	1.803	1.812	1.821	1.831
240	1.831	1.840	1.849	1.858	1.868	1.877	1.886	1.895	1.905	1.914	1.923
250	1.923	1.933	1.942	1.951	1.961	1.970	1.980	1.989	1.998	2.008	2.017
260	2.017	2.027	2.036	2.046	2.055	2.064	2.074	2.083	2.093	2.102	2.112
270	2.112	2.121	2.131	2.140	2.150	2.159	2.169	2.179	2.188	2.198	2.207
280	2.207	2.217	2.226	2.236	2.246	2.255	2.265	2.275	2.284	2.294	2.304
290	2.304	2.313	2.323	2.333	2.342	2.352	2.362	2.371	2.381	2.391	2.401
300	2.401	2.410	2.420	2.430	2.440	2.449	2.459	2.469	2.479	2.488	2.498
310	2.498	2.508	2.518	2.528	2.538	2.547	2.557	2.567	2.577	2.587	2.597
320	2.597	2.607	2.617	2.626	2.636	2.646	2.656	2.666	2.676	2.686	2.696
330	2.696	2.706	2.716	2.726	2.736	2.746	2.756	2.766	2.776	2.786	2.796
340	2.796	2.806	2.816	2.826	2.836	2.846	2.856	2.866	2.876	2.886	2.896
350	2.896	2.906	2.916	2.926	2.937	2.947	2.957	2.967	2.977	2.987	2.997
360	2.997	3.007	3.018	3.028	3.038	3.048	3.058	3.068	3.079	3.089	3.099
370	3.099	3.109	3.119	3.130	3.140	3.150	3.160	3.171	3.181	3.191	3.201
380	3.201	3.212	3.222	3.232	3.242	3.253	3.263	3.273	3.284	3.294	3.304
390	3.304	3.315	3.325	3.335	3.346	3.356	3.366	3.377	3.387	3.397	3.408
°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10
400	3.408	3.418	3.428	3.439	3.449	3.460	3.470	3.480	3.491	3.501	3.512
410	3.512	3.522	3.533	3.543	3.553	3.564	3.574	3.585	3.595	3.606	3.616
420	3.616	3.627	3.637	3.648	3.658	3.669	3.679	3.690	3.700	3.711	3.721
430	3.721	3.732	3.742	3.753	3.764	3.774	3.785	3.795	3.806	3.816	3.827
440	3.827	3.838	3.848	3.859	3.869	3.880	3.891	3.901	3.912	3.922	3.933
450	3.933	3.944	3.954	3.965	3.976	3.986	3.997	4.008	4.018	4.029	4.040
460	4.040	4.050	4.061	4.072	4.083	4.093	4.104	4.115	4.125	4.136	4.147
470	4.147	4.158	4.168	4.179	4.190	4.201	4.211	4.222	4.233	4.244	4.255
480	4.255	4.265	4.276	4.287	4.298	4.309	4.319	4.330	4.341	4.352	4.363
490	4.363	4.373	4.384	4.395	4.406	4.417	4.428	4.439	4.449	4.460	4.471
500	4.471	4.482	4.493	4.504	4.515	4.526	4.537	4.548	4.558	4.569	4.580
510	4.580	4.591	4.602	4.613	4.624	4.635	4.646	4.657	4.668	4.679	4.690
520	4.690	4.701	4.712	4.723	4.734	4.745	4.756	4.767	4.778	4.789	4.800
530	4.800	4.811	4.822	4.833	4.844	4.855	4.866	4.877	4.888	4.899	4.910
540	4.910	4.922	4.933	4.944	4.955	4.966	4.977	4.988	4.999	5.010	5.021
550	5.021	5.033	5.044	5.055	5.066	5.077	5.088	5.099	5.111	5.122	5.133
560	5.133	5.144	5.155	5.166	5.178	5.189	5.200	5.211	5.222	5.234	5.245
570	5.245	5.256	5.267	5.279	5.290	5.301	5.312	5.323	5.335	5.346	5.357
580	5.357	5.369	5.380	5.391	5.402	5.414	5.425	5.436	5.448	5.459	5.470
590	5.470	5.481	5.493	5.504	5.515	5.527	5.538	5.549	5.561	5.572	5.583
600	5.583	5.595	5.606	5.618	5.629	5.640	5.652	5.663	5.674	5.686	5.697
610	5.697	5.709	5.720	5.731	5.743	5.754	5.766	5.777	5.789	5.800	5.812
620	5.812	5.823	5.834	5.846	5.857	5.869	5.880	5.892	5.903	5.915	5.926
630	5.926	5.938	5.949	5.961	5.972	5.984	5.995	6.007	6.018	6.030	6.041
640	6.041	6.053	6.065	6.076	6.088	6.099	6.111	6.122	6.134	6.146	6.157
650	6.157	6.169	6.180	6.192	6.204	6.215	6.227	6.238	6.250	6.262	6.273
660	6.273	6.285	6.297	6.308	6.320	6.332	6.343	6.355	6.367	6.378	6.390
670	6.390	6.402	6.413	6.425	6.437	6.448	6.460	6.472	6.484	6.495	6.507
680	6.507	6.519	6.531	6.542	6.554	6.566	6.578	6.589	6.601	6.613	6.625
690	6.625	6.636	6.648	6.660	6.672	6.684	6.695	6.707	6.719	6.731	6.743
700	6.743	6.755	6.766	6.778	6.790	6.802	6.814	6.826	6.838	6.849	6.861
710	6.861	6.873	6.885	6.897	6.909	6.921	6.933	6.945	6.956	6.968	6.980
720	6.980	6.992	7.004	7.016	7.028	7.040	7.052	7.064	7.076	7.088	7.100
730	7.100	7.112	7.124	7.136	7.148	7.160	7.172	7.184	7.196	7.208	7.220
740	7.220	7.232	7.244	7.256	7.268	7.280	7.292	7.304	7.316	7.328	7.340
750	7.340	7.352	7.364	7.376	7.389	7.401	7.413	7.425	7.437	7.449	7.461
760	7.461	7.473	7.485	7.498	7.510	7.522	7.534	7.546	7.558	7.570	7.583
770	7.583	7.595	7.607	7.619	7.631	7.644	7.656	7.668	7.680	7.692	7.705
780	7.705	7.717	7.729	7.741	7.753	7.766	7.778	7.790	7.802	7.815	7.827
790	7.827	7.839	7.851	7.864	7.876	7.888	7.901	7.913	7.925	7.938	7.950
800	7.950	7.962	7.974	7.987	7.999	8.011	8.024	8.036	8.048	8.061	8.073
810	8.073	8.086	8.098	8.110	8.123	8.135	8.147	8.160	8.172	8.185	8.197
820	8.197	8.209	8.222	8.234	8.247	8.259	8.272	8.284	8.296	8.309	8.321
830	8.321	8.334	8.346	8.359	8.371	8.384	8.396	8.409	8.421	8.434	8.446
840	8.446	8.459	8.471	8.484	8.496	8.509	8.521	8.534	8.546	8.559	8.571
850	8.571	8.584	8.597	8.609	8.622	8.634	8.647	8.659	8.672	8.685	8.697
860	8.697	8.710	8.722	8.735	8.748	8.760	8.773	8.785	8.798	8.811	8.823
870	8.823	8.836	8.849	8.861	8.874	8.887	8.899	8.912	8.925	8.937	8.950
880	8.950	8.963	8.975	8.988	9.001	9.014	9.026	9.039	9.052	9.065	9.077
890	9.077	9.090	9.103	9.115	9.128	9.141	9.154	9.167	9.179	9.192	9.205
°C	0	1	2	3	4	5	6	7	8	9	10

Type R Platinum vs. Platinum-13% Rodium ITS-90 °C

°C	0	1	2	3	4	5	6	7	8	9	10
900	9.205	9.218	9.230	9.243	9.256	9.269	9.282	9.294	9.307	9.320	9.333
910	9.333	9.346	9.359	9.371	9.384	9.397	9.410	9.423	9.436	9.449	9.461
920	9.461	9.474	9.487	9.500	9.513	9.526	9.539	9.552	9.565	9.578	9.590
930	9.590	9.603	9.616	9.629	9.642	9.655	9.668	9.681	9.694	9.707	9.720
940	9.720	9.733	9.746	9.759	9.772	9.785	9.798	9.811	9.824	9.837	9.850
950	9.850	9.863	9.876	9.889	9.902	9.915	9.928	9.941	9.954	9.967	9.980
960	9.980	9.993	10.006	10.019	10.032	10.046	10.059	10.072	10.085	10.098	10.111
970	10.111	10.124	10.137	10.150	10.163	10.177	10.190	10.203	10.216	10.229	10.242
980	10.242	10.255	10.268	10.282	10.295	10.308	10.321	10.334	10.347	10.361	10.374
990	10.374	10.387	10.400	10.413	10.427	10.440	10.453	10.466	10.480	10.493	10.506
1000	10.506	10.519	10.532	10.546	10.559	10.572	10.585	10.599	10.612	10.625	10.638
1010	10.638	10.652	10.665	10.678	10.692	10.705	10.718	10.731	10.745	10.758	10.771
1020	10.771	10.785	10.798	10.811	10.825	10.838	10.851	10.865	10.878	10.891	10.905
1030	10.905	10.918	10.932	10.945	10.958	10.972	10.985	10.998	11.012	11.025	11.039
1040	11.039	11.052	11.065	11.079	11.092	11.106	11.119	11.132	11.146	11.159	11.173
1050	11.173	11.186	11.200	11.213	11.227	11.240	11.253	11.267	11.280	11.294	11.307
1060	11.307	11.321	11.334	11.348	11.361	11.375	11.388	11.402	11.415	11.429	11.442
1070	11.442	11.456	11.469	11.483	11.496	11.510	11.524	11.537	11.551	11.564	11.578
1080	11.578	11.591	11.605	11.618	11.632	11.646	11.659	11.673	11.686	11.700	11.714
1090	11.714	11.727	11.741	11.754	11.768	11.782	11.795	11.809	11.822	11.836	11.850
1100	11.850	11.863	11.877	11.891	11.904	11.918	11.931	11.945	11.959	11.972	11.986
1110	11.986	12.000	12.013	12.027	12.041	12.054	12.068	12.082	12.096	12.109	12.123
1120	12.123	12.137	12.150	12.164	12.178	12.191	12.205	12.219	12.233	12.246	12.260
1130	12.260	12.274	12.288	12.301	12.315	12.329	12.342	12.356	12.370	12.384	12.397
1140	12.397	12.411	12.425	12.439	12.453	12.466	12.480	12.494	12.508	12.521	12.535
1150	12.535	12.549	12.563	12.577	12.590	12.604	12.618	12.632	12.646	12.659	12.673
1160	12.673	12.687	12.701	12.715	12.729	12.742	12.756	12.770	12.784	12.798	12.812
1170	12.812	12.825	12.839	12.853	12.867	12.881	12.895	12.909	12.922	12.936	12.950
1180	12.950	12.964	12.978	12.992	13.006	13.019	13.033	13.047	13.061	13.075	13.089
1190	13.089	13.103	13.117	13.131	13.145	13.158	13.172	13.186	13.200	13.214	13.228
1200	13.228	13.242	13.256	13.270	13.284	13.298	13.311	13.325	13.339	13.353	13.367
1210	13.367	13.381	13.395	13.409	13.423	13.437	13.451	13.465	13.479	13.493	13.507
1220	13.507	13.521	13.535	13.549	13.563	13.577	13.590	13.604	13.618	13.632	13.646
1230	13.646	13.660	13.674	13.688	13.702	13.716	13.730	13.744	13.758	13.772	13.786
1240	13.786	13.800	13.814	13.828	13.842	13.856	13.870	13.884	13.898	13.912	13.926
1250	13.926	13.940	13.954	13.968	13.982	13.996	14.010	14.024	14.038	14.052	14.066
1260	14.066	14.081	14.095	14.109	14.123	14.137	14.151	14.165	14.179	14.193	14.207
1270	14.207	14.221	14.235	14.249	14.263	14.277	14.291	14.305	14.319	14.333	14.347
1280	14.347	14.361	14.375	14.390	14.404	14.418	14.432	14.446	14.460	14.474	14.488
1290	14.488	14.502	14.516	14.530	14.544	14.558	14.572	14.586	14.601	14.615	14.629
1300	14.629	14.643	14.657	14.671	14.685	14.699	14.713	14.727	14.741	14.755	14.770
1310	14.770	14.784	14.798	14.812	14.826	14.840	14.854	14.868	14.882	14.896	14.911
1320	14.911	14.925	14.939	14.953	14.967	14.981	14.995	15.009	15.023	15.037	15.052
1330	15.052	15.066	15.080	15.094	15.108	15.122	15.136	15.150	15.164	15.179	15.193
1340	15.193	15.207	15.221	15.235	15.249	15.263	15.277	15.291	15.306	15.320	15.334
1350	15.334	15.348	15.362	15.376	15.390	15.404	15.419	15.433	15.447	15.461	15.475
1360	15.475	15.489	15.503	15.517	15.531	15.546	15.560	15.574	15.588	15.602	15.616
1370	15.616	15.630	15.645	15.659	15.673	15.687	15.701	15.715	15.729	15.743	15.758
1380	15.758	15.772	15.786	15.800	15.814	15.828	15.842	15.856	15.871	15.885	15.899
1390	15.899	15.913	15.927	15.941	15.955	15.969	15.984	15.998	16.012	16.026	16.040
°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10
1400	16.040	16.054	16.068	16.082	16.097	16.111	16.125	16.139	16.153	16.167	16.181
1410	16.181	16.196	16.210	16.224	16.238	16.252	16.266	16.280	16.294	16.309	16.323
1420	16.323	16.337	16.351	16.365	16.379	16.393	16.407	16.422	16.436	16.450	16.464
1430	16.464	16.478	16.492	16.506	16.520	16.534	16.549	16.563	16.577	16.591	16.605
1440	16.605	16.619	16.633	16.647	16.662	16.676	16.690	16.704	16.718	16.732	16.746
1450	16.746	16.760	16.774	16.789	16.803	16.817	16.831	16.845	16.859	16.873	16.887
1460	16.887	16.901	16.915	16.930	16.944	16.958	16.972	16.986	17.000	17.014	17.028
1470	17.028	17.042	17.056	17.071	17.085	17.099	17.113	17.127	17.141	17.155	17.169
1480	17.169	17.183	17.197	17.211	17.225	17.240	17.254	17.268	17.282	17.296	17.310
1490	17.310	17.324	17.338	17.352	17.366	17.380	17.394	17.408	17.423	17.437	17.451
1500	17.451	17.465	17.479	17.493	17.507	17.521	17.535	17.549	17.563	17.577	17.591
1510	17.591	17.605	17.619	17.633	17.647	17.661	17.676	17.690	17.704	17.718	17.732
1520	17.732	17.746	17.760	17.774	17.788	17.802	17.816	17.830	17.844	17.858	17.872
1530	17.872	17.886	17.900	17.914	17.928	17.942	17.956	17.970	17.984	17.998	18.012
1540	18.012	18.026	18.040	18.054	18.068	18.082	18.096	18.110	18.124	18.138	18.152
1550	18.152	18.166	18.180	18.194	18.208	18.222	18.236	18.250	18.264	18.278	18.292
1560	18.292	18.306	18.320	18.334	18.348	18.362	18.376	18.390	18.404	18.417	18.431
1570	18.431	18.445	18.459	18.473	18.487	18.501	18.515	18.529	18.543	18.557	18.571
1580	18.571	18.585	18.599	18.613	18.627	18.640	18.654	18.668	18.682	18.696	18.710
1590	18.710	18.724	18.738	18.752	18.766	18.779	18.793	18.807	18.821	18.835	18.849
1600	18.849	18.863	18.877	18.891	18.904	18.918	18.932	18.946	18.960	18.974	18.988
1610	18.988	19.002	19.015	19.029	19.043	19.057	19.071	19.085	19.098	19.112	19.126
1620	19.126	19.140	19.154	19.168	19.181	19.195	19.209	19.223	19.237	19.250	19.264
1630	19.264	19.278	19.292	19.306	19.319	19.333	19.347	19.361	19.375	19.388	19.402
1640	19.402	19.416	19.430	19.444	19.457	19.471	19.485	19.499	19.512	19.526	19.540
1650	19.540	19.554	19.567	19.581	19.595	19.609	19.622	19.636	19.650	19.663	19.677
1660	19.677	19.691	19.705	19.718	19.732	19.746	19.759	19.773	19.787	19.800	19.814
1670	19.814	19.828	19.841	19.855	19.869	19.882	19.896	19.910	19.923	19.937	19.951
1680	19.951	19.964	19.978	19.992	20.005	20.019	20.032	20.046	20.060	20.073	20.087
1690	20.087	20.100	20.114	20.127	20.141	20.154	20.168	20.181	20.195	20.208	20.222
1700	20.222	20.235	20.249	20.262	20.275	20.289	20.302	20.316	20.329	20.342	20.356
1710	20.356	20.369	20.382	20.396	20.409	20.422	20.436	20.449	20.462	20.475	20.488
1720	20.488	20.502	20.515	20.528	20.541	20.554	20.567	20.581	20.594	20.607	20.620
1730	20.620	20.633	20.646	20.659	20.672	20.685	20.698	20.711	20.724	20.736	20.749
1740	20.749	20.762	20.775	20.788	20.801	20.813	20.826	20.839	20.852	20.864	20.877
1750	20.877	20.890	20.902	20.915	20.928	20.940	20.953	20.965	20.978	20.990	21.003
1760	21.003	21.015	21.027	21.040	21.052	21.065	21.077	21.089	21.101		
°C	0	1	2	3	4	5	6	7	8	9	10

Type S Platinum vs. Platinum-10% Rhodium ITS-90 °C

°C	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
-40	-0.194	-0.199	-0.203	-0.207	-0.211	-0.215	-0.219	-0.224	-0.228	-0.232	-0.236
-30	-0.150	-0.155	-0.159	-0.164	-0.168	-0.173	-0.177	-0.181	-0.186	-0.190	-0.194
-20	-0.103	-0.108	-0.113	-0.117	-0.122	-0.127	-0.132	-0.136	-0.141	-0.146	-0.150
-10	-0.053	-0.058	-0.063	-0.068	-0.073	-0.078	-0.083	-0.088	-0.093	-0.098	-0.103
0	0.000	-0.005	-0.011	-0.016	-0.021	-0.027	-0.032	-0.037	-0.042	-0.048	-0.053
°C	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10

°C	0	1	2	3	4	5	6	7	8	9	10
0	0.000	0.005	0.011	0.016	0.022	0.027	0.033	0.038	0.044	0.050	0.055
10	0.055	0.061	0.067	0.072	0.078	0.084	0.090	0.095	0.101	0.107	0.113
20	0.113	0.119	0.125	0.131	0.137	0.143	0.149	0.155	0.161	0.167	0.173
30	0.173	0.179	0.185	0.191	0.197	0.204	0.210	0.216	0.222	0.229	0.235
40	0.235	0.241	0.248	0.254	0.260	0.267	0.273	0.280	0.286	0.292	0.299
50	0.299	0.305	0.312	0.319	0.325	0.332	0.338	0.345	0.352	0.358	0.365
60	0.365	0.372	0.378	0.385	0.392	0.399	0.405	0.412	0.419	0.426	0.433
70	0.433	0.440	0.446	0.453	0.460	0.467	0.474	0.481	0.488	0.495	0.502
80	0.502	0.509	0.516	0.523	0.530	0.538	0.545	0.552	0.559	0.566	0.573
90	0.573	0.580	0.588	0.595	0.602	0.609	0.617	0.624	0.631	0.639	0.646
100	0.646	0.653	0.661	0.668	0.675	0.683	0.690	0.698	0.705	0.713	0.720
110	0.720	0.727	0.735	0.743	0.750	0.758	0.765	0.773	0.780	0.788	0.795
120	0.795	0.803	0.811	0.818	0.826	0.834	0.841	0.849	0.857	0.865	0.872
130	0.872	0.880	0.888	0.896	0.903	0.911	0.919	0.927	0.935	0.942	0.950
140	0.950	0.958	0.966	0.974	0.982	0.990	0.998	1.006	1.013	1.021	1.029
150	1.029	1.037	1.045	1.053	1.061	1.069	1.077	1.085	1.094	1.102	1.110
160	1.110	1.118	1.126	1.134	1.142	1.150	1.158	1.167	1.175	1.183	1.191
170	1.191	1.199	1.207	1.216	1.224	1.232	1.240	1.249	1.257	1.265	1.273
180	1.273	1.282	1.290	1.298	1.307	1.315	1.323	1.332	1.340	1.348	1.357
190	1.357	1.365	1.373	1.382	1.390	1.399	1.407	1.415	1.424	1.432	1.441
200	1.441	1.449	1.458	1.466	1.475	1.483	1.492	1.500	1.509	1.517	1.526
210	1.526	1.534	1.543	1.551	1.560	1.569	1.577	1.586	1.594	1.603	1.612
220	1.612	1.620	1.629	1.638	1.646	1.655	1.663	1.672	1.681	1.690	1.698
230	1.698	1.707	1.716	1.724	1.733	1.742	1.751	1.759	1.768	1.777	1.786
240	1.786	1.794	1.803	1.812	1.821	1.829	1.838	1.847	1.856	1.865	1.874
250	1.874	1.882	1.891	1.900	1.909	1.918	1.927	1.936	1.944	1.953	1.962
260	1.962	1.971	1.980	1.989	1.998	2.007	2.016	2.025	2.034	2.043	2.052
270	2.052	2.061	2.070	2.078	2.087	2.096	2.105	2.114	2.123	2.132	2.141
280	2.141	2.151	2.160	2.169	2.178	2.187	2.196	2.205	2.214	2.223	2.232
290	2.232	2.241	2.250	2.259	2.268	2.277	2.287	2.296	2.305	2.314	2.323
300	2.323	2.332	2.341	2.350	2.360	2.369	2.378	2.387	2.396	2.405	2.415
310	2.415	2.424	2.433	2.442	2.451	2.461	2.470	2.479	2.488	2.497	2.507
320	2.507	2.516	2.525	2.534	2.544	2.553	2.562	2.571	2.581	2.590	2.599
330	2.599	2.609	2.618	2.627	2.636	2.646	2.655	2.664	2.674	2.683	2.692
340	2.692	2.702	2.711	2.720	2.730	2.739	2.748	2.758	2.767	2.776	2.786
350	2.786	2.795	2.805	2.814	2.823	2.833	2.842	2.851	2.861	2.870	2.880
360	2.880	2.889	2.899	2.908	2.917	2.927	2.936	2.946	2.955	2.965	2.974
370	2.974	2.983	2.993	3.002	3.012	3.021	3.031	3.040	3.050	3.059	3.069
380	3.069	3.078	3.088	3.097	3.107	3.116	3.126	3.135	3.145	3.154	3.164
390	3.164	3.173	3.183	3.192	3.202	3.212	3.221	3.231	3.240	3.250	3.259
°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10
400	3.259	3.269	3.279	3.288	3.298	3.307	3.317	3.326	3.336	3.346	3.355
410	3.355	3.365	3.374	3.384	3.394	3.403	3.413	3.423	3.432	3.442	3.451
420	3.451	3.461	3.471	3.480	3.490	3.500	3.509	3.519	3.529	3.538	3.548
430	3.548	3.558	3.567	3.577	3.587	3.596	3.606	3.616	3.626	3.635	3.645
440	3.645	3.655	3.664	3.674	3.684	3.694	3.703	3.713	3.723	3.732	3.742
450	3.742	3.752	3.762	3.771	3.781	3.791	3.801	3.810	3.820	3.830	3.840
460	3.840	3.850	3.859	3.869	3.879	3.889	3.898	3.908	3.918	3.928	3.938
470	3.938	3.947	3.957	3.967	3.977	3.987	3.997	4.006	4.016	4.026	4.036
480	4.036	4.046	4.056	4.065	4.075	4.085	4.095	4.105	4.115	4.125	4.134
490	4.134	4.144	4.154	4.164	4.174	4.184	4.194	4.204	4.213	4.223	4.233
500	4.233	4.243	4.253	4.263	4.273	4.283	4.293	4.303	4.313	4.323	4.332
510	4.332	4.342	4.352	4.362	4.372	4.382	4.392	4.402	4.412	4.422	4.432
520	4.432	4.442	4.452	4.462	4.472	4.482	4.492	4.502	4.512	4.522	4.532
530	4.532	4.542	4.552	4.562	4.572	4.582	4.592	4.602	4.612	4.622	4.632
540	4.632	4.642	4.652	4.662	4.672	4.682	4.692	4.702	4.712	4.722	4.732
550	4.732	4.742	4.752	4.762	4.772	4.782	4.793	4.803	4.813	4.823	4.833
560	4.833	4.843	4.853	4.863	4.873	4.883	4.893	4.904	4.914	4.924	4.934
570	4.934	4.944	4.954	4.964	4.974	4.984	4.995	5.005	5.015	5.025	5.035
580	5.035	5.045	5.055	5.066	5.076	5.086	5.096	5.106	5.116	5.127	5.137
590	5.137	5.147	5.157	5.167	5.178	5.188	5.198	5.208	5.218	5.228	5.239
600	5.239	5.249	5.259	5.269	5.280	5.290	5.300	5.310	5.320	5.331	5.341
610	5.341	5.351	5.361	5.372	5.382	5.392	5.402	5.413	5.423	5.433	5.443
620	5.443	5.454	5.464	5.474	5.485	5.495	5.505	5.515	5.526	5.536	5.546
630	5.546	5.557	5.567	5.577	5.588	5.598	5.608	5.618	5.629	5.639	5.649
640	5.649	5.660	5.670	5.680	5.691	5.701	5.712	5.722	5.732	5.743	5.753
650	5.753	5.763	5.774	5.784	5.794	5.805	5.815	5.826	5.836	5.846	5.857
660	5.857	5.867	5.878	5.888	5.898	5.909	5.919	5.930	5.940	5.950	5.961
670	5.961	5.971	5.982	5.992	6.003	6.013	6.024	6.034	6.044	6.055	6.065
680	6.065	6.076	6.086	6.097	6.107	6.118	6.128	6.139	6.149	6.160	6.170
690	6.170	6.181	6.191	6.202	6.212	6.223	6.233	6.244	6.254	6.265	6.275
700	6.275	6.286	6.296	6.307	6.317	6.328	6.338	6.349	6.360	6.370	6.381
710	6.381	6.391	6.402	6.412	6.423	6.434	6.444	6.455	6.465	6.476	6.486
720	6.486	6.497	6.508	6.518	6.529	6.539	6.550	6.561	6.571	6.582	6.593
730	6.593	6.603	6.614	6.624	6.635	6.646	6.656	6.667	6.678	6.688	6.699
740	6.699	6.710	6.720	6.731	6.742	6.752	6.763	6.774	6.784	6.795	6.806
750	6.806	6.817	6.827	6.838	6.849	6.859	6.870	6.881	6.892	6.902	6.913
760	6.913	6.924	6.934	6.945	6.956	6.967	6.977	6.988	6.999	7.010	7.020
770	7.020	7.031	7.042	7.053	7.064	7.074	7.085	7.096	7.107	7.117	7.128
780	7.128	7.139	7.150	7.161	7.172	7.182	7.193	7.204	7.215	7.226	7.236
790	7.236	7.247	7.258	7.269	7.280	7.291	7.302	7.312	7.323	7.334	7.345
800	7.345	7.356	7.367	7.378	7.388	7.399	7.410	7.421	7.432	7.443	7.454
810	7.454	7.465	7.476	7.487	7.497	7.508	7.519	7.530	7.541	7.552	7.563
820	7.563	7.574	7.585	7.596	7.607	7.618	7.629	7.640	7.651	7.662	7.673
830	7.673	7.684	7.695	7.706	7.717	7.728	7.739	7.750	7.761	7.772	7.783
840	7.783	7.794	7.805	7.816	7.827	7.838	7.849	7.860	7.871	7.882	7.893
850	7.893	7.904	7.915	7.926	7.937	7.948	7.959	7.970	7.981	7.992	8.003
860	8.003	8.014	8.026	8.037	8.048	8.059	8.070	8.081	8.092	8.103	8.114
870	8.114	8.125	8.137	8.148	8.159	8.170	8.181	8.192	8.203	8.214	8.226
880	8.226	8.237	8.248	8.259	8.270	8.281	8.293	8.304	8.315	8.326	8.337
890	8.337	8.348	8.360	8.371	8.382	8.393	8.404	8.416	8.427	8.438	8.449
°C	0	1	2	3	4	5	6	7	8	9	10

Type S Platinum vs. Platinum-10% Rhodium ITS-90 °C

°C	0	1	2	3	4	5	6	7	8	9	10
900	8.449	8.460	8.472	8.483	8.494	8.505	8.517	8.528	8.539	8.550	8.562
910	8.562	8.573	8.584	8.595	8.607	8.618	8.629	8.640	8.652	8.663	8.674
920	8.674	8.685	8.697	8.708	8.719	8.731	8.742	8.753	8.765	8.776	8.787
930	8.787	8.798	8.810	8.821	8.832	8.844	8.855	8.866	8.878	8.889	8.900
940	8.900	8.912	8.923	8.935	8.946	8.957	8.969	8.980	8.991	9.003	9.014
950	9.014	9.025	9.037	9.048	9.060	9.071	9.082	9.094	9.105	9.117	9.128
960	9.128	9.139	9.151	9.162	9.174	9.185	9.197	9.208	9.219	9.231	9.242
970	9.242	9.254	9.265	9.277	9.288	9.300	9.311	9.323	9.334	9.345	9.357
980	9.357	9.368	9.380	9.391	9.403	9.414	9.426	9.437	9.449	9.460	9.472
990	9.472	9.483	9.495	9.506	9.518	9.529	9.541	9.552	9.564	9.576	9.587
1000	9.587	9.599	9.610	9.622	9.633	9.645	9.656	9.668	9.680	9.691	9.703
1010	9.703	9.714	9.726	9.737	9.749	9.761	9.772	9.784	9.795	9.807	9.819
1020	9.819	9.830	9.842	9.853	9.865	9.877	9.888	9.900	9.911	9.923	9.935
1030	9.935	9.946	9.958	9.970	9.981	9.993	10.005	10.016	10.028	10.040	10.051
1040	10.051	10.063	10.075	10.086	10.098	10.110	10.121	10.133	10.145	10.156	10.168
1050	10.168	10.180	10.191	10.203	10.215	10.227	10.238	10.250	10.262	10.273	10.285
1060	10.285	10.297	10.309	10.320	10.332	10.344	10.356	10.367	10.379	10.391	10.403
1070	10.403	10.414	10.426	10.438	10.450	10.461	10.473	10.485	10.497	10.509	10.520
1080	10.520	10.532	10.544	10.556	10.567	10.579	10.591	10.603	10.615	10.626	10.638
1090	10.638	10.650	10.662	10.674	10.686	10.697	10.709	10.721	10.733	10.745	10.757
1100	10.757	10.768	10.780	10.792	10.804	10.816	10.828	10.839	10.851	10.863	10.875
1110	10.875	10.887	10.899	10.911	10.922	10.934	10.946	10.958	10.970	10.982	10.994
1120	10.994	11.006	11.017	11.029	11.041	11.053	11.065	11.077	11.089	11.101	11.113
1130	11.113	11.125	11.136	11.148	11.160	11.172	11.184	11.196	11.208	11.220	11.232
1140	11.232	11.244	11.256	11.268	11.280	11.291	11.303	11.315	11.327	11.339	11.351
1150	11.351	11.363	11.375	11.387	11.399	11.411	11.423	11.435	11.447	11.459	11.471
1160	11.471	11.483	11.495	11.507	11.519	11.531	11.542	11.554	11.566	11.578	11.590
1170	11.590	11.602	11.614	11.626	11.638	11.650	11.662	11.674	11.686	11.698	11.710
1180	11.710	11.722	11.734	11.746	11.758	11.770	11.782	11.794	11.806	11.818	11.830
1190	11.830	11.842	11.854	11.866	11.878	11.890	11.902	11.914	11.926	11.939	11.951
1200	11.951	11.963	11.975	11.987	11.999	12.011	12.023	12.035	12.047	12.059	12.071
1210	12.071	12.083	12.095	12.107	12.119	12.131	12.143	12.155	12.167	12.179	12.191
1220	12.191	12.203	12.216	12.228	12.240	12.252	12.264	12.276	12.288	12.300	12.312
1230	12.312	12.324	12.336	12.348	12.360	12.372	12.384	12.397	12.409	12.421	12.433
1240	12.433	12.445	12.457	12.469	12.481	12.493	12.505	12.517	12.529	12.542	12.554
1250	12.554	12.566	12.578	12.590	12.602	12.614	12.626	12.638	12.650	12.662	12.675
1260	12.675	12.687	12.699	12.711	12.723	12.735	12.747	12.759	12.771	12.783	12.796
1270	12.796	12.808	12.820	12.832	12.844	12.856	12.868	12.880	12.892	12.905	12.917
1280	12.917	12.929	12.941	12.953	12.965	12.977	12.989	13.001	13.014	13.026	13.038
1290	13.038	13.050	13.062	13.074	13.086	13.098	13.111	13.123	13.135	13.147	13.159
1300	13.159	13.171	13.183	13.195	13.208	13.220	13.232	13.244	13.256	13.268	13.280
1310	13.280	13.292	13.305	13.317	13.329	13.341	13.353	13.365	13.377	13.390	13.402
1320	13.402	13.414	13.426	13.438	13.450	13.462	13.474	13.487	13.499	13.511	13.523
1330	13.523	13.535	13.547	13.559	13.572	13.584	13.596	13.608	13.620	13.632	13.644
1340	13.644	13.657	13.669	13.681	13.693	13.705	13.717	13.729	13.742	13.754	13.766
1350	13.766	13.778	13.790	13.802	13.814	13.826	13.839	13.851	13.863	13.875	13.887
1360	13.887	13.899	13.911	13.924	13.936	13.948	13.960	13.972	13.984	13.996	14.009
1370	14.009	14.021	14.033	14.045	14.057	14.069	14.081	14.094	14.106	14.118	14.130
1380	14.130	14.142	14.154	14.166	14.178	14.191	14.203	14.215	14.227	14.239	14.251
1390	14.251	14.263	14.276	14.288	14.300	14.312	14.324	14.336	14.348	14.360	14.373
°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10
1400	14.373	14.385	14.397	14.409	14.421	14.433	14.445	14.457	14.470	14.482	14.494
1410	14.494	14.506	14.518	14.530	14.542	14.554	14.567	14.579	14.591	14.603	14.615
1420	14.615	14.627	14.639	14.651	14.664	14.676	14.688	14.700	14.712	14.724	14.736
1430	14.736	14.748	14.760	14.773	14.785	14.797	14.809	14.821	14.833	14.845	14.857
1440	14.857	14.869	14.881	14.894	14.906	14.918	14.930	14.942	14.954	14.966	14.978
1450	14.978	14.990	15.002	15.015	15.027	15.039	15.051	15.063	15.075	15.087	15.099
1460	15.099	15.111	15.123	15.135	15.148	15.160	15.172	15.184	15.196	15.208	15.220
1470	15.220	15.232	15.244	15.256	15.268	15.280	15.292	15.304	15.317	15.329	15.341
1480	15.341	15.353	15.365	15.377	15.389	15.401	15.413	15.425	15.437	15.449	15.461
1490	15.461	15.473	15.485	15.497	15.509	15.521	15.534	15.546	15.558	15.570	15.582
1500	15.582	15.594	15.606	15.618	15.630	15.642	15.654	15.666	15.678	15.690	15.702
1510	15.702	15.714	15.726	15.738	15.750	15.762	15.774	15.786	15.798	15.810	15.822
1520	15.822	15.834	15.846	15.858	15.870	15.882	15.894	15.906	15.918	15.930	15.942
1530	15.942	15.954	15.966	15.978	15.990	16.002	16.014	16.026	16.038	16.050	16.062
1540	16.062	16.074	16.086	16.098	16.110	16.122	16.134	16.146	16.158	16.170	16.182
1550	16.182	16.194	16.205	16.217	16.229	16.241	16.253	16.265	16.277	16.289	16.301
1560	16.301	16.313	16.325	16.337	16.349	16.361	16.373	16.385	16.396	16.408	16.420
1570	16.420	16.432	16.444	16.456	16.468	16.480	16.492	16.504	16.516	16.527	16.539
1580	16.539	16.551	16.563	16.575	16.587	16.599	16.611	16.623	16.634	16.646	16.658
1590	16.658	16.670	16.682	16.694	16.706	16.718	16.729	16.741	16.753	16.765	16.777
1600	16.777	16.789	16.801	16.812	16.824	16.836	16.848	16.860	16.872	16.883	16.895
1610	16.895	16.907	16.919	16.931	16.943	16.954	16.966	16.978	16.990	17.002	17.013
1620	17.013	17.025	17.037	17.049	17.061	17.072	17.084	17.096	17.108	17.120	17.131
1630	17.131	17.143	17.155	17.167	17.178	17.190	17.202	17.214	17.225	17.237	17.249
1640	17.249	17.261	17.272	17.284	17.296	17.308	17.319	17.331	17.343	17.355	17.366
1650	17.366	17.378	17.390	17.401	17.413	17.425	17.437	17.448	17.460	17.472	17.483
1660	17.483	17.495	17.507	17.518	17.530	17.542	17.553	17.565	17.577	17.588	17.600
1670	17.600	17.612	17.623	17.635	17.647	17.658	17.670	17.682	17.693	17.705	17.717
1680	17.717	17.728	17.740	17.751	17.763	17.775	17.786	17.798	17.809	17.821	17.832
1690	17.832	17.844	17.855	17.867	17.878	17.890	17.901	17.913	17.924	17.936	17.947
1700	17.947	17.959	17.970	17.982	17.993	18.004	18.016	18.027	18.039	18.050	18.061
1710	18.061	18.073	18.084	18.095	18.107	18.118	18.129	18.140	18.152	18.163	18.174
1720	18.174	18.185	18.196	18.208	18.219	18.230	18.241	18.252	18.263	18.274	18.285
1730	18.285	18.297	18.308	18.319	18.330	18.341	18.352	18.362	18.373	18.384	18.395
1740	18.395	18.406	18.417	18.428	18.439	18.449	18.460	18.471	18.482	18.493	18.503
1750	18.503	18.514	18.525	18.535	18.546	18.557	18.567	18.578	18.588	18.599	18.609
1760	18.609	18.620	18.630	18.641	18.651	18.661	18.672	18.682	18.693		
°C	0	1	2	3	4	5	6	7	8	9	10

Type T Copper vs. Constantan ITS-90 °C

°C	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
-260	-6.232	-6.236	-6.239	-6.242	-6.245	-6.248	-6.251	-6.253	-6.255	-6.256	-6.258
-250	-6.180	-6.187	-6.193	-6.198	-6.204	-6.209	-6.214	-6.219	-6.223	-6.228	-6.232
-240	-6.105	-6.114	-6.122	-6.130	-6.138	-6.146	-6.153	-6.160	-6.167	-6.174	-6.180
-230	-6.007	-6.017	-6.028	-6.038	-6.049	-6.059	-6.068	-6.078	-6.087	-6.096	-6.105
-220	-5.888	-5.901	-5.914	-5.926	-5.938	-5.950	-5.962	-5.973	-5.985	-5.996	-6.007
-210	-5.753	-5.767	-5.782	-5.795	-5.809	-5.823	-5.836	-5.850	-5.863	-5.876	-5.888
-200	-5.603	-5.619	-5.634	-5.650	-5.665	-5.680	-5.695	-5.710	-5.724	-5.739	-5.753
-190	-5.439	-5.456	-5.473	-5.489	-5.506	-5.523	-5.539	-5.555	-5.571	-5.587	-5.603
-180	-5.261	-5.279	-5.297	-5.316	-5.334	-5.351	-5.369	-5.387	-5.404	-5.421	-5.439
-170	-5.070	-5.089	-5.109	-5.128	-5.148	-5.167	-5.186	-5.205	-5.224	-5.242	-5.261
-160	-4.865	-4.886	-4.907	-4.928	-4.949	-4.969	-4.989	-5.010	-5.030	-5.050	-5.070
-150	-4.648	-4.671	-4.693	-4.715	-4.737	-4.759	-4.780	-4.802	-4.823	-4.844	-4.865
-140	-4.419	-4.443	-4.466	-4.489	-4.512	-4.535	-4.558	-4.581	-4.604	-4.626	-4.648
-130	-4.177	-4.202	-4.226	-4.251	-4.275	-4.300	-4.324	-4.348	-4.372	-4.395	-4.419
-120	-3.923	-3.949	-3.975	-4.000	-4.026	-4.052	-4.077	-4.102	-4.127	-4.152	-4.177
-110	-3.657	-3.684	-3.711	-3.738	-3.765	-3.791	-3.818	-3.844	-3.871	-3.897	-3.923
-100	-3.379	-3.407	-3.435	-3.463	-3.491	-3.519	-3.547	-3.574	-3.602	-3.629	-3.657
-90	-3.089	-3.118	-3.148	-3.177	-3.206	-3.235	-3.264	-3.293	-3.322	-3.350	-3.379
-80	-2.788	-2.818	-2.849	-2.879	-2.910	-2.940	-2.970	-3.000	-3.030	-3.059	-3.089
-70	-2.476	-2.507	-2.539	-2.571	-2.602	-2.633	-2.664	-2.695	-2.726	-2.757	-2.788
-60	-2.153	-2.186	-2.218	-2.251	-2.283	-2.316	-2.348	-2.380	-2.412	-2.444	-2.476
-50	-1.819	-1.853	-1.887	-1.920	-1.954	-1.987	-2.021	-2.054	-2.087	-2.120	-2.153
-40	-1.475	-1.510	-1.545	-1.579	-1.614	-1.648	-1.683	-1.717	-1.751	-1.785	-1.819
-30	-1.121	-1.157	-1.192	-1.228	-1.264	-1.299	-1.335	-1.370	-1.405	-1.440	-1.475
-20	-0.757	-0.794	-0.830	-0.867	-0.904	-0.940	-0.976	-1.013	-1.049	-1.085	-1.121
-10	-0.383	-0.421	-0.459	-0.496	-0.534	-0.571	-0.608	-0.646	-0.683	-0.720	-0.757
0	0.000	-0.039	-0.077	-0.116	-0.154	-0.193	-0.231	-0.269	-0.307	-0.345	-0.383
°C	**-0**	**-1**	**-2**	**-3**	**-4**	**-5**	**-6**	**-7**	**-8**	**-9**	**-10**

°C	0	1	2	3	4	5	6	7	8	9	10
0	0.000	0.039	0.078	0.117	0.156	0.195	0.234	0.273	0.312	0.352	0.391
10	0.391	0.431	0.470	0.510	0.549	0.589	0.629	0.669	0.709	0.749	0.790
20	0.790	0.830	0.870	0.911	0.951	0.992	1.033	1.074	1.114	1.155	1.196
30	1.196	1.238	1.279	1.320	1.362	1.403	1.445	1.486	1.528	1.570	1.612
40	1.612	1.654	1.696	1.738	1.780	1.823	1.865	1.908	1.950	1.993	2.036
50	2.036	2.079	2.122	2.165	2.208	2.251	2.294	2.338	2.381	2.425	2.468
60	2.468	2.512	2.556	2.600	2.643	2.687	2.732	2.776	2.820	2.864	2.909
70	2.909	2.953	2.998	3.043	3.087	3.132	3.177	3.222	3.267	3.312	3.358
80	3.358	3.403	3.448	3.494	3.539	3.585	3.631	3.677	3.722	3.768	3.814
90	3.814	3.860	3.907	3.953	3.999	4.046	4.092	4.138	4.185	4.232	4.279
100	4.279	4.325	4.372	4.419	4.466	4.513	4.561	4.608	4.655	4.702	4.750
110	4.750	4.798	4.845	4.893	4.941	4.988	5.036	5.084	5.132	5.180	5.228
120	5.228	5.277	5.325	5.373	5.422	5.470	5.519	5.567	5.616	5.665	5.714
130	5.714	5.763	5.812	5.861	5.910	5.959	6.008	6.057	6.107	6.156	6.206
140	6.206	6.255	6.305	6.355	6.404	6.454	6.504	6.554	6.604	6.654	6.704
150	6.704	6.754	6.805	6.855	6.905	6.956	7.006	7.057	7.107	7.158	7.209
160	7.209	7.260	7.310	7.361	7.412	7.463	7.515	7.566	7.617	7.668	7.720
170	7.720	7.771	7.823	7.874	7.926	7.977	8.029	8.081	8.133	8.185	8.237
180	8.237	8.289	8.341	8.393	8.445	8.497	8.550	8.602	8.654	8.707	8.759
190	8.759	8.812	8.865	8.917	8.970	9.023	9.076	9.129	9.182	9.235	9.288
200	9.288	9.341	9.395	9.448	9.501	9.555	9.608	9.662	9.715	9.769	9.822
210	9.822	9.876	9.930	9.984	10.038	10.092	10.146	10.200	10.254	10.308	10.362
220	10.362	10.417	10.471	10.525	10.580	10.634	10.689	10.743	10.798	10.853	10.907
230	10.907	10.962	11.017	11.072	11.127	11.182	11.237	11.292	11.347	11.403	11.458
240	11.458	11.513	11.569	11.624	11.680	11.735	11.791	11.846	11.902	11.958	12.013
250	12.013	12.069	12.125	12.181	12.237	12.293	12.349	12.405	12.461	12.518	12.574
260	12.574	12.630	12.687	12.743	12.799	12.856	12.912	12.969	13.026	13.082	13.139
270	13.139	13.196	13.253	13.310	13.366	13.423	13.480	13.537	13.595	13.652	13.709
280	13.709	13.766	13.823	13.881	13.938	13.995	14.053	14.110	14.168	14.226	14.283
290	14.283	14.341	14.399	14.456	14.514	14.572	14.630	14.688	14.746	14.804	14.862
300	14.862	14.920	14.978	15.036	15.095	15.153	15.211	15.270	15.328	15.386	15.445
310	15.445	15.503	15.562	15.621	15.679	15.738	15.797	15.856	15.914	15.973	16.032
320	16.032	16.091	16.150	16.209	16.268	16.327	16.387	16.446	16.505	16.564	16.624
330	16.624	16.683	16.742	16.802	16.861	16.921	16.980	17.040	17.100	17.159	17.219
340	17.219	17.279	17.339	17.399	17.458	17.518	17.578	17.638	17.698	17.759	17.819
350	17.819	17.879	17.939	17.999	18.060	18.120	18.180	18.241	18.301	18.362	18.422
360	18.422	18.483	18.543	18.604	18.665	18.725	18.786	18.847	18.908	18.969	19.030
370	19.030	19.091	19.152	19.213	19.274	19.335	19.396	19.457	19.518	19.579	19.641
380	19.641	19.702	19.763	19.825	19.886	19.947	20.009	20.070	20.132	20.193	20.255
390	20.255	20.317	20.378	20.440	20.502	20.563	20.625	20.687	20.748	20.810	20.872
400	20.872	20.934	20.996	21.057	21.119	21.181	21.243	21.305	21.367	21.429	21.491
°C	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

Type Tungsten-3% Rhenium vs Tungsten-25% Rhenium ITS-90 °C

°C	0	1	2	3	4	5	6	7	8	9	10
0	0.000	0.010	0.019	0.029	0.039	0.048	0.058	0.068	0.078	0.088	0.098
10	0.098	0.108	0.118	0.128	0.138	0.148	0.159	0.169	0.179	0.189	0.200
20	0.200	0.210	0.221	0.231	0.242	0.252	0.263	0.273	0.284	0.295	0.305
30	0.305	0.316	0.327	0.338	0.349	0.360	0.371	0.382	0.393	0.404	0.415
40	0.415	0.426	0.437	0.448	0.460	0.471	0.482	0.494	0.505	0.517	0.528
50	0.528	0.540	0.551	0.563	0.574	0.586	0.598	0.609	0.621	0.633	0.645
60	0.645	0.657	0.668	0.680	0.692	0.704	0.716	0.728	0.741	0.753	0.765
70	0.765	0.777	0.789	0.802	0.814	0.826	0.839	0.851	0.863	0.876	0.888
80	0.888	0.901	0.914	0.926	0.939	0.951	0.964	0.977	0.990	1.002	1.015
90	1.015	1.028	1.041	1.054	1.067	1.080	1.093	1.106	1.119	1.132	1.145
100	1.145	1.158	1.172	1.185	1.198	1.212	1.225	1.238	1.252	1.265	1.278
110	1.278	1.292	1.305	1.319	1.333	1.346	1.360	1.374	1.387	1.401	1.415
120	1.415	1.428	1.442	1.456	1.470	1.484	1.498	1.512	1.526	1.540	1.554
130	1.554	1.568	1.582	1.596	1.610	1.624	1.639	1.653	1.667	1.681	1.696
140	1.696	1.710	1.725	1.739	1.753	1.768	1.782	1.797	1.811	1.826	1.841
150	1.841	1.855	1.870	1.884	1.899	1.914	1.929	1.943	1.958	1.973	1.988
160	1.988	2.003	2.018	2.033	2.048	2.063	2.078	2.093	2.108	2.123	2.138
170	2.138	2.153	2.168	2.183	2.199	2.214	2.229	2.244	2.260	2.275	2.290
180	2.290	2.306	2.321	2.337	2.352	2.368	2.383	2.399	2.414	2.430	2.445
190	2.445	2.461	2.477	2.492	2.508	2.524	2.539	2.555	2.571	2.587	2.603
200	2.603	2.618	2.634	2.650	2.666	2.682	2.698	2.714	2.730	2.746	2.762
210	2.762	2.778	2.794	2.810	2.826	2.843	2.859	2.875	2.891	2.907	2.924
220	2.924	2.940	2.956	2.973	2.989	3.005	3.022	3.038	3.055	3.071	3.088
230	3.088	3.104	3.121	3.137	3.154	3.170	3.187	3.203	3.220	3.237	3.253
240	3.253	3.270	3.287	3.303	3.320	3.337	3.354	3.371	3.387	3.404	3.421
250	3.421	3.438	3.455	3.472	3.489	3.506	3.523	3.540	3.557	3.574	3.591
260	3.591	3.608	3.625	3.642	3.659	3.676	3.693	3.711	3.728	3.745	3.762
270	3.762	3.780	3.797	3.814	3.831	3.849	3.866	3.883	3.901	3.918	3.936
280	3.936	3.953	3.970	3.988	4.005	4.023	4.040	4.058	4.075	4.093	4.111
290	4.111	4.128	4.146	4.163	4.181	4.199	4.216	4.234	4.252	4.269	4.287
300	4.287	4.305	4.323	4.340	4.358	4.376	4.394	4.412	4.430	4.447	4.465
310	4.465	4.483	4.501	4.519	4.537	4.555	4.573	4.591	4.609	4.627	4.645
320	4.645	4.663	4.681	4.699	4.717	4.735	4.753	4.772	4.790	4.808	4.826
330	4.826	4.844	4.862	4.881	4.899	4.917	4.935	4.954	4.972	4.990	5.009
340	5.009	5.027	5.045	5.064	5.082	5.100	5.119	5.137	5.156	5.174	5.192
350	5.192	5.211	5.229	5.248	5.266	5.285	5.303	5.322	5.340	5.359	5.378
360	5.378	5.396	5.415	5.433	5.452	5.471	5.489	5.508	5.527	5.545	5.564
370	5.564	5.583	5.601	5.620	5.639	5.658	5.676	5.695	5.714	5.733	5.752
380	5.752	5.770	5.789	5.808	5.827	5.846	5.865	5.884	5.902	5.921	5.940
390	5.940	5.959	5.978	5.997	6.016	6.035	6.054	6.073	6.092	6.111	6.130
400	6.130	6.149	6.168	6.187	6.206	6.225	6.245	6.264	6.283	6.302	6.321
410	6.321	6.340	6.359	6.378	6.398	6.417	6.436	6.455	6.474	6.494	6.513
420	6.513	6.532	6.551	6.571	6.590	6.609	6.628	6.648	6.667	6.686	6.706
430	6.706	6.725	6.744	6.764	6.783	6.802	6.822	6.841	6.861	6.880	6.899
440	6.899	6.919	6.938	6.958	6.977	6.997	7.016	7.035	7.055	7.074	7.094
450	7.094	7.113	7.133	7.152	7.172	7.191	7.211	7.231	7.250	7.270	7.289
460	7.289	7.309	7.328	7.348	7.368	7.387	7.407	7.427	7.446	7.466	7.485
470	7.485	7.505	7.525	7.544	7.564	7.584	7.604	7.623	7.643	7.663	7.682
480	7.682	7.702	7.722	7.742	7.761	7.781	7.801	7.821	7.840	7.860	7.880
490	7.880	7.900	7.920	7.939	7.959	7.979	7.999	8.019	8.038	8.058	8.078
°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10
500	8.078	8.098	8.118	8.138	8.158	8.178	8.197	8.217	8.237	8.257	8.277
510	8.277	8.297	8.317	8.337	8.357	8.377	8.397	8.417	8.437	8.457	8.476
520	8.476	8.496	8.516	8.536	8.556	8.576	8.596	8.616	8.636	8.656	8.676
530	8.676	8.696	8.717	8.737	8.757	8.777	8.797	8.817	8.837	8.857	8.877
540	8.877	8.897	8.917	8.937	8.957	8.977	8.997	9.018	9.038	9.058	9.078
550	9.078	9.098	9.118	9.138	9.158	9.178	9.199	9.219	9.239	9.259	9.279
560	9.279	9.299	9.320	9.340	9.360	9.380	9.400	9.420	9.441	9.461	9.481
570	9.481	9.501	9.521	9.542	9.562	9.582	9.602	9.622	9.643	9.663	9.683
580	9.683	9.703	9.723	9.744	9.764	9.784	9.804	9.825	9.845	9.865	9.885
590	9.885	9.906	9.926	9.946	9.966	9.987	10.007	10.027	10.048	10.068	10.088
600	10.088	10.108	10.129	10.149	10.169	10.190	10.210	10.230	10.250	10.271	10.291
610	10.291	10.311	10.332	10.352	10.372	10.393	10.413	10.433	10.454	10.474	10.494
620	10.494	10.515	10.535	10.555	10.576	10.596	10.616	10.637	10.657	10.677	10.698
630	10.698	10.718	10.738	10.759	10.779	10.799	10.820	10.840	10.860	10.881	10.901
640	10.901	10.921	10.942	10.962	10.983	11.003	11.023	11.044	11.064	11.084	11.105
650	11.105	11.125	11.146	11.166	11.186	11.207	11.227	11.247	11.268	11.288	11.309
660	11.309	11.329	11.349	11.370	11.390	11.410	11.431	11.451	11.472	11.492	11.512
670	11.512	11.533	11.553	11.574	11.594	11.614	11.635	11.655	11.676	11.696	11.716
680	11.716	11.737	11.757	11.778	11.798	11.818	11.839	11.859	11.880	11.900	11.921
690	11.921	11.941	11.961	11.982	12.002	12.023	12.043	12.063	12.084	12.104	12.125
700	12.125	12.145	12.165	12.186	12.206	12.227	12.247	12.268	12.288	12.308	12.329
710	12.329	12.349	12.370	12.390	12.410	12.431	12.451	12.472	12.492	12.513	12.533
720	12.533	12.553	12.574	12.594	12.615	12.635	12.656	12.676	12.696	12.717	12.737
730	12.737	12.758	12.778	12.799	12.819	12.840	12.860	12.880	12.901	12.921	12.942
740	12.942	12.962	12.983	13.003	13.023	13.044	13.064	13.085	13.105	13.126	13.146
750	13.146	13.167	13.187	13.207	13.228	13.248	13.269	13.289	13.310	13.330	13.351
760	13.351	13.371	13.392	13.412	13.433	13.453	13.473	13.494	13.514	13.535	13.555
770	13.555	13.576	13.596	13.617	13.637	13.658	13.678	13.699	13.719	13.740	13.760
780	13.760	13.781	13.801	13.822	13.842	13.863	13.883	13.904	13.924	13.945	13.965
790	13.965	13.986	14.006	14.027	14.047	14.068	14.088	14.109	14.129	14.150	14.170
800	14.170	14.191	14.211	14.232	14.252	14.273	14.293	14.314	14.334	14.355	14.375
810	14.375	14.395	14.416	14.436	14.457	14.477	14.498	14.518	14.539	14.559	14.580
820	14.580	14.600	14.621	14.641	14.662	14.682	14.703	14.723	14.744	14.764	14.784
830	14.784	14.805	14.825	14.846	14.866	14.887	14.907	14.928	14.948	14.969	14.989
840	14.989	15.009	15.030	15.050	15.071	15.091	15.112	15.132	15.152	15.173	15.193
850	15.193	15.214	15.234	15.255	15.275	15.295	15.316	15.336	15.357	15.377	15.398
860	15.398	15.418	15.438	15.459	15.479	15.500	15.520	15.540	15.561	15.581	15.602
870	15.602	15.622	15.642	15.663	15.683	15.703	15.724	15.744	15.765	15.785	15.805
880	15.805	15.826	15.846	15.866	15.887	15.907	15.928	15.948	15.968	15.989	16.009
890	16.009	16.029	16.050	16.070	16.090	16.111	16.131	16.151	16.172	16.192	16.212
900	16.212	16.233	16.253	16.273	16.294	16.314	16.334	16.354	16.375	16.395	16.415
910	16.415	16.436	16.456	16.476	16.497	16.517	16.537	16.557	16.578	16.598	16.618
920	16.618	16.638	16.659	16.679	16.699	16.720	16.740	16.760	16.780	16.801	16.821
930	16.821	16.841	16.861	16.881	16.902	16.922	16.942	16.962	16.983	17.003	17.023
940	17.023	17.043	17.063	17.084	17.104	17.124	17.144	17.164	17.185	17.205	17.225
950	17.225	17.245	17.265	17.285	17.306	17.326	17.346	17.366	17.386	17.406	17.427
960	17.427	17.447	17.467	17.487	17.507	17.527	17.547	17.568	17.588	17.608	17.628
970	17.628	17.648	17.668	17.688	17.708	17.728	17.748	17.769	17.789	17.809	17.829
980	17.829	17.849	17.869	17.889	17.909	17.929	17.949	17.969	17.989	18.009	18.029
990	18.029	18.049	18.069	18.090	18.110	18.130	18.150	18.170	18.190	18.210	18.230
°C	0	1	2	3	4	5	6	7	8	9	10

Type Tungsten-3% Rhenium vs Tungsten-25% Rhenium ITS-90 °C

°C	0	1	2	3	4	5	6	7	8	9	10
1000	18.230	18.250	18.270	18.290	18.310	18.330	18.350	18.370	18.390	18.410	18.430
1010	18.430	18.450	18.469	18.489	18.509	18.529	18.549	18.569	18.589	18.609	18.629
1020	18.629	18.649	18.669	18.689	18.709	18.729	18.749	18.768	18.788	18.808	18.828
1030	18.828	18.848	18.868	18.888	18.908	18.928	18.947	18.967	18.987	19.007	19.027
1040	19.027	19.047	19.067	19.086	19.106	19.126	19.146	19.166	19.186	19.205	19.225
1050	19.225	19.245	19.265	19.285	19.304	19.324	19.344	19.364	19.384	19.403	19.423
1060	19.423	19.443	19.463	19.482	19.502	19.522	19.542	19.561	19.581	19.601	19.621
1070	19.621	19.640	19.660	19.680	19.700	19.719	19.739	19.759	19.778	19.798	19.818
1080	19.818	19.837	19.857	19.877	19.896	19.916	19.936	19.955	19.975	19.995	20.014
1090	20.014	20.034	20.054	20.073	20.093	20.113	20.132	20.152	20.171	20.191	20.211
1100	20.211	20.230	20.250	20.269	20.289	20.309	20.328	20.348	20.367	20.387	20.406
1110	20.406	20.426	20.446	20.465	20.485	20.504	20.524	20.543	20.563	20.582	20.602
1120	20.602	20.621	20.641	20.660	20.680	20.699	20.719	20.738	20.758	20.777	20.797
1130	20.797	20.816	20.836	20.855	20.875	20.894	20.914	20.933	20.952	20.972	20.991
1140	20.991	21.011	21.030	21.050	21.069	21.088	21.108	21.127	21.147	21.166	21.185
1150	21.185	21.205	21.224	21.243	21.263	21.282	21.301	21.321	21.340	21.360	21.379
1160	21.379	21.398	21.418	21.437	21.456	21.475	21.495	21.514	21.533	21.553	21.572
1170	21.572	21.591	21.611	21.630	21.649	21.668	21.688	21.707	21.726	21.745	21.765
1180	21.765	21.784	21.803	21.822	21.842	21.861	21.880	21.899	21.918	21.938	21.957
1190	21.957	21.976	21.995	22.014	22.034	22.053	22.072	22.091	22.110	22.129	22.149
1200	22.149	22.168	22.187	22.206	22.225	22.244	22.263	22.283	22.302	22.321	22.340
1210	22.340	22.359	22.378	22.397	22.416	22.435	22.454	22.473	22.493	22.512	22.531
1220	22.531	22.550	22.569	22.588	22.607	22.626	22.645	22.664	22.683	22.702	22.721
1230	22.721	22.740	22.759	22.778	22.797	22.816	22.835	22.854	22.873	22.892	22.911
1240	22.911	22.930	22.949	22.968	22.987	23.006	23.024	23.043	23.062	23.081	23.100
1250	23.100	23.119	23.138	23.157	23.176	23.195	23.214	23.232	23.251	23.270	23.289
1260	23.289	23.308	23.327	23.346	23.364	23.383	23.402	23.421	23.440	23.459	23.477
1270	23.477	23.496	23.515	23.534	23.553	23.571	23.590	23.609	23.628	23.647	23.665
1280	23.665	23.684	23.703	23.722	23.740	23.759	23.778	23.797	23.815	23.834	23.853
1290	23.853	23.871	23.890	23.909	23.928	23.946	23.965	23.984	24.002	24.021	24.040
1300	24.040	24.058	24.077	24.096	24.114	24.133	24.152	24.170	24.189	24.208	24.226
1310	24.226	24.245	24.263	24.282	24.301	24.319	24.338	24.356	24.375	24.394	24.412
1320	24.412	24.431	24.449	24.468	24.486	24.505	24.523	24.542	24.561	24.579	24.598
1330	24.598	24.616	24.635	24.653	24.672	24.690	24.709	24.727	24.746	24.764	24.783
1340	24.783	24.801	24.820	24.838	24.856	24.875	24.893	24.912	24.930	24.949	24.967
1350	24.967	24.985	25.004	25.022	25.041	25.059	25.078	25.096	25.114	25.133	25.151
1360	25.151	25.169	25.188	25.206	25.224	25.243	25.261	25.280	25.298	25.316	25.335
1370	25.335	25.353	25.371	25.389	25.408	25.426	25.444	25.463	25.481	25.499	25.517
1380	25.517	25.536	25.554	25.572	25.591	25.609	25.627	25.645	25.664	25.682	25.700
1390	25.700	25.718	25.736	25.755	25.773	25.791	25.809	25.827	25.846	25.864	25.882
1400	25.882	25.900	25.918	25.936	25.955	25.973	25.991	26.009	26.027	26.045	26.063
1410	26.063	26.082	26.100	26.118	26.136	26.154	26.172	26.190	26.208	26.226	26.244
1420	26.244	26.262	26.281	26.299	26.317	26.335	26.353	26.371	26.389	26.407	26.425
1430	26.425	26.443	26.461	26.479	26.497	26.515	26.533	26.551	26.569	26.587	26.605
1440	26.605	26.623	26.641	26.659	26.677	26.695	26.712	26.730	26.748	26.766	26.784
1450	26.784	26.802	26.820	26.838	26.856	26.874	26.892	26.909	26.927	26.945	26.963
1460	26.963	26.981	26.999	27.017	27.035	27.052	27.070	27.088	27.106	27.124	27.141
1470	27.141	27.159	27.177	27.195	27.213	27.230	27.248	27.266	27.284	27.302	27.319
1480	27.319	27.337	27.355	27.373	27.390	27.408	27.426	27.444	27.461	27.479	27.497
1490	27.497	27.514	27.532	27.550	27.567	27.585	27.603	27.621	27.638	27.656	27.673
°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10
1500	27.673	27.691	27.709	27.726	27.744	27.762	27.779	27.797	27.815	27.832	27.850
1510	27.850	27.867	27.885	27.903	27.920	27.938	27.955	27.973	27.990	28.008	28.026
1520	28.026	28.043	28.061	28.078	28.096	28.113	28.131	28.148	28.166	28.183	28.201
1530	28.201	28.218	28.236	28.253	28.271	28.288	28.306	28.323	28.341	28.358	28.375
1540	28.375	28.393	28.410	28.428	28.445	28.463	28.480	28.497	28.515	28.532	28.550
1550	28.550	28.567	28.584	28.602	28.619	28.636	28.654	28.671	28.688	28.706	28.723
1560	28.723	28.740	28.758	28.775	28.792	28.810	28.827	28.844	28.862	28.879	28.896
1570	28.896	28.913	28.931	28.948	28.965	28.982	29.000	29.017	29.034	29.051	29.069
1580	29.069	29.086	29.103	29.120	29.137	29.155	29.172	29.189	29.206	29.223	29.241
1590	29.241	29.258	29.275	29.292	29.309	29.326	29.343	29.361	29.378	29.395	29.412
1600	29.412	29.429	29.446	29.463	29.480	29.497	29.514	29.532	29.549	29.566	29.583
1610	29.583	29.600	29.617	29.634	29.651	29.668	29.685	29.702	29.719	29.736	29.753
1620	29.753	29.770	29.787	29.804	29.821	29.838	29.855	29.872	29.889	29.906	29.923
1630	29.923	29.939	29.956	29.973	29.990	30.007	30.024	30.041	30.058	30.075	30.092
1640	30.092	30.108	30.125	30.142	30.159	30.176	30.193	30.210	30.226	30.243	30.260
1650	30.260	30.277	30.294	30.311	30.327	30.344	30.361	30.378	30.394	30.411	30.428
1660	30.428	30.445	30.461	30.478	30.495	30.512	30.528	30.545	30.562	30.579	30.595
1670	30.595	30.612	30.629	30.645	30.662	30.679	30.695	30.712	30.729	30.745	30.762
1680	30.762	30.779	30.795	30.812	30.828	30.845	30.862	30.878	30.895	30.911	30.928
1690	30.928	30.944	30.961	30.978	30.994	31.011	31.027	31.044	31.060	31.077	31.093
1700	31.093	31.110	31.126	31.143	31.159	31.176	31.192	31.209	31.225	31.242	31.258
1710	31.258	31.275	31.291	31.307	31.324	31.340	31.357	31.373	31.389	31.406	31.422
1720	31.422	31.439	31.455	31.471	31.488	31.504	31.520	31.537	31.553	31.569	31.586
1730	31.586	31.602	31.618	31.635	31.651	31.667	31.684	31.700	31.716	31.732	31.749
1740	31.749	31.765	31.781	31.797	31.814	31.830	31.846	31.862	31.878	31.895	31.911
1750	31.911	31.927	31.943	31.959	31.976	31.992	32.008	32.024	32.040	32.056	32.072
1760	32.072	32.088	32.105	32.121	32.137	32.153	32.169	32.185	32.201	32.217	32.233
1770	32.233	32.249	32.265	32.281	32.297	32.313	32.329	32.345	32.361	32.377	32.393
1780	32.393	32.409	32.425	32.441	32.457	32.473	32.489	32.505	32.521	32.537	32.553
1790	32.553	32.569	32.585	32.600	32.616	32.632	32.648	32.664	32.680	32.696	32.712
1800	32.712	32.727	32.743	32.759	32.775	32.791	32.806	32.822	32.838	32.854	32.870
1810	32.870	32.885	32.901	32.917	32.933	32.948	32.964	32.980	32.995	33.011	33.027
1820	33.027	33.042	33.058	33.074	33.090	33.105	33.121	33.136	33.152	33.168	33.183
1830	33.183	33.199	33.215	33.230	33.246	33.261	33.277	33.292	33.308	33.324	33.339
1840	33.339	33.355	33.370	33.386	33.401	33.417	33.432	33.448	33.463	33.479	33.494
1850	33.494	33.510	33.525	33.540	33.556	33.571	33.587	33.602	33.618	33.633	33.648
1860	33.648	33.664	33.679	33.694	33.710	33.725	33.741	33.756	33.771	33.786	33.802
1870	33.802	33.817	33.832	33.848	33.863	33.878	33.893	33.909	33.924	33.939	33.954
1880	33.954	33.970	33.985	34.000	34.015	34.030	34.046	34.061	34.076	34.091	34.106
1890	34.106	34.121	34.136	34.152	34.167	34.182	34.197	34.212	34.227	34.242	34.257
1900	34.257	34.272	34.287	34.302	34.317	34.332	34.347	34.362	34.377	34.392	34.407
1910	34.407	34.422	34.437	34.452	34.467	34.482	34.497	34.512	34.527	34.542	34.556
1920	34.556	34.571	34.586	34.601	34.616	34.631	34.646	34.660	34.675	34.690	34.705
1930	34.705	34.720	34.734	34.749	34.764	34.779	34.793	34.808	34.823	34.838	34.852
1940	34.852	34.867	34.882	34.896	34.911	34.926	34.940	34.955	34.970	34.984	34.999
1950	34.999	35.013	35.028	35.043	35.057	35.072	35.086	35.101	35.115	35.130	35.144
1960	35.144	35.159	35.173	35.188	35.202	35.217	35.231	35.246	35.260	35.275	35.289
1970	35.289	35.303	35.318	35.332	35.347	35.361	35.375	35.390	35.404	35.418	35.433
1980	35.433	35.447	35.461	35.476	35.490	35.504	35.518	35.533	35.547	35.561	35.575
1990	35.575	35.590	35.604	35.618	35.632	35.646	35.660	35.675	35.689	35.703	35.717
°C	0	1	2	3	4	5	6	7	8	9	10

Type Tungsten-3% Rhenium vs Tungsten-25% Rhenium ITS-90 °C

°C	0	1	2	3	4	5	6	7	8	9	10
2000	35.717	35.731	35.745	35.759	35.773	35.787	35.801	35.816	35.830	35.844	35.858
2010	35.858	35.872	35.886	35.900	35.914	35.927	35.941	35.955	35.969	35.983	35.997
2020	35.997	36.011	36.025	36.039	36.053	36.067	36.080	36.094	36.108	36.122	36.136
2030	36.136	36.149	36.163	36.177	36.191	36.204	36.218	36.232	36.246	36.259	36.273
2040	36.273	36.287	36.300	36.314	36.328	36.341	36.355	36.368	36.382	36.396	36.409
2050	36.409	36.423	36.436	36.450	36.463	36.477	36.490	36.504	36.517	36.531	36.544
2060	36.544	36.558	36.571	36.585	36.598	36.611	36.625	36.638	36.652	36.665	36.678
2070	36.678	36.692	36.705	36.718	36.731	36.745	36.758	36.771	36.784	36.798	36.811
2080	36.811	36.824	36.837	36.850	36.864	36.877	36.890	36.903	36.916	36.929	36.942
2090	36.942	36.955	36.969	36.982	36.995	37.008	37.021	37.034	37.047	37.060	37.073
2100	37.073	37.086	37.099	37.111	37.124	37.137	37.150	37.163	37.176	37.189	37.202
2110	37.202	37.214	37.227	37.240	37.253	37.266	37.278	37.291	37.304	37.317	37.329
2120	37.329	37.342	37.355	37.367	37.380	37.393	37.405	37.418	37.430	37.443	37.456
2130	37.456	37.468	37.481	37.493	37.506	37.518	37.531	37.543	37.556	37.568	37.580
2140	37.580	37.593	37.605	37.618	37.630	37.642	37.655	37.667	37.679	37.692	37.704
2150	37.704	37.716	37.729	37.741	37.753	37.765	37.777	37.790	37.802	37.814	37.826
2160	37.826	37.838	37.850	37.862	37.875	37.887	37.899	37.911	37.923	37.935	37.947
2170	37.947	37.959	37.971	37.983	37.995	38.006	38.018	38.030	38.042	38.054	38.066
2180	38.066	38.078	38.089	38.101	38.113	38.125	38.137	38.148	38.160	38.172	38.183
2190	38.183	38.195	38.207	38.218	38.230	38.242	38.253	38.265	38.276	38.288	38.299
2200	38.299	38.311	38.323	38.334	38.345	38.357	38.368	38.380	38.391	38.403	38.414
2210	38.414	38.425	38.437	38.448	38.459	38.471	38.482	38.493	38.504	38.515	38.527
2220	38.527	38.538	38.549	38.560	38.571	38.582	38.594	38.605	38.616	38.627	38.638
2230	38.638	38.649	38.660	38.671	38.682	38.693	38.704	38.715	38.725	38.736	38.747
2240	38.747	38.758	38.769	38.780	38.790	38.801	38.812	38.823	38.833	38.844	38.855
2250	38.855	38.865	38.876	38.887	38.897	38.908	38.918	38.929	38.940	38.950	38.961
2260	38.961	38.971	38.982	38.992	39.002	39.013	39.023	39.034	39.044	39.054	39.065
2270	39.065	39.075	39.085	39.095	39.106	39.116	39.126	39.136	39.146	39.157	39.167
2280	39.167	39.177	39.187	39.197	39.207	39.217	39.227	39.237	39.247	39.257	39.267
2290	39.267	39.277	39.287	39.296	39.306	39.316	39.326	39.336	39.345	39.355	39.365
2300	39.365	39.375	39.384	39.394	39.404	39.413	39.423	39.432	39.442	39.452	39.461
2310	39.461	39.471	39.480	39.490	39.499	39.508					

°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10

Type Tungsten vs Tungsten-26% Rhenium ITS-90 °C

°C	0	1	2	3	4	5	6	7	8	9	10
0	0.000	0.001	0.003	0.004	0.005	0.007	0.008	0.010	0.012	0.013	0.015
10	0.015	0.017	0.018	0.020	0.022	0.024	0.026	0.028	0.030	0.032	0.034
20	0.034	0.036	0.038	0.041	0.043	0.045	0.048	0.050	0.053	0.055	0.058
30	0.058	0.060	0.063	0.065	0.068	0.071	0.074	0.076	0.079	0.082	0.085
40	0.085	0.088	0.091	0.094	0.097	0.100	0.104	0.107	0.110	0.113	0.117
50	0.117	0.120	0.123	0.127	0.130	0.134	0.138	0.141	0.145	0.148	0.152
60	0.152	0.156	0.160	0.164	0.168	0.172	0.175	0.179	0.184	0.188	0.192
70	0.192	0.196	0.200	0.204	0.209	0.213	0.217	0.222	0.226	0.231	0.235
80	0.235	0.240	0.244	0.249	0.254	0.258	0.263	0.268	0.273	0.277	0.282
90	0.282	0.287	0.292	0.297	0.302	0.307	0.312	0.318	0.323	0.328	0.333
100	0.333	0.339	0.344	0.349	0.355	0.360	0.366	0.371	0.377	0.382	0.388
110	0.388	0.394	0.399	0.405	0.411	0.417	0.422	0.428	0.434	0.440	0.446
120	0.446	0.452	0.458	0.464	0.471	0.477	0.483	0.489	0.495	0.502	0.508
130	0.508	0.514	0.521	0.527	0.534	0.540	0.547	0.553	0.560	0.567	0.573
140	0.573	0.580	0.587	0.594	0.601	0.607	0.614	0.621	0.628	0.635	0.642
150	0.642	0.649	0.656	0.664	0.671	0.678	0.685	0.693	0.700	0.707	0.715
160	0.715	0.722	0.729	0.737	0.744	0.752	0.760	0.767	0.775	0.782	0.790
170	0.790	0.798	0.806	0.813	0.821	0.829	0.837	0.845	0.853	0.861	0.869
180	0.869	0.877	0.885	0.893	0.902	0.910	0.918	0.926	0.935	0.943	0.951
190	0.951	0.960	0.968	0.976	0.985	0.993	1.002	1.011	1.019	1.028	1.037
200	1.037	1.045	1.054	1.063	1.072	1.080	1.089	1.098	1.107	1.116	1.125
210	1.125	1.134	1.143	1.152	1.161	1.170	1.180	1.189	1.198	1.207	1.217
220	1.217	1.226	1.235	1.245	1.254	1.264	1.273	1.283	1.292	1.302	1.311
230	1.311	1.321	1.331	1.340	1.350	1.360	1.369	1.379	1.389	1.399	1.409
240	1.409	1.419	1.429	1.439	1.449	1.459	1.469	1.479	1.489	1.499	1.509
250	1.509	1.520	1.530	1.540	1.550	1.561	1.571	1.582	1.592	1.602	1.613
260	1.613	1.623	1.634	1.644	1.655	1.666	1.676	1.687	1.698	1.708	1.719
270	1.719	1.730	1.741	1.752	1.762	1.773	1.784	1.795	1.806	1.817	1.828
280	1.828	1.839	1.850	1.862	1.873	1.884	1.895	1.906	1.918	1.929	1.940
290	1.940	1.951	1.963	1.974	1.986	1.997	2.009	2.020	2.032	2.043	2.055
300	2.055	2.066	2.078	2.090	2.101	2.113	2.125	2.136	2.148	2.160	2.172
310	2.172	2.184	2.196	2.208	2.219	2.231	2.243	2.255	2.267	2.280	2.292
320	2.292	2.304	2.316	2.328	2.340	2.353	2.365	2.377	2.389	2.402	2.414
330	2.414	2.426	2.439	2.451	2.464	2.476	2.489	2.501	2.514	2.526	2.539
340	2.539	2.552	2.564	2.577	2.590	2.602	2.615	2.628	2.641	2.653	2.666
350	2.666	2.679	2.692	2.705	2.718	2.731	2.744	2.757	2.770	2.783	2.796
360	2.796	2.809	2.822	2.836	2.849	2.862	2.875	2.888	2.902	2.915	2.928
370	2.928	2.942	2.955	2.968	2.982	2.995	3.009	3.022	3.036	3.049	3.063
380	3.063	3.076	3.090	3.104	3.117	3.131	3.145	3.158	3.172	3.186	3.200
390	3.200	3.214	3.227	3.241	3.255	3.269	3.283	3.297	3.311	3.325	3.339
400	3.339	3.353	3.367	3.381	3.395	3.409	3.423	3.438	3.452	3.466	3.480
410	3.480	3.494	3.509	3.523	3.537	3.552	3.566	3.580	3.595	3.609	3.624
420	3.624	3.638	3.653	3.667	3.682	3.696	3.711	3.725	3.740	3.755	3.769
430	3.769	3.784	3.799	3.813	3.828	3.843	3.858	3.872	3.887	3.902	3.917
440	3.917	3.932	3.947	3.962	3.977	3.992	4.007	4.022	4.037	4.052	4.067
450	4.067	4.082	4.097	4.112	4.127	4.142	4.158	4.173	4.188	4.203	4.219
460	4.219	4.234	4.249	4.264	4.280	4.295	4.311	4.326	4.341	4.357	4.372
470	4.372	4.388	4.403	4.419	4.434	4.450	4.465	4.481	4.497	4.512	4.528
480	4.528	4.544	4.559	4.575	4.591	4.606	4.622	4.638	4.654	4.670	4.685
490	4.685	4.701	4.717	4.733	4.749	4.765	4.781	4.797	4.813	4.829	4.845
°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10
500	4.845	4.861	4.877	4.893	4.909	4.925	4.941	4.957	4.974	4.990	5.006
510	5.006	5.022	5.038	5.055	5.071	5.087	5.104	5.120	5.136	5.153	5.169
520	5.169	5.185	5.202	5.218	5.235	5.251	5.267	5.284	5.300	5.317	5.334
530	5.334	5.350	5.367	5.383	5.400	5.416	5.433	5.450	5.466	5.483	5.500
540	5.500	5.517	5.533	5.550	5.567	5.584	5.600	5.617	5.634	5.651	5.668
550	5.668	5.685	5.702	5.718	5.735	5.752	5.769	5.786	5.803	5.820	5.837
560	5.837	5.854	5.871	5.888	5.906	5.923	5.940	5.957	5.974	5.991	6.008
570	6.008	6.026	6.043	6.060	6.077	6.095	6.112	6.129	6.146	6.164	6.181
580	6.181	6.198	6.216	6.233	6.250	6.268	6.285	6.303	6.320	6.338	6.355
590	6.355	6.373	6.390	6.408	6.425	6.443	6.460	6.478	6.495	6.513	6.531
600	6.531	6.548	6.566	6.583	6.601	6.619	6.636	6.654	6.672	6.690	6.707
610	6.707	6.725	6.743	6.761	6.778	6.796	6.814	6.832	6.850	6.868	6.886
620	6.886	6.903	6.921	6.939	6.957	6.975	6.993	7.011	7.029	7.047	7.065
630	7.065	7.083	7.101	7.119	7.137	7.155	7.173	7.191	7.210	7.228	7.246
640	7.246	7.264	7.282	7.300	7.319	7.337	7.355	7.373	7.391	7.410	7.428
650	7.428	7.446	7.465	7.483	7.501	7.519	7.538	7.556	7.575	7.593	7.611
660	7.611	7.630	7.648	7.667	7.685	7.703	7.722	7.740	7.759	7.777	7.796
670	7.796	7.814	7.833	7.852	7.870	7.889	7.907	7.926	7.944	7.963	7.982
680	7.982	8.000	8.019	8.038	8.056	8.075	8.094	8.113	8.131	8.150	8.169
690	8.169	8.187	8.206	8.225	8.244	8.263	8.281	8.300	8.319	8.338	8.357
700	8.357	8.376	8.395	8.414	8.432	8.451	8.470	8.489	8.508	8.527	8.546
710	8.546	8.565	8.584	8.603	8.622	8.641	8.660	8.679	8.698	8.717	8.737
720	8.737	8.756	8.775	8.794	8.813	8.832	8.851	8.870	8.890	8.909	8.928
730	8.928	8.947	8.966	8.986	9.005	9.024	9.043	9.063	9.082	9.101	9.120
740	9.120	9.140	9.159	9.178	9.198	9.217	9.236	9.256	9.275	9.295	9.314
750	9.314	9.333	9.353	9.372	9.392	9.411	9.430	9.450	9.469	9.489	9.508
760	9.508	9.528	9.547	9.567	9.586	9.606	9.625	9.645	9.665	9.684	9.704
770	9.704	9.723	9.743	9.763	9.782	9.802	9.821	9.841	9.861	9.880	9.900
780	9.900	9.920	9.939	9.959	9.979	9.998	10.018	10.038	10.058	10.077	10.097
790	10.097	10.117	10.137	10.156	10.176	10.196	10.216	10.236	10.256	10.275	10.295
800	10.295	10.315	10.335	10.355	10.375	10.395	10.414	10.434	10.454	10.474	10.494
810	10.494	10.514	10.534	10.554	10.574	10.594	10.614	10.634	10.654	10.674	10.694
820	10.694	10.714	10.734	10.754	10.774	10.794	10.814	10.834	10.854	10.874	10.894
830	10.894	10.914	10.934	10.954	10.974	10.995	11.015	11.035	11.055	11.075	11.095
840	11.095	11.115	11.136	11.156	11.176	11.196	11.216	11.236	11.257	11.277	11.297
850	11.297	11.317	11.338	11.358	11.378	11.398	11.419	11.439	11.459	11.479	11.500
860	11.500	11.520	11.540	11.561	11.581	11.601	11.622	11.642	11.662	11.683	11.703
870	11.703	11.723	11.744	11.764	11.784	11.805	11.825	11.845	11.866	11.886	11.907
880	11.907	11.927	11.948	11.968	11.988	12.009	12.029	12.050	12.070	12.091	12.111
890	12.111	12.132	12.152	12.173	12.193	12.214	12.234	12.255	12.275	12.296	12.316
900	12.316	12.337	12.357	12.378	12.398	12.419	12.439	12.460	12.481	12.501	12.522
910	12.522	12.542	12.563	12.583	12.604	12.625	12.645	12.666	12.686	12.707	12.728
920	12.728	12.748	12.769	12.790	12.810	12.831	12.852	12.872	12.893	12.914	12.934
930	12.934	12.955	12.976	12.996	13.017	13.038	13.058	13.079	13.100	13.121	13.141
940	13.141	13.162	13.183	13.204	13.224	13.245	13.266	13.287	13.307	13.328	13.349
950	13.349	13.370	13.390	13.411	13.432	13.453	13.474	13.494	13.515	13.536	13.557
960	13.557	13.578	13.598	13.619	13.640	13.661	13.682	13.702	13.723	13.744	13.765
970	13.765	13.786	13.807	13.828	13.848	13.869	13.890	13.911	13.932	13.953	13.974
980	13.974	13.995	14.015	14.036	14.057	14.078	14.099	14.120	14.141	14.162	14.183
990	14.183	14.204	14.225	14.245	14.266	14.287	14.308	14.329	14.350	14.371	14.392
°C	0	1	2	3	4	5	6	7	8	9	10

Type Tungsten vs Tungsten-26% Rhenium ITS-90 °C

°C	0	1	2	3	4	5	6	7	8	9	10
1000	14.392	14.413	14.434	14.455	14.476	14.497	14.518	14.539	14.560	14.581	14.602
1010	14.602	14.623	14.644	14.665	14.686	14.707	14.728	14.749	14.770	14.791	14.812
1020	14.812	14.833	14.854	14.875	14.896	14.917	14.938	14.959	14.980	15.001	15.022
1030	15.022	15.043	15.064	15.085	15.106	15.127	15.148	15.169	15.190	15.211	15.232
1040	15.232	15.253	15.274	15.295	15.316	15.337	15.359	15.380	15.401	15.422	15.443
1050	15.443	15.464	15.485	15.506	15.527	15.548	15.569	15.590	15.611	15.633	15.654
1060	15.654	15.675	15.696	15.717	15.738	15.759	15.780	15.801	15.822	15.844	15.865
1070	15.865	15.886	15.907	15.928	15.949	15.970	15.991	16.012	16.034	16.055	16.076
1080	16.076	16.097	16.118	16.139	16.160	16.181	16.202	16.224	16.245	16.266	16.287
1090	16.287	16.308	16.329	16.350	16.372	16.393	16.414	16.435	16.456	16.477	16.498
1100	16.498	16.520	16.541	16.562	16.583	16.604	16.625	16.646	16.668	16.689	16.710
1110	16.710	16.731	16.752	16.773	16.794	16.816	16.837	16.858	16.879	16.900	16.921
1120	16.921	16.943	16.964	16.985	17.006	17.027	17.048	17.069	17.091	17.112	17.133
1130	17.133	17.154	17.175	17.196	17.218	17.239	17.260	17.281	17.302	17.323	17.345
1140	17.345	17.366	17.387	17.408	17.429	17.450	17.471	17.493	17.514	17.535	17.556
1150	17.556	17.577	17.598	17.620	17.641	17.662	17.683	17.704	17.725	17.747	17.768
1160	17.768	17.789	17.810	17.831	17.852	17.874	17.895	17.916	17.937	17.958	17.979
1170	17.979	18.000	18.022	18.043	18.064	18.085	18.106	18.127	18.149	18.170	18.191
1180	18.191	18.212	18.233	18.254	18.275	18.297	18.318	18.339	18.360	18.381	18.402
1190	18.402	18.423	18.445	18.466	18.487	18.508	18.529	18.550	18.571	18.593	18.614
1200	18.614	18.635	18.656	18.677	18.698	18.719	18.741	18.762	18.783	18.804	18.825
1210	18.825	18.846	18.867	18.888	18.910	18.931	18.952	18.973	18.994	19.015	19.036
1220	19.036	19.057	19.078	19.100	19.121	19.142	19.163	19.184	19.205	19.226	19.247
1230	19.247	19.268	19.289	19.311	19.332	19.353	19.374	19.395	19.416	19.437	19.458
1240	19.458	19.479	19.500	19.521	19.543	19.564	19.585	19.606	19.627	19.648	19.669
1250	19.669	19.690	19.711	19.732	19.753	19.774	19.795	19.816	19.837	19.858	19.880
1260	19.880	19.901	19.922	19.943	19.964	19.985	20.006	20.027	20.048	20.069	20.090
1270	20.090	20.111	20.132	20.153	20.174	20.195	20.216	20.237	20.258	20.279	20.300
1280	20.300	20.321	20.342	20.363	20.384	20.405	20.426	20.447	20.468	20.489	20.510
1290	20.510	20.531	20.552	20.573	20.594	20.615	20.636	20.657	20.678	20.699	20.720
1300	20.720	20.741	20.762	20.783	20.804	20.824	20.845	20.866	20.887	20.908	20.929
1310	20.929	20.950	20.971	20.992	21.013	21.034	21.055	21.076	21.097	21.117	21.138
1320	21.138	21.159	21.180	21.201	21.222	21.243	21.264	21.285	21.305	21.326	21.347
1330	21.347	21.368	21.389	21.410	21.431	21.452	21.472	21.493	21.514	21.535	21.556
1340	21.556	21.577	21.597	21.618	21.639	21.660	21.681	21.702	21.722	21.743	21.764
1350	21.764	21.785	21.806	21.826	21.847	21.868	21.889	21.910	21.930	21.951	21.972
1360	21.972	21.993	22.014	22.034	22.055	22.076	22.097	22.117	22.138	22.159	22.180
1370	22.180	22.200	22.221	22.242	22.263	22.283	22.304	22.325	22.345	22.366	22.387
1380	22.387	22.408	22.428	22.449	22.470	22.490	22.511	22.532	22.552	22.573	22.594
1390	22.594	22.614	22.635	22.656	22.676	22.697	22.718	22.738	22.759	22.780	22.800
1400	22.800	22.821	22.841	22.862	22.883	22.903	22.924	22.945	22.965	22.986	23.006
1410	23.006	23.027	23.047	23.068	23.089	23.109	23.130	23.150	23.171	23.191	23.212
1420	23.212	23.233	23.253	23.274	23.294	23.315	23.335	23.356	23.376	23.397	23.417
1430	23.417	23.438	23.458	23.479	23.499	23.520	23.540	23.561	23.581	23.602	23.622
1440	23.622	23.643	23.663	23.683	23.704	23.724	23.745	23.765	23.786	23.806	23.826
1450	23.826	23.847	23.867	23.888	23.908	23.928	23.949	23.969	23.990	24.010	24.030
1460	24.030	24.051	24.071	24.091	24.112	24.132	24.152	24.173	24.193	24.213	24.234
1470	24.234	24.254	24.274	24.295	24.315	24.335	24.356	24.376	24.396	24.416	24.437
1480	24.437	24.457	24.477	24.498	24.518	24.538	24.558	24.578	24.599	24.619	24.639
1490	24.639	24.659	24.680	24.700	24.720	24.740	24.760	24.781	24.801	24.821	24.841
°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10
1500	24.841	24.861	24.881	24.902	24.922	24.942	24.962	24.982	25.002	25.022	25.042
1510	25.042	25.063	25.083	25.103	25.123	25.143	25.163	25.183	25.203	25.223	25.243
1520	25.243	25.263	25.283	25.303	25.324	25.344	25.364	25.384	25.404	25.424	25.444
1530	25.444	25.464	25.484	25.504	25.524	25.544	25.564	25.584	25.603	25.623	25.643
1540	25.643	25.663	25.683	25.703	25.723	25.743	25.763	25.783	25.803	25.823	25.843
1550	25.843	25.862	25.882	25.902	25.922	25.942	25.962	25.982	26.001	26.021	26.041
1560	26.041	26.061	26.081	26.101	26.120	26.140	26.160	26.180	26.200	26.219	26.239
1570	26.239	26.259	26.279	26.298	26.318	26.338	26.358	26.377	26.397	26.417	26.437
1580	26.437	26.456	26.476	26.496	26.515	26.535	26.555	26.574	26.594	26.614	26.633
1590	26.633	26.653	26.673	26.692	26.712	26.731	26.751	26.771	26.790	26.810	26.829
1600	26.829	26.849	26.869	26.888	26.908	26.927	26.947	26.966	26.986	27.005	27.025
1610	27.025	27.044	27.064	27.083	27.103	27.122	27.142	27.161	27.181	27.200	27.220
1620	27.220	27.239	27.259	27.278	27.297	27.317	27.336	27.356	27.375	27.394	27.414
1630	27.414	27.433	27.453	27.472	27.491	27.511	27.530	27.549	27.569	27.588	27.607
1640	27.607	27.627	27.646	27.665	27.685	27.704	27.723	27.742	27.762	27.781	27.800
1650	27.800	27.819	27.839	27.858	27.877	27.896	27.915	27.935	27.954	27.973	27.992
1660	27.992	28.011	28.031	28.050	28.069	28.088	28.107	28.126	28.145	28.164	28.184
1670	28.184	28.203	28.222	28.241	28.260	28.279	28.298	28.317	28.336	28.355	28.374
1680	28.374	28.393	28.412	28.431	28.450	28.469	28.488	28.507	28.526	28.545	28.564
1690	28.564	28.583	28.602	28.621	28.640	28.659	28.678	28.697	28.716	28.734	28.753
1700	28.753	28.772	28.791	28.810	28.829	28.848	28.866	28.885	28.904	28.923	28.942
1710	28.942	28.961	28.979	28.998	29.017	29.036	29.054	29.073	29.092	29.111	29.129
1720	29.129	29.148	29.167	29.186	29.204	29.223	29.242	29.260	29.279	29.298	29.316
1730	29.316	29.335	29.354	29.372	29.391	29.409	29.428	29.447	29.465	29.484	29.502
1740	29.502	29.521	29.539	29.558	29.577	29.595	29.614	29.632	29.651	29.669	29.688
1750	29.688	29.706	29.725	29.743	29.762	29.780	29.798	29.817	29.835	29.854	29.872
1760	29.872	29.891	29.909	29.927	29.946	29.964	29.982	30.001	30.019	30.038	30.056
1770	30.056	30.074	30.092	30.111	30.129	30.147	30.166	30.184	30.202	30.220	30.239
1780	30.239	30.257	30.275	30.293	30.312	30.330	30.348	30.366	30.384	30.403	30.421
1790	30.421	30.439	30.457	30.475	30.493	30.511	30.530	30.548	30.566	30.584	30.602
1800	30.602	30.620	30.638	30.656	30.674	30.692	30.710	30.728	30.746	30.764	30.782
1810	30.782	30.800	30.818	30.836	30.854	30.872	30.890	30.908	30.926	30.944	30.962
1820	30.962	30.980	30.997	31.015	31.033	31.051	31.069	31.087	31.105	31.122	31.140
1830	31.140	31.158	31.176	31.194	31.211	31.229	31.247	31.265	31.282	31.300	31.318
1840	31.318	31.336	31.353	31.371	31.389	31.406	31.424	31.442	31.459	31.477	31.495
1850	31.495	31.512	31.530	31.548	31.565	31.583	31.600	31.618	31.636	31.653	31.671
1860	31.671	31.688	31.706	31.723	31.741	31.758	31.776	31.793	31.811	31.828	31.846
1870	31.846	31.863	31.881	31.898	31.915	31.933	31.950	31.968	31.985	32.002	32.020
1880	32.020	32.037	32.054	32.072	32.089	32.106	32.124	32.141	32.158	32.176	32.193
1890	32.193	32.210	32.227	32.245	32.262	32.279	32.296	32.313	32.331	32.348	32.365
1900	32.365	32.382	32.399	32.417	32.434	32.451	32.468	32.485	32.502	32.519	32.536
1910	32.536	32.553	32.570	32.587	32.605	32.622	32.639	32.656	32.673	32.690	32.707
1920	32.707	32.724	32.741	32.757	32.774	32.791	32.808	32.825	32.842	32.859	32.876
1930	32.876	32.893	32.910	32.927	32.943	32.960	32.977	32.994	33.011	33.027	33.044
1940	33.044	33.061	33.078	33.095	33.111	33.128	33.145	33.162	33.178	33.195	33.212
1950	33.212	33.228	33.245	33.262	33.278	33.295	33.312	33.328	33.345	33.361	33.378
1960	33.378	33.395	33.411	33.428	33.444	33.461	33.477	33.494	33.510	33.527	33.543
1970	33.543	33.560	33.576	33.593	33.609	33.626	33.642	33.659	33.675	33.691	33.708
1980	33.708	33.724	33.741	33.757	33.773	33.790	33.806	33.822	33.839	33.855	33.871
1990	33.871	33.887	33.904	33.920	33.936	33.952	33.969	33.985	34.001	34.017	34.033
°C	0	1	2	3	4	5	6	7	8	9	10

Type Tungsten vs Tungsten-26% Rhenium ITS-90 °C

°C	0	1	2	3	4	5	6	7	8	9	10
2000	34.033	34.050	34.066	34.082	34.098	34.114	34.130	34.146	34.163	34.179	34.195
2010	34.195	34.211	34.227	34.243	34.259	34.275	34.291	34.307	34.323	34.339	34.355
2020	34.355	34.371	34.387	34.403	34.419	34.435	34.451	34.467	34.482	34.498	34.514
2030	34.514	34.530	34.546	34.562	34.578	34.593	34.609	34.625	34.641	34.657	34.672
2040	34.672	34.688	34.704	34.720	34.735	34.751	34.767	34.782	34.798	34.814	34.829
2050	34.829	34.845	34.861	34.876	34.892	34.908	34.923	34.939	34.954	34.970	34.985
2060	34.985	35.001	35.016	35.032	35.047	35.063	35.078	35.094	35.109	35.125	35.140
2070	35.140	35.156	35.171	35.187	35.202	35.217	35.233	35.248	35.263	35.279	35.294
2080	35.294	35.309	35.325	35.340	35.355	35.371	35.386	35.401	35.416	35.432	35.447
2090	35.447	35.462	35.477	35.492	35.508	35.523	35.538	35.553	35.568	35.583	35.598
2100	35.598	35.613	35.629	35.644	35.659	35.674	35.689	35.704	35.719	35.734	35.749
2110	35.749	35.764	35.779	35.794	35.809	35.824	35.839	35.853	35.868	35.883	35.898
2120	35.898	35.913	35.928	35.943	35.958	35.972	35.987	36.002	36.017	36.032	36.046
2130	36.046	36.061	36.076	36.091	36.105	36.120	36.135	36.149	36.164	36.179	36.193
2140	36.193	36.208	36.223	36.237	36.252	36.266	36.281	36.296	36.310	36.325	36.339
2150	36.339	36.354	36.368	36.383	36.397	36.412	36.426	36.441	36.455	36.469	36.484
2160	36.484	36.498	36.513	36.527	36.541	36.556	36.570	36.584	36.599	36.613	36.627
2170	36.627	36.642	36.656	36.670	36.684	36.699	36.713	36.727	36.741	36.756	36.770
2180	36.770	36.784	36.798	36.812	36.826	36.840	36.855	36.869	36.883	36.897	36.911
2190	36.911	36.925	36.939	36.953	36.967	36.981	36.995	37.009	37.023	37.037	37.051
2200	37.051	37.065	37.079	37.092	37.106	37.120	37.134	37.148	37.162	37.176	37.189
2210	37.189	37.203	37.217	37.231	37.245	37.258	37.272	37.286	37.299	37.313	37.327
2220	37.327	37.341	37.354	37.368	37.381	37.395	37.409	37.422	37.436	37.449	37.463
2230	37.463	37.477	37.490	37.504	37.517	37.531	37.544	37.558	37.571	37.585	37.598
2240	37.598	37.611	37.625	37.638	37.652	37.665	37.678	37.692	37.705	37.718	37.732
2250	37.732	37.745	37.758	37.771	37.785	37.798	37.811	37.824	37.838	37.851	37.864
2260	37.864	37.877	37.890	37.903	37.917	37.930	37.943	37.956	37.969	37.982	37.995
2270	37.995	38.008	38.021	38.034	38.047	38.060	38.073	38.086	38.099	38.112	38.125
2280	38.125	38.138	38.150	38.163	38.176	38.189	38.202	38.215	38.228	38.240	38.253
2290	38.253	38.266	38.279	38.291	38.304	38.317	38.329	38.342	38.355	38.367	38.380
2300	38.380	38.393	38.405	38.418	38.431	38.443	38.456	38.468	38.481	38.493	38.506
2310	38.506	38.518	38.531	38.543	38.556	38.568					

°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10

°C	0	1	2	3	4	5	6	7	8	9	10

100Ω RTD 0.00385 Ω / Ω /°C ITS-90 °F

°F	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
-320	20.44	20.20	19.96	19.72	19.48	19.24	19.00	18.76	18.52		
-310	22.83	22.59	22.35	22.11	21.87	21.63	21.39	21.16	20.92	20.68	20.44
-300	25.20	24.97	24.73	24.49	24.25	24.02	23.78	23.54	23.30	23.06	22.83
-290	27.57	27.33	27.10	26.86	26.62	26.39	26.15	25.91	25.68	25.44	25.20
-280	29.93	29.69	29.46	29.22	28.98	28.75	28.51	28.28	28.04	27.81	27.57
-270	32.27	32.04	31.80	31.57	31.34	31.10	30.87	30.63	30.40	30.16	29.93
-260	34.61	34.38	34.14	33.91	33.68	33.44	33.21	32.98	32.74	32.51	32.27
-250	36.94	36.71	36.47	36.24	36.01	35.78	35.54	35.31	35.08	34.84	34.61
-240	39.26	39.03	38.80	38.56	38.33	38.10	37.87	37.64	37.40	37.17	36.94
-230	41.57	41.34	41.11	40.88	40.65	40.42	40.19	39.95	39.72	39.49	39.26
-220	43.88	43.65	43.42	43.19	42.96	42.73	42.49	42.26	42.03	41.80	41.57
-210	46.17	45.94	45.71	45.48	45.26	45.03	44.80	44.57	44.34	44.11	43.88
-200	48.46	48.23	48.00	47.78	47.55	47.32	47.09	46.86	46.63	46.40	46.17
-190	50.74	50.52	50.29	50.06	49.83	49.60	49.38	49.15	48.92	48.69	48.46
-180	53.02	52.79	52.56	52.34	52.11	51.88	51.65	51.43	51.20	50.97	50.74
-170	55.29	55.06	54.83	54.61	54.38	54.15	53.93	53.70	53.47	53.25	53.02
-160	57.55	57.32	57.10	56.87	56.65	56.42	56.19	55.97	55.74	55.51	55.29
-150	59.81	59.58	59.35	59.13	58.90	58.68	58.45	58.23	58.00	57.78	57.55
-140	62.06	61.83	61.61	61.38	61.16	60.93	60.71	60.48	60.26	60.03	59.81
-130	64.30	64.08	63.85	63.63	63.40	63.18	62.95	62.73	62.50	62.28	62.06
-120	66.54	66.31	66.09	65.87	65.64	65.42	65.20	64.97	64.75	64.52	64.30
-110	68.77	68.55	68.33	68.10	67.88	67.66	67.43	67.21	66.99	66.76	66.54
100	71.00	70.78	70.55	70.33	70.11	69.89	69.66	69.44	69.22	68.99	68.77
-90	73.22	73.00	72.78	72.56	72.33	72.11	71.89	71.67	71.45	71.22	71.00
-80	75.44	75.22	75.00	74.78	74.55	74.33	74.11	73.89	73.67	73.45	73.22
-70	77.66	77.43	77.21	76.99	76.77	76.55	76.33	76.11	75.88	75.66	75.44
-60	79.86	79.64	79.42	79.20	78.98	78.76	78.54	78.32	78.10	77.88	77.66
-50	82.07	81.85	81.63	81.41	81.19	80.97	80.75	80.53	80.31	80.09	79.86
-40	84.27	84.05	83.83	83.61	83.39	83.17	82.95	82.73	82.51	82.29	82.07
-30	86.47	86.25	86.03	85.81	85.59	85.37	85.15	84.93	84.71	84.49	84.27
-20	88.66	88.44	88.22	88.00	87.78	87.56	87.34	87.13	86.91	86.69	86.47
-10	90.85	90.63	90.41	90.19	89.97	89.75	89.54	89.32	89.10	88.88	88.66
0	93.03	92.82	92.60	92.38	92.16	91.94	91.72	91.50	91.29	91.07	90.85
°F	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10

°F	0	1	2	3	4	5	6	7	8	9	10
0	93.03	93.25	93.47	93.69	93.91	94.12	94.34	94.56	94.78	95.00	95.21
10	95.21	95.43	95.65	95.87	96.09	96.30	96.52	96.74	96.96	97.17	97.39
20	97.39	97.61	97.83	98.04	98.26	98.48	98.70	98.91	99.13	99.35	99.57
30	99.57	99.78	100.00	100.22	100.43	100.65	100.87	101.09	101.30	101.52	101.74
40	101.74	101.95	102.17	102.39	102.60	102.82	103.04	103.25	103.47	103.69	103.90
50	103.90	104.12	104.34	104.55	104.77	104.98	105.20	105.42	105.63	105.85	106.07
60	106.07	106.28	106.50	106.71	106.93	107.15	107.36	107.58	107.79	108.01	108.23
70	108.23	108.44	108.66	108.87	109.09	109.30	109.52	109.73	109.95	110.17	110.38
80	110.38	110.60	110.81	111.03	111.24	111.46	111.67	111.89	112.10	112.32	112.53
90	112.53	112.75	112.96	113.18	113.39	113.61	113.82	114.04	114.25	114.47	114.68
°F	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10

°F	0	1	2	3	4	5	6	7	8	9	10
100	114.68	114.90	115.11	115.33	115.54	115.76	115.97	116.18	116.40	116.61	116.83
110	116.83	117.04	117.26	117.47	117.68	117.90	118.11	118.33	118.54	118.76	118.97
120	118.97	119.18	119.40	119.61	119.82	120.04	120.25	120.47	120.68	120.89	121.11
130	121.11	121.32	121.53	121.75	121.96	122.18	122.39	122.60	122.82	123.03	123.24
140	123.24	123.46	123.67	123.88	124.09	124.31	124.52	124.73	124.95	125.16	125.37
150	125.37	125.59	125.80	126.01	126.22	126.44	126.65	126.86	127.08	127.29	127.50
160	127.50	127.71	127.93	128.14	128.35	128.56	128.78	128.99	129.20	129.41	129.62
170	129.62	129.84	130.05	130.26	130.47	130.68	130.90	131.11	131.32	131.53	131.74
180	131.74	131.96	132.17	132.38	132.59	132.80	133.01	133.23	133.44	133.65	133.86
190	133.86	134.07	134.28	134.50	134.71	134.92	135.13	135.34	135.55	135.76	135.97
200	135.97	136.19	136.40	136.61	136.82	137.03	137.24	137.45	137.66	137.87	138.08
210	138.08	138.29	138.51	138.72	138.93	139.14	139.35	139.56	139.77	139.98	140.19
220	140.19	140.40	140.61	140.82	141.03	141.24	141.45	141.66	141.87	142.08	142.29
230	142.29	142.50	142.71	142.92	143.13	143.34	143.55	143.76	143.97	144.18	144.39
240	144.39	144.60	144.81	145.02	145.23	145.44	145.65	145.86	146.07	146.28	146.49
250	146.49	146.70	146.91	147.11	147.32	147.53	147.74	147.95	148.16	148.37	148.58
260	148.58	148.79	149.00	149.21	149.41	149.62	149.83	150.04	150.25	150.46	150.67
270	150.67	150.88	151.08	151.29	151.50	151.71	151.92	152.13	152.33	152.54	152.75
280	152.75	152.96	153.17	153.38	153.58	153.79	154.00	154.21	154.42	154.62	154.83
290	154.83	155.04	155.25	155.46	155.66	155.87	156.08	156.29	156.49	156.70	156.91
300	156.91	157.12	157.33	157.53	157.74	157.95	158.15	158.36	158.57	158.78	158.98
310	158.98	159.19	159.40	159.61	159.81	160.02	160.23	160.43	160.64	160.85	161.05
320	161.05	161.26	161.47	161.67	161.88	162.09	162.29	162.50	162.71	162.91	163.12
330	163.12	163.33	163.53	163.74	163.95	164.15	164.36	164.57	164.77	164.98	165.18
340	165.18	165.39	165.60	165.80	166.01	166.21	166.42	166.63	166.83	167.04	167.24
350	167.24	167.45	167.66	167.86	168.07	168.27	168.48	168.68	168.89	169.09	169.30
360	169.30	169.51	169.71	169.92	170.12	170.33	170.53	170.74	170.94	171.15	171.35
370	171.35	171.56	171.76	171.97	172.17	172.38	172.58	172.79	172.99	173.20	173.40
380	173.40	173.61	173.81	174.02	174.22	174.43	174.63	174.83	175.04	175.24	175.45
390	175.45	175.65	175.86	176.06	176.26	176.47	176.67	176.88	177.08	177.29	177.49
400	177.49	177.69	177.90	178.10	178.30	178.51	178.71	178.92	179.12	179.32	179.53
410	179.53	179.73	179.93	180.14	180.34	180.55	180.75	180.95	181.16	181.36	181.56
420	181.56	181.77	181.97	182.17	182.38	182.58	182.78	182.98	183.19	183.39	183.59
430	183.59	183.80	184.00	184.20	184.40	184.61	184.81	185.01	185.22	185.42	185.62
440	185.62	185.82	186.03	186.23	186.43	186.63	186.84	187.04	187.24	187.44	187.65
450	187.65	187.85	188.05	188.25	188.45	188.66	188.86	189.06	189.26	189.46	189.67
460	189.67	189.87	190.07	190.27	190.47	190.67	190.88	191.08	191.28	191.48	191.68
470	191.68	191.88	192.09	192.29	192.49	192.69	192.89	193.09	193.29	193.49	193.70
480	193.70	193.90	194.10	194.30	194.50	194.70	194.90	195.10	195.30	195.50	195.71
490	195.71	195.91	196.11	196.31	196.51	196.71	196.91	197.11	197.31	197.51	197.71
500	197.71	197.91	198.11	198.31	198.51	198.71	198.91	199.11	199.31	199.51	199.71
510	199.71	199.91	200.11	200.31	200.51	200.71	200.91	201.11	201.31	201.51	201.71
520	201.71	201.91	202.11	202.31	202.51	202.71	202.91	203.11	203.31	203.51	203.71
530	203.71	203.91	204.11	204.31	204.51	204.71	204.90	205.10	205.30	205.50	205.70
540	205.70	205.90	206.10	206.30	206.50	206.70	206.89	207.09	207.29	207.49	207.69
550	207.69	207.89	208.09	208.29	208.48	208.68	208.88	209.08	209.28	209.48	209.67
560	209.67	209.87	210.07	210.27	210.47	210.67	210.86	211.06	211.26	211.46	211.66
570	211.66	211.85	212.05	212.25	212.45	212.64	212.84	213.04	213.24	213.44	213.63
580	213.63	213.83	214.03	214.23	214.42	214.62	214.82	215.02	215.21	215.41	215.61
590	215.61	215.80	216.00	216.20	216.40	216.59	216.79	216.99	217.18	217.38	217.58
°F	0	1	2	3	4	5	6	7	8	9	10

100Ω RTD 0.00385 Ω / Ω /°C ITS-90 °F

°F	0	1	2	3	4	5	6	7	8	9	10
600	217.58	217.77	217.97	218.17	218.37	218.56	218.76	218.96	219.15	219.35	219.55
610	219.55	219.74	219.94	220.13	220.33	220.53	220.72	220.92	221.12	221.31	221.51
620	221.51	221.70	221.90	222.10	222.29	222.49	222.68	222.88	223.08	223.27	223.47
630	223.47	223.66	223.86	224.06	224.25	224.45	224.64	224.84	225.03	225.23	225.42
640	225.42	225.62	225.82	226.01	226.21	226.40	226.60	226.79	226.99	227.18	227.38
650	227.38	227.57	227.77	227.96	228.16	228.35	228.55	228.74	228.94	229.13	229.33
660	229.33	229.52	229.72	229.91	230.11	230.30	230.49	230.69	230.88	231.08	231.27
670	231.27	231.47	231.66	231.86	232.05	232.24	232.44	232.63	232.83	233.02	233.21
680	233.21	233.41	233.60	233.80	233.99	234.18	234.38	234.57	234.77	234.96	235.15
690	235.15	235.35	235.54	235.73	235.93	236.12	236.31	236.51	236.70	236.89	237.09
700	237.09	237.28	237.47	237.67	237.86	238.05	238.25	238.44	238.63	238.83	239.02
710	239.02	239.21	239.41	239.60	239.79	239.98	240.18	240.37	240.56	240.75	240.95
720	240.95	241.14	241.33	241.52	241.72	241.91	242.10	242.29	242.49	242.68	242.87
730	242.87	243.06	243.26	243.45	243.64	243.83	244.02	244.22	244.41	244.60	244.79
740	244.79	244.98	245.18	245.37	245.56	245.75	245.94	246.13	246.33	246.52	246.71
750	246.71	246.90	247.09	247.28	247.47	247.67	247.86	248.05	248.24	248.43	248.62
760	248.62	248.81	249.00	249.20	249.39	249.58	249.77	249.96	250.15	250.34	250.53
770	250.53	250.72	250.91	251.10	251.30	251.49	251.68	251.87	252.06	252.25	252.44
780	252.44	252.63	252.82	253.01	253.20	253.39	253.58	253.77	253.96	254.15	254.34
790	254.34	254.53	254.72	254.91	255.10	255.29	255.48	255.67	255.86	256.05	256.24
800	256.24	256.43	256.62	256.81	257.00	257.19	257.38	257.57	257.76	257.95	258.14
810	258.14	258.33	258.52	258.70	258.89	259.08	259.27	259.46	259.65	259.84	260.03
820	260.03	260.22	260.41	260.60	260.78	260.97	261.16	261.35	261.54	261.73	261.92
830	261.92	262.11	262.29	262.48	262.67	262.86	263.05	263.24	263.43	263.61	263.80
840	263.80	263.99	264.18	264.37	264.56	264.74	264.93	265.12	265.31	265.50	265.68
850	265.68	265.87	266.06	266.25	266.44	266.62	266.81	267.00	267.19	267.37	267.56
860	267.56	267.75	267.94	268.12	268.31	268.50	268.69	268.87	269.06	269.25	269.44
870	269.44	269.62	269.81	270.00	270.18	270.37	270.56	270.75	270.93	271.12	271.31
880	271.31	271.49	271.68	271.87	272.05	272.24	272.43	272.61	272.80	272.99	273.17
890	273.17	273.36	273.55	273.73	273.92	274.11	274.29	274.48	274.67	274.85	275.04
900	275.04	275.22	275.41	275.60	275.78	275.97	276.15	276.34	276.53	276.71	276.90
910	276.90	277.08	277.27	277.46	277.64	277.83	278.01	278.20	278.38	278.57	278.75
920	278.75	278.94	279.13	279.31	279.50	279.68	279.87	280.05	280.24	280.42	280.61
930	280.61	280.79	280.98	281.16	281.35	281.53	281.72	281.90	282.09	282.27	282.46
940	282.46	282.64	282.83	283.01	283.20	283.38	283.56	283.75	283.93	284.12	284.30
950	284.30	284.49	284.67	284.86	285.04	285.22	285.41	285.59	285.78	285.96	286.14
960	286.14	286.33	286.51	286.70	286.88	287.06	287.25	287.43	287.62	287.80	287.98
970	287.98	288.17	288.35	288.53	288.72	288.90	289.08	289.27	289.45	289.64	289.82
980	289.82	290.00	290.19	290.37	290.55	290.73	290.92	291.10	291.28	291.47	291.65
990	291.65	291.83	292.02	292.20	292.38	292.56	292.75	292.93	293.11	293.30	293.48
1000	293.48	293.66	293.84	294.03	294.21	294.39	294.57	294.76	294.94	295.12	295.30
1010	295.30	295.48	295.67	295.85	296.03	296.21	296.40	296.58	296.76	296.94	297.12
1020	297.12	297.31	297.49	297.67	297.85	298.03	298.21	298.40	298.58	298.76	298.94
1030	298.94	299.12	299.30	299.49	299.67	299.85	300.03	300.21	300.39	300.57	300.75
1040	300.75	300.94	301.12	301.30	301.48	301.66	301.84	302.02	302.20	302.38	302.56
1050	302.56	302.75	302.93	303.11	303.29	303.47	303.65	303.83	304.01	304.19	304.37
1060	304.37	304.55	304.73	304.91	305.09	305.27	305.45	305.63	305.81	305.99	306.17
1070	306.17	306.35	306.53	306.71	306.89	307.07	307.25	307.43	307.61	307.79	307.97
1080	307.97	308.15	308.33	308.51	308.69	308.87	309.05	309.23	309.41	309.59	309.77
1090	309.77	309.95	310.13	310.31	310.49	310.67	310.85	311.02	311.20	311.38	311.56
°F	0	1	2	3	4	5	6	7	8	9	10

°F	0	1	2	3	4	5	6	7	8	9	10
1100	311.56	311.74	311.92	312.10	312.28	312.46	312.64	312.81	312.99	313.17	313.35
1110	313.35	313.53	313.71	313.89	314.07	314.24	314.42	314.60	314.78	314.96	315.14
1120	315.14	315.31	315.49	315.67	315.85	316.03	316.21	316.38	316.56	316.74	316.92
1130	316.92	317.10	317.27	317.45	317.63	317.81	317.98	318.16	318.34	318.52	318.70
1140	318.70	318.87	319.05	319.23	319.41	319.58	319.76	319.94	320.12	320.29	320.47
1150	320.47	320.65	320.82	321.00	321.18	321.36	321.53	321.71	321.89	322.06	322.24
1160	322.24	322.42	322.59	322.77	322.95	323.13	323.30	323.48	323.66	323.83	324.01
1170	324.01	324.18	324.36	324.54	324.71	324.89	325.07	325.24	325.42	325.60	325.77
1180	325.77	325.95	326.12	326.30	326.48	326.65	326.83	327.00	327.18	327.36	327.53
1190	327.53	327.71	327.88	328.06	328.24	328.41	328.59	328.76	328.94	329.11	329.29
1200	329.29	329.46	329.64								
°F	0	1	2	3	4	5	6	7	8	9	10

100Ω RTD 0.003911 Ω / Ω / °C IPTS-68 °F

°F	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
-320	19.21	18.96	18.72	18.48	18.23	17.99	17.75	17.50	17.26		
-310	21.63	21.39	21.15	20.90	20.66	20.42	20.18	19.93	19.69	19.45	19.21
-300	24.04	23.80	23.56	23.32	23.08	22.84	22.60	22.36	22.11	21.87	21.63
-290	26.45	26.21	25.97	25.73	25.49	25.25	25.01	24.77	24.53	24.29	24.04
-280	28.84	28.60	28.36	28.12	27.88	27.65	27.41	27.17	26.93	26.69	26.45
-270	31.22	30.99	30.75	30.51	30.27	30.03	29.80	29.56	29.32	29.08	28.84
-260	33.60	33.36	33.12	32.89	32.65	32.41	32.17	31.94	31.70	31.46	31.22
-250	35.96	35.73	35.49	35.25	35.02	34.78	34.54	34.31	34.07	33.83	33.60
-240	38.32	38.08	37.85	37.61	37.38	37.14	36.91	36.67	36.43	36.20	35.96
-230	40.67	40.43	40.20	39.96	39.73	39.49	39.26	39.02	38.79	38.55	38.32
-220	43.01	42.77	42.54	42.31	42.07	41.84	41.60	41.37	41.14	40.90	40.67
-210	45.34	45.11	44.87	44.64	44.41	44.17	43.94	43.71	43.47	43.24	43.01
-200	47.66	47.43	47.20	46.97	46.73	46.50	46.27	46.04	45.80	45.57	45.34
-190	49.98	49.75	49.52	49.29	49.05	48.82	48.59	48.36	48.13	47.90	47.66
-180	52.29	52.06	51.83	51.60	51.37	51.14	50.91	50.67	50.44	50.21	49.98
-170	54.59	54.36	54.13	53.90	53.67	53.44	53.21	52.98	52.75	52.52	52.29
-160	56.89	56.66	56.43	56.20	55.97	55.74	55.51	55.28	55.05	54.82	54.59
-150	59.18	58.95	58.72	58.50	58.27	58.04	57.81	57.58	57.35	57.12	56.89
-140	61.47	61.24	61.01	60.78	60.55	60.33	60.10	59.87	59.64	59.41	59.18
-130	63.75	63.52	63.29	63.06	62.84	62.61	62.38	62.15	61.92	61.70	61.47
-120	66.02	65.79	65.57	65.34	65.11	64.88	64.66	64.43	64.20	63.97	63.75
-110	68.29	68.06	67.83	67.61	67.38	67.15	66.93	66.70	66.47	66.25	66.02
-100	70.55	70.32	70.10	69.87	69.65	69.42	69.19	68.97	68.74	68.51	68.29
-90	72.81	72.58	72.36	72.13	71.91	71.68	71.45	71.23	71.00	70.78	70.55
-80	75.06	74.84	74.61	74.39	74.16	73.93	73.71	73.48	73.26	73.03	72.81
-70	77.31	77.08	76.86	76.63	76.41	76.19	75.96	75.74	75.51	75.29	75.06
-60	79.55	79.33	79.10	78.88	78.66	78.43	78.21	77.98	77.76	77.53	77.31
-50	81.79	81.57	81.34	81.12	80.90	80.67	80.45	80.22	80.00	79.78	79.55
-40	84.03	83.80	83.58	83.36	83.13	82.91	82.69	82.46	82.24	82.02	81.79
-30	86.26	86.03	85.81	85.59	85.37	85.14	84.92	84.70	84.47	84.25	84.03
-20	88.48	88.26	88.04	87.82	87.59	87.37	87.15	86.93	86.70	86.48	86.26
-10	90.71	90.48	90.26	90.04	89.82	89.60	89.37	89.15	88.93	88.71	88.48
0	92.93	92.70	92.48	92.26	92.04	91.82	91.59	91.37	91.15	90.93	90.71
°F	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10

°F	0	1	2	3	4	5	6	7	8	9	10
0	92.93	93.15	93.37	93.59	93.81	94.03	94.25	94.48	94.70	94.92	95.14
10	95.14	95.36	95.58	95.80	96.03	96.25	96.47	96.69	96.91	97.13	97.35
20	97.35	97.57	97.79	98.01	98.24	98.46	98.68	98.90	99.12	99.34	99.56
30	99.56	99.78	100.00	100.22	100.44	100.66	100.88	101.10	101.32	101.54	101.76
40	101.76	101.98	102.20	102.42	102.64	102.86	103.08	103.30	103.52	103.74	103.96
50	103.96	104.18	104.40	104.62	104.84	105.06	105.28	105.50	105.72	105.94	106.16
60	106.16	106.38	106.60	106.82	107.04	107.26	107.48	107.70	107.92	108.13	108.35
70	108.35	108.57	108.79	109.01	109.23	109.45	109.67	109.89	110.11	110.32	110.54
80	110.54	110.76	110.98	111.20	111.42	111.64	111.86	112.07	112.29	112.51	112.73
90	112.73	112.95	113.17	113.38	113.60	113.82	114.04	114.26	114.48	114.69	114.91
°F	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10

°F	0	1	2	3	4	5	6	7	8	9	10
100	114.91	115.13	115.35	115.57	115.78	116.00	116.22	116.44	116.65	116.87	117.09
110	117.09	117.31	117.53	117.74	117.96	118.18	118.40	118.61	118.83	119.05	119.27
120	119.27	119.48	119.70	119.92	120.13	120.35	120.57	120.79	121.00	121.22	121.44
130	121.44	121.65	121.87	122.09	122.30	122.52	122.74	122.95	123.17	123.39	123.60
140	123.60	123.82	124.04	124.25	124.47	124.69	124.90	125.12	125.34	125.55	125.77
150	125.77	125.99	126.20	126.42	126.63	126.85	127.07	127.28	127.50	127.71	127.93
160	127.93	128.15	128.36	128.58	128.79	129.01	129.22	129.44	129.66	129.87	130.09
170	130.09	130.30	130.52	130.73	130.95	131.16	131.38	131.59	131.81	132.02	132.24
180	132.24	132.46	132.67	132.89	133.10	133.32	133.53	133.75	133.96	134.18	134.39
190	134.39	134.60	134.82	135.03	135.25	135.46	135.68	135.89	136.11	136.32	136.54
200	136.54	136.75	136.96	137.18	137.39	137.61	137.82	138.04	138.25	138.46	138.68
210	138.68	138.89	139.11	139.32	139.53	139.75	139.96	140.18	140.39	140.60	140.82
220	140.82	141.03	141.25	141.46	141.67	141.89	142.10	142.31	142.53	142.74	142.95
230	142.95	143.17	143.38	143.59	143.81	144.02	144.23	144.45	144.66	144.87	145.08
240	145.08	145.30	145.51	145.72	145.94	146.15	146.36	146.58	146.79	147.00	147.21
250	147.21	147.43	147.64	147.85	148.06	148.28	148.49	148.70	148.91	149.13	149.34
260	149.34	149.55	149.76	149.97	150.19	150.40	150.61	150.82	151.03	151.25	151.46
270	151.46	151.67	151.88	152.09	152.31	152.52	152.73	152.94	153.15	153.36	153.58
280	153.58	153.79	154.00	154.21	154.42	154.63	154.84	155.06	155.27	155.48	155.69
290	155.69	155.90	156.11	156.32	156.53	156.75	156.96	157.17	157.38	157.59	157.80
300	157.80	158.01	158.22	158.43	158.64	158.85	159.06	159.27	159.49	159.70	159.91
310	159.91	160.12	160.33	160.54	160.75	160.96	161.17	161.38	161.59	161.80	162.01
320	162.01	162.22	162.43	162.64	162.85	163.06	163.27	163.48	163.69	163.90	164.11
330	164.11	164.32	164.53	164.74	164.95	165.16	165.37	165.58	165.79	165.99	166.20
340	166.20	166.41	166.62	166.83	167.04	167.25	167.46	167.67	167.88	168.09	168.30
350	168.30	168.51	168.71	168.92	169.13	169.34	169.55	169.76	169.97	170.18	170.38
360	170.38	170.59	170.80	171.01	171.22	171.43	171.64	171.84	172.05	172.26	172.47
370	172.47	172.68	172.89	173.09	173.30	173.51	173.72	173.93	174.13	174.34	174.55
380	174.55	174.76	174.97	175.17	175.38	175.59	175.80	176.01	176.21	176.42	176.63
390	176.63	176.84	177.04	177.25	177.46	177.67	177.87	178.08	178.29	178.50	178.70
400	178.70	178.91	179.12	179.32	179.53	179.74	179.95	180.15	180.36	180.57	180.77
410	180.77	180.98	181.19	181.39	181.60	181.81	182.01	182.22	182.43	182.63	182.84
420	182.84	183.05	183.25	183.46	183.67	183.87	184.08	184.28	184.49	184.70	184.90
430	184.90	185.11	185.32	185.52	185.73	185.93	186.14	186.34	186.55	186.76	186.96
440	186.96	187.17	187.37	187.58	187.79	187.99	188.20	188.40	188.61	188.81	189.02
450	189.02	189.22	189.43	189.63	189.84	190.05	190.25	190.46	190.66	190.87	191.07
460	191.07	191.28	191.48	191.69	191.89	192.10	192.30	192.51	192.71	192.91	193.12
470	193.12	193.32	193.53	193.73	193.94	194.14	194.35	194.55	194.76	194.96	195.16
480	195.16	195.37	195.57	195.78	195.98	196.19	196.39	196.59	196.80	197.00	197.21
490	197.21	197.41	197.61	197.82	198.02	198.23	198.43	198.63	198.84	199.04	199.24
500	199.24	199.45	199.65	199.85	200.06	200.26	200.47	200.67	200.87	201.08	201.28
510	201.28	201.48	201.68	201.89	202.09	202.29	202.50	202.70	202.90	203.11	203.31
520	203.31	203.51	203.71	203.92	204.12	204.32	204.53	204.73	204.93	205.13	205.34
530	205.34	205.54	205.74	205.94	206.15	206.35	206.55	206.75	206.96	207.16	207.36
540	207.36	207.56	207.76	207.97	208.17	208.37	208.57	208.77	208.98	209.18	209.38
550	209.38	209.58	209.78	209.98	210.19	210.39	210.59	210.79	210.99	211.19	211.40
560	211.40	211.60	211.80	212.00	212.20	212.40	212.60	212.81	213.01	213.21	213.41
570	213.41	213.61	213.81	214.01	214.21	214.41	214.61	214.82	215.02	215.22	215.42
580	215.42	215.62	215.82	216.02	216.22	216.42	216.62	216.82	217.02	217.22	217.42
590	217.42	217.62	217.82	218.02	218.22	218.42	218.62	218.82	219.02	219.22	219.42
°F	0	1	2	3	4	5	6	7	8	9	10

100Ω RTD 0.003911 Ω / Ω / °C IPTS-68 °F

°F	0	1	2	3	4	5	6	7	8	9	10
600	219.42	219.62	219.82	220.02	220.22	220.42	220.62	220.82	221.02	221.22	221.42
610	221.42	221.62	221.82	222.02	222.22	222.42	222.62	222.82	223.02	223.22	223.42
620	223.42	223.62	223.82	224.02	224.21	224.41	224.61	224.81	225.01	225.21	225.41
630	225.41	225.61	225.81	226.01	226.20	226.40	226.60	226.80	227.00	227.20	227.40
640	227.40	227.59	227.79	227.99	228.19	228.39	228.59	228.79	228.98	229.18	229.38
650	229.38	229.58	229.78	229.97	230.17	230.37	230.57	230.77	230.96	231.16	231.36
660	231.36	231.56	231.76	231.95	232.15	232.35	232.55	232.74	232.94	233.14	233.34
670	233.34	233.53	233.73	233.93	234.13	234.32	234.52	234.72	234.92	235.11	235.31
680	235.31	235.51	235.70	235.90	236.10	236.29	236.49	236.69	236.89	237.08	237.28
690	237.28	237.48	237.67	237.87	238.07	238.26	238.46	238.66	238.85	239.05	239.24
700	239.24	239.44	239.64	239.83	240.03	240.23	240.42	240.62	240.81	241.01	241.21
710	241.21	241.40	241.60	241.79	241.99	242.19	242.38	242.58	242.77	242.97	243.17
720	243.17	243.36	243.56	243.75	243.95	244.14	244.34	244.53	244.73	244.92	245.12
730	245.12	245.32	245.51	245.71	245.90	246.10	246.29	246.49	246.68	246.88	247.07
740	247.07	247.27	247.46	247.66	247.85	248.05	248.24	248.44	248.63	248.82	249.02
750	249.02	249.21	249.41	249.60	249.80	249.99	250.19	250.38	250.57	250.77	250.96
760	250.96	251.16	251.35	251.55	251.74	251.93	252.13	252.32	252.52	252.71	252.90
770	252.90	253.10	253.29	253.48	253.68	253.87	254.07	254.26	254.45	254.65	254.84
780	254.84	255.03	255.23	255.42	255.61	255.81	256.00	256.19	256.39	256.58	256.77
790	256.77	256.97	257.16	257.35	257.55	257.74	257.93	258.12	258.32	258.51	258.70
800	258.70	258.90	259.09	259.28	259.47	259.67	259.86	260.05	260.24	260.44	260.63
810	260.63	260.82	261.01	261.21	261.40	261.59	261.78	261.98	262.17	262.36	262.55
820	262.55	262.74	262.94	263.13	263.32	263.51	263.70	263.90	264.09	264.28	264.47
830	264.47	264.66	264.85	265.05	265.24	265.43	265.62	265.81	266.00	266.19	266.39
840	266.39	266.58	266.77	266.96	267.15	267.34	267.53	267.72	267.92	268.11	268.30
850	268.30	268.49	268.68	268.87	269.06	269.25	269.44	269.63	269.82	270.01	270.21
860	270.21	270.40	270.59	270.78	270.97	271.16	271.35	271.54	271.73	271.92	272.11
870	272.11	272.30	272.49	272.68	272.87	273.06	273.25	273.44	273.63	273.82	274.01
880	274.01	274.20	274.39	274.58	274.77	274.96	275.15	275.34	275.53	275.72	275.91
890	275.91	276.10	276.29	276.48	276.67	276.85	277.04	277.23	277.42	277.61	277.80
900	277.80	277.99	278.18	278.37	278.56	278.75	278.94	279.12	279.31	279.50	279.69
910	279.69	279.88	280.07	280.26	280.45	280.63	280.82	281.01	281.20	281.39	281.58
920	281.58	281.77	281.95	282.14	282.33	282.52	282.71	282.90	283.08	283.27	283.46
930	283.46	283.65	283.84	284.02	284.21	284.40	284.59	284.78	284.96	285.15	285.34
940	285.34	285.53	285.71	285.90	286.09	286.28	286.46	286.65	286.84	287.03	287.21
950	287.21	287.40	287.59	287.78	287.96	288.15	288.34	288.53	288.71	288.90	289.09
960	289.09	289.27	289.46	289.65	289.83	290.02	290.21	290.39	290.58	290.77	290.95
970	290.95	291.14	291.33	291.51	291.70	291.89	292.07	292.26	292.45	292.63	292.82
980	292.82	293.01	293.19	293.38	293.56	293.75	293.94	294.12	294.31	294.49	294.68
990	294.68	294.87	295.05	295.24	295.42	295.61	295.80	295.98	296.17	296.35	296.54
1000	296.54	296.72	296.91	297.09	297.28	297.46	297.65	297.84	298.02	298.21	298.39
1010	298.39	298.58	298.76	298.95	299.13	299.32	299.50	299.69	299.87	300.06	300.24
1020	300.24	300.43	300.61	300.80	300.98	301.17	301.35	301.53	301.72	301.90	302.09
1030	302.09	302.27	302.46	302.64	302.83	303.01	303.19	303.38	303.56	303.75	303.93
1040	303.93	304.12	304.30	304.48	304.67	304.85	305.04	305.22	305.40	305.59	305.77
1050	305.77	305.95	306.14	306.32	306.51	306.69	306.87	307.06	307.24	307.42	307.61
1060	307.61	307.79	307.97	308.16	308.34	308.52	308.71	308.89	309.07	309.26	309.44
1070	309.44	309.62	309.80	309.99	310.17	310.35	310.54	310.72	310.90	311.08	311.27
1080	311.27	311.45	311.63	311.81	312.00	312.18	312.36	312.54	312.73	312.91	313.09
1090	313.09	313.27	313.46	313.64	313.82	314.00	314.19	314.37	314.55	314.73	314.91
°F	0	1	2	3	4	5	6	7	8	9	10

°F	0	1	2	3	4	5	6	7	8	9	10
1100	314.91	315.10	315.28	315.46	315.64	315.82	316.00	316.19	316.37	316.55	316.73
1110	316.73	316.91	317.09	317.28	317.46	317.64	317.82	318.00	318.18	318.36	318.55
1120	318.55	318.73	318.91	319.09	319.27	319.45	319.63	319.81	319.99	320.17	320.36
1130	320.36	320.54	320.72	320.90	321.08	321.26	321.44	321.62	321.80	321.98	322.16
1140	322.16	322.34	322.52	322.70	322.88	323.06	323.24	323.43	323.61	323.79	323.97
1150	323.97	324.15	324.33	324.51	324.69	324.87	325.05	325.23	325.41	325.59	325.77
1160	325.77	325.95	326.12	326.30	326.48	326.66	326.84	327.02	327.20	327.38	327.56
1170	327.56	327.74	327.92	328.10	328.28	328.46	328.64	328.82	329.00	329.17	329.35
1180	329.35	329.53	329.71	329.89	330.07	330.25	330.43	330.61	330.79	330.96	331.14
1190	331.14	331.32	331.50	331.68	331.86	332.04	332.21	332.39	332.57	332.75	332.93
1200	332.93	333.11	333.28	333.46	333.64	333.82	334.00	334.18	334.35	334.53	334.71
°F	0	1	2	3	4	5	6	7	8	9	10

Type B Platinum-6% Rhodium vs Platinum-30% Rhodium ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
30			0.000	0.000	0.000	0.000	-0.001	-0.001	-0.001	-0.001	-0.001
40	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.002	-0.002	-0.002	-0.002	-0.002
50	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002
60	-0.002	-0.002	-0.002	-0.003	-0.003	-0.003	-0.003	-0.003	-0.003	-0.003	-0.003
70	-0.003	-0.003	-0.003	-0.003	-0.003	-0.003	-0.003	-0.002	-0.002	-0.002	-0.002
80	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002
90	-0.002	-0.002	-0.002	-0.002	-0.002	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
100	-0.001	-0.001	-0.001	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002
120	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.003	0.004	0.004
130	0.004	0.004	0.004	0.005	0.005	0.005	0.005	0.005	0.006	0.006	0.006
140	0.006	0.006	0.007	0.007	0.007	0.007	0.008	0.008	0.008	0.009	0.009
150	0.009	0.009	0.009	0.010	0.010	0.010	0.011	0.011	0.011	0.012	0.012
160	0.012	0.012	0.013	0.013	0.013	0.014	0.014	0.014	0.015	0.015	0.015
170	0.015	0.016	0.016	0.016	0.017	0.017	0.017	0.018	0.018	0.019	0.019
180	0.019	0.019	0.020	0.020	0.021	0.021	0.021	0.022	0.022	0.023	0.023
190	0.023	0.023	0.024	0.024	0.025	0.025	0.026	0.026	0.027	0.027	0.027
200	0.027	0.028	0.028	0.029	0.029	0.030	0.030	0.031	0.031	0.032	0.032
210	0.032	0.033	0.033	0.034	0.034	0.035	0.035	0.036	0.036	0.037	0.037
220	0.037	0.038	0.038	0.039	0.039	0.040	0.041	0.041	0.042	0.042	0.043
230	0.043	0.043	0.044	0.044	0.045	0.046	0.046	0.047	0.047	0.048	0.049
240	0.049	0.049	0.050	0.050	0.051	0.052	0.052	0.053	0.053	0.054	0.055
250	0.055	0.055	0.056	0.057	0.057	0.058	0.059	0.059	0.060	0.060	0.061
260	0.061	0.062	0.062	0.063	0.064	0.065	0.065	0.066	0.067	0.067	0.068
270	0.068	0.069	0.069	0.070	0.071	0.072	0.072	0.073	0.074	0.074	0.075
280	0.075	0.076	0.077	0.077	0.078	0.079	0.080	0.080	0.081	0.082	0.083
290	0.083	0.083	0.084	0.085	0.086	0.086	0.087	0.088	0.089	0.090	0.090
300	0.090	0.091	0.092	0.093	0.094	0.094	0.095	0.096	0.097	0.098	0.099
310	0.099	0.099	0.100	0.101	0.102	0.103	0.104	0.105	0.105	0.106	0.107
320	0.107	0.108	0.109	0.110	0.111	0.112	0.112	0.113	0.114	0.115	0.116
330	0.116	0.117	0.118	0.119	0.120	0.121	0.121	0.122	0.123	0.124	0.125
340	0.125	0.126	0.127	0.128	0.129	0.130	0.131	0.132	0.133	0.134	0.135
350	0.135	0.136	0.137	0.138	0.139	0.140	0.141	0.142	0.143	0.144	0.145
360	0.145	0.146	0.147	0.148	0.149	0.150	0.151	0.152	0.153	0.154	0.155
370	0.155	0.156	0.157	0.158	0.159	0.160	0.161	0.162	0.163	0.164	0.165
380	0.165	0.166	0.167	0.168	0.170	0.171	0.172	0.173	0.174	0.175	0.176
390	0.176	0.177	0.178	0.179	0.180	0.182	0.183	0.184	0.185	0.186	0.187
400	0.187	0.188	0.190	0.191	0.192	0.193	0.194	0.195	0.196	0.198	0.199
410	0.199	0.200	0.201	0.202	0.203	0.205	0.206	0.207	0.208	0.209	0.211
420	0.211	0.212	0.213	0.214	0.215	0.217	0.218	0.219	0.220	0.222	0.223
430	0.223	0.224	0.225	0.226	0.228	0.229	0.230	0.231	0.233	0.234	0.235
440	0.235	0.236	0.238	0.239	0.240	0.242	0.243	0.244	0.245	0.247	0.248
450	0.248	0.249	0.251	0.252	0.253	0.255	0.256	0.257	0.259	0.260	0.261
460	0.261	0.263	0.264	0.265	0.267	0.268	0.269	0.271	0.272	0.273	0.275
470	0.275	0.276	0.277	0.279	0.280	0.282	0.283	0.284	0.286	0.287	0.288
480	0.288	0.290	0.291	0.293	0.294	0.296	0.297	0.298	0.300	0.301	0.303
490	0.303	0.304	0.305	0.307	0.308	0.310	0.311	0.313	0.314	0.316	0.317
500	0.317	0.319	0.320	0.321	0.323	0.324	0.326	0.327	0.329	0.330	0.332
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
510	0.332	0.333	0.335	0.336	0.338	0.339	0.341	0.342	0.344	0.345	0.347
520	0.347	0.348	0.350	0.352	0.353	0.355	0.356	0.358	0.359	0.361	0.362
530	0.362	0.364	0.365	0.367	0.369	0.370	0.372	0.373	0.375	0.377	0.378
540	0.378	0.380	0.381	0.383	0.384	0.386	0.388	0.389	0.391	0.393	0.394
550	0.394	0.396	0.397	0.399	0.401	0.402	0.404	0.406	0.407	0.409	0.411
560	0.411	0.412	0.414	0.416	0.417	0.419	0.421	0.422	0.424	0.426	0.427
570	0.427	0.429	0.431	0.432	0.434	0.436	0.437	0.439	0.441	0.443	0.444
580	0.444	0.446	0.448	0.449	0.451	0.453	0.455	0.456	0.458	0.460	0.462
590	0.462	0.463	0.465	0.467	0.469	0.470	0.472	0.474	0.476	0.478	0.479
600	0.479	0.481	0.483	0.485	0.486	0.488	0.490	0.492	0.494	0.495	0.497
610	0.497	0.499	0.501	0.503	0.505	0.506	0.508	0.510	0.512	0.514	0.516
620	0.516	0.517	0.519	0.521	0.523	0.525	0.527	0.529	0.530	0.532	0.534
630	0.534	0.536	0.538	0.540	0.542	0.544	0.546	0.547	0.549	0.551	0.553
640	0.553	0.555	0.557	0.559	0.561	0.563	0.565	0.567	0.569	0.570	0.572
650	0.572	0.574	0.576	0.578	0.580	0.582	0.584	0.586	0.588	0.590	0.592
660	0.592	0.594	0.596	0.598	0.600	0.602	0.604	0.606	0.608	0.610	0.612
670	0.612	0.614	0.616	0.618	0.620	0.622	0.624	0.626	0.628	0.630	0.632
680	0.632	0.634	0.636	0.638	0.640	0.642	0.644	0.646	0.648	0.650	0.653
690	0.653	0.655	0.657	0.659	0.661	0.663	0.665	0.667	0.669	0.671	0.673
700	0.673	0.675	0.678	0.680	0.682	0.684	0.686	0.688	0.690	0.692	0.694
710	0.694	0.697	0.699	0.701	0.703	0.705	0.707	0.709	0.712	0.714	0.716
720	0.716	0.718	0.720	0.722	0.725	0.727	0.729	0.731	0.733	0.735	0.738
730	0.738	0.740	0.742	0.744	0.746	0.749	0.751	0.753	0.755	0.757	0.760
740	0.760	0.762	0.764	0.766	0.769	0.771	0.773	0.775	0.778	0.780	0.782
750	0.782	0.784	0.787	0.789	0.791	0.793	0.796	0.798	0.800	0.802	0.805
760	0.805	0.807	0.809	0.812	0.814	0.816	0.818	0.821	0.823	0.825	0.828
770	0.828	0.830	0.832	0.835	0.837	0.839	0.842	0.844	0.846	0.849	0.851
780	0.851	0.853	0.856	0.858	0.860	0.863	0.865	0.867	0.870	0.872	0.875
790	0.875	0.877	0.879	0.882	0.884	0.886	0.889	0.891	0.894	0.896	0.898
800	0.898	0.901	0.903	0.906	0.908	0.910	0.913	0.915	0.918	0.920	0.923
810	0.923	0.925	0.927	0.930	0.932	0.935	0.937	0.940	0.942	0.945	0.947
820	0.947	0.950	0.952	0.955	0.957	0.959	0.962	0.964	0.967	0.969	0.972
830	0.972	0.974	0.977	0.979	0.982	0.984	0.987	0.989	0.992	0.994	0.997
840	0.997	1.000	1.002	1.005	1.007	1.010	1.012	1.015	1.017	1.020	1.022
850	1.022	1.025	1.027	1.030	1.033	1.035	1.038	1.040	1.043	1.045	1.048
860	1.048	1.051	1.053	1.056	1.058	1.061	1.064	1.066	1.069	1.071	1.074
870	1.074	1.077	1.079	1.082	1.085	1.087	1.090	1.092	1.095	1.098	1.100
880	1.100	1.103	1.106	1.108	1.111	1.114	1.116	1.119	1.122	1.124	1.127
890	1.127	1.130	1.132	1.135	1.138	1.140	1.143	1.146	1.148	1.151	1.154
900	1.154	1.157	1.159	1.162	1.165	1.167	1.170	1.173	1.176	1.178	1.181
910	1.181	1.184	1.186	1.189	1.192	1.195	1.197	1.200	1.203	1.206	1.208
920	1.208	1.211	1.214	1.217	1.220	1.222	1.225	1.228	1.231	1.233	1.236
930	1.236	1.239	1.242	1.245	1.247	1.250	1.253	1.256	1.259	1.262	1.264
940	1.264	1.267	1.270	1.273	1.276	1.278	1.281	1.284	1.287	1.290	1.293
950	1.293	1.296	1.298	1.301	1.304	1.307	1.310	1.313	1.316	1.318	1.321
960	1.321	1.324	1.327	1.330	1.333	1.336	1.339	1.342	1.344	1.347	1.350
970	1.350	1.353	1.356	1.359	1.362	1.365	1.368	1.371	1.374	1.377	1.379
980	1.379	1.382	1.385	1.388	1.391	1.394	1.397	1.400	1.403	1.406	1.409
990	1.409	1.412	1.415	1.418	1.421	1.424	1.427	1.430	1.433	1.436	1.439
ºF	0	1	2	3	4	5	6	7	8	9	10

Type B Platinum-6% Rhodium vs Platinum-30% Rhodium ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
1000	1.439	1.442	1.445	1.448	1.451	1.454	1.457	1.460	1.463	1.466	1.469
1010	1.469	1.472	1.475	1.478	1.481	1.484	1.487	1.490	1.493	1.496	1.499
1020	1.499	1.502	1.505	1.508	1.511	1.515	1.518	1.521	1.524	1.527	1.530
1030	1.530	1.533	1.536	1.539	1.542	1.545	1.548	1.552	1.555	1.558	1.561
1040	1.561	1.564	1.567	1.570	1.573	1.576	1.580	1.583	1.586	1.589	1.592
1050	1.592	1.595	1.598	1.601	1.605	1.608	1.611	1.614	1.617	1.620	1.624
1060	1.624	1.627	1.630	1.633	1.636	1.639	1.643	1.646	1.649	1.652	1.655
1070	1.655	1.659	1.662	1.665	1.668	1.671	1.675	1.678	1.681	1.684	1.687
1080	1.687	1.691	1.694	1.697	1.700	1.704	1.707	1.710	1.713	1.716	1.720
1090	1.720	1.723	1.726	1.729	1.733	1.736	1.739	1.743	1.746	1.749	1.752
1100	1.752	1.756	1.759	1.762	1.765	1.769	1.772	1.775	1.779	1.782	1.785
1110	1.785	1.789	1.792	1.795	1.798	1.802	1.805	1.808	1.812	1.815	1.818
1120	1.818	1.822	1.825	1.828	1.832	1.835	1.838	1.842	1.845	1.849	1.852
1130	1.852	1.855	1.859	1.862	1.865	1.869	1.872	1.875	1.879	1.882	1.886
1140	1.886	1.889	1.892	1.896	1.899	1.903	1.906	1.909	1.913	1.916	1.920
1150	1.920	1.923	1.926	1.930	1.933	1.937	1.940	1.944	1.947	1.950	1.954
1160	1.954	1.957	1.961	1.964	1.968	1.971	1.975	1.978	1.981	1.985	1.988
1170	1.988	1.992	1.995	1.999	2.002	2.006	2.009	2.013	2.016	2.020	2.023
1180	2.023	2.027	2.030	2.034	2.037	2.041	2.044	2.048	2.051	2.055	2.058
1190	2.058	2.062	2.065	2.069	2.072	2.076	2.079	2.083	2.086	2.090	2.094
1200	2.094	2.097	2.101	2.104	2.108	2.111	2.115	2.118	2.122	2.126	2.129
1210	2.129	2.133	2.136	2.140	2.143	2.147	2.151	2.154	2.158	2.161	2.165
1220	2.165	2.169	2.172	2.176	2.179	2.183	2.187	2.190	2.194	2.197	2.201
1230	2.201	2.205	2.208	2.212	2.216	2.219	2.223	2.226	2.230	2.234	2.237
1240	2.237	2.241	2.245	2.248	2.252	2.256	2.259	2.263	2.267	2.270	2.274
1250	2.274	2.278	2.281	2.285	2.289	2.292	2.296	2.300	2.303	2.307	2.311
1260	2.311	2.315	2.318	2.322	2.326	2.329	2.333	2.337	2.341	2.344	2.348
1270	2.348	2.352	2.355	2.359	2.363	2.367	2.370	2.374	2.378	2.382	2.385
1280	2.385	2.389	2.393	2.397	2.400	2.404	2.408	2.412	2.416	2.419	2.423
1290	2.423	2.427	2.431	2.434	2.438	2.442	2.446	2.450	2.453	2.457	2.461
1300	2.461	2.465	2.469	2.472	2.476	2.480	2.484	2.488	2.492	2.495	2.499
1310	2.499	2.503	2.507	2.511	2.515	2.518	2.522	2.526	2.530	2.534	2.538
1320	2.538	2.541	2.545	2.549	2.553	2.557	2.561	2.565	2.569	2.572	2.576
1330	2.576	2.580	2.584	2.588	2.592	2.596	2.600	2.604	2.607	2.611	2.615
1340	2.615	2.619	2.623	2.627	2.631	2.635	2.639	2.643	2.647	2.651	2.654
1350	2.654	2.658	2.662	2.666	2.670	2.674	2.678	2.682	2.686	2.690	2.694
1360	2.694	2.698	2.702	2.706	2.710	2.714	2.718	2.722	2.726	2.730	2.734
1370	2.734	2.738	2.742	2.746	2.750	2.754	2.758	2.762	2.766	2.770	2.774
1380	2.774	2.778	2.782	2.786	2.790	2.794	2.798	2.802	2.806	2.810	2.814
1390	2.814	2.818	2.822	2.826	2.830	2.834	2.838	2.842	2.846	2.850	2.854
1400	2.854	2.859	2.863	2.867	2.871	2.875	2.879	2.883	2.887	2.891	2.895
1410	2.895	2.899	2.903	2.908	2.912	2.916	2.920	2.924	2.928	2.932	2.936
1420	2.936	2.940	2.944	2.949	2.953	2.957	2.961	2.965	2.969	2.973	2.978
1430	2.978	2.982	2.986	2.990	2.994	2.998	3.002	3.007	3.011	3.015	3.019
1440	3.019	3.023	3.027	3.032	3.036	3.040	3.044	3.048	3.052	3.057	3.061
1450	3.061	3.065	3.069	3.073	3.078	3.082	3.086	3.090	3.094	3.099	3.103
1460	3.103	3.107	3.111	3.116	3.120	3.124	3.128	3.132	3.137	3.141	3.145
1470	3.145	3.149	3.154	3.158	3.162	3.166	3.171	3.175	3.179	3.183	3.188
1480	3.188	3.192	3.196	3.200	3.205	3.209	3.213	3.218	3.222	3.226	3.230
1490	3.230	3.235	3.239	3.243	3.248	3.252	3.256	3.261	3.265	3.269	3.273
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
1500	3.273	3.278	3.282	3.286	3.291	3.295	3.299	3.304	3.308	3.312	3.317
1510	3.317	3.321	3.325	3.330	3.334	3.338	3.343	3.347	3.352	3.356	3.360
1520	3.360	3.365	3.369	3.373	3.378	3.382	3.386	3.391	3.395	3.400	3.404
1530	3.404	3.408	3.413	3.417	3.422	3.426	3.430	3.435	3.439	3.444	3.448
1540	3.448	3.452	3.457	3.461	3.466	3.470	3.474	3.479	3.483	3.488	3.492
1550	3.492	3.497	3.501	3.506	3.510	3.514	3.519	3.523	3.528	3.532	3.537
1560	3.537	3.541	3.546	3.550	3.555	3.559	3.563	3.568	3.572	3.577	3.581
1570	3.581	3.586	3.590	3.595	3.599	3.604	3.608	3.613	3.617	3.622	3.626
1580	3.626	3.631	3.635	3.640	3.644	3.649	3.653	3.658	3.662	3.667	3.672
1590	3.672	3.676	3.681	3.685	3.690	3.694	3.699	3.703	3.708	3.712	3.717
1600	3.717	3.722	3.726	3.731	3.735	3.740	3.744	3.749	3.753	3.758	3.763
1610	3.763	3.767	3.772	3.776	3.781	3.786	3.790	3.795	3.799	3.804	3.809
1620	3.809	3.813	3.818	3.822	3.827	3.832	3.836	3.841	3.845	3.850	3.855
1630	3.855	3.859	3.864	3.869	3.873	3.878	3.882	3.887	3.892	3.896	3.901
1640	3.901	3.906	3.910	3.915	3.920	3.924	3.929	3.934	3.938	3.943	3.948
1650	3.948	3.952	3.957	3.962	3.966	3.971	3.976	3.980	3.985	3.990	3.994
1660	3.994	3.999	4.004	4.009	4.013	4.018	4.023	4.027	4.032	4.037	4.041
1670	4.041	4.046	4.051	4.056	4.060	4.065	4.070	4.075	4.079	4.084	4.089
1680	4.089	4.093	4.098	4.103	4.108	4.112	4.117	4.122	4.127	4.131	4.136
1690	4.136	4.141	4.146	4.151	4.155	4.160	4.165	4.170	4.174	4.179	4.184
1700	4.184	4.189	4.194	4.198	4.203	4.208	4.213	4.217	4.222	4.227	4.232
1710	4.232	4.237	4.242	4.246	4.251	4.256	4.261	4.266	4.270	4.275	4.280
1720	4.280	4.285	4.290	4.295	4.299	4.304	4.309	4.314	4.319	4.324	4.328
1730	4.328	4.333	4.338	4.343	4.348	4.353	4.358	4.362	4.367	4.372	4.377
1740	4.377	4.382	4.387	4.392	4.397	4.401	4.406	4.411	4.416	4.421	4.426
1750	4.426	4.431	4.436	4.441	4.445	4.450	4.455	4.460	4.465	4.470	4.475
1760	4.475	4.480	4.485	4.490	4.495	4.500	4.504	4.509	4.514	4.519	4.524
1770	4.524	4.529	4.534	4.539	4.544	4.549	4.554	4.559	4.564	4.569	4.574
1780	4.574	4.579	4.584	4.589	4.593	4.598	4.603	4.608	4.613	4.618	4.623
1790	4.623	4.628	4.633	4.638	4.643	4.648	4.653	4.658	4.663	4.668	4.673
1800	4.673	4.678	4.683	4.688	4.693	4.698	4.703	4.708	4.713	4.718	4.723
1810	4.723	4.728	4.733	4.738	4.743	4.748	4.754	4.759	4.764	4.769	4.774
1820	4.774	4.779	4.784	4.789	4.794	4.799	4.804	4.809	4.814	4.819	4.824
1830	4.824	4.829	4.834	4.839	4.844	4.850	4.855	4.860	4.865	4.870	4.875
1840	4.875	4.880	4.885	4.890	4.895	4.900	4.905	4.911	4.916	4.921	4.926
1850	4.926	4.931	4.936	4.941	4.946	4.951	4.957	4.962	4.967	4.972	4.977
1860	4.977	4.982	4.987	4.992	4.998	5.003	5.008	5.013	5.018	5.023	5.028
1870	5.028	5.034	5.039	5.044	5.049	5.054	5.059	5.065	5.070	5.075	5.080
1880	5.080	5.085	5.090	5.096	5.101	5.106	5.111	5.116	5.121	5.127	5.132
1890	5.132	5.137	5.142	5.147	5.153	5.158	5.163	5.168	5.173	5.179	5.184
1900	5.184	5.189	5.194	5.199	5.205	5.210	5.215	5.220	5.225	5.231	5.236
1910	5.236	5.241	5.246	5.252	5.257	5.262	5.267	5.273	5.278	5.283	5.288
1920	5.288	5.294	5.299	5.304	5.309	5.315	5.320	5.325	5.330	5.336	5.341
1930	5.341	5.346	5.351	5.357	5.362	5.367	5.373	5.378	5.383	5.388	5.394
1940	5.394	5.399	5.404	5.410	5.415	5.420	5.425	5.431	5.436	5.441	5.447
1950	5.447	5.452	5.457	5.463	5.468	5.473	5.479	5.484	5.489	5.495	5.500
1960	5.500	5.505	5.511	5.516	5.521	5.527	5.532	5.537	5.543	5.548	5.553
1970	5.553	5.559	5.564	5.569	5.575	5.580	5.585	5.591	5.596	5.601	5.607
1980	5.607	5.612	5.618	5.623	5.628	5.634	5.639	5.644	5.650	5.655	5.661
1990	5.661	5.666	5.671	5.677	5.682	5.688	5.693	5.698	5.704	5.709	5.715
ºF	0	1	2	3	4	5	6	7	8	9	10

Type B Platinum-6% Rhodium vs Platinum-30% Rhodium ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
2000	5.715	5.720	5.725	5.731	5.736	5.742	5.747	5.752	5.758	5.763	5.769
2010	5.769	5.774	5.780	5.785	5.790	5.796	5.801	5.807	5.812	5.818	5.823
2020	5.823	5.828	5.834	5.839	5.845	5.850	5.856	5.861	5.867	5.872	5.878
2030	5.878	5.883	5.888	5.894	5.899	5.905	5.910	5.916	5.921	5.927	5.932
2040	5.932	5.938	5.943	5.949	5.954	5.960	5.965	5.971	5.976	5.982	5.987
2050	5.987	5.993	5.998	6.004	6.009	6.015	6.020	6.026	6.031	6.037	6.042
2060	6.042	6.048	6.053	6.059	6.064	6.070	6.075	6.081	6.086	6.092	6.098
2070	6.098	6.103	6.109	6.114	6.120	6.125	6.131	6.136	6.142	6.147	6.153
2080	6.153	6.159	6.164	6.170	6.175	6.181	6.186	6.192	6.197	6.203	6.209
2090	6.209	6.214	6.220	6.225	6.231	6.237	6.242	6.248	6.253	6.259	6.264
2100	6.264	6.270	6.276	6.281	6.287	6.292	6.298	6.304	6.309	6.315	6.320
2110	6.320	6.326	6.332	6.337	6.343	6.349	6.354	6.360	6.365	6.371	6.377
2120	6.377	6.382	6.388	6.394	6.399	6.405	6.410	6.416	6.422	6.427	6.433
2130	6.433	6.439	6.444	6.450	6.456	6.461	6.467	6.473	6.478	6.484	6.490
2140	6.490	6.495	6.501	6.507	6.512	6.518	6.524	6.529	6.535	6.541	6.546
2150	6.546	6.552	6.558	6.563	6.569	6.575	6.580	6.586	6.592	6.597	6.603
2160	6.603	6.609	6.615	6.620	6.626	6.632	6.637	6.643	6.649	6.655	6.660
2170	6.660	6.666	6.672	6.677	6.683	6.689	6.695	6.700	6.706	6.712	6.718
2180	6.718	6.723	6.729	6.735	6.740	6.746	6.752	6.758	6.763	6.769	6.775
2190	6.775	6.781	6.786	6.792	6.798	6.804	6.809	6.815	6.821	6.827	6.833
2200	6.833	6.838	6.844	6.850	6.856	6.861	6.867	6.873	6.879	6.884	6.890
2210	6.890	6.896	6.902	6.908	6.913	6.919	6.925	6.931	6.937	6.942	6.948
2220	6.948	6.954	6.960	6.966	6.971	6.977	6.983	6.989	6.995	7.000	7.006
2230	7.006	7.012	7.018	7.024	7.030	7.035	7.041	7.047	7.053	7.059	7.065
2240	7.065	7.070	7.076	7.082	7.088	7.094	7.100	7.105	7.111	7.117	7.123
2250	7.123	7.129	7.135	7.141	7.146	7.152	7.158	7.164	7.170	7.176	7.182
2260	7.182	7.187	7.193	7.199	7.205	7.211	7.217	7.223	7.229	7.234	7.240
2270	7.240	7.246	7.252	7.258	7.264	7.270	7.276	7.281	7.287	7.293	7.299
2280	7.299	7.305	7.311	7.317	7.323	7.329	7.335	7.340	7.346	7.352	7.358
2290	7.358	7.364	7.370	7.376	7.382	7.388	7.394	7.400	7.406	7.412	7.417
2300	7.417	7.423	7.429	7.435	7.441	7.447	7.453	7.459	7.465	7.471	7.477
2310	7.477	7.483	7.489	7.495	7.501	7.507	7.512	7.518	7.524	7.530	7.536
2320	7.536	7.542	7.548	7.554	7.560	7.566	7.572	7.578	7.584	7.590	7.596
2330	7.596	7.602	7.608	7.614	7.620	7.626	7.632	7.638	7.644	7.650	7.656
2340	7.656	7.662	7.668	7.674	7.680	7.686	7.692	7.698	7.704	7.710	7.716
2350	7.716	7.722	7.728	7.734	7.740	7.746	7.752	7.758	7.764	7.770	7.776
2360	7.776	7.782	7.788	7.794	7.800	7.806	7.812	7.818	7.824	7.830	7.836
2370	7.836	7.842	7.848	7.854	7.860	7.866	7.872	7.878	7.884	7.891	7.897
2380	7.897	7.903	7.909	7.915	7.921	7.927	7.933	7.939	7.945	7.951	7.957
2390	7.957	7.963	7.969	7.975	7.981	7.987	7.994	8.000	8.006	8.012	8.018
2400	8.018	8.024	8.030	8.036	8.042	8.048	8.054	8.060	8.066	8.073	8.079
2410	8.079	8.085	8.091	8.097	8.103	8.109	8.115	8.121	8.127	8.134	8.140
2420	8.140	8.146	8.152	8.158	8.164	8.170	8.176	8.182	8.188	8.195	8.201
2430	8.201	8.207	8.213	8.219	8.225	8.231	8.237	8.244	8.250	8.256	8.262
2440	8.262	8.268	8.274	8.280	8.286	8.293	8.299	8.305	8.311	8.317	8.323
2450	8.323	8.329	8.336	8.342	8.348	8.354	8.360	8.366	8.372	8.379	8.385
2460	8.385	8.391	8.397	8.403	8.409	8.416	8.422	8.428	8.434	8.440	8.446
2470	8.446	8.453	8.459	8.465	8.471	8.477	8.483	8.490	8.496	8.502	8.508
2480	8.508	8.514	8.521	8.527	8.533	8.539	8.545	8.551	8.558	8.564	8.570
2490	8.570	8.576	8.582	8.589	8.595	8.601	8.607	8.613	8.620	8.626	8.632
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
2500	8.632	8.638	8.644	8.651	8.657	8.663	8.669	8.675	8.682	8.688	8.694
2510	8.694	8.700	8.707	8.713	8.719	8.725	8.731	8.738	8.744	8.750	8.756
2520	8.756	8.763	8.769	8.775	8.781	8.787	8.794	8.800	8.806	8.812	8.819
2530	8.819	8.825	8.831	8.837	8.844	8.850	8.856	8.862	8.869	8.875	8.881
2540	8.881	8.887	8.894	8.900	8.906	8.912	8.919	8.925	8.931	8.937	8.944
2550	8.944	8.950	8.956	8.962	8.969	8.975	8.981	8.988	8.994	9.000	9.006
2560	9.006	9.013	9.019	9.025	9.031	9.038	9.044	9.050	9.057	9.063	9.069
2570	9.069	9.075	9.082	9.088	9.094	9.101	9.107	9.113	9.119	9.126	9.132
2580	9.132	9.138	9.145	9.151	9.157	9.164	9.170	9.176	9.182	9.189	9.195
2590	9.195	9.201	9.208	9.214	9.220	9.227	9.233	9.239	9.245	9.252	9.258
2600	9.258	9.264	9.271	9.277	9.283	9.290	9.296	9.302	9.309	9.315	9.321
2610	9.321	9.328	9.334	9.340	9.347	9.353	9.359	9.366	9.372	9.378	9.385
2620	9.385	9.391	9.397	9.404	9.410	9.416	9.423	9.429	9.435	9.442	9.448
2630	9.448	9.454	9.461	9.467	9.473	9.480	9.486	9.492	9.499	9.505	9.511
2640	9.511	9.518	9.524	9.530	9.537	9.543	9.550	9.556	9.562	9.569	9.575
2650	9.575	9.581	9.588	9.594	9.600	9.607	9.613	9.619	9.626	9.632	9.639
2660	9.639	9.645	9.651	9.658	9.664	9.670	9.677	9.683	9.690	9.696	9.702
2670	9.702	9.709	9.715	9.721	9.728	9.734	9.741	9.747	9.753	9.760	9.766
2680	9.766	9.772	9.779	9.785	9.792	9.798	9.804	9.811	9.817	9.824	9.830
2690	9.830	9.836	9.843	9.849	9.856	9.862	9.868	9.875	9.881	9.888	9.894
2700	9.894	9.900	9.907	9.913	9.920	9.926	9.932	9.939	9.945	9.952	9.958
2710	9.958	9.964	9.971	9.977	9.984	9.990	9.996	10.003	10.009	10.016	10.022
2720	10.022	10.028	10.035	10.041	10.048	10.054	10.061	10.067	10.073	10.080	10.086
2730	10.086	10.093	10.099	10.105	10.112	10.118	10.125	10.131	10.138	10.144	10.150
2740	10.150	10.157	10.163	10.170	10.176	10.183	10.189	10.195	10.202	10.208	10.215
2750	10.215	10.221	10.228	10.234	10.240	10.247	10.253	10.260	10.266	10.273	10.279
2760	10.279	10.286	10.292	10.298	10.305	10.311	10.318	10.324	10.331	10.337	10.344
2770	10.344	10.350	10.356	10.363	10.369	10.376	10.382	10.389	10.395	10.402	10.408
2780	10.408	10.414	10.421	10.427	10.434	10.440	10.447	10.453	10.460	10.466	10.473
2790	10.473	10.479	10.485	10.492	10.498	10.505	10.511	10.518	10.524	10.531	10.537
2800	10.537	10.544	10.550	10.556	10.563	10.569	10.576	10.582	10.589	10.595	10.602
2810	10.602	10.608	10.615	10.621	10.628	10.634	10.641	10.647	10.653	10.660	10.666
2820	10.666	10.673	10.679	10.686	10.692	10.699	10.705	10.712	10.718	10.725	10.731
2830	10.731	10.738	10.744	10.751	10.757	10.763	10.770	10.776	10.783	10.789	10.796
2840	10.796	10.802	10.809	10.815	10.822	10.828	10.835	10.841	10.848	10.854	10.861
2850	10.861	10.867	10.874	10.880	10.887	10.893	10.900	10.906	10.913	10.919	10.925
2860	10.925	10.932	10.938	10.945	10.951	10.958	10.964	10.971	10.977	10.984	10.990
2870	10.990	10.997	11.003	11.010	11.016	11.023	11.029	11.036	11.042	11.049	11.055
2880	11.055	11.062	11.068	11.075	11.081	11.088	11.094	11.101	11.107	11.114	11.120
2890	11.120	11.127	11.133	11.140	11.146	11.153	11.159	11.166	11.172	11.179	11.185
2900	11.185	11.192	11.198	11.205	11.211	11.218	11.224	11.231	11.237	11.244	11.250
2910	11.250	11.257	11.263	11.270	11.276	11.282	11.289	11.295	11.302	11.308	11.315
2920	11.315	11.321	11.328	11.334	11.341	11.347	11.354	11.360	11.367	11.373	11.380
2930	11.380	11.386	11.393	11.399	11.406	11.412	11.419	11.425	11.432	11.438	11.445
2940	11.445	11.451	11.458	11.464	11.471	11.477	11.484	11.490	11.497	11.503	11.510
2950	11.510	11.516	11.523	11.529	11.536	11.542	11.549	11.555	11.562	11.568	11.575
2960	11.575	11.582	11.588	11.595	11.601	11.608	11.614	11.621	11.627	11.634	11.640
2970	11.640	11.647	11.653	11.660	11.666	11.673	11.679	11.686	11.692	11.699	11.705
2980	11.705	11.712	11.718	11.725	11.731	11.738	11.744	11.751	11.757	11.764	11.770
2990	11.770	11.777	11.783	11.790	11.796	11.803	11.809	11.816	11.822	11.829	11.835
ºF	0	1	2	3	4	5	6	7	8	9	10

Type B Platinum-6% Rhodium vs Platinum-30% Rhodium ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
3000	11.835	11.842	11.848	11.855	11.861	11.868	11.874	11.881	11.887	11.894	11.900
3010	11.900	11.907	11.913	11.920	11.926	11.933	11.939	11.946	11.952	11.959	11.965
3020	11.965	11.972	11.978	11.985	11.991	11.998	12.004	12.011	12.017	12.024	12.030
3030	12.030	12.037	12.043	12.050	12.056	12.063	12.069	12.076	12.082	12.089	12.095
3040	12.095	12.102	12.108	12.115	12.121	12.128	12.134	12.141	12.147	12.154	12.160
3050	12.160	12.166	12.173	12.179	12.186	12.192	12.199	12.205	12.212	12.218	12.225
3060	12.225	12.231	12.238	12.244	12.251	12.257	12.264	12.270	12.277	12.283	12.290
3070	12.290	12.296	12.303	12.309	12.316	12.322	12.329	12.335	12.342	12.348	12.355
3080	12.355	12.361	12.368	12.374	12.381	12.387	12.394	12.400	12.407	12.413	12.420
3090	12.420	12.426	12.433	12.439	12.446	12.452	12.458	12.465	12.471	12.478	12.484
3100	12.484	12.491	12.497	12.504	12.510	12.517	12.523	12.530	12.536	12.543	12.549
3110	12.549	12.556	12.562	12.569	12.575	12.582	12.588	12.595	12.601	12.607	12.614
3120	12.614	12.620	12.627	12.633	12.640	12.646	12.653	12.659	12.666	12.672	12.679
3130	12.679	12.685	12.692	12.698	12.704	12.711	12.717	12.724	12.730	12.737	12.743
3140	12.743	12.750	12.756	12.763	12.769	12.776	12.782	12.789	12.795	12.801	12.808
3150	12.808	12.814	12.821	12.827	12.834	12.840	12.847	12.853	12.860	12.866	12.872
3160	12.872	12.879	12.885	12.892	12.898	12.905	12.911	12.918	12.924	12.931	12.937
3170	12.937	12.943	12.950	12.956	12.963	12.969	12.976	12.982	12.989	12.995	13.001
3180	13.001	13.008	13.014	13.021	13.027	13.034	13.040	13.047	13.053	13.059	13.066
3190	13.066	13.072	13.079	13.085	13.092	13.098	13.104	13.111	13.117	13.124	13.130
3200	13.130	13.137	13.143	13.149	13.156	13.162	13.169	13.175	13.182	13.188	13.194
3210	13.194	13.201	13.207	13.214	13.220	13.227	13.233	13.239	13.246	13.252	13.259
3220	13.259	13.265	13.271	13.278	13.284	13.291	13.297	13.304	13.310	13.316	13.323
3230	13.323	13.329	13.336	13.342	13.348	13.355	13.361	13.368	13.374	13.380	13.387
3240	13.387	13.393	13.400	13.406	13.412	13.419	13.425	13.432	13.438	13.444	13.451
3250	13.451	13.457	13.464	13.470	13.476	13.483	13.489	13.496	13.502	13.508	13.515
3260	13.515	13.521	13.527	13.534	13.540	13.547	13.553	13.559	13.566	13.572	13.579
3270	13.579	13.585	13.591	13.598	13.604	13.610	13.617	13.623	13.630	13.636	13.642
3280	13.642	13.649	13.655	13.661	13.668	13.674	13.680	13.687	13.693	13.700	13.706
3290	13.706	13.712	13.719	13.725	13.731	13.738	13.744	13.750	13.757	13.763	13.769
3300	13.769	13.776	13.782	13.789	13.795	13.801	13.808	13.814	13.820		

ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10

Type C Tungsten- 5% Rhenium vs Tungsten-26% Rhenium ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
30			0.000	0.007	0.015	0.022	0.030	0.037	0.045	0.052	0.060
40	0.060	0.067	0.075	0.082	0.090	0.097	0.105	0.113	0.120	0.128	0.135
50	0.135	0.143	0.150	0.158	0.166	0.173	0.181	0.188	0.196	0.204	0.211
60	0.211	0.219	0.227	0.234	0.242	0.250	0.257	0.265	0.273	0.281	0.288
70	0.288	0.296	0.304	0.311	0.319	0.327	0.335	0.342	0.350	0.358	0.366
80	0.366	0.374	0.381	0.389	0.397	0.405	0.413	0.421	0.428	0.436	0.444
90	0.444	0.452	0.460	0.468	0.476	0.483	0.491	0.499	0.507	0.515	0.523
100	0.523	0.531	0.539	0.547	0.555	0.563	0.571	0.579	0.587	0.595	0.603
110	0.603	0.611	0.619	0.627	0.635	0.643	0.651	0.659	0.667	0.675	0.683
120	0.683	0.691	0.699	0.707	0.715	0.723	0.731	0.740	0.748	0.756	0.764
130	0.764	0.772	0.780	0.788	0.796	0.805	0.813	0.821	0.829	0.837	0.846
140	0.846	0.854	0.862	0.870	0.878	0.887	0.895	0.903	0.911	0.920	0.928
150	0.928	0.936	0.944	0.953	0.961	0.969	0.977	0.986	0.994	1.002	1.011
160	1.011	1.019	1.027	1.036	1.044	1.052	1.061	1.069	1.077	1.086	1.094
170	1.094	1.103	1.111	1.119	1.128	1.136	1.145	1.153	1.161	1.170	1.178
180	1.178	1.187	1.195	1.204	1.212	1.221	1.229	1.238	1.246	1.254	1.263
190	1.263	1.272	1.280	1.289	1.297	1.306	1.314	1.323	1.331	1.340	1.348
200	1.348	1.357	1.365	1.374	1.383	1.391	1.400	1.408	1.417	1.426	1.434
210	1.434	1.443	1.451	1.460	1.469	1.477	1.486	1.495	1.503	1.512	1.521
220	1.521	1.529	1.538	1.547	1.555	1.564	1.573	1.582	1.590	1.599	1.608
230	1.608	1.617	1.625	1.634	1.643	1.652	1.660	1.669	1.678	1.687	1.695
240	1.695	1.704	1.713	1.722	1.731	1.739	1.748	1.757	1.766	1.775	1.784
250	1.784	1.792	1.801	1.810	1.819	1.828	1.837	1.846	1.855	1.863	1.872
260	1.872	1.881	1.890	1.899	1.908	1.917	1.926	1.935	1.944	1.953	1.962
270	1.962	1.970	1.979	1.988	1.997	2.006	2.015	2.024	2.033	2.042	2.051
280	2.051	2.060	2.069	2.078	2.087	2.096	2.105	2.114	2.124	2.133	2.142
290	2.142	2.151	2.160	2.169	2.178	2.187	2.196	2.205	2.214	2.223	2.232
300	2.232	2.242	2.251	2.260	2.269	2.278	2.287	2.296	2.305	2.315	2.324
310	2.324	2.333	2.342	2.351	2.360	2.370	2.379	2.388	2.397	2.406	2.415
320	2.415	2.425	2.434	2.443	2.452	2.462	2.471	2.480	2.489	2.498	2.508
330	2.508	2.517	2.526	2.536	2.545	2.554	2.563	2.573	2.582	2.591	2.600
340	2.600	2.610	2.619	2.628	2.638	2.647	2.656	2.666	2.675	2.684	2.694
350	2.694	2.703	2.712	2.722	2.731	2.740	2.750	2.759	2.769	2.778	2.787
360	2.787	2.797	2.806	2.815	2.825	2.834	2.844	2.853	2.863	2.872	2.881
370	2.881	2.891	2.900	2.910	2.919	2.929	2.938	2.948	2.957	2.966	2.976
380	2.976	2.985	2.995	3.004	3.014	3.023	3.033	3.042	3.052	3.061	3.071
390	3.071	3.080	3.090	3.099	3.109	3.119	3.128	3.138	3.147	3.157	3.166
400	3.166	3.176	3.185	3.195	3.205	3.214	3.224	3.233	3.243	3.252	3.262
410	3.262	3.272	3.281	3.291	3.301	3.310	3.320	3.329	3.339	3.349	3.358
420	3.358	3.368	3.378	3.387	3.397	3.407	3.416	3.426	3.436	3.445	3.455
430	3.455	3.465	3.474	3.484	3.494	3.503	3.513	3.523	3.532	3.542	3.552
440	3.552	3.562	3.571	3.581	3.591	3.600	3.610	3.620	3.630	3.639	3.649
450	3.649	3.659	3.669	3.678	3.688	3.698	3.708	3.718	3.727	3.737	3.747
460	3.747	3.757	3.767	3.776	3.786	3.796	3.806	3.816	3.825	3.835	3.845
470	3.845	3.855	3.865	3.875	3.884	3.894	3.904	3.914	3.924	3.934	3.943
480	3.943	3.953	3.963	3.973	3.983	3.993	4.003	4.013	4.022	4.032	4.042
490	4.042	4.052	4.062	4.072	4.082	4.092	4.102	4.112	4.122	4.131	4.141
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
500	4.141	4.151	4.161	4.171	4.181	4.191	4.201	4.211	4.221	4.231	4.241
510	4.241	4.251	4.261	4.271	4.281	4.291	4.301	4.311	4.321	4.331	4.341
520	4.341	4.351	4.361	4.371	4.381	4.391	4.401	4.411	4.421	4.431	4.441
530	4.441	4.451	4.461	4.471	4.481	4.491	4.501	4.511	4.521	4.531	4.541
540	4.541	4.551	4.561	4.571	4.582	4.592	4.602	4.612	4.622	4.632	4.642
550	4.642	4.652	4.662	4.672	4.682	4.692	4.703	4.713	4.723	4.733	4.743
560	4.743	4.753	4.763	4.773	4.784	4.794	4.804	4.814	4.824	4.834	4.844
570	4.844	4.855	4.865	4.875	4.885	4.895	4.905	4.915	4.926	4.936	4.946
580	4.946	4.956	4.966	4.977	4.987	4.997	5.007	5.017	5.027	5.038	5.048
590	5.048	5.058	5.068	5.078	5.089	5.099	5.109	5.119	5.130	5.140	5.150
600	5.150	5.160	5.170	5.181	5.191	5.201	5.211	5.222	5.232	5.242	5.252
610	5.252	5.263	5.273	5.283	5.294	5.304	5.314	5.324	5.335	5.345	5.355
620	5.355	5.365	5.376	5.386	5.396	5.407	5.417	5.427	5.437	5.448	5.458
630	5.458	5.468	5.479	5.489	5.499	5.510	5.520	5.530	5.541	5.551	5.561
640	5.561	5.572	5.582	5.592	5.603	5.613	5.623	5.634	5.644	5.654	5.665
650	5.665	5.675	5.685	5.696	5.706	5.717	5.727	5.737	5.748	5.758	5.768
660	5.768	5.779	5.789	5.800	5.810	5.820	5.831	5.841	5.851	5.862	5.872
670	5.872	5.883	5.893	5.903	5.914	5.924	5.935	5.945	5.956	5.966	5.976
680	5.976	5.987	5.997	6.008	6.018	6.028	6.039	6.049	6.060	6.070	6.081
690	6.081	6.091	6.102	6.112	6.122	6.133	6.143	6.154	6.164	6.175	6.185
700	6.185	6.196	6.206	6.217	6.227	6.238	6.248	6.259	6.269	6.279	6.290
710	6.290	6.300	6.311	6.321	6.332	6.342	6.353	6.363	6.374	6.384	6.395
720	6.395	6.405	6.416	6.426	6.437	6.447	6.458	6.468	6.479	6.490	6.500
730	6.500	6.511	6.521	6.532	6.542	6.553	6.563	6.574	6.584	6.595	6.605
740	6.605	6.616	6.626	6.637	6.648	6.658	6.669	6.679	6.690	6.700	6.711
750	6.711	6.721	6.732	6.743	6.753	6.764	6.774	6.785	6.795	6.806	6.817
760	6.817	6.827	6.838	6.848	6.859	6.869	6.880	6.891	6.901	6.912	6.922
770	6.922	6.933	6.944	6.954	6.965	6.975	6.986	6.997	7.007	7.018	7.028
780	7.028	7.039	7.050	7.060	7.071	7.082	7.092	7.103	7.113	7.124	7.135
790	7.135	7.145	7.156	7.167	7.177	7.188	7.198	7.209	7.220	7.230	7.241
800	7.241	7.252	7.262	7.273	7.284	7.294	7.305	7.315	7.326	7.337	7.347
810	7.347	7.358	7.369	7.379	7.390	7.401	7.411	7.422	7.433	7.443	7.454
820	7.454	7.465	7.475	7.486	7.497	7.507	7.518	7.529	7.540	7.550	7.561
830	7.561	7.572	7.582	7.593	7.604	7.614	7.625	7.636	7.646	7.657	7.668
840	7.668	7.678	7.689	7.700	7.711	7.721	7.732	7.743	7.753	7.764	7.775
850	7.775	7.786	7.796	7.807	7.818	7.828	7.839	7.850	7.861	7.871	7.882
860	7.882	7.893	7.903	7.914	7.925	7.936	7.946	7.957	7.968	7.979	7.989
870	7.989	8.000	8.011	8.022	8.032	8.043	8.054	8.064	8.075	8.086	8.097
880	8.097	8.107	8.118	8.129	8.140	8.150	8.161	8.172	8.183	8.193	8.204
890	8.204	8.215	8.226	8.236	8.247	8.258	8.269	8.280	8.290	8.301	8.312
900	8.312	8.323	8.333	8.344	8.355	8.366	8.376	8.387	8.398	8.409	8.420
910	8.420	8.430	8.441	8.452	8.463	8.473	8.484	8.495	8.506	8.517	8.527
920	8.527	8.538	8.549	8.560	8.571	8.581	8.592	8.603	8.614	8.625	8.635
930	8.635	8.646	8.657	8.668	8.678	8.689	8.700	8.711	8.722	8.732	8.743
940	8.743	8.754	8.765	8.776	8.787	8.797	8.808	8.819	8.830	8.841	8.851
950	8.851	8.862	8.873	8.884	8.895	8.905	8.916	8.927	8.938	8.949	8.960
960	8.960	8.970	8.981	8.992	9.003	9.014	9.024	9.035	9.046	9.057	9.068
970	9.068	9.079	9.089	9.100	9.111	9.122	9.133	9.144	9.154	9.165	9.176
980	9.176	9.187	9.198	9.209	9.219	9.230	9.241	9.252	9.263	9.274	9.284
990	9.284	9.295	9.306	9.317	9.328	9.339	9.349	9.360	9.371	9.382	9.393
ºF	0	1	2	3	4	5	6	7	8	9	10

Type C Tungsten- 5% Rhenium vs Tungsten-26% Rhenium ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
1000	9.393	9.404	9.414	9.425	9.436	9.447	9.458	9.469	9.480	9.490	9.501
1010	9.501	9.512	9.523	9.534	9.545	9.555	9.566	9.577	9.588	9.599	9.610
1020	9.610	9.621	9.631	9.642	9.653	9.664	9.675	9.686	9.697	9.707	9.718
1030	9.718	9.729	9.740	9.751	9.762	9.773	9.783	9.794	9.805	9.816	9.827
1040	9.827	9.838	9.849	9.859	9.870	9.881	9.892	9.903	9.914	9.925	9.935
1050	9.935	9.946	9.957	9.968	9.979	9.990	10.001	10.011	10.022	10.033	10.044
1060	10.044	10.055	10.066	10.077	10.087	10.098	10.109	10.120	10.131	10.142	10.153
1070	10.153	10.163	10.174	10.185	10.196	10.207	10.218	10.229	10.239	10.250	10.261
1080	10.261	10.272	10.283	10.294	10.305	10.316	10.326	10.337	10.348	10.359	10.370
1090	10.370	10.381	10.392	10.402	10.413	10.424	10.435	10.446	10.457	10.468	10.478
1100	10.478	10.489	10.500	10.511	10.522	10.533	10.544	10.554	10.565	10.576	10.587
1110	10.587	10.598	10.609	10.620	10.630	10.641	10.652	10.663	10.674	10.685	10.696
1120	10.696	10.706	10.717	10.728	10.739	10.750	10.761	10.772	10.782	10.793	10.804
1130	10.804	10.815	10.826	10.837	10.848	10.858	10.869	10.880	10.891	10.902	10.913
1140	10.913	10.923	10.934	10.945	10.956	10.967	10.978	10.989	10.999	11.010	11.021
1150	11.021	11.032	11.043	11.054	11.064	11.075	11.086	11.097	11.108	11.119	11.130
1160	11.130	11.140	11.151	11.162	11.173	11.184	11.195	11.205	11.216	11.227	11.238
1170	11.238	11.249	11.260	11.270	11.281	11.292	11.303	11.314	11.325	11.335	11.346
1180	11.346	11.357	11.368	11.379	11.390	11.400	11.411	11.422	11.433	11.444	11.455
1190	11.455	11.465	11.476	11.487	11.498	11.509	11.520	11.530	11.541	11.552	11.563
1200	11.563	11.574	11.585	11.595	11.606	11.617	11.628	11.639	11.650	11.660	11.671
1210	11.671	11.682	11.693	11.704	11.715	11.725	11.736	11.747	11.758	11.769	11.780
1220	11.780	11.790	11.801	11.812	11.823	11.834	11.844	11.855	11.866	11.877	11.888
1230	11.888	11.899	11.909	11.920	11.931	11.942	11.953	11.964	11.974	11.985	11.996
1240	11.996	12.007	12.018	12.029	12.039	12.050	12.061	12.072	12.083	12.093	12.104
1250	12.104	12.115	12.126	12.137	12.148	12.158	12.169	12.180	12.191	12.202	12.213
1260	12.213	12.223	12.234	12.245	12.256	12.267	12.277	12.288	12.299	12.310	12.321
1270	12.321	12.332	12.342	12.353	12.364	12.375	12.386	12.396	12.407	12.418	12.429
1280	12.429	12.440	12.450	12.461	12.472	12.483	12.494	12.505	12.515	12.526	12.537
1290	12.537	12.548	12.559	12.569	12.580	12.591	12.602	12.613	12.623	12.634	12.645
1300	12.645	12.656	12.667	12.677	12.688	12.699	12.710	12.721	12.731	12.742	12.753
1310	12.753	12.764	12.775	12.785	12.796	12.807	12.818	12.829	12.839	12.850	12.861
1320	12.861	12.872	12.883	12.893	12.904	12.915	12.926	12.937	12.947	12.958	12.969
1330	12.969	12.980	12.990	13.001	13.012	13.023	13.034	13.044	13.055	13.066	13.077
1340	13.077	13.088	13.098	13.109	13.120	13.131	13.141	13.152	13.163	13.174	13.185
1350	13.185	13.195	13.206	13.217	13.228	13.238	13.249	13.260	13.271	13.282	13.292
1360	13.292	13.303	13.314	13.325	13.335	13.346	13.357	13.368	13.378	13.389	13.400
1370	13.400	13.411	13.421	13.432	13.443	13.454	13.465	13.475	13.486	13.497	13.508
1380	13.508	13.518	13.529	13.540	13.551	13.561	13.572	13.583	13.594	13.604	13.615
1390	13.615	13.626	13.637	13.647	13.658	13.669	13.680	13.690	13.701	13.712	13.723
1400	13.723	13.733	13.744	13.755	13.766	13.776	13.787	13.798	13.808	13.819	13.830
1410	13.830	13.841	13.851	13.862	13.873	13.884	13.894	13.905	13.916	13.926	13.937
1420	13.937	13.948	13.959	13.969	13.980	13.991	14.002	14.012	14.023	14.034	14.044
1430	14.044	14.055	14.066	14.077	14.087	14.098	14.109	14.119	14.130	14.141	14.152
1440	14.152	14.162	14.173	14.184	14.194	14.205	14.216	14.227	14.237	14.248	14.259
1450	14.259	14.269	14.280	14.291	14.301	14.312	14.323	14.333	14.344	14.355	14.366
1460	14.366	14.376	14.387	14.398	14.408	14.419	14.430	14.440	14.451	14.462	14.472
1470	14.472	14.483	14.494	14.504	14.515	14.526	14.537	14.547	14.558	14.569	14.579
1480	14.579	14.590	14.601	14.611	14.622	14.633	14.643	14.654	14.665	14.675	14.686
1490	14.686	14.697	14.707	14.718	14.729	14.739	14.750	14.760	14.771	14.782	14.792
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
1500	14.792	14.803	14.814	14.824	14.835	14.846	14.856	14.867	14.878	14.888	14.899
1510	14.899	14.910	14.920	14.931	14.941	14.952	14.963	14.973	14.984	14.995	15.005
1520	15.005	15.016	15.027	15.037	15.048	15.058	15.069	15.080	15.090	15.101	15.112
1530	15.112	15.122	15.133	15.143	15.154	15.165	15.175	15.186	15.196	15.207	15.218
1540	15.218	15.228	15.239	15.250	15.260	15.271	15.281	15.292	15.303	15.313	15.324
1550	15.324	15.334	15.345	15.356	15.366	15.377	15.387	15.398	15.408	15.419	15.430
1560	15.430	15.440	15.451	15.461	15.472	15.483	15.493	15.504	15.514	15.525	15.535
1570	15.535	15.546	15.557	15.567	15.578	15.588	15.599	15.609	15.620	15.631	15.641
1580	15.641	15.652	15.662	15.673	15.683	15.694	15.704	15.715	15.726	15.736	15.747
1590	15.747	15.757	15.768	15.778	15.789	15.799	15.810	15.821	15.831	15.842	15.852
1600	15.852	15.863	15.873	15.884	15.894	15.905	15.915	15.926	15.936	15.947	15.957
1610	15.957	15.968	15.979	15.989	16.000	16.010	16.021	16.031	16.042	16.052	16.063
1620	16.063	16.073	16.084	16.094	16.105	16.115	16.126	16.136	16.147	16.157	16.168
1630	16.168	16.178	16.189	16.199	16.210	16.220	16.231	16.241	16.252	16.262	16.273
1640	16.273	16.283	16.294	16.304	16.315	16.325	16.336	16.346	16.357	16.367	16.377
1650	16.377	16.388	16.398	16.409	16.419	16.430	16.440	16.451	16.461	16.472	16.482
1660	16.482	16.493	16.503	16.514	16.524	16.534	16.545	16.555	16.566	16.576	16.587
1670	16.587	16.597	16.608	16.618	16.628	16.639	16.649	16.660	16.670	16.681	16.691
1680	16.691	16.702	16.712	16.722	16.733	16.743	16.754	16.764	16.775	16.785	16.795
1690	16.795	16.806	16.816	16.827	16.837	16.847	16.858	16.868	16.879	16.889	16.899
1700	16.899	16.910	16.920	16.931	16.941	16.952	16.962	16.972	16.983	16.993	17.003
1710	17.003	17.014	17.024	17.035	17.045	17.055	17.066	17.076	17.087	17.097	17.107
1720	17.107	17.118	17.128	17.138	17.149	17.159	17.170	17.180	17.190	17.201	17.211
1730	17.211	17.221	17.232	17.242	17.252	17.263	17.273	17.284	17.294	17.304	17.315
1740	17.315	17.325	17.335	17.346	17.356	17.366	17.377	17.387	17.397	17.408	17.418
1750	17.418	17.428	17.439	17.449	17.459	17.470	17.480	17.490	17.501	17.511	17.521
1760	17.521	17.532	17.542	17.552	17.563	17.573	17.583	17.593	17.604	17.614	17.624
1770	17.624	17.635	17.645	17.655	17.666	17.676	17.686	17.696	17.707	17.717	17.727
1780	17.727	17.738	17.748	17.758	17.768	17.779	17.789	17.799	17.810	17.820	17.830
1790	17.830	17.840	17.851	17.861	17.871	17.881	17.892	17.902	17.912	17.922	17.933
1800	17.933	17.943	17.953	17.964	17.974	17.984	17.994	18.005	18.015	18.025	18.035
1810	18.035	18.045	18.056	18.066	18.076	18.086	18.097	18.107	18.117	18.127	18.138
1820	18.138	18.148	18.158	18.168	18.178	18.189	18.199	18.209	18.219	18.230	18.240
1830	18.240	18.250	18.260	18.270	18.281	18.291	18.301	18.311	18.321	18.332	18.342
1840	18.342	18.352	18.362	18.372	18.383	18.393	18.403	18.413	18.423	18.433	18.444
1850	18.444	18.454	18.464	18.474	18.484	18.495	18.505	18.515	18.525	18.535	18.545
1860	18.545	18.556	18.566	18.576	18.586	18.596	18.606	18.616	18.627	18.637	18.647
1870	18.647	18.657	18.667	18.677	18.687	18.698	18.708	18.718	18.728	18.738	18.748
1880	18.748	18.758	18.769	18.779	18.789	18.799	18.809	18.819	18.829	18.839	18.849
1890	18.849	18.860	18.870	18.880	18.890	18.900	18.910	18.920	18.930	18.940	18.951
1900	18.951	18.961	18.971	18.981	18.991	19.001	19.011	19.021	19.031	19.041	19.051
1910	19.051	19.062	19.072	19.082	19.092	19.102	19.112	19.122	19.132	19.142	19.152
1920	19.152	19.162	19.172	19.182	19.192	19.202	19.212	19.223	19.233	19.243	19.253
1930	19.253	19.263	19.273	19.283	19.293	19.303	19.313	19.323	19.333	19.343	19.353
1940	19.353	19.363	19.373	19.383	19.393	19.403	19.413	19.423	19.433	19.443	19.453
1950	19.453	19.463	19.473	19.483	19.493	19.503	19.513	19.523	19.533	19.543	19.553
1960	19.553	19.563	19.573	19.583	19.593	19.603	19.613	19.623	19.633	19.643	19.653
1970	19.653	19.663	19.673	19.683	19.693	19.703	19.713	19.723	19.733	19.743	19.753
1980	19.753	19.763	19.773	19.783	19.793	19.803	19.813	19.823	19.833	19.842	19.852
1990	19.852	19.862	19.872	19.882	19.892	19.902	19.912	19.922	19.932	19.942	19.952
ºF	0	1	2	3	4	5	6	7	8	9	10

Type C Tungsten- 5% Rhenium vs Tungsten-26% Rhenium ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
2000	19.952	19.962	19.972	19.982	19.991	20.001	20.011	20.021	20.031	20.041	20.051
2010	20.051	20.061	20.071	20.081	20.091	20.100	20.110	20.120	20.130	20.140	20.150
2020	20.150	20.160	20.170	20.180	20.190	20.199	20.209	20.219	20.229	20.239	20.249
2030	20.249	20.259	20.269	20.278	20.288	20.298	20.308	20.318	20.328	20.338	20.347
2040	20.347	20.357	20.367	20.377	20.387	20.397	20.407	20.416	20.426	20.436	20.446
2050	20.446	20.456	20.466	20.475	20.485	20.495	20.505	20.515	20.525	20.534	20.544
2060	20.544	20.554	20.564	20.574	20.584	20.593	20.603	20.613	20.623	20.633	20.642
2070	20.642	20.652	20.662	20.672	20.682	20.691	20.701	20.711	20.721	20.731	20.740
2080	20.740	20.750	20.760	20.770	20.779	20.789	20.799	20.809	20.819	20.828	20.838
2090	20.838	20.848	20.858	20.867	20.877	20.887	20.897	20.906	20.916	20.926	20.936
2100	20.936	20.945	20.955	20.965	20.975	20.984	20.994	21.004	21.014	21.023	21.033
2110	21.033	21.043	21.053	21.062	21.072	21.082	21.091	21.101	21.111	21.121	21.130
2120	21.130	21.140	21.150	21.159	21.169	21.179	21.189	21.198	21.208	21.218	21.227
2130	21.227	21.237	21.247	21.256	21.266	21.276	21.285	21.295	21.305	21.315	21.324
2140	21.324	21.334	21.344	21.353	21.363	21.373	21.382	21.392	21.402	21.411	21.421
2150	21.421	21.431	21.440	21.450	21.460	21.469	21.479	21.488	21.498	21.508	21.517
2160	21.517	21.527	21.537	21.546	21.556	21.566	21.575	21.585	21.594	21.604	21.614
2170	21.614	21.623	21.633	21.643	21.652	21.662	21.671	21.681	21.691	21.700	21.710
2180	21.710	21.719	21.729	21.739	21.748	21.758	21.767	21.777	21.787	21.796	21.806
2190	21.806	21.815	21.825	21.835	21.844	21.854	21.863	21.873	21.882	21.892	21.902
2200	21.902	21.911	21.921	21.930	21.940	21.949	21.959	21.969	21.978	21.988	21.997
2210	21.997	22.007	22.016	22.026	22.035	22.045	22.054	22.064	22.074	22.083	22.093
2220	22.093	22.102	22.112	22.121	22.131	22.140	22.150	22.159	22.169	22.178	22.188
2230	22.188	22.197	22.207	22.216	22.226	22.235	22.245	22.254	22.264	22.273	22.283
2240	22.283	22.292	22.302	22.311	22.321	22.330	22.340	22.349	22.359	22.368	22.378
2250	22.378	22.387	22.397	22.406	22.416	22.425	22.435	22.444	22.453	22.463	22.472
2260	22.472	22.482	22.491	22.501	22.510	22.520	22.529	22.539	22.548	22.557	22.567
2270	22.567	22.576	22.586	22.595	22.605	22.614	22.624	22.633	22.642	22.652	22.661
2280	22.661	22.671	22.680	22.689	22.699	22.708	22.718	22.727	22.737	22.746	22.755
2290	22.755	22.765	22.774	22.784	22.793	22.802	22.812	22.821	22.830	22.840	22.849
2300	22.849	22.859	22.868	22.877	22.887	22.896	22.906	22.915	22.924	22.934	22.943
2310	22.943	22.952	22.962	22.971	22.980	22.990	22.999	23.009	23.018	23.027	23.037
2320	23.037	23.046	23.055	23.065	23.074	23.083	23.093	23.102	23.111	23.121	23.130
2330	23.130	23.139	23.149	23.158	23.167	23.177	23.186	23.195	23.205	23.214	23.223
2340	23.223	23.232	23.242	23.251	23.260	23.270	23.279	23.288	23.298	23.307	23.316
2350	23.316	23.325	23.335	23.344	23.353	23.363	23.372	23.381	23.390	23.400	23.409
2360	23.409	23.418	23.427	23.437	23.446	23.455	23.465	23.474	23.483	23.492	23.502
2370	23.502	23.511	23.520	23.529	23.539	23.548	23.557	23.566	23.576	23.585	23.594
2380	23.594	23.603	23.612	23.622	23.631	23.640	23.649	23.659	23.668	23.677	23.686
2390	23.686	23.695	23.705	23.714	23.723	23.732	23.742	23.751	23.760	23.769	23.778
2400	23.778	23.788	23.797	23.806	23.815	23.824	23.834	23.843	23.852	23.861	23.870
2410	23.870	23.879	23.889	23.898	23.907	23.916	23.925	23.934	23.944	23.953	23.962
2420	23.962	23.971	23.980	23.989	23.999	24.008	24.017	24.026	24.035	24.044	24.053
2430	24.053	24.063	24.072	24.081	24.090	24.099	24.108	24.117	24.127	24.136	24.145
2440	24.145	24.154	24.163	24.172	24.181	24.190	24.199	24.209	24.218	24.227	24.236
2450	24.236	24.245	24.254	24.263	24.272	24.281	24.290	24.300	24.309	24.318	24.327
2460	24.327	24.336	24.345	24.354	24.363	24.372	24.381	24.390	24.399	24.409	24.418
2470	24.418	24.427	24.436	24.445	24.454	24.463	24.472	24.481	24.490	24.499	24.508
2480	24.508	24.517	24.526	24.535	24.544	24.553	24.562	24.571	24.581	24.590	24.599
2490	24.599	24.608	24.617	24.626	24.635	24.644	24.653	24.662	24.671	24.680	24.689
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
2500	24.689	24.698	24.707	24.716	24.725	24.734	24.743	24.752	24.761	24.770	24.779
2510	24.779	24.788	24.797	24.806	24.815	24.824	24.833	24.842	24.851	24.860	24.869
2520	24.869	24.878	24.887	24.896	24.905	24.913	24.922	24.931	24.940	24.949	24.958
2530	24.958	24.967	24.976	24.985	24.994	25.003	25.012	25.021	25.030	25.039	25.048
2540	25.048	25.057	25.066	25.075	25.083	25.092	25.101	25.110	25.119	25.128	25.137
2550	25.137	25.146	25.155	25.164	25.173	25.182	25.190	25.199	25.208	25.217	25.226
2560	25.226	25.235	25.244	25.253	25.262	25.271	25.279	25.288	25.297	25.306	25.315
2570	25.315	25.324	25.333	25.342	25.350	25.359	25.368	25.377	25.386	25.395	25.404
2580	25.404	25.413	25.421	25.430	25.439	25.448	25.457	25.466	25.475	25.483	25.492
2590	25.492	25.501	25.510	25.519	25.528	25.536	25.545	25.554	25.563	25.572	25.581
2600	25.581	25.589	25.598	25.607	25.616	25.625	25.633	25.642	25.651	25.660	25.669
2610	25.669	25.677	25.686	25.695	25.704	25.713	25.721	25.730	25.739	25.748	25.757
2620	25.757	25.765	25.774	25.783	25.792	25.801	25.809	25.818	25.827	25.836	25.844
2630	25.844	25.853	25.862	25.871	25.879	25.888	25.897	25.906	25.915	25.923	25.932
2640	25.932	25.941	25.949	25.958	25.967	25.976	25.984	25.993	26.002	26.011	26.019
2650	26.019	26.028	26.037	26.046	26.054	26.063	26.072	26.080	26.089	26.098	26.107
2660	26.107	26.115	26.124	26.133	26.141	26.150	26.159	26.168	26.176	26.185	26.194
2670	26.194	26.202	26.211	26.220	26.228	26.237	26.246	26.254	26.263	26.272	26.280
2680	26.280	26.289	26.298	26.306	26.315	26.324	26.332	26.341	26.350	26.358	26.367
2690	26.367	26.376	26.384	26.393	26.402	26.410	26.419	26.428	26.436	26.445	26.454
2700	26.454	26.462	26.471	26.480	26.488	26.497	26.505	26.514	26.523	26.531	26.540
2710	26.540	26.548	26.557	26.566	26.574	26.583	26.592	26.600	26.609	26.617	26.626
2720	26.626	26.635	26.643	26.652	26.660	26.669	26.678	26.686	26.695	26.703	26.712
2730	26.712	26.720	26.729	26.738	26.746	26.755	26.763	26.772	26.780	26.789	26.798
2740	26.798	26.806	26.815	26.823	26.832	26.840	26.849	26.857	26.866	26.875	26.883
2750	26.883	26.892	26.900	26.909	26.917	26.926	26.934	26.943	26.951	26.960	26.968
2760	26.968	26.977	26.986	26.994	27.003	27.011	27.020	27.028	27.037	27.045	27.054
2770	27.054	27.062	27.071	27.079	27.088	27.096	27.105	27.113	27.122	27.130	27.139
2780	27.139	27.147	27.156	27.164	27.173	27.181	27.190	27.198	27.206	27.215	27.223
2790	27.223	27.232	27.240	27.249	27.257	27.266	27.274	27.283	27.291	27.300	27.308
2800	27.308	27.316	27.325	27.333	27.342	27.350	27.359	27.367	27.376	27.384	27.392
2810	27.392	27.401	27.409	27.418	27.426	27.435	27.443	27.451	27.460	27.468	27.477
2820	27.477	27.485	27.493	27.502	27.510	27.519	27.527	27.535	27.544	27.552	27.561
2830	27.561	27.569	27.577	27.586	27.594	27.603	27.611	27.619	27.628	27.636	27.645
2840	27.645	27.653	27.661	27.670	27.678	27.686	27.695	27.703	27.711	27.720	27.728
2850	27.728	27.737	27.745	27.753	27.762	27.770	27.778	27.787	27.795	27.803	27.812
2860	27.812	27.820	27.828	27.837	27.845	27.853	27.862	27.870	27.878	27.887	27.895
2870	27.895	27.903	27.912	27.920	27.928	27.937	27.945	27.953	27.961	27.970	27.978
2880	27.978	27.986	27.995	28.003	28.011	28.020	28.028	28.036	28.044	28.053	28.061
2890	28.061	28.069	28.078	28.086	28.094	28.102	28.111	28.119	28.127	28.135	28.144
2900	28.144	28.152	28.160	28.169	28.177	28.185	28.193	28.202	28.210	28.218	28.226
2910	28.226	28.235	28.243	28.251	28.259	28.267	28.276	28.284	28.292	28.300	28.309
2920	28.309	28.317	28.325	28.333	28.342	28.350	28.358	28.366	28.374	28.383	28.391
2930	28.391	28.399	28.407	28.415	28.424	28.432	28.440	28.448	28.456	28.465	28.473
2940	28.473	28.481	28.489	28.497	28.506	28.514	28.522	28.530	28.538	28.546	28.555
2950	28.555	28.563	28.571	28.579	28.587	28.595	28.604	28.612	28.620	28.628	28.636
2960	28.636	28.644	28.652	28.661	28.669	28.677	28.685	28.693	28.701	28.709	28.718
2970	28.718	28.726	28.734	28.742	28.750	28.758	28.766	28.774	28.783	28.791	28.799
2980	28.799	28.807	28.815	28.823	28.831	28.839	28.847	28.856	28.864	28.872	28.880
2990	28.880	28.888	28.896	28.904	28.912	28.920	28.928	28.936	28.945	28.953	28.961
ºF	0	1	2	3	4	5	6	7	8	9	10

Type C Tungsten- 5% Rhenium vs Tungsten-26% Rhenium ITS-90 °F

°F	0	1	2	3	4	5	6	7	8	9	10
3000	28.961	28.969	28.977	28.985	28.993	29.001	29.009	29.017	29.025	29.033	29.041
3010	29.041	29.049	29.058	29.066	29.074	29.082	29.090	29.098	29.106	29.114	29.122
3020	29.122	29.130	29.138	29.146	29.154	29.162	29.170	29.178	29.186	29.194	29.202
3030	29.202	29.210	29.218	29.226	29.234	29.242	29.250	29.258	29.266	29.274	29.282
3040	29.282	29.290	29.298	29.306	29.314	29.322	29.330	29.338	29.346	29.354	29.362
3050	29.362	29.370	29.378	29.386	29.394	29.402	29.410	29.418	29.426	29.434	29.442
3060	29.442	29.450	29.458	29.466	29.474	29.482	29.490	29.498	29.506	29.513	29.521
3070	29.521	29.529	29.537	29.545	29.553	29.561	29.569	29.577	29.585	29.593	29.601
3080	29.601	29.609	29.617	29.625	29.632	29.640	29.648	29.656	29.664	29.672	29.680
3090	29.680	29.688	29.696	29.704	29.711	29.719	29.727	29.735	29.743	29.751	29.759
3100	29.759	29.767	29.775	29.782	29.790	29.798	29.806	29.814	29.822	29.830	29.838
3110	29.838	29.845	29.853	29.861	29.869	29.877	29.885	29.893	29.900	29.908	29.916
3120	29.916	29.924	29.932	29.940	29.948	29.955	29.963	29.971	29.979	29.987	29.995
3130	29.995	30.002	30.010	30.018	30.026	30.034	30.041	30.049	30.057	30.065	30.073
3140	30.073	30.081	30.088	30.096	30.104	30.112	30.120	30.127	30.135	30.143	30.151
3150	30.151	30.159	30.166	30.174	30.182	30.190	30.197	30.205	30.213	30.221	30.229
3160	30.229	30.236	30.244	30.252	30.260	30.267	30.275	30.283	30.291	30.298	30.306
3170	30.306	30.314	30.322	30.329	30.337	30.345	30.353	30.360	30.368	30.376	30.384
3180	30.384	30.391	30.399	30.407	30.414	30.422	30.430	30.438	30.445	30.453	30.461
3190	30.461	30.469	30.476	30.484	30.492	30.499	30.507	30.515	30.522	30.530	30.538
3200	30.538	30.546	30.553	30.561	30.569	30.576	30.584	30.592	30.599	30.607	30.615
3210	30.615	30.622	30.630	30.638	30.645	30.653	30.661	30.668	30.676	30.684	30.691
3220	30.691	30.699	30.707	30.714	30.722	30.730	30.737	30.745	30.752	30.760	30.768
3230	30.768	30.775	30.783	30.791	30.798	30.806	30.813	30.821	30.829	30.836	30.844
3240	30.844	30.852	30.859	30.867	30.874	30.882	30.890	30.897	30.905	30.912	30.920
3250	30.920	30.928	30.935	30.943	30.950	30.958	30.966	30.973	30.981	30.988	30.996
3260	30.996	31.003	31.011	31.019	31.026	31.034	31.041	31.049	31.056	31.064	31.071
3270	31.071	31.079	31.087	31.094	31.102	31.109	31.117	31.124	31.132	31.139	31.147
3280	31.147	31.154	31.162	31.170	31.177	31.185	31.192	31.200	31.207	31.215	31.222
3290	31.222	31.230	31.237	31.245	31.252	31.260	31.267	31.275	31.282	31.290	31.297
3300	31.297	31.305	31.312	31.320	31.327	31.335	31.342	31.350	31.357	31.365	31.372
3310	31.372	31.380	31.387	31.394	31.402	31.409	31.417	31.424	31.432	31.439	31.447
3320	31.447	31.454	31.462	31.469	31.477	31.484	31.491	31.499	31.506	31.514	31.521
3330	31.521	31.529	31.536	31.543	31.551	31.558	31.566	31.573	31.581	31.588	31.595
3340	31.595	31.603	31.610	31.618	31.625	31.632	31.640	31.647	31.655	31.662	31.669
3350	31.669	31.677	31.684	31.692	31.699	31.706	31.714	31.721	31.728	31.736	31.743
3360	31.743	31.751	31.758	31.765	31.773	31.780	31.787	31.795	31.802	31.810	31.817
3370	31.817	31.824	31.832	31.839	31.846	31.854	31.861	31.868	31.876	31.883	31.890
3380	31.890	31.898	31.905	31.912	31.920	31.927	31.934	31.942	31.949	31.956	31.963
3390	31.963	31.971	31.978	31.985	31.993	32.000	32.007	32.015	32.022	32.029	32.036
3400	32.036	32.044	32.051	32.058	32.066	32.073	32.080	32.087	32.095	32.102	32.109
3410	32.109	32.117	32.124	32.131	32.138	32.146	32.153	32.160	32.167	32.175	32.182
3420	32.182	32.189	32.196	32.204	32.211	32.218	32.225	32.233	32.240	32.247	32.254
3430	32.254	32.261	32.269	32.276	32.283	32.290	32.298	32.305	32.312	32.319	32.326
3440	32.326	32.334	32.341	32.348	32.355	32.362	32.370	32.377	32.384	32.391	32.398
3450	32.398	32.405	32.413	32.420	32.427	32.434	32.441	32.449	32.456	32.463	32.470
3460	32.470	32.477	32.484	32.492	32.499	32.506	32.513	32.520	32.527	32.534	32.542
3470	32.542	32.549	32.556	32.563	32.570	32.577	32.584	32.591	32.599	32.606	32.613
3480	32.613	32.620	32.627	32.634	32.641	32.648	32.656	32.663	32.670	32.677	32.684
3490	32.684	32.691	32.698	32.705	32.712	32.719	32.726	32.734	32.741	32.748	32.755
°F	0	1	2	3	4	5	6	7	8	9	10

°F	0	1	2	3	4	5	6	7	8	9	10
3500	32.755	32.762	32.769	32.776	32.783	32.790	32.797	32.804	32.811	32.818	32.825
3510	32.825	32.832	32.840	32.847	32.854	32.861	32.868	32.875	32.882	32.889	32.896
3520	32.896	32.903	32.910	32.917	32.924	32.931	32.938	32.945	32.952	32.959	32.966
3530	32.966	32.973	32.980	32.987	32.994	33.001	33.008	33.015	33.022	33.029	33.036
3540	33.036	33.043	33.050	33.057	33.064	33.071	33.078	33.085	33.092	33.099	33.106
3550	33.106	33.113	33.120	33.127	33.134	33.141	33.148	33.154	33.161	33.168	33.175
3560	33.175	33.182	33.189	33.196	33.203	33.210	33.217	33.224	33.231	33.238	33.245
3570	33.245	33.252	33.258	33.265	33.272	33.279	33.286	33.293	33.300	33.307	33.314
3580	33.314	33.321	33.327	33.334	33.341	33.348	33.355	33.362	33.369	33.376	33.383
3590	33.383	33.389	33.396	33.403	33.410	33.417	33.424	33.431	33.437	33.444	33.451
3600	33.451	33.458	33.465	33.472	33.479	33.485	33.492	33.499	33.506	33.513	33.520
3610	33.520	33.526	33.533	33.540	33.547	33.554	33.560	33.567	33.574	33.581	33.588
3620	33.588	33.594	33.601	33.608	33.615	33.622	33.628	33.635	33.642	33.649	33.656
3630	33.656	33.662	33.669	33.676	33.683	33.689	33.696	33.703	33.710	33.716	33.723
3640	33.723	33.730	33.737	33.743	33.750	33.757	33.764	33.770	33.777	33.784	33.791
3650	33.791	33.797	33.804	33.811	33.818	33.824	33.831	33.838	33.844	33.851	33.858
3660	33.858	33.865	33.871	33.878	33.885	33.891	33.898	33.905	33.911	33.918	33.925
3670	33.925	33.931	33.938	33.945	33.952	33.958	33.965	33.972	33.978	33.985	33.992
3680	33.992	33.998	34.005	34.011	34.018	34.025	34.031	34.038	34.045	34.051	34.058
3690	34.058	34.065	34.071	34.078	34.085	34.091	34.098	34.104	34.111	34.118	34.124
3700	34.124	34.131	34.137	34.144	34.151	34.157	34.164	34.170	34.177	34.184	34.190
3710	34.190	34.197	34.203	34.210	34.217	34.223	34.230	34.236	34.243	34.249	34.256
3720	34.256	34.262	34.269	34.276	34.282	34.289	34.295	34.302	34.308	34.315	34.321
3730	34.321	34.328	34.334	34.341	34.347	34.354	34.361	34.367	34.374	34.380	34.387
3740	34.387	34.393	34.400	34.406	34.413	34.419	34.426	34.432	34.439	34.445	34.452
3750	34.452	34.458	34.465	34.471	34.477	34.484	34.490	34.497	34.503	34.510	34.516
3760	34.516	34.523	34.529	34.536	34.542	34.549	34.555	34.561	34.568	34.574	34.581
3770	34.581	34.587	34.594	34.600	34.606	34.613	34.619	34.626	34.632	34.638	34.645
3780	34.645	34.651	34.658	34.664	34.670	34.677	34.683	34.690	34.696	34.702	34.709
3790	34.709	34.715	34.722	34.728	34.734	34.741	34.747	34.753	34.760	34.766	34.772
3800	34.772	34.779	34.785	34.792	34.798	34.804	34.811	34.817	34.823	34.830	34.836
3810	34.836	34.842	34.849	34.855	34.861	34.867	34.874	34.880	34.886	34.893	34.899
3820	34.899	34.905	34.912	34.918	34.924	34.930	34.937	34.943	34.949	34.956	34.962
3830	34.962	34.968	34.974	34.981	34.987	34.993	34.999	35.006	35.012	35.018	35.024
3840	35.024	35.031	35.037	35.043	35.049	35.056	35.062	35.068	35.074	35.081	35.087
3850	35.087	35.093	35.099	35.105	35.112	35.118	35.124	35.130	35.136	35.143	35.149
3860	35.149	35.155	35.161	35.167	35.173	35.180	35.186	35.192	35.198	35.204	35.211
3870	35.211	35.217	35.223	35.229	35.235	35.241	35.247	35.254	35.260	35.266	35.272
3880	35.272	35.278	35.284	35.290	35.296	35.303	35.309	35.315	35.321	35.327	35.333
3890	35.333	35.339	35.345	35.351	35.358	35.364	35.370	35.376	35.382	35.388	35.394
3900	35.394	35.400	35.406	35.412	35.418	35.424	35.430	35.437	35.443	35.449	35.455
3910	35.455	35.461	35.467	35.473	35.479	35.485	35.491	35.497	35.503	35.509	35.515
3920	35.515	35.521	35.527	35.533	35.539	35.545	35.551	35.557	35.563	35.569	35.575
3930	35.575	35.581	35.587	35.593	35.599	35.605	35.611	35.617	35.623	35.629	35.635
3940	35.635	35.641	35.647	35.653	35.659	35.664	35.670	35.676	35.682	35.688	35.694
3950	35.694	35.700	35.706	35.712	35.718	35.724	35.730	35.736	35.741	35.747	35.753
3960	35.753	35.759	35.765	35.771	35.777	35.783	35.789	35.794	35.800	35.806	35.812
3970	35.812	35.818	35.824	35.830	35.836	35.841	35.847	35.853	35.859	35.865	35.871
3980	35.871	35.876	35.882	35.888	35.894	35.900	35.906	35.911	35.917	35.923	35.929
3990	35.929	35.935	35.940	35.946	35.952	35.958	35.964	35.969	35.975	35.981	35.987
°F	0	1	2	3	4	5	6	7	8	9	10

Type C Tungsten- 5% Rhenium vs Tungsten-26% Rhenium ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
4000	35.987	35.993	35.998	36.004	36.010	36.016	36.021	36.027	36.033	36.039	36.044
4010	36.044	36.050	36.056	36.062	36.067	36.073	36.079	36.084	36.090	36.096	36.102
4020	36.102	36.107	36.113	36.119	36.124	36.130	36.136	36.142	36.147	36.153	36.159
4030	36.159	36.164	36.170	36.176	36.181	36.187	36.193	36.198	36.204	36.210	36.215
4040	36.215	36.221	36.226	36.232	36.238	36.243	36.249	36.255	36.260	36.266	36.271
4050	36.271	36.277	36.283	36.288	36.294	36.300	36.305	36.311	36.316	36.322	36.327
4060	36.327	36.333	36.339	36.344	36.350	36.355	36.361	36.366	36.372	36.378	36.383
4070	36.383	36.389	36.394	36.400	36.405	36.411	36.416	36.422	36.427	36.433	36.438
4080	36.438	36.444	36.449	36.455	36.460	36.466	36.471	36.477	36.482	36.488	36.493
4090	36.493	36.499	36.504	36.510	36.515	36.521	36.526	36.532	36.537	36.543	36.548
4100	36.548	36.553	36.559	36.564	36.570	36.575	36.581	36.586	36.591	36.597	36.602
4110	36.602	36.608	36.613	36.619	36.624	36.629	36.635	36.640	36.645	36.651	36.656
4120	36.656	36.662	36.667	36.672	36.678	36.683	36.688	36.694	36.699	36.704	36.710
4130	36.710	36.715	36.721	36.726	36.731	36.737	36.742	36.747	36.752	36.758	36.763
4140	36.763	36.768	36.774	36.779	36.784	36.790	36.795	36.800	36.805	36.811	36.816
4150	36.816	36.821	36.826	36.832	36.837	36.842	36.848	36.853	36.858	36.863	36.868
4160	36.868	36.874	36.879	36.884	36.889	36.895	36.900	36.905	36.910	36.915	36.921
4170	36.921	36.926	36.931	36.936	36.941	36.947	36.952	36.957	36.962	36.967	36.972
4180	36.972	36.978	36.983	36.988	36.993	36.998	37.003	37.008	37.014	37.019	37.024
4190	37.024	37.029	37.034	37.039	37.044	37.049	37.055	37.060	37.065	37.070	37.075

ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10

Type E Chromal vs. Constantan ITS-90 ºF

ºF	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
-440	-9.809	-9.812	-9.814	-9.817	-9.819	-9.821	-9.823	-9.825	-9.827	-9.829	-9.830
-430	-9.775	-9.779	-9.782	-9.786	-9.790	-9.793	-9.797	-9.800	-9.803	-9.806	-9.809
-420	-9.729	-9.734	-9.739	-9.744	-9.749	-9.753	-9.758	-9.762	-9.766	-9.771	-9.775
-410	-9.672	-9.678	-9.684	-9.690	-9.696	-9.702	-9.707	-9.713	-9.718	-9.724	-9.729
-400	-9.604	-9.611	-9.618	-9.625	-9.632	-9.639	-9.646	-9.653	-9.659	-9.666	-9.672
-390	-9.525	-9.534	-9.542	-9.550	-9.558	-9.566	-9.574	-9.581	-9.589	-9.597	-9.604
-380	-9.436	-9.446	-9.455	-9.464	-9.473	-9.482	-9.491	-9.500	-9.508	-9.517	-9.525
-370	-9.338	-9.348	-9.358	-9.368	-9.378	-9.388	-9.398	-9.408	-9.417	-9.427	-9.436
-360	-9.229	-9.241	-9.252	-9.263	-9.274	-9.285	-9.295	-9.306	-9.317	-9.327	-9.338
-350	-9.112	-9.124	-9.136	-9.148	-9.160	-9.172	-9.184	-9.195	-9.207	-9.218	-9.229
-340	-8.986	-8.999	-9.012	-9.025	-9.038	-9.050	-9.063	-9.075	-9.088	-9.100	-9.112
-330	-8.852	-8.866	-8.880	-8.893	-8.907	-8.920	-8.934	-8.947	-8.960	-8.973	-8.986
-320	-8.710	-8.725	-8.739	-8.754	-8.768	-8.782	-8.797	-8.811	-8.825	-8.839	-8.852
-310	-8.561	-8.576	-8.591	-8.607	-8.622	-8.637	-8.652	-8.666	-8.681	-8.696	-8.710
-300	-8.404	-8.420	-8.436	-8.452	-8.468	-8.483	-8.499	-8.515	-8.530	-8.546	-8.561
-290	-8.240	-8.257	-8.273	-8.290	-8.307	-8.323	-8.339	-8.356	-8.372	-8.388	-8.404
-280	-8.069	-8.087	-8.104	-8.121	-8.138	-8.155	-8.173	-8.189	-8.206	-8.223	-8.240
-270	-7.891	-7.910	-7.928	-7.945	-7.963	-7.981	-7.999	-8.017	-8.034	-8.052	-8.069
-260	-7.707	-7.726	-7.745	-7.763	-7.782	-7.800	-7.819	-7.837	-7.855	-7.873	-7.891
-250	-7.516	-7.536	-7.555	-7.574	-7.593	-7.613	-7.632	-7.651	-7.670	-7.688	-7.707
-240	-7.319	-7.339	-7.359	-7.379	-7.399	-7.419	-7.438	-7.458	-7.478	-7.497	-7.516
-230	-7.116	-7.137	-7.157	-7.178	-7.198	-7.219	-7.239	-7.259	-7.279	-7.299	-7.319
-220	-6.907	-6.928	-6.950	-6.971	-6.992	-7.013	-7.033	-7.054	-7.075	-7.096	-7.116
-210	-6.692	-6.714	-6.736	-6.757	-6.779	-6.801	-6.822	-6.843	-6.865	-6.886	-6.907
-200	-6.472	-6.494	-6.516	-6.539	-6.561	-6.583	-6.605	-6.627	-6.649	-6.671	-6.692
-190	-6.246	-6.269	-6.291	-6.314	-6.337	-6.359	-6.382	-6.405	-6.427	-6.449	-6.472
-180	-6.014	-6.037	-6.061	-6.084	-6.107	-6.130	-6.154	-6.177	-6.200	-6.223	-6.246
-170	-5.777	-5.801	-5.825	-5.849	-5.872	-5.896	-5.920	-5.943	-5.967	-5.991	-6.014
-160	-5.535	-5.559	-5.584	-5.608	-5.632	-5.656	-5.681	-5.705	-5.729	-5.753	-5.777
-150	-5.287	-5.312	-5.337	-5.362	-5.387	-5.412	-5.436	-5.461	-5.486	-5.510	-5.535
-140	-5.035	-5.060	-5.086	-5.111	-5.136	-5.162	-5.187	-5.212	-5.237	-5.262	-5.287
-130	-4.777	-4.803	-4.829	-4.855	-4.881	-4.907	-4.932	-4.958	-4.984	-5.009	-5.035
-120	-4.515	-4.542	-4.568	-4.594	-4.621	-4.647	-4.673	-4.699	-4.725	-4.751	-4.777
-110	-4.248	-4.275	-4.302	-4.329	-4.355	-4.382	-4.409	-4.436	-4.462	-4.489	-4.515
-100	-3.976	-4.004	-4.031	-4.058	-4.086	-4.113	-4.140	-4.167	-4.194	-4.221	-4.248
-90	-3.700	-3.728	-3.756	-3.784	-3.811	-3.839	-3.867	-3.894	-3.922	-3.949	-3.976
-80	-3.420	-3.448	-3.476	-3.504	-3.532	-3.561	-3.589	-3.617	-3.645	-3.672	-3.700
-70	-3.135	-3.163	-3.192	-3.221	-3.249	-3.278	-3.306	-3.335	-3.363	-3.391	-3.420
-60	-2.846	-2.875	-2.904	-2.933	-2.962	-2.991	-3.020	-3.048	-3.077	-3.106	-3.135
-50	-2.552	-2.582	-2.611	-2.641	-2.670	-2.699	-2.729	-2.758	-2.787	-2.816	-2.846
-40	-2.255	-2.285	-2.315	-2.344	-2.374	-2.404	-2.434	-2.463	-2.493	-2.523	-2.552
-30	-1.953	-1.984	-2.014	-2.044	-2.074	-2.105	-2.135	-2.165	-2.195	-2.225	-2.255
-20	-1.648	-1.679	-1.709	-1.740	-1.771	-1.801	-1.832	-1.862	-1.893	-1.923	-1.953
-10	-1.339	-1.370	-1.401	-1.432	-1.463	-1.494	-1.525	-1.556	-1.587	-1.617	-1.648
0	-1.026	-1.057	-1.089	-1.120	-1.152	-1.183	-1.214	-1.245	-1.277	-1.308	-1.339
ºF	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10

ºF	0	1	2	3	4	5	6	7	8	9	10
0	-1.029	-0.997	-0.965	-0.934	-0.902	-0.870	-0.838	-0.806	-0.774	-0.742	-0.710
10	-0.710	-0.678	-0.646	-0.614	-0.582	-0.550	-0.518	-0.486	-0.454	-0.421	-0.389
20	-0.389	-0.357	-0.325	-0.292	-0.260	-0.227	-0.195	-0.163	-0.130	-0.098	-0.065
30	-0.065	-0.033	0.000	0.033	0.065	0.098	0.131	0.163	0.196	0.229	0.262
40	0.262	0.294	0.327	0.360	0.393	0.426	0.459	0.492	0.525	0.558	0.591
50	0.591	0.624	0.657	0.691	0.724	0.757	0.790	0.824	0.857	0.890	0.924
60	0.924	0.957	0.990	1.024	1.057	1.091	1.124	1.158	1.192	1.225	1.259
70	1.259	1.292	1.326	1.360	1.394	1.427	1.461	1.495	1.529	1.563	1.597
80	1.597	1.631	1.665	1.699	1.733	1.767	1.801	1.835	1.869	1.904	1.938
90	1.938	1.972	2.006	2.041	2.075	2.109	2.144	2.178	2.212	2.247	2.281
100	2.281	2.316	2.351	2.385	2.420	2.454	2.489	2.524	2.558	2.593	2.628
110	2.628	2.663	2.698	2.733	2.767	2.802	2.837	2.872	2.907	2.942	2.977
120	2.977	3.012	3.048	3.083	3.118	3.153	3.188	3.224	3.259	3.294	3.330
130	3.330	3.365	3.400	3.436	3.471	3.507	3.542	3.578	3.613	3.649	3.685
140	3.685	3.720	3.756	3.792	3.827	3.863	3.899	3.935	3.970	4.006	4.042
150	4.042	4.078	4.114	4.150	4.186	4.222	4.258	4.294	4.330	4.366	4.403
160	4.403	4.439	4.475	4.511	4.547	4.584	4.620	4.656	4.693	4.729	4.766
170	4.766	4.802	4.839	4.875	4.912	4.948	4.985	5.021	5.058	5.095	5.131
180	5.131	5.168	5.205	5.242	5.278	5.315	5.352	5.389	5.426	5.463	5.500
190	5.500	5.537	5.574	5.611	5.648	5.685	5.722	5.759	5.796	5.833	5.871
200	5.871	5.908	5.945	5.982	6.020	6.057	6.094	6.132	6.169	6.207	6.244
210	6.244	6.281	6.319	6.356	6.394	6.432	6.469	6.507	6.544	6.582	6.620
220	6.620	6.658	6.695	6.733	6.771	6.809	6.847	6.884	6.922	6.960	6.998
230	6.998	7.036	7.074	7.112	7.150	7.188	7.226	7.264	7.302	7.341	7.379
240	7.379	7.417	7.455	7.493	7.532	7.570	7.608	7.647	7.685	7.723	7.762
250	7.762	7.800	7.839	7.877	7.916	7.954	7.993	8.031	8.070	8.108	8.147
260	8.147	8.186	8.224	8.263	8.302	8.340	8.379	8.418	8.457	8.496	8.535
270	8.535	8.573	8.612	8.651	8.690	8.729	8.768	8.807	8.846	8.885	8.924
280	8.924	8.963	9.002	9.041	9.081	9.120	9.159	9.198	9.237	9.277	9.316
290	9.316	9.355	9.395	9.434	9.473	9.513	9.552	9.591	9.631	9.670	9.710
300	9.710	9.749	9.789	9.828	9.868	9.907	9.947	9.987	10.026	10.066	10.106
310	10.106	10.145	10.185	10.225	10.265	10.304	10.344	10.384	10.424	10.464	10.503
320	10.503	10.543	10.583	10.623	10.663	10.703	10.743	10.783	10.823	10.863	10.903
330	10.903	10.943	10.983	11.024	11.064	11.104	11.144	11.184	11.224	11.265	11.305
340	11.305	11.345	11.385	11.426	11.466	11.506	11.547	11.587	11.627	11.668	11.708
350	11.708	11.749	11.789	11.830	11.870	11.911	11.951	11.992	12.032	12.073	12.113
360	12.113	12.154	12.195	12.235	12.276	12.317	12.357	12.398	12.439	12.480	12.520
370	12.520	12.561	12.602	12.643	12.684	12.724	12.765	12.806	12.847	12.888	12.929
380	12.929	12.970	13.011	13.052	13.093	13.134	13.175	13.216	13.257	13.298	13.339
390	13.339	13.380	13.421	13.462	13.504	13.545	13.586	13.627	13.668	13.710	13.751
400	13.751	13.792	13.833	13.875	13.916	13.957	13.999	14.040	14.081	14.123	14.164
410	14.164	14.205	14.247	14.288	14.330	14.371	14.413	14.454	14.496	14.537	14.579
420	14.579	14.620	14.662	14.704	14.745	14.787	14.828	14.870	14.912	14.953	14.995
430	14.995	15.037	15.078	15.120	15.162	15.204	15.245	15.287	15.329	15.371	15.413
440	15.413	15.454	15.496	15.538	15.580	15.622	15.664	15.706	15.748	15.790	15.831
450	15.831	15.873	15.915	15.957	15.999	16.041	16.083	16.125	16.168	16.210	16.252
460	16.252	16.294	16.336	16.378	16.420	16.462	16.504	16.547	16.589	16.631	16.673
470	16.673	16.715	16.758	16.800	16.842	16.884	16.927	16.969	17.011	17.054	17.096
480	17.096	17.138	17.181	17.223	17.265	17.308	17.350	17.392	17.435	17.477	17.520
490	17.520	17.562	17.605	17.647	17.690	17.732	17.775	17.817	17.860	17.902	17.945
ºF	0	1	2	3	4	5	6	7	8	9	10

Type E Chromal vs. Constantan ITS-90 °F

°F	0	1	2	3	4	5	6	7	8	9	10
500	17.945	17.987	18.030	18.073	18.115	18.158	18.200	18.243	18.286	18.328	18.371
510	18.371	18.414	18.456	18.499	18.542	18.585	18.627	18.670	18.713	18.756	18.798
520	18.798	18.841	18.884	18.927	18.969	19.012	19.055	19.098	19.141	19.184	19.227
530	19.227	19.269	19.312	19.355	19.398	19.441	19.484	19.527	19.570	19.613	19.656
540	19.656	19.699	19.742	19.785	19.828	19.871	19.914	19.957	20.000	20.043	20.086
550	20.086	20.129	20.172	20.216	20.259	20.302	20.345	20.388	20.431	20.474	20.517
560	20.517	20.561	20.604	20.647	20.690	20.733	20.777	20.820	20.863	20.906	20.950
570	20.950	20.993	21.036	21.080	21.123	21.166	21.209	21.253	21.296	21.339	21.383
580	21.383	21.426	21.470	21.513	21.556	21.600	21.643	21.686	21.730	21.773	21.817
590	21.817	21.860	21.904	21.947	21.991	22.034	22.078	22.121	22.165	22.208	22.252
600	22.252	22.295	22.339	22.382	22.426	22.469	22.513	22.556	22.600	22.644	22.687
610	22.687	22.731	22.774	22.818	22.862	22.905	22.949	22.993	23.036	23.080	23.124
620	23.124	23.167	23.211	23.255	23.298	23.342	23.386	23.429	23.473	23.517	23.561
630	23.561	23.604	23.648	23.692	23.736	23.780	23.823	23.867	23.911	23.955	23.999
640	23.999	24.042	24.086	24.130	24.174	24.218	24.262	24.305	24.349	24.393	24.437
650	24.437	24.481	24.525	24.569	24.613	24.657	24.701	24.745	24.789	24.832	24.876
660	24.876	24.920	24.964	25.008	25.052	25.096	25.140	25.184	25.228	25.272	25.316
670	25.316	25.360	25.404	25.448	25.493	25.537	25.581	25.625	25.669	25.713	25.757
680	25.757	25.801	25.845	25.889	25.933	25.977	26.022	26.066	26.110	26.154	26.198
690	26.198	26.242	26.286	26.331	26.375	26.419	26.463	26.507	26.552	26.596	26.640
700	26.640	26.684	26.728	26.773	26.817	26.861	26.905	26.950	26.994	27.038	27.082
710	27.082	27.127	27.171	27.215	27.259	27.304	27.348	27.392	27.437	27.481	27.525
720	27.525	27.570	27.614	27.658	27.703	27.747	27.791	27.836	27.880	27.924	27.969
730	27.969	28.013	28.057	28.102	28.146	28.191	28.235	28.279	28.324	28.368	28.413
740	28.413	28.457	28.501	28.546	28.590	28.635	28.679	28.724	28.768	28.813	28.857
750	28.857	28.901	28.946	28.990	29.035	29.079	29.124	29.168	29.213	29.257	29.302
760	29.302	29.346	29.391	29.435	29.480	29.525	29.569	29.614	29.658	29.703	29.747
770	29.747	29.792	29.836	29.881	29.925	29.970	30.015	30.059	30.104	30.148	30.193
780	30.193	30.238	30.282	30.327	30.371	30.416	30.461	30.505	30.550	30.595	30.639
790	30.639	30.684	30.728	30.773	30.818	30.862	30.907	30.952	30.996	31.041	31.086
800	31.086	31.130	31.175	31.220	31.264	31.309	31.354	31.398	31.443	31.488	31.533
810	31.533	31.577	31.622	31.667	31.711	31.756	31.801	31.846	31.890	31.935	31.980
820	31.980	32.025	32.069	32.114	32.159	32.204	32.248	32.293	32.338	32.383	32.427
830	32.427	32.472	32.517	32.562	32.606	32.651	32.696	32.741	32.786	32.830	32.875
840	32.875	32.920	32.965	33.010	33.054	33.099	33.144	33.189	33.234	33.278	33.323
850	33.323	33.368	33.413	33.458	33.503	33.547	33.592	33.637	33.682	33.727	33.772
860	33.772	33.816	33.861	33.906	33.951	33.996	34.041	34.086	34.130	34.175	34.220
870	34.220	34.265	34.310	34.355	34.400	34.445	34.489	34.534	34.579	34.624	34.669
880	34.669	34.714	34.759	34.804	34.849	34.893	34.938	34.983	35.028	35.073	35.118
890	35.118	35.163	35.208	35.253	35.298	35.343	35.387	35.432	35.477	35.522	35.567
900	35.567	35.612	35.657	35.702	35.747	35.792	35.837	35.882	35.927	35.972	36.016
910	36.016	36.061	36.106	36.151	36.196	36.241	36.286	36.331	36.376	36.421	36.466
920	36.466	36.511	36.556	36.601	36.646	36.691	36.736	36.781	36.826	36.870	36.915
930	36.915	36.960	37.005	37.050	37.095	37.140	37.185	37.230	37.275	37.320	37.365
940	37.365	37.410	37.455	37.500	37.545	37.590	37.635	37.680	37.725	37.770	37.815
950	37.815	37.860	37.905	37.950	37.995	38.040	38.085	38.130	38.175	38.220	38.265
960	38.265	38.309	38.354	38.399	38.444	38.489	38.534	38.579	38.624	38.669	38.714
970	38.714	38.759	38.804	38.849	38.894	38.939	38.984	39.029	39.074	39.119	39.164
980	39.164	39.209	39.254	39.299	39.344	39.389	39.434	39.479	39.524	39.569	39.614
990	39.614	39.659	39.704	39.749	39.794	39.839	39.884	39.929	39.974	40.019	40.064
°F	0	1	2	3	4	5	6	7	8	9	10

°F	0	1	2	3	4	5	6	7	8	9	10
1000	40.064	40.109	40.154	40.199	40.243	40.288	40.333	40.378	40.423	40.468	40.513
1010	40.513	40.558	40.603	40.648	40.693	40.738	40.783	40.828	40.873	40.918	40.963
1020	40.963	41.008	41.053	41.098	41.143	41.188	41.233	41.278	41.323	41.368	41.412
1030	41.412	41.457	41.502	41.547	41.592	41.637	41.682	41.727	41.772	41.817	41.862
1040	41.862	41.907	41.952	41.997	42.042	42.087	42.132	42.176	42.221	42.266	42.311
1050	42.311	42.356	42.401	42.446	42.491	42.536	42.581	42.626	42.671	42.715	42.760
1060	42.760	42.805	42.850	42.895	42.940	42.985	43.030	43.075	43.120	43.165	43.209
1070	43.209	43.254	43.299	43.344	43.389	43.434	43.479	43.524	43.569	43.613	43.658
1080	43.658	43.703	43.748	43.793	43.838	43.883	43.928	43.972	44.017	44.062	44.107
1090	44.107	44.152	44.197	44.242	44.286	44.331	44.376	44.421	44.466	44.511	44.555
1100	44.555	44.600	44.645	44.690	44.735	44.780	44.824	44.869	44.914	44.959	45.004
1110	45.004	45.049	45.093	45.138	45.183	45.228	45.273	45.317	45.362	45.407	45.452
1120	45.452	45.497	45.541	45.586	45.631	45.676	45.720	45.765	45.810	45.855	45.900
1130	45.900	45.944	45.989	46.034	46.079	46.123	46.168	46.213	46.258	46.302	46.347
1140	46.347	46.392	46.437	46.481	46.526	46.571	46.616	46.660	46.705	46.750	46.794
1150	46.794	46.839	46.884	46.929	46.973	47.018	47.063	47.107	47.152	47.197	47.241
1160	47.241	47.286	47.331	47.375	47.420	47.465	47.509	47.554	47.599	47.643	47.688
1170	47.688	47.733	47.777	47.822	47.867	47.911	47.956	48.001	48.045	48.090	48.135
1180	48.135	48.179	48.224	48.268	48.313	48.358	48.402	48.447	48.492	48.536	48.581
1190	48.581	48.625	48.670	48.715	48.759	48.804	48.848	48.893	48.937	48.982	49.027
1200	49.027	49.071	49.116	49.160	49.205	49.249	49.294	49.338	49.383	49.428	49.472
1210	49.472	49.517	49.561	49.606	49.650	49.695	49.739	49.784	49.828	49.873	49.917
1220	49.917	49.962	50.006	50.051	50.095	50.140	50.184	50.229	50.273	50.318	50.362
1230	50.362	50.407	50.451	50.495	50.540	50.584	50.629	50.673	50.718	50.762	50.807
1240	50.807	50.851	50.895	50.940	50.984	51.029	51.073	51.118	51.162	51.206	51.251
1250	51.251	51.295	51.340	51.384	51.428	51.473	51.517	51.561	51.606	51.650	51.695
1260	51.695	51.739	51.783	51.828	51.872	51.916	51.961	52.005	52.049	52.094	52.138
1270	52.138	52.182	52.227	52.271	52.315	52.360	52.404	52.448	52.493	52.537	52.581
1280	52.581	52.625	52.670	52.714	52.758	52.803	52.847	52.891	52.935	52.980	53.024
1290	53.024	53.068	53.112	53.157	53.201	53.245	53.289	53.334	53.378	53.422	53.466
1300	53.466	53.510	53.555	53.599	53.643	53.687	53.732	53.776	53.820	53.864	53.908
1310	53.908	53.952	53.997	54.041	54.085	54.129	54.173	54.218	54.262	54.306	54.350
1320	54.350	54.394	54.438	54.482	54.527	54.571	54.615	54.659	54.703	54.747	54.791
1330	54.791	54.835	54.879	54.924	54.968	55.012	55.056	55.100	55.144	55.188	55.232
1340	55.232	55.276	55.320	55.364	55.408	55.453	55.497	55.541	55.585	55.629	55.673
1350	55.673	55.717	55.761	55.805	55.849	55.893	55.937	55.981	56.025	56.069	56.113
1360	56.113	56.157	56.201	56.245	56.289	56.333	56.377	56.421	56.465	56.509	56.553
1370	56.553	56.597	56.641	56.685	56.729	56.773	56.816	56.860	56.904	56.948	56.992
1380	56.992	57.036	57.080	57.124	57.168	57.212	57.256	57.300	57.344	57.387	57.431
1390	57.431	57.475	57.519	57.563	57.607	57.651	57.695	57.738	57.782	57.826	57.870
1400	57.870	57.914	57.958	58.002	58.045	58.089	58.133	58.177	58.221	58.265	58.308
1410	58.308	58.352	58.396	58.440	58.484	58.527	58.571	58.615	58.659	58.702	58.746
1420	58.746	58.790	58.834	58.878	58.921	58.965	59.009	59.053	59.096	59.140	59.184
1430	59.184	59.228	59.271	59.315	59.359	59.402	59.446	59.490	59.534	59.577	59.621
1440	59.621	59.665	59.708	59.752	59.796	59.839	59.883	59.927	59.970	60.014	60.058
1450	60.058	60.101	60.145	60.189	60.232	60.276	60.320	60.363	60.407	60.451	60.494
1460	60.494	60.538	60.581	60.625	60.669	60.712	60.756	60.799	60.843	60.887	60.930
1470	60.930	60.974	61.017	61.061	61.105	61.148	61.192	61.235	61.279	61.322	61.366
1480	61.366	61.409	61.453	61.496	61.540	61.583	61.627	61.671	61.714	61.758	61.801
1490	61.801	61.845	61.888	61.932	61.975	62.018	62.062	62.105	62.149	62.192	62.236
°F	0	1	2	3	4	5	6	7	8	9	10

Type E Chromal vs. Constantan ITS-90 °F

°F	0	1	2	3	4	5	6	7	8	9	10
1500	62.236	62.279	62.323	62.366	62.410	62.453	62.496	62.540	62.583	62.627	62.670
1510	62.670	62.714	62.757	62.800	62.844	62.887	62.931	62.974	63.017	63.061	63.104
1520	63.104	63.148	63.191	63.234	63.278	63.321	63.364	63.408	63.451	63.494	63.538
1530	63.538	63.581	63.624	63.668	63.711	63.754	63.798	63.841	63.884	63.927	63.971
1540	63.971	64.014	64.057	64.101	64.144	64.187	64.230	64.274	64.317	64.360	64.403
1550	64.403	64.447	64.490	64.533	64.576	64.619	64.663	64.706	64.749	64.792	64.835
1560	64.835	64.879	64.922	64.965	65.008	65.051	65.094	65.138	65.181	65.224	65.267
1570	65.267	65.310	65.353	65.396	65.440	65.483	65.526	65.569	65.612	65.655	65.698
1580	65.698	65.741	65.784	65.827	65.871	65.914	65.957	66.000	66.043	66.086	66.129
1590	66.129	66.172	66.215	66.258	66.301	66.344	66.387	66.430	66.473	66.516	66.559
1600	66.559	66.602	66.645	66.688	66.731	66.774	66.817	66.860	66.903	66.946	66.989
1610	66.989	67.031	67.074	67.117	67.160	67.203	67.246	67.289	67.332	67.375	67.418
1620	67.418	67.460	67.503	67.546	67.589	67.632	67.675	67.718	67.760	67.803	67.846
1630	67.846	67.889	67.932	67.974	68.017	68.060	68.103	68.146	68.188	68.231	68.274
1640	68.274	68.317	68.359	68.402	68.445	68.488	68.530	68.573	68.616	68.659	68.701
1650	68.701	68.744	68.787	68.829	68.872	68.915	68.957	69.000	69.043	69.085	69.128
1660	69.128	69.171	69.213	69.256	69.298	69.341	69.384	69.426	69.469	69.511	69.554
1670	69.554	69.597	69.639	69.682	69.724	69.767	69.809	69.852	69.894	69.937	69.979
1680	69.979	70.022	70.064	70.107	70.149	70.192	70.234	70.277	70.319	70.362	70.404
1690	70.404	70.447	70.489	70.531	70.574	70.616	70.659	70.701	70.744	70.786	70.828
1700	70.828	70.871	70.913	70.955	70.998	71.040	71.082	71.125	71.167	71.209	71.252
1710	71.252	71.294	71.336	71.379	71.421	71.463	71.506	71.548	71.590	71.632	71.675
1720	71.675	71.717	71.759	71.801	71.844	71.886	71.928	71.970	72.012	72.055	72.097
1730	72.097	72.139	72.181	72.223	72.266	72.308	72.350	72.392	72.434	72.476	72.518
1740	72.518	72.561	72.603	72.645	72.687	72.729	72.771	72.813	72.855	72.897	72.939
1750	72.939	72.981	73.023	73.066	73.108	73.150	73.192	73.234	73.276	73.318	73.360
1760	73.360	73.402	73.444	73.486	73.528	73.570	73.612	73.654	73.696	73.738	73.780
1770	73.780	73.821	73.863	73.905	73.947	73.989	74.031	74.073	74.115	74.157	74.199
1780	74.199	74.241	74.283	74.324	74.366	74.408	74.450	74.492	74.534	74.576	74.618
1790	74.618	74.659	74.701	74.743	74.785	74.827	74.869	74.910	74.952	74.994	75.036
1800	75.036	75.078	75.120	75.161	75.203	75.245	75.287	75.329	75.370	75.412	75.454
1810	75.454	75.496	75.538	75.579	75.621	75.663	75.705	75.746	75.788	75.830	75.872
1820	75.872	75.913	75.955	75.997	76.039	76.081	76.122	76.164	76.206	76.248	76.289
1830	76.289	76.331	76.373								

°F	0	1	2	3	4	5	6	7	8	9	10

Type J Iron vs. Constantan ITS-90 ºF

ºF	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
-340	-8.030	-8.041	-8.052	-8.063	-8.074	-8.085	-8.095				
-330	-7.915	-7.927	-7.938	-7.950	-7.962	-7.973	-7.985	-7.996	-8.008	-8.019	-8.030
-320	-7.791	-7.804	-7.816	-7.829	-7.841	-7.854	-7.866	-7.878	-7.890	-7.903	-7.915
-310	-7.659	-7.672	-7.686	-7.699	-7.713	-7.726	-7.739	-7.752	-7.765	-7.778	-7.791
-300	-7.519	-7.534	-7.548	-7.562	-7.576	-7.590	-7.604	-7.618	-7.632	-7.645	-7.659
-290	-7.373	-7.388	-7.403	-7.417	-7.432	-7.447	-7.462	-7.476	-7.491	-7.505	-7.519
-280	-7.219	-7.234	-7.250	-7.265	-7.281	-7.296	-7.312	-7.327	-7.342	-7.357	-7.373
-270	-7.058	-7.074	-7.090	-7.107	-7.123	-7.139	-7.155	-7.171	-7.187	-7.203	-7.219
-260	-6.890	-6.907	-6.924	-6.941	-6.958	-6.975	-6.991	-7.008	-7.025	-7.041	-7.058
-250	-6.716	-6.734	-6.752	-6.769	-6.787	-6.804	-6.821	-6.839	-6.856	-6.873	-6.890
-240	-6.536	-6.555	-6.573	-6.591	-6.609	-6.627	-6.645	-6.663	-6.681	-6.699	-6.716
-230	-6.351	-6.370	-6.388	-6.407	-6.426	-6.444	-6.463	-6.481	-6.500	-6.518	-6.536
-220	-6.159	-6.179	-6.198	-6.217	-6.236	-6.256	-6.275	-6.294	-6.313	-6.332	-6.351
-210	-5.962	-5.982	-6.002	-6.022	-6.042	-6.061	-6.081	-6.101	-6.120	-6.140	-6.159
-200	-5.760	-5.781	-5.801	-5.821	-5.842	-5.862	-5.882	-5.902	-5.922	-5.942	-5.962
-190	-5.553	-5.574	-5.595	-5.616	-5.637	-5.657	-5.678	-5.699	-5.719	-5.740	-5.760
-180	-5.341	-5.363	-5.384	-5.405	-5.426	-5.448	-5.469	-5.490	-5.511	-5.532	-5.553
-170	-5.125	-5.146	-5.168	-5.190	-5.212	-5.233	-5.255	-5.277	-5.298	-5.320	-5.341
-160	-4.903	-4.926	-4.948	-4.970	-4.992	-5.015	-5.037	-5.059	-5.081	-5.103	-5.125
-150	-4.678	-4.701	-4.724	-4.746	-4.769	-4.791	-4.814	-4.836	-4.859	-4.881	-4.903
-140	-4.449	-4.472	-4.495	-4.518	-4.541	-4.564	-4.587	-4.610	-4.633	-4.655	-4.678
-130	-4.215	-4.239	-4.262	-4.286	-4.309	-4.332	-4.356	-4.379	-4.402	-4.425	-4.449
-120	-3.978	-4.002	-4.026	-4.050	-4.073	-4.097	-4.121	-4.144	-4.168	-4.192	-4.215
-110	-3.737	-3.761	-3.786	-3.810	-3.834	-3.858	-3.882	-3.906	-3.930	-3.954	-3.978
-100	-3.493	-3.517	-3.542	-3.566	-3.591	-3.615	-3.640	-3.664	-3.688	-3.713	-3.737
-90	-3.245	-3.270	-3.295	-3.320	-3.344	-3.369	-3.394	-3.419	-3.443	-3.468	-3.493
-80	-2.994	-3.019	-3.044	-3.070	-3.095	-3.120	-3.145	-3.170	-3.195	-3.220	-3.245
-70	-2.740	-2.766	-2.791	-2.817	-2.842	-2.867	-2.893	-2.918	-2.943	-2.969	-2.994
-60	-2.483	-2.509	-2.535	-2.560	-2.586	-2.612	-2.638	-2.663	-2.689	-2.714	-2.740
-50	-2.223	-2.249	-2.275	-2.301	-2.327	-2.353	-2.379	-2.405	-2.431	-2.457	-2.483
-40	-1.961	-1.987	-2.013	-2.040	-2.066	-2.092	-2.118	-2.145	-2.171	-2.197	-2.223
-30	-1.695	-1.722	-1.749	-1.775	-1.802	-1.828	-1.855	-1.881	-1.908	-1.934	-1.961
-20	-1.428	-1.455	-1.482	-1.508	-1.535	-1.562	-1.589	-1.615	-1.642	-1.669	-1.695
-10	-1.158	-1.185	-1.212	-1.239	-1.266	-1.293	-1.320	-1.347	-1.374	-1.401	-1.428
0	-0.886	-0.913	-0.940	-0.967	-0.995	-1.022	-1.049	-1.076	-1.104	-1.131	-1.158
ºF	**-0**	**-1**	**-2**	**-3**	**-4**	**-5**	**-6**	**-7**	**-8**	**-9**	**-10**

ºF	0	1	2	3	4	5	6	7	8	9	10
0	-0.886	-0.858	-0.831	-0.803	-0.776	-0.749	-0.721	-0.694	-0.666	-0.639	-0.611
10	-0.611	-0.583	-0.556	-0.528	-0.501	-0.473	-0.445	-0.418	-0.390	-0.362	-0.334
20	-0.334	-0.307	-0.279	-0.251	-0.223	-0.195	-0.168	-0.140	-0.112	-0.084	-0.056
30	-0.056	-0.028	0.000	0.028	0.056	0.084	0.112	0.140	0.168	0.196	0.225
40	0.225	0.253	0.281	0.309	0.337	0.365	0.394	0.422	0.450	0.478	0.507
50	0.507	0.535	0.563	0.592	0.620	0.649	0.677	0.705	0.734	0.762	0.791
60	0.791	0.819	0.848	0.876	0.905	0.933	0.962	0.991	1.019	1.048	1.076
70	1.076	1.105	1.134	1.162	1.191	1.220	1.249	1.277	1.306	1.335	1.364
80	1.364	1.392	1.421	1.450	1.479	1.508	1.537	1.566	1.594	1.623	1.652
90	1.652	1.681	1.710	1.739	1.768	1.797	1.826	1.855	1.884	1.913	1.942
100	1.942	1.972	2.001	2.030	2.059	2.088	2.117	2.146	2.175	2.205	2.234
110	2.234	2.263	2.292	2.322	2.351	2.380	2.409	2.439	2.468	2.497	2.527
120	2.527	2.556	2.585	2.615	2.644	2.673	2.703	2.732	2.762	2.791	2.821
130	2.821	2.850	2.880	2.909	2.938	2.968	2.997	3.027	3.057	3.086	3.116
140	3.116	3.145	3.175	3.204	3.234	3.264	3.293	3.323	3.353	3.382	3.412
150	3.412	3.442	3.471	3.501	3.531	3.560	3.590	3.620	3.650	3.679	3.709
160	3.709	3.739	3.769	3.798	3.828	3.858	3.888	3.918	3.948	3.977	4.007
170	4.007	4.037	4.067	4.097	4.127	4.157	4.187	4.217	4.246	4.276	4.306
180	4.306	4.336	4.366	4.396	4.426	4.456	4.486	4.516	4.546	4.576	4.606
190	4.606	4.636	4.666	4.696	4.726	4.757	4.787	4.817	4.847	4.877	4.907
200	4.907	4.937	4.967	4.997	5.028	5.058	5.088	5.118	5.148	5.178	5.209
210	5.209	5.239	5.269	5.299	5.329	5.360	5.390	5.420	5.450	5.480	5.511
220	5.511	5.541	5.571	5.602	5.632	5.662	5.692	5.723	5.753	5.783	5.814
230	5.814	5.844	5.874	5.905	5.935	5.965	5.996	6.026	6.056	6.087	6.117
240	6.117	6.147	6.178	6.208	6.239	6.269	6.299	6.330	6.360	6.391	6.421
250	6.421	6.452	6.482	6.512	6.543	6.573	6.604	6.634	6.665	6.695	6.726
260	6.726	6.756	6.787	6.817	6.848	6.878	6.909	6.939	6.970	7.000	7.031
270	7.031	7.061	7.092	7.122	7.153	7.184	7.214	7.245	7.275	7.306	7.336
280	7.336	7.367	7.398	7.428	7.459	7.489	7.520	7.550	7.581	7.612	7.642
290	7.642	7.673	7.704	7.734	7.765	7.795	7.826	7.857	7.887	7.918	7.949
300	7.949	7.979	8.010	8.041	8.071	8.102	8.133	8.163	8.194	8.225	8.255
310	8.255	8.286	8.317	8.347	8.378	8.409	8.439	8.470	8.501	8.532	8.562
320	8.562	8.593	8.624	8.654	8.685	8.716	8.747	8.777	8.808	8.839	8.869
330	8.869	8.900	8.931	8.962	8.992	9.023	9.054	9.085	9.115	9.146	9.177
340	9.177	9.208	9.238	9.269	9.300	9.331	9.362	9.392	9.423	9.454	9.485
350	9.485	9.515	9.546	9.577	9.608	9.639	9.669	9.700	9.731	9.762	9.793
360	9.793	9.823	9.854	9.885	9.916	9.947	9.977	10.008	10.039	10.070	10.101
370	10.101	10.131	10.162	10.193	10.224	10.255	10.285	10.316	10.347	10.378	10.409
380	10.409	10.440	10.470	10.501	10.532	10.563	10.594	10.625	10.655	10.686	10.717
390	10.717	10.748	10.779	10.810	10.840	10.871	10.902	10.933	10.964	10.995	11.025
400	11.025	11.056	11.087	11.118	11.149	11.180	11.211	11.241	11.272	11.303	11.334
410	11.334	11.365	11.396	11.426	11.457	11.488	11.519	11.550	11.581	11.612	11.642
420	11.642	11.673	11.704	11.735	11.766	11.797	11.828	11.858	11.889	11.920	11.951
430	11.951	11.982	12.013	12.044	12.074	12.105	12.136	12.167	12.198	12.229	12.260
440	12.260	12.290	12.321	12.352	12.383	12.414	12.445	12.476	12.506	12.537	12.568
450	12.568	12.599	12.630	12.661	12.691	12.722	12.753	12.784	12.815	12.846	12.877
460	12.877	12.907	12.938	12.969	13.000	13.031	13.062	13.093	13.123	13.154	13.185
470	13.185	13.216	13.247	13.278	13.308	13.339	13.370	13.401	13.432	13.463	13.494
480	13.494	13.524	13.555	13.586	13.617	13.648	13.679	13.709	13.740	13.771	13.802
490	13.802	13.833	13.864	13.894	13.925	13.956	13.987	14.018	14.049	14.079	14.110
ºF	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

Type J Iron vs. Constantan ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
500	14.110	14.141	14.172	14.203	14.233	14.264	14.295	14.326	14.357	14.388	14.418
510	14.418	14.449	14.480	14.511	14.542	14.573	14.603	14.634	14.665	14.696	14.727
520	14.727	14.757	14.788	14.819	14.850	14.881	14.911	14.942	14.973	15.004	15.035
530	15.035	15.065	15.096	15.127	15.158	15.189	15.219	15.250	15.281	15.312	15.343
540	15.343	15.373	15.404	15.435	15.466	15.496	15.527	15.558	15.589	15.620	15.650
550	15.650	15.681	15.712	15.743	15.773	15.804	15.835	15.866	15.897	15.927	15.958
560	15.958	15.989	16.020	16.050	16.081	16.112	16.143	16.173	16.204	16.235	16.266
570	16.266	16.296	16.327	16.358	16.389	16.419	16.450	16.481	16.512	16.542	16.573
580	16.573	16.604	16.635	16.665	16.696	16.727	16.758	16.788	16.819	16.850	16.881
590	16.881	16.911	16.942	16.973	17.003	17.034	17.065	17.096	17.126	17.157	17.188
600	17.188	17.219	17.249	17.280	17.311	17.341	17.372	17.403	17.434	17.464	17.495
610	17.495	17.526	17.556	17.587	17.618	17.649	17.679	17.710	17.741	17.771	17.802
620	17.802	17.833	17.863	17.894	17.925	17.955	17.986	18.017	18.048	18.078	18.109
630	18.109	18.140	18.170	18.201	18.232	18.262	18.293	18.324	18.354	18.385	18.416
640	18.416	18.446	18.477	18.508	18.538	18.569	18.600	18.630	18.661	18.692	18.722
650	18.722	18.753	18.784	18.814	18.845	18.876	18.906	18.937	18.968	18.998	19.029
660	19.029	19.060	19.090	19.121	19.152	19.182	19.213	19.244	19.274	19.305	19.336
670	19.336	19.366	19.397	19.428	19.458	19.489	19.520	19.550	19.581	19.612	19.642
680	19.642	19.673	19.704	19.734	19.765	19.795	19.826	19.857	19.887	19.918	19.949
690	19.949	19.979	20.010	20.041	20.071	20.102	20.132	20.163	20.194	20.224	20.255
700	20.255	20.286	20.316	20.347	20.378	20.408	20.439	20.469	20.500	20.531	20.561
710	20.561	20.592	20.623	20.653	20.684	20.715	20.745	20.776	20.806	20.837	20.868
720	20.868	20.898	20.929	20.960	20.990	21.021	21.052	21.082	21.113	21.143	21.174
730	21.174	21.205	21.235	21.266	21.297	21.327	21.358	21.389	21.419	21.450	21.480
740	21.480	21.511	21.542	21.572	21.603	21.634	21.664	21.695	21.726	21.756	21.787
750	21.787	21.817	21.848	21.879	21.909	21.940	21.971	22.001	22.032	22.063	22.093
760	22.093	22.124	22.154	22.185	22.216	22.246	22.277	22.308	22.338	22.369	22.400
770	22.400	22.430	22.461	22.492	22.522	22.553	22.584	22.614	22.645	22.676	22.706
780	22.706	22.737	22.768	22.798	22.829	22.860	22.890	22.921	22.952	22.982	23.013
790	23.013	23.044	23.074	23.105	23.136	23.166	23.197	23.228	23.258	23.289	23.320
800	23.320	23.350	23.381	23.412	23.442	23.473	23.504	23.535	23.565	23.596	23.627
810	23.627	23.657	23.688	23.719	23.749	23.780	23.811	23.842	23.872	23.903	23.934
820	23.934	23.964	23.995	24.026	24.057	24.087	24.118	24.149	24.180	24.210	24.241
830	24.241	24.272	24.303	24.333	24.364	24.395	24.426	24.456	24.487	24.518	24.549
840	24.549	24.579	24.610	24.641	24.672	24.702	24.733	24.764	24.795	24.826	24.856
850	24.856	24.887	24.918	24.949	24.979	25.010	25.041	25.072	25.103	25.134	25.164
860	25.164	25.195	25.226	25.257	25.288	25.318	25.349	25.380	25.411	25.442	25.473
870	25.473	25.504	25.534	25.565	25.596	25.627	25.658	25.689	25.720	25.750	25.781
880	25.781	25.812	25.843	25.874	25.905	25.936	25.967	25.998	26.028	26.059	26.090
890	26.090	26.121	26.152	26.183	26.214	26.245	26.276	26.307	26.338	26.369	26.400
900	26.400	26.431	26.462	26.493	26.524	26.555	26.586	26.617	26.648	26.679	26.710
910	26.710	26.741	26.772	26.803	26.834	26.865	26.896	26.927	26.958	26.989	27.020
920	27.020	27.051	27.082	27.113	27.144	27.175	27.206	27.237	27.268	27.299	27.330
930	27.330	27.362	27.393	27.424	27.455	27.486	27.517	27.548	27.579	27.610	27.642
940	27.642	27.673	27.704	27.735	27.766	27.797	27.829	27.860	27.891	27.922	27.953
950	27.953	27.985	28.016	28.047	28.078	28.109	28.141	28.172	28.203	28.234	28.266
960	28.266	28.297	28.328	28.359	28.391	28.422	28.453	28.485	28.516	28.547	28.579
970	28.579	28.610	28.641	28.672	28.704	28.735	28.767	28.798	28.829	28.861	28.892
980	28.892	28.923	28.955	28.986	29.018	29.049	29.080	29.112	29.143	29.175	29.206
990	29.206	29.238	29.269	29.301	29.332	29.363	29.395	29.426	29.458	29.489	29.521
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
1000	29.521	29.552	29.584	29.616	29.647	29.679	29.710	29.742	29.773	29.805	29.836
1010	29.836	29.868	29.900	29.931	29.963	29.995	30.026	30.058	30.089	30.121	30.153
1020	30.153	30.184	30.216	30.248	30.279	30.311	30.343	30.375	30.406	30.438	30.470
1030	30.470	30.502	30.533	30.565	30.597	30.629	30.660	30.692	30.724	30.756	30.788
1040	30.788	30.819	30.851	30.883	30.915	30.947	30.979	31.011	31.043	31.074	31.106
1050	31.106	31.138	31.170	31.202	31.234	31.266	31.298	31.330	31.362	31.394	31.426
1060	31.426	31.458	31.490	31.522	31.554	31.586	31.618	31.650	31.682	31.714	31.746
1070	31.746	31.778	31.811	31.843	31.875	31.907	31.939	31.971	32.003	32.035	32.068
1080	32.068	32.100	32.132	32.164	32.196	32.229	32.261	32.293	32.325	32.358	32.390
1090	32.390	32.422	32.455	32.487	32.519	32.551	32.584	32.616	32.648	32.681	32.713
1100	32.713	32.746	32.778	32.810	32.843	32.875	32.908	32.940	32.973	33.005	33.037
1110	33.037	33.070	33.102	33.135	33.167	33.200	33.232	33.265	33.298	33.330	33.363
1120	33.363	33.395	33.428	33.460	33.493	33.526	33.558	33.591	33.624	33.656	33.689
1130	33.689	33.722	33.754	33.787	33.820	33.853	33.885	33.918	33.951	33.984	34.016
1140	34.016	34.049	34.082	34.115	34.148	34.180	34.213	34.246	34.279	34.312	34.345
1150	34.345	34.378	34.411	34.444	34.476	34.509	34.542	34.575	34.608	34.641	34.674
1160	34.674	34.707	34.740	34.773	34.806	34.840	34.873	34.906	34.939	34.972	35.005
1170	35.005	35.038	35.071	35.104	35.138	35.171	35.204	35.237	35.270	35.304	35.337
1180	35.337	35.370	35.403	35.437	35.470	35.503	35.536	35.570	35.603	35.636	35.670
1190	35.670	35.703	35.736	35.770	35.803	35.837	35.870	35.903	35.937	35.970	36.004
1200	36.004	36.037	36.071	36.104	36.138	36.171	36.205	36.238	36.272	36.305	36.339
1210	36.339	36.373	36.406	36.440	36.473	36.507	36.541	36.574	36.608	36.642	36.675
1220	36.675	36.709	36.743	36.777	36.810	36.844	36.878	36.912	36.945	36.979	37.013
1230	37.013	37.047	37.081	37.114	37.148	37.182	37.216	37.250	37.284	37.318	37.352
1240	37.352	37.386	37.420	37.454	37.488	37.522	37.556	37.590	37.624	37.658	37.692
1250	37.692	37.726	37.760	37.794	37.828	37.862	37.896	37.930	37.964	37.999	38.033
1260	38.033	38.067	38.101	38.135	38.169	38.204	38.238	38.272	38.306	38.341	38.375
1270	38.375	38.409	38.444	38.478	38.512	38.546	38.581	38.615	38.650	38.684	38.718
1280	38.718	38.753	38.787	38.822	38.856	38.890	38.925	38.959	38.994	39.028	39.063
1290	39.063	39.097	39.132	39.166	39.201	39.235	39.270	39.305	39.339	39.374	39.408
1300	39.408	39.443	39.478	39.512	39.547	39.582	39.616	39.651	39.686	39.720	39.755
1310	39.755	39.790	39.825	39.859	39.894	39.929	39.964	39.998	40.033	40.068	40.103
1320	40.103	40.138	40.173	40.207	40.242	40.277	40.312	40.347	40.382	40.417	40.452
1330	40.452	40.487	40.522	40.556	40.591	40.626	40.661	40.696	40.731	40.766	40.801
1340	40.801	40.836	40.872	40.907	40.942	40.977	41.012	41.047	41.082	41.117	41.152
1350	41.152	41.187	41.222	41.258	41.293	41.328	41.363	41.398	41.433	41.469	41.504
1360	41.504	41.539	41.574	41.610	41.645	41.680	41.715	41.751	41.786	41.821	41.856
1370	41.856	41.892	41.927	41.962	41.998	42.033	42.068	42.104	42.139	42.174	42.210
1380	42.210	42.245	42.281	42.316	42.351	42.387	42.422	42.458	42.493	42.528	42.564
1390	42.564	42.599	42.635	42.670	42.706	42.741	42.777	42.812	42.848	42.883	42.919
1400	42.919	42.954	42.990	43.025	43.061	43.096	43.132	43.167	43.203	43.239	43.274
1410	43.274	43.310	43.346	43.381	43.417	43.452	43.488	43.524	43.559	43.595	43.631
1420	43.631	43.667	43.702	43.738	43.774	43.809	43.845	43.881	43.917	43.953	43.988
1430	43.988	44.024	44.060	44.096	44.131	44.167	44.203	44.239	44.275	44.310	44.346
1440	44.346	44.382	44.418	44.454	44.490	44.525	44.561	44.597	44.633	44.669	44.705
1450	44.705	44.741	44.777	44.812	44.848	44.884	44.920	44.956	44.992	45.028	45.064
1460	45.064	45.099	45.135	45.171	45.207	45.243	45.279	45.315	45.351	45.387	45.423
1470	45.423	45.458	45.494	45.530	45.566	45.602	45.638	45.674	45.710	45.746	45.782
1480	45.782	45.818	45.853	45.889	45.925	45.961	45.997	46.033	46.069	46.105	46.141
1490	46.141	46.177	46.212	46.248	46.284	46.320	46.356	46.392	46.428	46.464	46.500
ºF	0	1	2	3	4	5	6	7	8	9	10

Type J Iron vs. Constantan ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
1500	46.500	46.535	46.571	46.607	46.643	46.679	46.715	46.751	46.786	46.822	46.858
1510	46.858	46.894	46.930	46.966	47.001	47.037	47.073	47.109	47.145	47.181	47.216
1520	47.216	47.252	47.288	47.324	47.359	47.395	47.431	47.467	47.503	47.538	47.574
1530	47.574	47.610	47.646	47.681	47.717	47.753	47.788	47.824	47.860	47.896	47.931
1540	47.931	47.967	48.003	48.038	48.074	48.110	48.145	48.181	48.217	48.252	48.288
1550	48.288	48.324	48.359	48.395	48.430	48.466	48.502	48.537	48.573	48.608	48.644
1560	48.644	48.679	48.715	48.750	48.786	48.822	48.857	48.893	48.928	48.964	48.999
1570	48.999	49.034	49.070	49.105	49.141	49.176	49.212	49.247	49.283	49.318	49.353
1580	49.353	49.389	49.424	49.460	49.495	49.530	49.566	49.601	49.636	49.672	49.707
1590	49.707	49.742	49.778	49.813	49.848	49.883	49.919	49.954	49.989	50.024	50.060
1600	50.060	50.095	50.130	50.165	50.200	50.235	50.271	50.306	50.341	50.376	50.411
1610	50.411	50.446	50.481	50.517	50.552	50.587	50.622	50.657	50.692	50.727	50.762
1620	50.762	50.797	50.832	50.867	50.902	50.937	50.972	51.007	51.042	51.077	51.112
1630	51.112	51.147	51.181	51.216	51.251	51.286	51.321	51.356	51.391	51.425	51.460
1640	51.460	51.495	51.530	51.565	51.599	51.634	51.669	51.704	51.738	51.773	51.808
1650	51.808	51.843	51.877	51.912	51.947	51.981	52.016	52.051	52.085	52.120	52.154
1660	52.154	52.189	52.224	52.258	52.293	52.327	52.362	52.396	52.431	52.465	52.500
1670	52.500	52.534	52.569	52.603	52.638	52.672	52.707	52.741	52.776	52.810	52.844
1680	52.844	52.879	52.913	52.947	52.982	53.016	53.050	53.085	53.119	53.153	53.188
1690	53.188	53.222	53.256	53.290	53.325	53.359	53.393	53.427	53.462	53.496	53.530
1700	53.530	53.564	53.598	53.632	53.667	53.701	53.735	53.769	53.803	53.837	53.871
1710	53.871	53.905	53.939	53.973	54.007	54.041	54.075	54.109	54.143	54.177	54.211
1720	54.211	54.245	54.279	54.313	54.347	54.381	54.415	54.449	54.483	54.516	54.550
1730	54.550	54.584	54.618	54.652	54.686	54.719	54.753	54.787	54.821	54.855	54.888
1740	54.888	54.922	54.956	54.990	55.023	55.057	55.091	55.124	55.158	55.192	55.225
1750	55.225	55.259	55.293	55.326	55.360	55.393	55.427	55.461	55.494	55.528	55.561
1760	55.561	55.595	55.628	55.662	55.695	55.729	55.762	55.796	55.829	55.863	55.896
1770	55.896	55.930	55.963	55.997	56.030	56.063	56.097	56.130	56.164	56.197	56.230
1780	56.230	56.264	56.297	56.330	56.364	56.397	56.430	56.464	56.497	56.530	56.564
1790	56.564	56.597	56.630	56.663	56.697	56.730	56.763	56.796	56.829	56.863	56.896
1800	56.896	56.929	56.962	56.995	57.028	57.062	57.095	57.128	57.161	57.194	57.227
1810	57.227	57.260	57.293	57.326	57.360	57.393	57.426	57.459	57.492	57.525	57.558
1820	57.558	57.591	57.624	57.657	57.690	57.723	57.756	57.789	57.822	57.855	57.888
1830	57.888	57.920	57.953	57.986	58.019	58.052	58.085	58.118	58.151	58.184	58.217
1840	58.217	58.249	58.282	58.315	58.348	58.381	58.414	58.446	58.479	58.512	58.545
1850	58.545	58.578	58.610	58.643	58.676	58.709	58.741	58.774	58.807	58.840	58.872
1860	58.872	58.905	58.938	58.971	59.003	59.036	59.069	59.101	59.134	59.167	59.199
1870	59.199	59.232	59.265	59.297	59.330	59.363	59.395	59.428	59.460	59.493	59.526
1880	59.526	59.558	59.591	59.623	59.656	59.689	59.721	59.754	59.786	59.819	59.851
1890	59.851	59.884	59.916	59.949	59.982	60.014	60.047	60.079	60.112	60.144	60.177
1900	60.177	60.209	60.242	60.274	60.307	60.339	60.371	60.404	60.436	60.469	60.501
1910	60.501	60.534	60.566	60.599	60.631	60.663	60.696	60.728	60.761	60.793	60.826
1920	60.826	60.858	60.890	60.923	60.955	60.987	61.020	61.052	61.085	61.117	61.149
1930	61.149	61.182	61.214	61.246	61.279	61.311	61.343	61.376	61.408	61.440	61.473
1940	61.473	61.505	61.537	61.570	61.602	61.634	61.667	61.699	61.731	61.763	61.796
1950	61.796	61.828	61.860	61.893	61.925	61.957	61.989	62.022	62.054	62.086	62.118
1960	62.118	62.151	62.183	62.215	62.247	62.280	62.312	62.344	62.376	62.409	62.441
1970	62.441	62.473	62.505	62.537	62.570	62.602	62.634	62.666	62.699	62.731	62.763
1980	62.763	62.795	62.827	62.860	62.892	62.924	62.956	62.988	63.020	63.053	63.085
1990	63.085	63.117	63.149	63.181	63.214	63.246	63.278	63.310	63.342	63.374	63.406
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
2000	63.406	63.439	63.471	63.503	63.535	63.567	63.599	63.632	63.664	63.696	63.728
2010	63.728	63.760	63.792	63.824	63.856	63.889	63.921	63.953	63.985	64.017	64.049
2020	64.049	64.081	64.113	64.146	64.178	64.210	64.242	64.274	64.306	64.338	64.370
2030	64.370	64.402	64.435	64.467	64.499	64.531	64.563	64.595	64.627	64.659	64.691
2040	64.691	64.723	64.756	64.788	64.820	64.852	64.884	64.916	64.948	64.980	65.012
2050	65.012	65.044	65.076	65.109	65.141	65.173	65.205	65.237	65.269	65.301	65.333
2060	65.333	65.365	65.397	65.429	65.461	65.493	65.525	65.557	65.590	65.622	65.654
2070	65.654	65.686	65.718	65.750	65.782	65.814	65.846	65.878	65.910	65.942	65.974
2080	65.974	66.006	66.038	66.070	66.102	66.134	66.166	66.199	66.231	66.263	66.295
2090	66.295	66.327	66.359	66.391	66.423	66.455	66.487	66.519	66.551	66.583	66.615
2100	66.615	66.647	66.679	66.711	66.743	66.775	66.807	66.839	66.871	66.903	66.935
2110	66.935	66.967	66.999	67.031	67.063	67.095	67.127	67.159	67.191	67.223	67.255
2120	67.255	67.287	67.319	67.351	67.383	67.415	67.447	67.479	67.511	67.543	67.575
2130	67.575	67.607	67.639	67.671	67.703	67.735	67.767	67.799	67.831	67.863	67.895
2140	67.895	67.927	67.959	67.991	68.023	68.055	68.087	68.119	68.150	68.182	68.214
2150	68.214	68.246	68.278	68.310	68.342	68.374	68.406	68.438	68.470	68.502	68.534
2160	68.534	68.566	68.597	68.629	68.661	68.693	68.725	68.757	68.789	68.821	68.853
2170	68.853	68.884	68.916	68.948	68.980	69.012	69.044	69.076	69.108	69.139	69.171
2180	69.171	69.203	69.235	69.267	69.299	69.330	69.362	69.394	69.426	69.458	69.490
2190	69.490	69.521	69.553								
ºF	0	1	2	3	4	5	6	7	8	9	10

Type K Chromal vs. Alumal ITS-90 ºF

ºF	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
-440	-6.446	-6.448	-6.449	-6.450	-6.451	-6.452	-6.453	-6.454	-6.454	-6.455	-6.456
-430	-6.431	-6.433	-6.435	-6.436	-6.438	-6.440	-6.441	-6.443	-6.444	-6.445	-6.446
-420	-6.409	-6.411	-6.414	-6.416	-6.419	-6.421	-6.423	-6.425	-6.427	-6.429	-6.431
-410	-6.380	-6.383	-6.386	-6.389	-6.392	-6.395	-6.398	-6.401	-6.404	-6.406	-6.409
-400	-6.344	-6.348	-6.352	-6.355	-6.359	-6.363	-6.366	-6.370	-6.373	-6.377	-6.380
-390	-6.301	-6.306	-6.310	-6.315	-6.319	-6.323	-6.328	-6.332	-6.336	-6.340	-6.344
-380	-6.251	-6.257	-6.262	-6.267	-6.272	-6.277	-6.282	-6.287	-6.292	-6.296	-6.301
-370	-6.195	-6.201	-6.207	-6.213	-6.218	-6.224	-6.230	-6.235	-6.241	-6.246	-6.251
-360	-6.133	-6.139	-6.146	-6.152	-6.158	-6.165	-6.171	-6.177	-6.183	-6.189	-6.195
-350	-6.064	-6.071	-6.078	-6.085	-6.092	-6.099	-6.106	-6.113	-6.119	-6.126	-6.133
-340	-5.989	-5.997	-6.004	-6.012	-6.020	-6.027	-6.035	-6.042	-6.049	-6.057	-6.064
-330	-5.908	-5.917	-5.925	-5.933	-5.941	-5.949	-5.957	-5.965	-5.973	-5.981	-5.989
-320	-5.822	-5.831	-5.840	-5.848	-5.857	-5.866	-5.874	-5.883	-5.891	-5.900	-5.908
-310	-5.730	-5.739	-5.749	-5.758	-5.767	-5.776	-5.786	-5.795	-5.804	-5.813	-5.822
-300	-5.632	-5.642	-5.652	-5.662	-5.672	-5.682	-5.691	-5.701	-5.711	-5.720	-5.730
-290	-5.529	-5.540	-5.550	-5.561	-5.571	-5.581	-5.592	-5.602	-5.612	-5.622	-5.632
-280	-5.421	-5.432	-5.443	-5.454	-5.465	-5.476	-5.487	-5.497	-5.508	-5.519	-5.529
-270	-5.308	-5.320	-5.331	-5.343	-5.354	-5.365	-5.377	-5.388	-5.399	-5.410	-5.421
-260	-5.190	-5.202	-5.214	-5.226	-5.238	-5.250	-5.261	-5.273	-5.285	-5.296	-5.308
-250	-5.067	-5.079	-5.092	-5.104	-5.117	-5.129	-5.141	-5.153	-5.166	-5.178	-5.190
-240	-4.939	-4.952	-4.965	-4.978	-4.991	-5.003	-5.016	-5.029	-5.042	-5.054	-5.067
-230	-4.806	-4.820	-4.833	-4.847	-4.860	-4.873	-4.886	-4.900	-4.913	-4.926	-4.939
-220	-4.669	-4.683	-4.697	-4.711	-4.724	-4.738	-4.752	-4.766	-4.779	-4.793	-4.806
-210	-4.527	-4.542	-4.556	-4.570	-4.584	-4.599	-4.613	-4.627	-4.641	-4.655	-4.669
-200	-4.381	-4.396	-4.411	-4.425	-4.440	-4.455	-4.469	-4.484	-4.498	-4.513	-4.527
-190	-4.231	-4.246	-4.261	-4.276	-4.291	-4.306	-4.321	-4.336	-4.351	-4.366	-4.381
-180	-4.076	-4.091	-4.107	-4.123	-4.138	-4.154	-4.169	-4.185	-4.200	-4.215	-4.231
-170	-3.917	-3.933	-3.949	-3.965	-3.981	-3.997	-4.013	-4.029	-4.044	-4.060	-4.076
-160	-3.754	-3.771	-3.787	-3.803	-3.820	-3.836	-3.852	-3.869	-3.885	-3.901	-3.917
-150	-3.587	-3.604	-3.621	-3.638	-3.655	-3.671	-3.688	-3.705	-3.721	-3.738	-3.754
-140	-3.417	-3.434	-3.451	-3.468	-3.486	-3.503	-3.520	-3.537	-3.554	-3.571	-3.587
-130	-3.243	-3.260	-3.278	-3.295	-3.313	-3.330	-3.348	-3.365	-3.382	-3.400	-3.417
-120	-3.065	-3.083	-3.101	-3.119	-3.136	-3.154	-3.172	-3.190	-3.207	-3.225	-3.243
-110	-2.884	-2.902	-2.920	-2.938	-2.957	-2.975	-2.993	-3.011	-3.029	-3.047	-3.065
-100	-2.699	-2.718	-2.736	-2.755	-2.773	-2.792	-2.810	-2.829	-2.847	-2.865	-2.884
-90	-2.511	-2.530	-2.549	-2.568	-2.587	-2.605	-2.624	-2.643	-2.662	-2.680	-2.699
-80	-2.320	-2.339	-2.359	-2.378	-2.397	-2.416	-2.435	-2.454	-2.473	-2.492	-2.511
-70	-2.126	-2.146	-2.165	-2.185	-2.204	-2.223	-2.243	-2.262	-2.282	-2.301	-2.320
-60	-1.929	-1.949	-1.969	-1.988	-2.008	-2.028	-2.048	-2.067	-2.087	-2.106	-2.126
-50	-1.729	-1.749	-1.770	-1.790	-1.810	-1.830	-1.850	-1.869	-1.889	-1.909	-1.929
-40	-1.527	-1.547	-1.568	-1.588	-1.608	-1.628	-1.649	-1.669	-1.689	-1.709	-1.729
-30	-1.322	-1.343	-1.363	-1.384	-1.404	-1.425	-1.445	-1.466	-1.486	-1.507	-1.527
-20	-1.114	-1.135	-1.156	-1.177	-1.198	-1.218	-1.239	-1.260	-1.281	-1.301	-1.322
-10	-0.905	-0.926	-0.947	-0.968	-0.989	-1.010	-1.031	-1.052	-1.073	-1.094	-1.114
0	-0.692	-0.714	-0.735	-0.756	-0.778	-0.799	-0.820	-0.841	-0.862	-0.883	-0.905
ºF	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10

ºF	0	1	2	3	4	5	6	7	8	9	10
0	-0.692	-0.671	-0.650	-0.628	-0.607	-0.586	-0.564	-0.543	-0.521	-0.500	-0.478
10	-0.478	-0.457	-0.435	-0.413	-0.392	-0.370	-0.349	-0.327	-0.305	-0.284	-0.262
20	-0.262	-0.240	-0.218	-0.197	-0.175	-0.153	-0.131	-0.109	-0.088	-0.066	-0.044
30	-0.044	-0.022	0.000	0.022	0.044	0.066	0.088	0.110	0.132	0.154	0.176
40	0.176	0.198	0.220	0.242	0.264	0.286	0.308	0.330	0.353	0.375	0.397
50	0.397	0.419	0.441	0.463	0.486	0.508	0.530	0.552	0.575	0.597	0.619
60	0.619	0.642	0.664	0.686	0.709	0.731	0.753	0.776	0.798	0.821	0.843
70	0.843	0.865	0.888	0.910	0.933	0.955	0.978	1.000	1.023	1.045	1.068
80	1.068	1.090	1.113	1.136	1.158	1.181	1.203	1.226	1.249	1.271	1.294
90	1.294	1.316	1.339	1.362	1.384	1.407	1.430	1.453	1.475	1.498	1.521
100	1.521	1.543	1.566	1.589	1.612	1.635	1.657	1.680	1.703	1.726	1.749
110	1.749	1.771	1.794	1.817	1.840	1.863	1.886	1.909	1.931	1.954	1.977
120	1.977	2.000	2.023	2.046	2.069	2.092	2.115	2.138	2.161	2.184	2.207
130	2.207	2.230	2.253	2.276	2.298	2.321	2.344	2.367	2.390	2.413	2.436
140	2.436	2.459	2.483	2.506	2.529	2.552	2.575	2.598	2.621	2.644	2.667
150	2.667	2.690	2.713	2.736	2.759	2.782	2.805	2.828	2.851	2.874	2.897
160	2.897	2.920	2.944	2.967	2.990	3.013	3.036	3.059	3.082	3.105	3.128
170	3.128	3.151	3.174	3.197	3.220	3.244	3.267	3.290	3.313	3.336	3.359
180	3.359	3.382	3.405	3.428	3.451	3.474	3.497	3.520	3.544	3.567	3.590
190	3.590	3.613	3.636	3.659	3.682	3.705	3.728	3.751	3.774	3.797	3.820
200	3.820	3.843	3.866	3.889	3.912	3.935	3.958	3.981	4.004	4.027	4.050
210	4.050	4.073	4.096	4.119	4.142	4.165	4.188	4.211	4.234	4.257	4.280
220	4.280	4.303	4.326	4.349	4.372	4.395	4.417	4.440	4.463	4.486	4.509
230	4.509	4.532	4.555	4.578	4.601	4.623	4.646	4.669	4.692	4.715	4.738
240	4.738	4.760	4.783	4.806	4.829	4.852	4.874	4.897	4.920	4.943	4.965
250	4.965	4.988	5.011	5.034	5.056	5.079	5.102	5.124	5.147	5.170	5.192
260	5.192	5.215	5.238	5.260	5.283	5.306	5.328	5.351	5.374	5.396	5.419
270	5.419	5.441	5.464	5.487	5.509	5.532	5.554	5.577	5.599	5.622	5.644
280	5.644	5.667	5.690	5.712	5.735	5.757	5.779	5.802	5.824	5.847	5.869
290	5.869	5.892	5.914	5.937	5.959	5.982	6.004	6.026	6.049	6.071	6.094
300	6.094	6.116	6.138	6.161	6.183	6.205	6.228	6.250	6.272	6.295	6.317
310	6.317	6.339	6.362	6.384	6.406	6.429	6.451	6.473	6.496	6.518	6.540
320	6.540	6.562	6.585	6.607	6.629	6.652	6.674	6.696	6.718	6.741	6.763
330	6.763	6.785	6.807	6.829	6.852	6.874	6.896	6.918	6.941	6.963	6.985
340	6.985	7.007	7.029	7.052	7.074	7.096	7.118	7.140	7.163	7.185	7.207
350	7.207	7.229	7.251	7.273	7.296	7.318	7.340	7.362	7.384	7.407	7.429
360	7.429	7.451	7.473	7.495	7.517	7.540	7.562	7.584	7.606	7.628	7.650
370	7.650	7.673	7.695	7.717	7.739	7.761	7.783	7.806	7.828	7.850	7.872
380	7.872	7.894	7.917	7.939	7.961	7.983	8.005	8.027	8.050	8.072	8.094
390	8.094	8.116	8.138	8.161	8.183	8.205	8.227	8.250	8.272	8.294	8.316
400	8.316	8.338	8.361	8.383	8.405	8.427	8.450	8.472	8.494	8.516	8.539
410	8.539	8.561	8.583	8.605	8.628	8.650	8.672	8.694	8.717	8.739	8.761
420	8.761	8.784	8.806	8.828	8.851	8.873	8.895	8.918	8.940	8.962	8.985
430	8.985	9.007	9.029	9.052	9.074	9.096	9.119	9.141	9.163	9.186	9.208
440	9.208	9.231	9.253	9.275	9.298	9.320	9.343	9.365	9.388	9.410	9.432
450	9.432	9.455	9.477	9.500	9.522	9.545	9.567	9.590	9.612	9.635	9.657
460	9.657	9.680	9.702	9.725	9.747	9.770	9.792	9.815	9.837	9.860	9.882
470	9.882	9.905	9.927	9.950	9.973	9.995	10.018	10.040	10.063	10.086	10.108
480	10.108	10.131	10.153	10.176	10.199	10.221	10.244	10.267	10.289	10.312	10.334
490	10.334	10.357	10.380	10.402	10.425	10.448	10.471	10.493	10.516	10.539	10.561
ºF	0	1	2	3	4	5	6	7	8	9	10

Type K Chromal vs. Alumal ITS-90 °F

°F	0	1	2	3	4	5	6	7	8	9	10
500	10.561	10.584	10.607	10.629	10.652	10.675	10.698	10.720	10.743	10.766	10.789
510	10.789	10.811	10.834	10.857	10.880	10.903	10.925	10.948	10.971	10.994	11.017
520	11.017	11.039	11.062	11.085	11.108	11.131	11.154	11.176	11.199	11.222	11.245
530	11.245	11.268	11.291	11.313	11.336	11.359	11.382	11.405	11.428	11.451	11.474
540	11.474	11.497	11.519	11.542	11.565	11.588	11.611	11.634	11.657	11.680	11.703
550	11.703	11.726	11.749	11.772	11.795	11.818	11.841	11.864	11.887	11.910	11.933
560	11.933	11.956	11.978	12.001	12.024	12.047	12.070	12.093	12.116	12.140	12.163
570	12.163	12.186	12.209	12.232	12.255	12.278	12.301	12.324	12.347	12.370	12.393
580	12.393	12.416	12.439	12.462	12.485	12.508	12.531	12.554	12.577	12.600	12.624
590	12.624	12.647	12.670	12.693	12.716	12.739	12.762	12.785	12.808	12.831	12.855
600	12.855	12.878	12.901	12.924	12.947	12.970	12.993	13.016	13.040	13.063	13.086
610	13.086	13.109	13.132	13.155	13.179	13.202	13.225	13.248	13.271	13.294	13.318
620	13.318	13.341	13.364	13.387	13.410	13.433	13.457	13.480	13.503	13.526	13.549
630	13.549	13.573	13.596	13.619	13.642	13.665	13.689	13.712	13.735	13.758	13.782
640	13.782	13.805	13.828	13.851	13.874	13.898	13.921	13.944	13.967	13.991	14.014
650	14.014	14.037	14.060	14.084	14.107	14.130	14.154	14.177	14.200	14.223	14.247
660	14.247	14.270	14.293	14.316	14.340	14.363	14.386	14.410	14.433	14.456	14.479
670	14.479	14.503	14.526	14.549	14.573	14.596	14.619	14.643	14.666	14.689	14.713
680	14.713	14.736	14.759	14.783	14.806	14.829	14.853	14.876	14.899	14.923	14.946
690	14.946	14.969	14.993	15.016	15.039	15.063	15.086	15.109	15.133	15.156	15.179
700	15.179	15.203	15.226	15.250	15.273	15.296	15.320	15.343	15.366	15.390	15.413
710	15.413	15.437	15.460	15.483	15.507	15.530	15.554	15.577	15.600	15.624	15.647
720	15.647	15.671	15.694	15.717	15.741	15.764	15.788	15.811	15.834	15.858	15.881
730	15.881	15.905	15.928	15.952	15.975	15.998	16.022	16.045	16.069	16.092	16.116
740	16.116	16.139	16.163	16.186	16.209	16.233	16.256	16.280	16.303	16.327	16.350
750	16.350	16.374	16.397	16.421	16.444	16.468	16.491	16.514	16.538	16.561	16.585
760	16.585	16.608	16.632	16.655	16.679	16.702	16.726	16.749	16.773	16.796	16.820
770	16.820	16.843	16.867	16.890	16.914	16.937	16.961	16.984	17.008	17.031	17.055
780	17.055	17.078	17.102	17.125	17.149	17.173	17.196	17.220	17.243	17.267	17.290
790	17.290	17.314	17.337	17.361	17.384	17.408	17.431	17.455	17.478	17.502	17.526
800	17.526	17.549	17.573	17.596	17.620	17.643	17.667	17.690	17.714	17.738	17.761
810	17.761	17.785	17.808	17.832	17.855	17.879	17.902	17.926	17.950	17.973	17.997
820	17.997	18.020	18.044	18.068	18.091	18.115	18.138	18.162	18.185	18.209	18.233
830	18.233	18.256	18.280	18.303	18.327	18.351	18.374	18.398	18.421	18.445	18.469
840	18.469	18.492	18.516	18.539	18.563	18.587	18.610	18.634	18.657	18.681	18.705
850	18.705	18.728	18.752	18.776	18.799	18.823	18.846	18.870	18.894	18.917	18.941
860	18.941	18.965	18.988	19.012	19.035	19.059	19.083	19.106	19.130	19.154	19.177
870	19.177	19.201	19.224	19.248	19.272	19.295	19.319	19.343	19.366	19.390	19.414
880	19.414	19.437	19.461	19.485	19.508	19.532	19.556	19.579	19.603	19.626	19.650
890	19.650	19.674	19.697	19.721	19.745	19.768	19.792	19.816	19.839	19.863	19.887
900	19.887	19.910	19.934	19.958	19.981	20.005	20.029	20.052	20.076	20.100	20.123
910	20.123	20.147	20.171	20.194	20.218	20.242	20.265	20.289	20.313	20.336	20.360
920	20.360	20.384	20.407	20.431	20.455	20.479	20.502	20.526	20.550	20.573	20.597
930	20.597	20.621	20.644	20.668	20.692	20.715	20.739	20.763	20.786	20.810	20.834
940	20.834	20.857	20.881	20.905	20.929	20.952	20.976	21.000	21.023	21.047	21.071
950	21.071	21.094	21.118	21.142	21.165	21.189	21.213	21.236	21.260	21.284	21.308
960	21.308	21.331	21.355	21.379	21.402	21.426	21.450	21.473	21.497	21.521	21.544
970	21.544	21.568	21.592	21.616	21.639	21.663	21.687	21.710	21.734	21.758	21.781
980	21.781	21.805	21.829	21.852	21.876	21.900	21.924	21.947	21.971	21.995	22.018
990	22.018	22.042	22.066	22.089	22.113	22.137	22.160	22.184	22.208	22.232	22.255
°F	0	1	2	3	4	5	6	7	8	9	10

°F	0	1	2	3	4	5	6	7	8	9	10
1000	22.255	22.279	22.303	22.326	22.350	22.374	22.397	22.421	22.445	22.468	22.492
1010	22.492	22.516	22.540	22.563	22.587	22.611	22.634	22.658	22.682	22.705	22.729
1020	22.729	22.753	22.776	22.800	22.824	22.847	22.871	22.895	22.919	22.942	22.966
1030	22.966	22.990	23.013	23.037	23.061	23.084	23.108	23.132	23.155	23.179	23.203
1040	23.203	23.226	23.250	23.274	23.297	23.321	23.345	23.368	23.392	23.416	23.439
1050	23.439	23.463	23.487	23.510	23.534	23.558	23.581	23.605	23.629	23.652	23.676
1060	23.676	23.700	23.723	23.747	23.771	23.794	23.818	23.842	23.865	23.889	23.913
1070	23.913	23.936	23.960	23.984	24.007	24.031	24.055	24.078	24.102	24.126	24.149
1080	24.149	24.173	24.197	24.220	24.244	24.267	24.291	24.315	24.338	24.362	24.386
1090	24.386	24.409	24.433	24.457	24.480	24.504	24.527	24.551	24.575	24.598	24.622
1100	24.622	24.646	24.669	24.693	24.717	24.740	24.764	24.787	24.811	24.835	24.858
1110	24.858	24.882	24.905	24.929	24.953	24.976	25.000	25.024	25.047	25.071	25.094
1120	25.094	25.118	25.142	25.165	25.189	25.212	25.236	25.260	25.283	25.307	25.330
1130	25.330	25.354	25.377	25.401	25.425	25.448	25.472	25.495	25.519	25.543	25.566
1140	25.566	25.590	25.613	25.637	25.660	25.684	25.708	25.731	25.755	25.778	25.802
1150	25.802	25.825	25.849	25.873	25.896	25.920	25.943	25.967	25.990	26.014	26.037
1160	26.037	26.061	26.084	26.108	26.132	26.155	26.179	26.202	26.226	26.249	26.273
1170	26.273	26.296	26.320	26.343	26.367	26.390	26.414	26.437	26.461	26.484	26.508
1180	26.508	26.532	26.555	26.579	26.602	26.626	26.649	26.673	26.696	26.720	26.743
1190	26.743	26.767	26.790	26.814	26.837	26.861	26.884	26.907	26.931	26.954	26.978
1200	26.978	27.001	27.025	27.048	27.072	27.095	27.119	27.142	27.166	27.189	27.213
1210	27.213	27.236	27.259	27.283	27.306	27.330	27.353	27.377	27.400	27.424	27.447
1220	27.447	27.471	27.494	27.517	27.541	27.564	27.588	27.611	27.635	27.658	27.681
1230	27.681	27.705	27.728	27.752	27.775	27.798	27.822	27.845	27.869	27.892	27.915
1240	27.915	27.939	27.962	27.986	28.009	28.032	28.056	28.079	28.103	28.126	28.149
1250	28.149	28.173	28.196	28.219	28.243	28.266	28.289	28.313	28.336	28.360	28.383
1260	28.383	28.406	28.430	28.453	28.476	28.500	28.523	28.546	28.570	28.593	28.616
1270	28.616	28.640	28.663	28.686	28.710	28.733	28.756	28.780	28.803	28.826	28.849
1280	28.849	28.873	28.896	28.919	28.943	28.966	28.989	29.013	29.036	29.059	29.082
1290	29.082	29.106	29.129	29.152	29.176	29.199	29.222	29.245	29.269	29.292	29.315
1300	29.315	29.338	29.362	29.385	29.408	29.431	29.455	29.478	29.501	29.524	29.548
1310	29.548	29.571	29.594	29.617	29.640	29.664	29.687	29.710	29.733	29.757	29.780
1320	29.780	29.803	29.826	29.849	29.873	29.896	29.919	29.942	29.965	29.989	30.012
1330	30.012	30.035	30.058	30.081	30.104	30.128	30.151	30.174	30.197	30.220	30.243
1340	30.243	30.267	30.290	30.313	30.336	30.359	30.382	30.405	30.429	30.452	30.475
1350	30.475	30.498	30.521	30.544	30.567	30.590	30.613	30.637	30.660	30.683	30.706
1360	30.706	30.729	30.752	30.775	30.798	30.821	30.844	30.868	30.891	30.914	30.937
1370	30.937	30.960	30.983	31.006	31.029	31.052	31.075	31.098	31.121	31.144	31.167
1380	31.167	31.190	31.213	31.236	31.260	31.283	31.306	31.329	31.352	31.375	31.398
1390	31.398	31.421	31.444	31.467	31.490	31.513	31.536	31.559	31.582	31.605	31.628
1400	31.628	31.651	31.674	31.697	31.720	31.743	31.766	31.789	31.812	31.834	31.857
1410	31.857	31.880	31.903	31.926	31.949	31.972	31.995	32.018	32.041	32.064	32.087
1420	32.087	32.110	32.133	32.156	32.179	32.202	32.224	32.247	32.270	32.293	32.316
1430	32.316	32.339	32.362	32.385	32.408	32.431	32.453	32.476	32.499	32.522	32.545
1440	32.545	32.568	32.591	32.614	32.636	32.659	32.682	32.705	32.728	32.751	32.774
1450	32.774	32.796	32.819	32.842	32.865	32.888	32.911	32.933	32.956	32.979	33.002
1460	33.002	33.025	33.047	33.070	33.093	33.116	33.139	33.161	33.184	33.207	33.230
1470	33.230	33.253	33.275	33.298	33.321	33.344	33.366	33.389	33.412	33.435	33.458
1480	33.458	33.480	33.503	33.526	33.548	33.571	33.594	33.617	33.639	33.662	33.685
1490	33.685	33.708	33.730	33.753	33.776	33.798	33.821	33.844	33.867	33.889	33.912
°F	0	1	2	3	4	5	6	7	8	9	10

Type K Chromal vs. Alumal ITS-90 °F

°F	0	1	2	3	4	5	6	7	8	9	10
1500	33.912	33.935	33.957	33.980	34.003	34.025	34.048	34.071	34.093	34.116	34.139
1510	34.139	34.161	34.184	34.207	34.229	34.252	34.275	34.297	34.320	34.343	34.365
1520	34.365	34.388	34.410	34.433	34.456	34.478	34.501	34.524	34.546	34.569	34.591
1530	34.591	34.614	34.637	34.659	34.682	34.704	34.727	34.750	34.772	34.795	34.817
1540	34.817	34.840	34.862	34.885	34.908	34.930	34.953	34.975	34.998	35.020	35.043
1550	35.043	35.065	35.088	35.110	35.133	35.156	35.178	35.201	35.223	35.246	35.268
1560	35.268	35.291	35.313	35.336	35.358	35.381	35.403	35.426	35.448	35.471	35.493
1570	35.493	35.516	35.538	35.560	35.583	35.605	35.628	35.650	35.673	35.695	35.718
1580	35.718	35.740	35.763	35.785	35.807	35.830	35.852	35.875	35.897	35.920	35.942
1590	35.942	35.964	35.987	36.009	36.032	36.054	36.076	36.099	36.121	36.144	36.166
1600	36.166	36.188	36.211	36.233	36.256	36.278	36.300	36.323	36.345	36.367	36.390
1610	36.390	36.412	36.434	36.457	36.479	36.501	36.524	36.546	36.568	36.591	36.613
1620	36.613	36.635	36.658	36.680	36.702	36.725	36.747	36.769	36.792	36.814	36.836
1630	36.836	36.859	36.881	36.903	36.925	36.948	36.970	36.992	37.014	37.037	37.059
1640	37.059	37.081	37.104	37.126	37.148	37.170	37.193	37.215	37.237	37.259	37.281
1650	37.281	37.304	37.326	37.348	37.370	37.393	37.415	37.437	37.459	37.481	37.504
1660	37.504	37.526	37.548	37.570	37.592	37.615	37.637	37.659	37.681	37.703	37.725
1670	37.725	37.748	37.770	37.792	37.814	37.836	37.858	37.881	37.903	37.925	37.947
1680	37.947	37.969	37.991	38.013	38.036	38.058	38.080	38.102	38.124	38.146	38.168
1690	38.168	38.190	38.212	38.235	38.257	38.279	38.301	38.323	38.345	38.367	38.389
1700	38.389	38.411	38.433	38.455	38.477	38.499	38.522	38.544	38.566	38.588	38.610
1710	38.610	38.632	38.654	38.676	38.698	38.720	38.742	38.764	38.786	38.808	38.830
1720	38.830	38.852	38.874	38.896	38.918	38.940	38.962	38.984	39.006	39.028	39.050
1730	39.050	39.072	39.094	39.116	39.138	39.160	39.182	39.204	39.226	39.248	39.270
1740	39.270	39.292	39.314	39.335	39.357	39.379	39.401	39.423	39.445	39.467	39.489
1750	39.489	39.511	39.533	39.555	39.577	39.599	39.620	39.642	39.664	39.686	39.708
1760	39.708	39.730	39.752	39.774	39.796	39.817	39.839	39.861	39.883	39.905	39.927
1770	39.927	39.949	39.970	39.992	40.014	40.036	40.058	40.080	40.101	40.123	40.145
1780	40.145	40.167	40.189	40.211	40.232	40.254	40.276	40.298	40.320	40.341	40.363
1790	40.363	40.385	40.407	40.429	40.450	40.472	40.494	40.516	40.537	40.559	40.581
1800	40.581	40.603	40.624	40.646	40.668	40.690	40.711	40.733	40.755	40.777	40.798
1810	40.798	40.820	40.842	40.864	40.885	40.907	40.929	40.950	40.972	40.994	41.015
1820	41.015	41.037	41.059	41.081	41.102	41.124	41.146	41.167	41.189	41.211	41.232
1830	41.232	41.254	41.276	41.297	41.319	41.341	41.362	41.384	41.405	41.427	41.449
1840	41.449	41.470	41.492	41.514	41.535	41.557	41.578	41.600	41.622	41.643	41.665
1850	41.665	41.686	41.708	41.730	41.751	41.773	41.794	41.816	41.838	41.859	41.881
1860	41.881	41.902	41.924	41.945	41.967	41.988	42.010	42.032	42.053	42.075	42.096
1870	42.096	42.118	42.139	42.161	42.182	42.204	42.225	42.247	42.268	42.290	42.311
1880	42.311	42.333	42.354	42.376	42.397	42.419	42.440	42.462	42.483	42.505	42.526
1890	42.526	42.548	42.569	42.591	42.612	42.633	42.655	42.676	42.698	42.719	42.741
1900	42.741	42.762	42.783	42.805	42.826	42.848	42.869	42.891	42.912	42.933	42.955
1910	42.955	42.976	42.998	43.019	43.040	43.062	43.083	43.104	43.126	43.147	43.169
1920	43.169	43.190	43.211	43.233	43.254	43.275	43.297	43.318	43.339	43.361	43.382
1930	43.382	43.403	43.425	43.446	43.467	43.489	43.510	43.531	43.552	43.574	43.595
1940	43.595	43.616	43.638	43.659	43.680	43.701	43.723	43.744	43.765	43.787	43.808
1950	43.808	43.829	43.850	43.872	43.893	43.914	43.935	43.957	43.978	43.999	44.020
1960	44.020	44.041	44.063	44.084	44.105	44.126	44.147	44.169	44.190	44.211	44.232
1970	44.232	44.253	44.275	44.296	44.317	44.338	44.359	44.380	44.402	44.423	44.444
1980	44.444	44.465	44.486	44.507	44.528	44.550	44.571	44.592	44.613	44.634	44.655
1990	44.655	44.676	44.697	44.719	44.740	44.761	44.782	44.803	44.824	44.845	44.866
°F	0	1	2	3	4	5	6	7	8	9	10

°F	0	1	2	3	4	5	6	7	8	9	10
2000	44.866	44.887	44.908	44.929	44.950	44.971	44.992	45.014	45.035	45.056	45.077
2010	45.077	45.098	45.119	45.140	45.161	45.182	45.203	45.224	45.245	45.266	45.287
2020	45.287	45.308	45.329	45.350	45.371	45.392	45.413	45.434	45.455	45.476	45.497
2030	45.497	45.518	45.539	45.560	45.580	45.601	45.622	45.643	45.664	45.685	45.706
2040	45.706	45.727	45.748	45.769	45.790	45.811	45.832	45.852	45.873	45.894	45.915
2050	45.915	45.936	45.957	45.978	45.999	46.019	46.040	46.061	46.082	46.103	46.124
2060	46.124	46.145	46.165	46.186	46.207	46.228	46.249	46.269	46.290	46.311	46.332
2070	46.332	46.353	46.373	46.394	46.415	46.436	46.457	46.477	46.498	46.519	46.540
2080	46.540	46.560	46.581	46.602	46.623	46.643	46.664	46.685	46.706	46.726	46.747
2090	46.747	46.768	46.789	46.809	46.830	46.851	46.871	46.892	46.913	46.933	46.954
2100	46.954	46.975	46.995	47.016	47.037	47.057	47.078	47.099	47.119	47.140	47.161
2110	47.161	47.181	47.202	47.223	47.243	47.264	47.284	47.305	47.326	47.346	47.367
2120	47.367	47.387	47.408	47.429	47.449	47.470	47.490	47.511	47.531	47.552	47.573
2130	47.573	47.593	47.614	47.634	47.655	47.675	47.696	47.716	47.737	47.757	47.778
2140	47.778	47.798	47.819	47.839	47.860	47.880	47.901	47.921	47.942	47.962	47.983
2150	47.983	48.003	48.024	48.044	48.065	48.085	48.105	48.126	48.146	48.167	48.187
2160	48.187	48.208	48.228	48.248	48.269	48.289	48.310	48.330	48.350	48.371	48.391
2170	48.391	48.411	48.432	48.452	48.473	48.493	48.513	48.534	48.554	48.574	48.595
2180	48.595	48.615	48.635	48.656	48.676	48.696	48.717	48.737	48.757	48.777	48.798
2190	48.798	48.818	48.838	48.859	48.879	48.899	48.919	48.940	48.960	48.980	49.000
2200	49.000	49.021	49.041	49.061	49.081	49.101	49.122	49.142	49.162	49.182	49.202
2210	49.202	49.223	49.243	49.263	49.283	49.303	49.323	49.344	49.364	49.384	49.404
2220	49.404	49.424	49.444	49.465	49.485	49.505	49.525	49.545	49.565	49.585	49.605
2230	49.605	49.625	49.645	49.666	49.686	49.706	49.726	49.746	49.766	49.786	49.806
2240	49.806	49.826	49.846	49.866	49.886	49.906	49.926	49.946	49.966	49.986	50.006
2250	50.006	50.026	50.046	50.066	50.086	50.106	50.126	50.146	50.166	50.186	50.206
2260	50.206	50.226	50.246	50.266	50.286	50.306	50.326	50.346	50.366	50.385	50.405
2270	50.405	50.425	50.445	50.465	50.485	50.505	50.525	50.545	50.564	50.584	50.604
2280	50.604	50.624	50.644	50.664	50.684	50.703	50.723	50.743	50.763	50.783	50.802
2290	50.802	50.822	50.842	50.862	50.882	50.901	50.921	50.941	50.961	50.981	51.000
2300	51.000	51.020	51.040	51.060	51.079	51.099	51.119	51.139	51.158	51.178	51.198
2310	51.198	51.217	51.237	51.257	51.276	51.296	51.316	51.336	51.355	51.375	51.395
2320	51.395	51.414	51.434	51.453	51.473	51.493	51.512	51.532	51.552	51.571	51.591
2330	51.591	51.611	51.630	51.650	51.669	51.689	51.708	51.728	51.748	51.767	51.787
2340	51.787	51.806	51.826	51.845	51.865	51.885	51.904	51.924	51.943	51.963	51.982
2350	51.982	52.002	52.021	52.041	52.060	52.080	52.099	52.119	52.138	52.158	52.177
2360	52.177	52.197	52.216	52.235	52.255	52.274	52.294	52.313	52.333	52.352	52.371
2370	52.371	52.391	52.410	52.430	52.449	52.468	52.488	52.507	52.527	52.546	52.565
2380	52.565	52.585	52.604	52.623	52.643	52.662	52.681	52.701	52.720	52.739	52.759
2390	52.759	52.778	52.797	52.817	52.836	52.855	52.875	52.894	52.913	52.932	52.952
2400	52.952	52.971	52.990	53.010	53.029	53.048	53.067	53.087	53.106	53.125	53.144
2410	53.144	53.163	53.183	53.202	53.221	53.240	53.260	53.279	53.298	53.317	53.336
2420	53.336	53.355	53.375	53.394	53.413	53.432	53.451	53.470	53.490	53.509	53.528
2430	53.528	53.547	53.566	53.585	53.604	53.623	53.643	53.662	53.681	53.700	53.719
2440	53.719	53.738	53.757	53.776	53.795	53.814	53.833	53.852	53.871	53.890	53.910
2450	53.910	53.929	53.948	53.967	53.986	54.005	54.024	54.043	54.062	54.081	54.100
2460	54.100	54.119	54.138	54.157	54.176	54.195	54.214	54.233	54.252	54.271	54.289
2470	54.289	54.308	54.327	54.346	54.365	54.384	54.403	54.422	54.441	54.460	54.479
2480	54.479	54.498	54.517	54.536	54.554	54.573	54.592	54.611	54.630	54.649	54.668
2490	54.668	54.687	54.705	54.724	54.743	54.762	54.781	54.800	54.819	54.837	54.856
°F	0	1	2	3	4	5	6	7	8	9	10

Type N — Nicrosil vs. Nisil ITS-90 — ºF

ºF	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
-440	-4.339	-4.340	-4.340	-4.341	-4.341	-4.342	-4.342	-4.343	-4.343	-4.344	-4.344
-430	-4.330	-4.331	-4.332	-4.333	-4.334	-4.335	-4.336	-4.337	-4.337	-4.338	-4.339
-420	-4.316	-4.318	-4.319	-4.321	-4.322	-4.324	-4.325	-4.326	-4.327	-4.329	-4.330
-410	-4.299	-4.301	-4.303	-4.305	-4.306	-4.308	-4.310	-4.312	-4.313	-4.315	-4.316
-400	-4.277	-4.279	-4.282	-4.284	-4.286	-4.288	-4.291	-4.293	-4.295	-4.297	-4.299
-390	-4.251	-4.254	-4.256	-4.259	-4.262	-4.264	-4.267	-4.270	-4.272	-4.275	-4.277
-380	-4.220	-4.223	-4.226	-4.230	-4.233	-4.236	-4.239	-4.242	-4.245	-4.248	-4.251
-370	-4.185	-4.189	-4.192	-4.196	-4.199	-4.203	-4.206	-4.210	-4.213	-4.217	-4.220
-360	-4.145	-4.150	-4.154	-4.158	-4.162	-4.166	-4.170	-4.174	-4.177	-4.181	-4.185
-350	-4.102	-4.106	-4.111	-4.115	-4.120	-4.124	-4.128	-4.133	-4.137	-4.141	-4.145
-340	-4.054	-4.059	-4.064	-4.068	-4.073	-4.078	-4.083	-4.088	-4.092	-4.097	-4.102
-330	-4.001	-4.007	-4.012	-4.017	-4.023	-4.028	-4.033	-4.038	-4.043	-4.049	-4.054
-320	-3.945	-3.951	-3.957	-3.962	-3.968	-3.974	-3.979	-3.985	-3.990	-3.996	-4.001
-310	-3.884	-3.891	-3.897	-3.903	-3.909	-3.915	-3.921	-3.927	-3.933	-3.939	-3.945
-300	-3.820	-3.827	-3.833	-3.840	-3.846	-3.853	-3.859	-3.866	-3.872	-3.878	-3.884
-290	-3.752	-3.759	-3.766	-3.773	-3.779	-3.786	-3.793	-3.800	-3.807	-3.813	-3.820
-280	-3.679	-3.687	-3.694	-3.702	-3.709	-3.716	-3.723	-3.730	-3.738	-3.745	-3.752
-270	-3.604	-3.611	-3.619	-3.627	-3.634	-3.642	-3.650	-3.657	-3.665	-3.672	-3.679
-260	-3.524	-3.532	-3.540	-3.548	-3.556	-3.564	-3.572	-3.580	-3.588	-3.596	-3.604
-250	-3.441	-3.449	-3.458	-3.466	-3.474	-3.483	-3.491	-3.499	-3.508	-3.516	-3.524
-240	-3.354	-3.363	-3.372	-3.380	-3.389	-3.398	-3.407	-3.415	-3.424	-3.432	-3.441
-230	-3.264	-3.273	-3.282	-3.291	-3.300	-3.309	-3.318	-3.327	-3.336	-3.345	-3.354
-220	-3.171	-3.180	-3.189	-3.199	-3.208	-3.218	-3.227	-3.236	-3.246	-3.255	-3.264
-210	-3.074	-3.084	-3.093	-3.103	-3.113	-3.123	-3.132	-3.142	-3.151	-3.161	-3.171
-200	-2.974	-2.984	-2.994	-3.004	-3.014	-3.024	-3.034	-3.044	-3.054	-3.064	-3.074
-190	-2.871	-2.881	-2.892	-2.902	-2.912	-2.923	-2.933	-2.943	-2.954	-2.964	-2.974
-180	-2.765	-2.776	-2.786	-2.797	-2.808	-2.818	-2.829	-2.839	-2.850	-2.860	-2.871
-170	-2.656	-2.667	-2.678	-2.689	-2.700	-2.711	-2.722	-2.733	-2.743	-2.754	-2.765
-160	-2.544	-2.556	-2.567	-2.578	-2.589	-2.601	-2.612	-2.623	-2.634	-2.645	-2.656
-150	-2.430	-2.442	-2.453	-2.465	-2.476	-2.488	-2.499	-2.510	-2.522	-2.533	-2.544
-140	-2.313	-2.325	-2.337	-2.348	-2.360	-2.372	-2.384	-2.395	-2.407	-2.418	-2.430
-130	-2.193	-2.206	-2.218	-2.230	-2.242	-2.254	-2.265	-2.277	-2.289	-2.301	-2.313
-120	-2.072	-2.084	-2.096	-2.108	-2.121	-2.133	-2.145	-2.157	-2.169	-2.181	-2.193
-110	-1.947	-1.960	-1.972	-1.985	-1.997	-2.010	-2.022	-2.035	-2.047	-2.059	-2.072
-100	-1.821	-1.834	-1.846	-1.859	-1.872	-1.884	-1.897	-1.910	-1.922	-1.935	-1.947
-90	-1.692	-1.705	-1.718	-1.731	-1.744	-1.757	-1.770	-1.783	-1.795	-1.808	-1.821
-80	-1.562	-1.575	-1.588	-1.601	-1.614	-1.627	-1.640	-1.653	-1.666	-1.679	-1.692
-70	-1.430	-1.443	-1.456	-1.470	-1.483	-1.496	-1.509	-1.522	-1.536	-1.549	-1.562
-60	-1.296	-1.309	-1.323	-1.336	-1.349	-1.363	-1.376	-1.390	-1.403	-1.416	-1.430
-50	-1.160	-1.174	-1.187	-1.201	-1.214	-1.228	-1.242	-1.255	-1.269	-1.282	-1.296
-40	-1.023	-1.037	-1.050	-1.064	-1.078	-1.092	-1.105	-1.119	-1.133	-1.146	-1.160
-30	-0.884	-0.898	-0.912	-0.926	-0.940	-0.954	-0.967	-0.981	-0.995	-1.009	-1.023
-20	-0.744	-0.758	-0.772	-0.786	-0.800	-0.814	-0.828	-0.842	-0.856	-0.870	-0.884
-10	-0.603	-0.617	-0.632	-0.646	-0.660	-0.674	-0.688	-0.702	-0.716	-0.730	-0.744
0	-0.461	-0.475	-0.490	-0.504	-0.518	-0.532	-0.546	-0.561	-0.575	-0.589	-0.603
ºF	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10

ºF	0	1	2	3	4	5	6	7	8	9	10
0	-0.461	-0.447	-0.433	-0.418	-0.404	-0.390	-0.375	-0.361	-0.347	-0.332	-0.318
10	-0.318	-0.304	-0.289	-0.275	-0.260	-0.246	-0.232	-0.217	-0.203	-0.188	-0.174
20	-0.174	-0.159	-0.145	-0.131	-0.116	-0.102	-0.087	-0.073	-0.058	-0.044	-0.029
30	-0.029	-0.015	0.000	0.014	0.029	0.043	0.058	0.072	0.087	0.101	0.116
40	0.116	0.130	0.145	0.159	0.174	0.188	0.203	0.217	0.232	0.246	0.261
50	0.261	0.275	0.290	0.305	0.319	0.334	0.349	0.363	0.378	0.393	0.407
60	0.407	0.422	0.437	0.451	0.466	0.481	0.496	0.510	0.525	0.540	0.555
70	0.555	0.570	0.584	0.599	0.614	0.629	0.644	0.659	0.674	0.688	0.703
80	0.703	0.718	0.733	0.748	0.763	0.778	0.793	0.808	0.823	0.838	0.853
90	0.853	0.868	0.883	0.898	0.913	0.928	0.943	0.958	0.974	0.989	1.004
100	1.004	1.019	1.034	1.049	1.065	1.080	1.095	1.110	1.125	1.141	1.156
110	1.156	1.171	1.186	1.202	1.217	1.232	1.248	1.263	1.278	1.294	1.309
120	1.309	1.324	1.340	1.355	1.371	1.386	1.402	1.417	1.432	1.448	1.463
130	1.463	1.479	1.494	1.510	1.525	1.541	1.557	1.572	1.588	1.603	1.619
140	1.619	1.635	1.650	1.666	1.682	1.697	1.713	1.729	1.744	1.760	1.776
150	1.776	1.791	1.807	1.823	1.839	1.855	1.870	1.886	1.902	1.918	1.934
160	1.934	1.950	1.965	1.981	1.997	2.013	2.029	2.045	2.061	2.077	2.093
170	2.093	2.109	2.125	2.141	2.157	2.173	2.189	2.205	2.221	2.237	2.253
180	2.253	2.269	2.285	2.301	2.318	2.334	2.350	2.366	2.382	2.398	2.415
190	2.415	2.431	2.447	2.463	2.480	2.496	2.512	2.528	2.545	2.561	2.577
200	2.577	2.594	2.610	2.626	2.643	2.659	2.676	2.692	2.708	2.725	2.741
210	2.741	2.758	2.774	2.791	2.807	2.824	2.840	2.857	2.873	2.890	2.906
220	2.906	2.923	2.939	2.956	2.973	2.989	3.006	3.022	3.039	3.056	3.072
230	3.072	3.089	3.106	3.123	3.139	3.156	3.173	3.189	3.206	3.223	3.240
240	3.240	3.257	3.273	3.290	3.307	3.324	3.341	3.358	3.374	3.391	3.408
250	3.408	3.425	3.442	3.459	3.476	3.493	3.510	3.527	3.544	3.561	3.578
260	3.578	3.595	3.612	3.629	3.646	3.663	3.680	3.697	3.714	3.731	3.748
270	3.748	3.766	3.783	3.800	3.817	3.834	3.851	3.869	3.886	3.903	3.920
280	3.920	3.937	3.955	3.972	3.989	4.007	4.024	4.041	4.058	4.076	4.093
290	4.093	4.110	4.128	4.145	4.162	4.180	4.197	4.215	4.232	4.250	4.267
300	4.267	4.284	4.302	4.319	4.337	4.354	4.372	4.389	4.407	4.424	4.442
310	4.442	4.459	4.477	4.495	4.512	4.530	4.547	4.565	4.583	4.600	4.618
320	4.618	4.635	4.653	4.671	4.688	4.706	4.724	4.742	4.759	4.777	4.795
330	4.795	4.813	4.830	4.848	4.866	4.884	4.901	4.919	4.937	4.955	4.973
340	4.973	4.991	5.008	5.026	5.044	5.062	5.080	5.098	5.116	5.134	5.152
350	5.152	5.170	5.188	5.206	5.224	5.241	5.259	5.277	5.295	5.314	5.332
360	5.332	5.350	5.368	5.386	5.404	5.422	5.440	5.458	5.476	5.494	5.512
370	5.512	5.531	5.549	5.567	5.585	5.603	5.621	5.639	5.658	5.676	5.694
380	5.694	5.712	5.731	5.749	5.767	5.785	5.804	5.822	5.840	5.858	5.877
390	5.877	5.895	5.913	5.932	5.950	5.968	5.987	6.005	6.024	6.042	6.060
400	6.060	6.079	6.097	6.116	6.134	6.152	6.171	6.189	6.208	6.226	6.245
410	6.245	6.263	6.282	6.300	6.319	6.337	6.356	6.374	6.393	6.411	6.430
420	6.430	6.449	6.467	6.486	6.504	6.523	6.542	6.560	6.579	6.597	6.616
430	6.616	6.635	6.653	6.672	6.691	6.710	6.728	6.747	6.766	6.784	6.803
440	6.803	6.822	6.841	6.859	6.878	6.897	6.916	6.934	6.953	6.972	6.991
450	6.991	7.010	7.029	7.047	7.066	7.085	7.104	7.123	7.142	7.161	7.179
460	7.179	7.198	7.217	7.236	7.255	7.274	7.293	7.312	7.331	7.350	7.369
470	7.369	7.388	7.407	7.426	7.445	7.464	7.483	7.502	7.521	7.540	7.559
480	7.559	7.578	7.597	7.616	7.635	7.654	7.673	7.692	7.711	7.731	7.750
490	7.750	7.769	7.788	7.807	7.826	7.845	7.865	7.884	7.903	7.922	7.941
ºF	0	1	2	3	4	5	6	7	8	9	10

Type N — Nicrosil vs. Nisil ITS-90 — °F

°F	0	1	2	3	4	5	6	7	8	9	10
500	7.941	7.960	7.980	7.999	8.018	8.037	8.057	8.076	8.095	8.114	8.134
510	8.134	8.153	8.172	8.191	8.211	8.230	8.249	8.269	8.288	8.307	8.327
520	8.327	8.346	8.365	8.385	8.404	8.423	8.443	8.462	8.482	8.501	8.520
530	8.520	8.540	8.559	8.579	8.598	8.617	8.637	8.656	8.676	8.695	8.715
540	8.715	8.734	8.754	8.773	8.793	8.812	8.832	8.851	8.871	8.890	8.910
550	8.910	8.929	8.949	8.968	8.988	9.008	9.027	9.047	9.066	9.086	9.105
560	9.105	9.125	9.145	9.164	9.184	9.204	9.223	9.243	9.262	9.282	9.302
570	9.302	9.321	9.341	9.361	9.381	9.400	9.420	9.440	9.459	9.479	9.499
580	9.499	9.519	9.538	9.558	9.578	9.598	9.617	9.637	9.657	9.677	9.696
590	9.696	9.716	9.736	9.756	9.776	9.795	9.815	9.835	9.855	9.875	9.895
600	9.895	9.914	9.934	9.954	9.974	9.994	10.014	10.034	10.054	10.073	10.093
610	10.093	10.113	10.133	10.153	10.173	10.193	10.213	10.233	10.253	10.273	10.293
620	10.293	10.313	10.333	10.353	10.373	10.393	10.413	10.433	10.453	10.473	10.493
630	10.493	10.513	10.533	10.553	10.573	10.593	10.613	10.633	10.653	10.673	10.693
640	10.693	10.713	10.733	10.753	10.774	10.794	10.814	10.834	10.854	10.874	10.894
650	10.894	10.914	10.934	10.955	10.975	10.995	11.015	11.035	11.055	11.076	11.096
660	11.096	11.116	11.136	11.156	11.177	11.197	11.217	11.237	11.257	11.278	11.298
670	11.298	11.318	11.338	11.359	11.379	11.399	11.419	11.440	11.460	11.480	11.501
680	11.501	11.521	11.541	11.561	11.582	11.602	11.622	11.643	11.663	11.683	11.704
690	11.704	11.724	11.744	11.765	11.785	11.805	11.826	11.846	11.867	11.887	11.907
700	11.907	11.928	11.948	11.968	11.989	12.009	12.030	12.050	12.071	12.091	12.111
710	12.111	12.132	12.152	12.173	12.193	12.214	12.234	12.255	12.275	12.295	12.316
720	12.316	12.336	12.357	12.377	12.398	12.418	12.439	12.459	12.480	12.500	12.521
730	12.521	12.542	12.562	12.583	12.603	12.624	12.644	12.665	12.685	12.706	12.726
740	12.726	12.747	12.768	12.788	12.809	12.829	12.850	12.871	12.891	12.912	12.932
750	12.932	12.953	12.974	12.994	13.015	13.036	13.056	13.077	13.098	13.118	13.139
760	13.139	13.159	13.180	13.201	13.221	13.242	13.263	13.284	13.304	13.325	13.346
770	13.346	13.366	13.387	13.408	13.428	13.449	13.470	13.491	13.511	13.532	13.553
780	13.553	13.574	13.594	13.615	13.636	13.657	13.677	13.698	13.719	13.740	13.760
790	13.760	13.781	13.802	13.823	13.844	13.864	13.885	13.906	13.927	13.948	13.969
800	13.969	13.989	14.010	14.031	14.052	14.073	14.094	14.114	14.135	14.156	14.177
810	14.177	14.198	14.219	14.240	14.260	14.281	14.302	14.323	14.344	14.365	14.386
820	14.386	14.407	14.428	14.448	14.469	14.490	14.511	14.532	14.553	14.574	14.595
830	14.595	14.616	14.637	14.658	14.679	14.700	14.721	14.742	14.763	14.784	14.804
840	14.804	14.825	14.846	14.867	14.888	14.909	14.930	14.951	14.972	14.993	15.014
850	15.014	15.035	15.056	15.077	15.098	15.119	15.140	15.162	15.183	15.204	15.225
860	15.225	15.246	15.267	15.288	15.309	15.330	15.351	15.372	15.393	15.414	15.435
870	15.435	15.456	15.477	15.498	15.520	15.541	15.562	15.583	15.604	15.625	15.646
880	15.646	15.667	15.688	15.709	15.731	15.752	15.773	15.794	15.815	15.836	15.857
890	15.857	15.878	15.900	15.921	15.942	15.963	15.984	16.005	16.027	16.048	16.069
900	16.069	16.090	16.111	16.132	16.154	16.175	16.196	16.217	16.238	16.260	16.281
910	16.281	16.302	16.323	16.344	16.366	16.387	16.408	16.429	16.450	16.472	16.493
920	16.493	16.514	16.535	16.557	16.578	16.599	16.620	16.642	16.663	16.684	16.705
930	16.705	16.727	16.748	16.769	16.790	16.812	16.833	16.854	16.875	16.897	16.918
940	16.918	16.939	16.961	16.982	17.003	17.025	17.046	17.067	17.088	17.110	17.131
950	17.131	17.152	17.174	17.195	17.216	17.238	17.259	17.280	17.302	17.323	17.344
960	17.344	17.366	17.387	17.408	17.430	17.451	17.472	17.494	17.515	17.536	17.558
970	17.558	17.579	17.601	17.622	17.643	17.665	17.686	17.707	17.729	17.750	17.772
980	17.772	17.793	17.814	17.836	17.857	17.879	17.900	17.921	17.943	17.964	17.986
990	17.986	18.007	18.028	18.050	18.071	18.093	18.114	18.136	18.157	18.178	18.200
°F	0	1	2	3	4	5	6	7	8	9	10

°F	0	1	2	3	4	5	6	7	8	9	10
1000	18.200	18.221	18.243	18.264	18.286	18.307	18.328	18.350	18.371	18.393	18.414
1010	18.414	18.436	18.457	18.479	18.500	18.522	18.543	18.565	18.586	18.608	18.629
1020	18.629	18.650	18.672	18.693	18.715	18.736	18.758	18.779	18.801	18.822	18.844
1030	18.844	18.865	18.887	18.908	18.930	18.951	18.973	18.994	19.016	19.037	19.059
1040	19.059	19.081	19.102	19.124	19.145	19.167	19.188	19.210	19.231	19.253	19.274
1050	19.274	19.296	19.317	19.339	19.360	19.382	19.404	19.425	19.447	19.468	19.490
1060	19.490	19.511	19.533	19.554	19.576	19.598	19.619	19.641	19.662	19.684	19.705
1070	19.705	19.727	19.749	19.770	19.792	19.813	19.835	19.857	19.878	19.900	19.921
1080	19.921	19.943	19.964	19.986	20.008	20.029	20.051	20.072	20.094	20.116	20.137
1090	20.137	20.159	20.181	20.202	20.224	20.245	20.267	20.289	20.310	20.332	20.353
1100	20.353	20.375	20.397	20.418	20.440	20.462	20.483	20.505	20.527	20.548	20.570
1110	20.570	20.591	20.613	20.635	20.656	20.678	20.700	20.721	20.743	20.765	20.786
1120	20.786	20.808	20.830	20.851	20.873	20.895	20.916	20.938	20.960	20.981	21.003
1130	21.003	21.025	21.046	21.068	21.090	21.111	21.133	21.155	21.176	21.198	21.220
1140	21.220	21.241	21.263	21.285	21.306	21.328	21.350	21.371	21.393	21.415	21.437
1150	21.437	21.458	21.480	21.502	21.523	21.545	21.567	21.588	21.610	21.632	21.654
1160	21.654	21.675	21.697	21.719	21.740	21.762	21.784	21.806	21.827	21.849	21.871
1170	21.871	21.892	21.914	21.936	21.958	21.979	22.001	22.023	22.044	22.066	22.088
1180	22.088	22.110	22.131	22.153	22.175	22.197	22.218	22.240	22.262	22.284	22.305
1190	22.305	22.327	22.349	22.370	22.392	22.414	22.436	22.457	22.479	22.501	22.523
1200	22.523	22.544	22.566	22.588	22.610	22.631	22.653	22.675	22.697	22.718	22.740
1210	22.740	22.762	22.784	22.805	22.827	22.849	22.871	22.893	22.914	22.936	22.958
1220	22.958	22.980	23.001	23.023	23.045	23.067	23.088	23.110	23.132	23.154	23.176
1230	23.176	23.197	23.219	23.241	23.263	23.284	23.306	23.328	23.350	23.372	23.393
1240	23.393	23.415	23.437	23.459	23.480	23.502	23.524	23.546	23.568	23.589	23.611
1250	23.611	23.633	23.655	23.676	23.698	23.720	23.742	23.764	23.785	23.807	23.829
1260	23.829	23.851	23.873	23.894	23.916	23.938	23.960	23.982	24.003	24.025	24.047
1270	24.047	24.069	24.091	24.112	24.134	24.156	24.178	24.200	24.221	24.243	24.265
1280	24.265	24.287	24.309	24.330	24.352	24.374	24.396	24.418	24.439	24.461	24.483
1290	24.483	24.505	24.527	24.548	24.570	24.592	24.614	24.636	24.658	24.679	24.701
1300	24.701	24.723	24.745	24.767	24.788	24.810	24.832	24.854	24.876	24.897	24.919
1310	24.919	24.941	24.963	24.985	25.007	25.028	25.050	25.072	25.094	25.116	25.137
1320	25.137	25.159	25.181	25.203	25.225	25.247	25.268	25.290	25.312	25.334	25.356
1330	25.356	25.377	25.399	25.421	25.443	25.465	25.487	25.508	25.530	25.552	25.574
1340	25.574	25.596	25.618	25.639	25.661	25.683	25.705	25.727	25.748	25.770	25.792
1350	25.792	25.814	25.836	25.858	25.879	25.901	25.923	25.945	25.967	25.989	26.010
1360	26.010	26.032	26.054	26.076	26.098	26.119	26.141	26.163	26.185	26.207	26.229
1370	26.229	26.250	26.272	26.294	26.316	26.338	26.360	26.381	26.403	26.425	26.447
1380	26.447	26.469	26.491	26.512	26.534	26.556	26.578	26.600	26.622	26.643	26.665
1390	26.665	26.687	26.709	26.731	26.752	26.774	26.796	26.818	26.840	26.862	26.883
1400	26.883	26.905	26.927	26.949	26.971	26.993	27.014	27.036	27.058	27.080	27.102
1410	27.102	27.124	27.145	27.167	27.189	27.211	27.233	27.254	27.276	27.298	27.320
1420	27.320	27.342	27.364	27.385	27.407	27.429	27.451	27.473	27.495	27.516	27.538
1430	27.538	27.560	27.582	27.604	27.625	27.647	27.669	27.691	27.713	27.735	27.756
1440	27.756	27.778	27.800	27.822	27.844	27.866	27.887	27.909	27.931	27.953	27.975
1450	27.975	27.996	28.018	28.040	28.062	28.084	28.105	28.127	28.149	28.171	28.193
1460	28.193	28.215	28.236	28.258	28.280	28.302	28.324	28.345	28.367	28.389	28.411
1470	28.411	28.433	28.455	28.476	28.498	28.520	28.542	28.564	28.585	28.607	28.629
1480	28.629	28.651	28.673	28.694	28.716	28.738	28.760	28.782	28.803	28.825	28.847
1490	28.847	28.869	28.891	28.912	28.934	28.956	28.978	29.000	29.021	29.043	29.065
°F	0	1	2	3	4	5	6	7	8	9	10

Type N — Nicrosil vs. Nisil ITS-90 — °F

°F	0	1	2	3	4	5	6	7	8	9	10
1500	29.065	29.087	29.109	29.130	29.152	29.174	29.196	29.218	29.239	29.261	29.283
1510	29.283	29.305	29.327	29.348	29.370	29.392	29.414	29.436	29.457	29.479	29.501
1520	29.501	29.523	29.545	29.566	29.588	29.610	29.632	29.653	29.675	29.697	29.719
1530	29.719	29.741	29.762	29.784	29.806	29.828	29.850	29.871	29.893	29.915	29.937
1540	29.937	29.958	29.980	30.002	30.024	30.046	30.067	30.089	30.111	30.133	30.154
1550	30.154	30.176	30.198	30.220	30.242	30.263	30.285	30.307	30.329	30.350	30.372
1560	30.372	30.394	30.416	30.437	30.459	30.481	30.503	30.524	30.546	30.568	30.590
1570	30.590	30.611	30.633	30.655	30.677	30.699	30.720	30.742	30.764	30.786	30.807
1580	30.807	30.829	30.851	30.873	30.894	30.916	30.938	30.960	30.981	31.003	31.025
1590	31.025	31.047	31.068	31.090	31.112	31.133	31.155	31.177	31.199	31.220	31.242
1600	31.242	31.264	31.286	31.307	31.329	31.351	31.373	31.394	31.416	31.438	31.459
1610	31.459	31.481	31.503	31.525	31.546	31.568	31.590	31.612	31.633	31.655	31.677
1620	31.677	31.698	31.720	31.742	31.764	31.785	31.807	31.829	31.850	31.872	31.894
1630	31.894	31.916	31.937	31.959	31.981	32.002	32.024	32.046	32.068	32.089	32.111
1640	32.111	32.133	32.154	32.176	32.198	32.219	32.241	32.263	32.284	32.306	32.328
1650	32.328	32.350	32.371	32.393	32.415	32.436	32.458	32.480	32.501	32.523	32.545
1660	32.545	32.566	32.588	32.610	32.631	32.653	32.675	32.696	32.718	32.740	32.761
1670	32.761	32.783	32.805	32.826	32.848	32.870	32.891	32.913	32.935	32.956	32.978
1680	32.978	33.000	33.021	33.043	33.065	33.086	33.108	33.130	33.151	33.173	33.195
1690	33.195	33.216	33.238	33.260	33.281	33.303	33.325	33.346	33.368	33.389	33.411
1700	33.411	33.433	33.454	33.476	33.498	33.519	33.541	33.563	33.584	33.606	33.627
1710	33.627	33.649	33.671	33.692	33.714	33.736	33.757	33.779	33.800	33.822	33.844
1720	33.844	33.865	33.887	33.908	33.930	33.952	33.973	33.995	34.016	34.038	34.060
1730	34.060	34.081	34.103	34.124	34.146	34.168	34.189	34.211	34.232	34.254	34.276
1740	34.276	34.297	34.319	34.340	34.362	34.384	34.405	34.427	34.448	34.470	34.491
1750	34.491	34.513	34.535	34.556	34.578	34.599	34.621	34.642	34.664	34.686	34.707
1760	34.707	34.729	34.750	34.772	34.793	34.815	34.836	34.858	34.879	34.901	34.923
1770	34.923	34.944	34.966	34.987	35.009	35.030	35.052	35.073	35.095	35.116	35.138
1780	35.138	35.160	35.181	35.203	35.224	35.246	35.267	35.289	35.310	35.332	35.353
1790	35.353	35.375	35.396	35.418	35.439	35.461	35.482	35.504	35.525	35.547	35.568
1800	35.568	35.590	35.611	35.633	35.654	35.676	35.697	35.719	35.740	35.762	35.783
1810	35.783	35.805	35.826	35.848	35.869	35.891	35.912	35.934	35.955	35.977	35.998
1820	35.998	36.019	36.041	36.062	36.084	36.105	36.127	36.148	36.170	36.191	36.213
1830	36.213	36.234	36.256	36.277	36.298	36.320	36.341	36.363	36.384	36.406	36.427
1840	36.427	36.449	36.470	36.491	36.513	36.534	36.556	36.577	36.599	36.620	36.641
1850	36.641	36.663	36.684	36.706	36.727	36.748	36.770	36.791	36.813	36.834	36.855
1860	36.855	36.877	36.898	36.920	36.941	36.962	36.984	37.005	37.027	37.048	37.069
1870	37.069	37.091	37.112	37.134	37.155	37.176	37.198	37.219	37.240	37.262	37.283
1880	37.283	37.305	37.326	37.347	37.369	37.390	37.411	37.433	37.454	37.475	37.497
1890	37.497	37.518	37.539	37.561	37.582	37.603	37.625	37.646	37.667	37.689	37.710
1900	37.710	37.731	37.753	37.774	37.795	37.817	37.838	37.859	37.881	37.902	37.923
1910	37.923	37.945	37.966	37.987	38.009	38.030	38.051	38.073	38.094	38.115	38.136
1920	38.136	38.158	38.179	38.200	38.222	38.243	38.264	38.285	38.307	38.328	38.349
1930	38.349	38.370	38.392	38.413	38.434	38.456	38.477	38.498	38.519	38.541	38.562
1940	38.562	38.583	38.604	38.626	38.647	38.668	38.689	38.711	38.732	38.753	38.774
1950	38.774	38.795	38.817	38.838	38.859	38.880	38.902	38.923	38.944	38.965	38.986
1960	38.986	39.008	39.029	39.050	39.071	39.093	39.114	39.135	39.156	39.177	39.198
1970	39.198	39.220	39.241	39.262	39.283	39.304	39.326	39.347	39.368	39.389	39.410
1980	39.410	39.431	39.453	39.474	39.495	39.516	39.537	39.558	39.580	39.601	39.622
1990	39.622	39.643	39.664	39.685	39.706	39.728	39.749	39.770	39.791	39.812	39.833
°F	0	1	2	3	4	5	6	7	8	9	10

°F	0	1	2	3	4	5	6	7	8	9	10
2000	39.833	39.854	39.875	39.897	39.918	39.939	39.960	39.981	40.002	40.023	40.044
2010	40.044	40.066	40.087	40.108	40.129	40.150	40.171	40.192	40.213	40.234	40.255
2020	40.255	40.276	40.297	40.319	40.340	40.361	40.382	40.403	40.424	40.445	40.466
2030	40.466	40.487	40.508	40.529	40.550	40.571	40.592	40.613	40.634	40.655	40.677
2040	40.677	40.698	40.719	40.740	40.761	40.782	40.803	40.824	40.845	40.866	40.887
2050	40.887	40.908	40.929	40.950	40.971	40.992	41.013	41.034	41.055	41.076	41.097
2060	41.097	41.118	41.139	41.160	41.181	41.202	41.223	41.244	41.265	41.286	41.307
2070	41.307	41.328	41.349	41.370	41.390	41.411	41.432	41.453	41.474	41.495	41.516
2080	41.516	41.537	41.558	41.579	41.600	41.621	41.642	41.663	41.684	41.705	41.725
2090	41.725	41.746	41.767	41.788	41.809	41.830	41.851	41.872	41.893	41.914	41.935
2100	41.935	41.955	41.976	41.997	42.018	42.039	42.060	42.081	42.102	42.123	42.143
2110	42.143	42.164	42.185	42.206	42.227	42.248	42.269	42.289	42.310	42.331	42.352
2120	42.352	42.373	42.394	42.415	42.435	42.456	42.477	42.498	42.519	42.540	42.560
2130	42.560	42.581	42.602	42.623	42.644	42.664	42.685	42.706	42.727	42.748	42.768
2140	42.768	42.789	42.810	42.831	42.852	42.872	42.893	42.914	42.935	42.956	42.976
2150	42.976	42.997	43.018	43.039	43.059	43.080	43.101	43.122	43.142	43.163	43.184
2160	43.184	43.205	43.225	43.246	43.267	43.288	43.308	43.329	43.350	43.370	43.391
2170	43.391	43.412	43.433	43.453	43.474	43.495	43.515	43.536	43.557	43.578	43.598
2180	43.598	43.619	43.640	43.660	43.681	43.702	43.722	43.743	43.764	43.784	43.805
2190	43.805	43.826	43.846	43.867	43.888	43.908	43.929	43.950	43.970	43.991	44.012
2200	44.012	44.032	44.053	44.073	44.094	44.115	44.135	44.156	44.177	44.197	44.218
2210	44.218	44.238	44.259	44.280	44.300	44.321	44.341	44.362	44.383	44.403	44.424
2220	44.424	44.444	44.465	44.485	44.506	44.527	44.547	44.568	44.588	44.609	44.629
2230	44.629	44.650	44.671	44.691	44.712	44.732	44.753	44.773	44.794	44.814	44.835
2240	44.835	44.855	44.876	44.896	44.917	44.937	44.958	44.978	44.999	45.019	45.040
2250	45.040	45.060	45.081	45.101	45.122	45.142	45.163	45.183	45.204	45.224	45.245
2260	45.245	45.265	45.286	45.306	45.326	45.347	45.367	45.388	45.408	45.429	45.449
2270	45.449	45.469	45.490	45.510	45.531	45.551	45.572	45.592	45.612	45.633	45.653
2280	45.653	45.674	45.694	45.714	45.735	45.755	45.775	45.796	45.816	45.837	45.857
2290	45.857	45.877	45.898	45.918	45.938	45.959	45.979	45.999	46.020	46.040	46.060
2300	46.060	46.081	46.101	46.121	46.142	46.162	46.182	46.202	46.223	46.243	46.263
2310	46.263	46.284	46.304	46.324	46.344	46.365	46.385	46.405	46.425	46.446	46.466
2320	46.466	46.486	46.506	46.527	46.547	46.567	46.587	46.608	46.628	46.648	46.668
2330	46.668	46.688	46.709	46.729	46.749	46.769	46.789	46.810	46.830	46.850	46.870
2340	46.870	46.890	46.910	46.931	46.951	46.971	46.991	47.011	47.031	47.051	47.071
2350	47.071	47.092	47.112	47.132	47.152	47.172	47.192	47.212	47.232	47.252	47.272
2360	47.272	47.292	47.312	47.333	47.353	47.373	47.393	47.413	47.433	47.453	47.473
2370	47.473	47.493	47.513								
°F	0	1	2	3	4	5	6	7	8	9	10

Type Nickel-0.8% Cobalt vs. Nickel-18% Molybdenum ITS-90 ºF

ºF	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
-50	-1.587	-1.606	-1.624	-1.642	-1.660	-1.678	-1.696	-1.714	-1.732	-1.750	-1.768
-40	-1.404	-1.423	-1.441	-1.459	-1.478	-1.496	-1.514	-1.533	-1.551	-1.569	-1.587
-30	-1.218	-1.237	-1.255	-1.274	-1.293	-1.311	-1.330	-1.349	-1.367	-1.386	-1.404
-20	-1.029	-1.048	-1.067	-1.086	-1.105	-1.124	-1.143	-1.161	-1.180	-1.199	-1.218
-10	-0.837	-0.856	-0.875	-0.895	-0.914	-0.933	-0.952	-0.972	-0.991	-1.010	-1.029
0	-0.642	-0.662	-0.681	-0.701	-0.720	-0.740	-0.759	-0.779	-0.798	-0.817	-0.837
ºF	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10

ºF	0	1	2	3	4	5	6	7	8	9	10
0	-0.642	-0.622	-0.603	-0.583	-0.563	-0.544	-0.524	-0.504	-0.484	-0.464	-0.444
10	-0.444	-0.425	-0.405	-0.385	-0.365	-0.345	-0.325	-0.304	-0.284	-0.264	-0.244
20	-0.244	-0.224	-0.204	-0.183	-0.163	-0.143	-0.123	-0.102	-0.082	-0.061	-0.041
30	-0.041	-0.020	0.000	0.021	0.041	0.062	0.082	0.103	0.124	0.144	0.165
40	0.165	0.186	0.206	0.227	0.248	0.269	0.290	0.311	0.332	0.352	0.373
50	0.373	0.394	0.416	0.437	0.458	0.479	0.500	0.521	0.542	0.563	0.585
60	0.585	0.606	0.627	0.649	0.670	0.691	0.713	0.734	0.756	0.777	0.799
70	0.799	0.820	0.842	0.863	0.885	0.906	0.928	0.950	0.971	0.993	1.015
80	1.015	1.037	1.059	1.080	1.102	1.124	1.146	1.168	1.190	1.212	1.234
90	1.234	1.256	1.278	1.300	1.322	1.344	1.366	1.389	1.411	1.433	1.455
100	1.455	1.478	1.500	1.522	1.545	1.567	1.589	1.612	1.634	1.657	1.679
110	1.679	1.702	1.724	1.747	1.770	1.792	1.815	1.837	1.860	1.883	1.906
120	1.906	1.928	1.951	1.974	1.997	2.020	2.043	2.065	2.088	2.111	2.134
130	2.134	2.157	2.180	2.203	2.226	2.250	2.273	2.296	2.319	2.342	2.365
140	2.365	2.389	2.412	2.435	2.458	2.482	2.505	2.528	2.552	2.575	2.599
150	2.599	2.622	2.645	2.669	2.692	2.716	2.740	2.763	2.787	2.810	2.834
160	2.834	2.858	2.881	2.905	2.929	2.953	2.976	3.000	3.024	3.048	3.072
170	3.072	3.095	3.119	3.143	3.167	3.191	3.215	3.239	3.263	3.287	3.311
180	3.311	3.335	3.359	3.384	3.408	3.432	3.456	3.480	3.505	3.529	3.553
190	3.553	3.577	3.602	3.626	3.650	3.675	3.699	3.723	3.748	3.772	3.797
200	3.797	3.821	3.846	3.870	3.895	3.919	3.944	3.969	3.993	4.018	4.042
210	4.042	4.067	4.092	4.117	4.141	4.166	4.191	4.216	4.240	4.265	4.290
220	4.290	4.315	4.340	4.365	4.390	4.414	4.439	4.464	4.489	4.514	4.539
230	4.539	4.564	4.589	4.614	4.640	4.665	4.690	4.715	4.740	4.765	4.790
240	4.790	4.816	4.841	4.866	4.891	4.917	4.942	4.967	4.993	5.018	5.043
250	5.043	5.069	5.094	5.119	5.145	5.170	5.196	5.221	5.247	5.272	5.298
260	5.298	5.323	5.349	5.374	5.400	5.425	5.451	5.477	5.502	5.528	5.554
270	5.554	5.579	5.605	5.631	5.656	5.682	5.708	5.734	5.760	5.785	5.811
280	5.811	5.837	5.863	5.889	5.915	5.940	5.966	5.992	6.018	6.044	6.070
290	6.070	6.096	6.122	6.148	6.174	6.200	6.226	6.252	6.278	6.304	6.330
300	6.330	6.357	6.383	6.409	6.435	6.461	6.487	6.513	6.540	6.566	6.592
310	6.592	6.618	6.645	6.671	6.697	6.723	6.750	6.776	6.802	6.829	6.855
320	6.855	6.881	6.908	6.934	6.960	6.987	7.013	7.040	7.066	7.093	7.119
330	7.119	7.145	7.172	7.198	7.225	7.251	7.278	7.305	7.331	7.358	7.384
340	7.384	7.411	7.437	7.464	7.491	7.517	7.544	7.570	7.597	7.624	7.650
350	7.650	7.677	7.704	7.730	7.757	7.784	7.811	7.837	7.864	7.891	7.918
360	7.918	7.944	7.971	7.998	8.025	8.052	8.078	8.105	8.132	8.159	8.186
370	8.186	8.213	8.239	8.266	8.293	8.320	8.347	8.374	8.401	8.428	8.455
380	8.455	8.482	8.508	8.535	8.562	8.589	8.616	8.643	8.670	8.697	8.724
390	8.724	8.751	8.778	8.805	8.832	8.859	8.886	8.913	8.941	8.968	8.995
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
400	8.995	9.022	9.049	9.076	9.103	9.130	9.157	9.184	9.211	9.238	9.266
410	9.266	9.293	9.320	9.347	9.374	9.401	9.428	9.456	9.483	9.510	9.537
420	9.537	9.564	9.591	9.619	9.646	9.673	9.700	9.727	9.755	9.782	9.809
430	9.809	9.836	9.863	9.891	9.918	9.945	9.972	10.000	10.027	10.054	10.081
440	10.081	10.109	10.136	10.163	10.190	10.218	10.245	10.272	10.299	10.327	10.354
450	10.354	10.381	10.408	10.436	10.463	10.490	10.518	10.545	10.572	10.599	10.627
460	10.627	10.654	10.681	10.709	10.736	10.763	10.790	10.818	10.845	10.872	10.900
470	10.900	10.927	10.954	10.981	11.009	11.036	11.063	11.091	11.118	11.145	11.172
480	11.172	11.200	11.227	11.254	11.282	11.309	11.336	11.363	11.391	11.418	11.445
490	11.445	11.472	11.500	11.527	11.554	11.581	11.609	11.636	11.663	11.691	11.718
500	11.718	11.745	11.772	11.799	11.827	11.854	11.881	11.908	11.936	11.963	11.990
510	11.990	12.017	12.044	12.072	12.099	12.126	12.153	12.180	12.208	12.235	12.262
520	12.262	12.289	12.316	12.343	12.371	12.398	12.425	12.452	12.479	12.506	12.533
530	12.533	12.560	12.588	12.615	12.642	12.669	12.696	12.723	12.750	12.777	12.804
540	12.804	12.831	12.858	12.885	12.912	12.939	12.966	12.993	13.020	13.047	13.074
550	13.074	13.101	13.128	13.155	13.182	13.209	13.236	13.263	13.290	13.316	13.343
560	13.343	13.370	13.397	13.424	13.451	13.478	13.504	13.531	13.558	13.585	13.612
570	13.612	13.638	13.665	13.692	13.718	13.745	13.772	13.799	13.825	13.852	13.879
580	13.879	13.905	13.932	13.958	13.985	14.012	14.038	14.065	14.091	14.118	14.144
590	14.144	14.171	14.197	14.224	14.250	14.277	14.303	14.329	14.356	14.382	14.409
600	14.409	14.435	14.461	14.488	14.514	14.540	14.566	14.593	14.619	14.645	14.671
610	14.671	14.698	14.724	14.750	14.776	14.802	14.828	14.854	14.880	14.906	14.932
620	14.932	14.958	14.984	15.010	15.036	15.062	15.088	15.114	15.140	15.166	15.191
630	15.191	15.217	15.243	15.269	15.294	15.320	15.346	15.372	15.397	15.423	15.448
640	15.448	15.474	15.500	15.525	15.551	15.576	15.601	15.627	15.652	15.678	15.703
650	15.703	15.728	15.754	15.779	15.804	15.829	15.855	15.880	15.905	15.930	15.955
660	15.955	15.980	16.005	16.030	16.055	16.080	16.105	16.130	16.155	16.180	16.205
670	16.205	16.229	16.254	16.279	16.304	16.328	16.353	16.378	16.402	16.427	16.451
680	16.451	16.476	16.500	16.525	16.549	16.573	16.598	16.622	16.646	16.670	16.695
690	16.695	16.719	16.743	16.767	16.791	16.815	16.839	16.863	16.887	16.911	16.932
700	16.932	16.955	16.979	17.003	17.027	17.051	17.075	17.099	17.123	17.146	17.170
710	17.170	17.194	17.218	17.242	17.266	17.290	17.314	17.338	17.362	17.386	17.410
720	17.410	17.434	17.458	17.482	17.506	17.530	17.554	17.578	17.602	17.626	17.650
730	17.650	17.674	17.698	17.722	17.746	17.770	17.794	17.818	17.843	17.867	17.891
740	17.891	17.915	17.939	17.963	17.987	18.011	18.036	18.060	18.084	18.108	18.132
750	18.132	18.157	18.181	18.205	18.229	18.254	18.278	18.302	18.326	18.351	18.375
760	18.375	18.399	18.424	18.448	18.472	18.497	18.521	18.545	18.570	18.594	18.618
770	18.618	18.643	18.667	18.692	18.716	18.740	18.765	18.789	18.814	18.838	18.863
780	18.863	18.887	18.912	18.936	18.961	18.985	19.010	19.034	19.059	19.083	19.108
790	19.108	19.133	19.157	19.182	19.206	19.231	19.256	19.280	19.305	19.330	19.354
800	19.354	19.379	19.404	19.428	19.453	19.478	19.502	19.527	19.552	19.577	19.601
810	19.601	19.626	19.651	19.676	19.701	19.725	19.750	19.775	19.800	19.825	19.850
820	19.850	19.875	19.899	19.924	19.949	19.974	19.999	20.024	20.049	20.074	20.099
830	20.099	20.124	20.149	20.174	20.199	20.224	20.249	20.274	20.299	20.324	20.349
840	20.349	20.374	20.399	20.425	20.450	20.475	20.500	20.525	20.550	20.575	20.601
850	20.601	20.626	20.651	20.676	20.701	20.727	20.752	20.777	20.802	20.828	20.853
860	20.853	20.878	20.904	20.929	20.954	20.980	21.005	21.030	21.056	21.081	21.107
870	21.107	21.132	21.157	21.183	21.208	21.234	21.259	21.285	21.310	21.336	21.361
880	21.361	21.387	21.412	21.438	21.463	21.489	21.514	21.540	21.566	21.591	21.617
890	21.617	21.642	21.668	21.694	21.719	21.745	21.771	21.796	21.822	21.848	21.874
ºF	0	1	2	3	4	5	6	7	8	9	10

Type Nickel-0.8% Cobalt vs. Nickel-18% Molybdenum ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
900	21.874	21.899	21.925	21.951	21.977	22.002	22.028	22.054	22.080	22.106	22.131
910	22.131	22.157	22.183	22.209	22.235	22.261	22.287	22.313	22.339	22.365	22.390
920	22.390	22.416	22.442	22.468	22.494	22.520	22.546	22.572	22.598	22.624	22.651
930	22.651	22.677	22.703	22.729	22.755	22.781	22.807	22.833	22.859	22.886	22.912
940	22.912	22.938	22.964	22.990	23.017	23.043	23.069	23.095	23.122	23.148	23.174
950	23.174	23.200	23.227	23.253	23.279	23.306	23.332	23.358	23.385	23.411	23.437
960	23.437	23.464	23.490	23.517	23.543	23.570	23.596	23.623	23.649	23.675	23.702
970	23.702	23.728	23.755	23.782	23.808	23.835	23.861	23.888	23.914	23.941	23.968
980	23.968	23.994	24.021	24.047	24.074	24.101	24.127	24.154	24.181	24.208	24.234
990	24.234	24.261	24.288	24.315	24.341	24.368	24.395	24.422	24.448	24.475	24.502
1000	24.502	24.529	24.556	24.583	24.610	24.636	24.663	24.690	24.717	24.744	24.771
1010	24.771	24.798	24.825	24.852	24.879	24.906	24.933	24.960	24.987	25.014	25.041
1020	25.041	25.068	25.095	25.122	25.149	25.176	25.203	25.231	25.258	25.285	25.312
1030	25.312	25.339	25.366	25.394	25.421	25.448	25.475	25.502	25.530	25.557	25.584
1040	25.584	25.611	25.639	25.666	25.693	25.721	25.748	25.775	25.803	25.830	25.857
1050	25.857	25.885	25.912	25.939	25.967	25.994	26.022	26.049	26.077	26.104	26.132
1060	26.132	26.159	26.187	26.214	26.242	26.269	26.297	26.324	26.352	26.379	26.407
1070	26.407	26.434	26.462	26.490	26.517	26.545	26.573	26.600	26.628	26.655	26.683
1080	26.683	26.711	26.739	26.766	26.794	26.822	26.849	26.877	26.905	26.933	26.961
1090	26.961	26.988	27.016	27.044	27.072	27.100	27.127	27.155	27.183	27.211	27.239
1100	27.239	27.267	27.295	27.323	27.351	27.378	27.406	27.434	27.462	27.490	27.518
1110	27.518	27.546	27.574	27.602	27.630	27.658	27.686	27.714	27.743	27.771	27.799
1120	27.799	27.827	27.855	27.883	27.911	27.939	27.967	27.996	28.024	28.052	28.080
1130	28.080	28.108	28.136	28.165	28.193	28.221	28.249	28.278	28.306	28.334	28.362
1140	28.362	28.391	28.419	28.447	28.476	28.504	28.532	28.561	28.589	28.617	28.646
1150	28.646	28.674	28.703	28.731	28.759	28.788	28.816	28.845	28.873	28.902	28.930
1160	28.930	28.959	28.987	29.016	29.044	29.073	29.101	29.130	29.158	29.187	29.215
1170	29.215	29.244	29.273	29.301	29.330	29.358	29.387	29.416	29.444	29.473	29.502
1180	29.502	29.530	29.559	29.588	29.616	29.645	29.674	29.703	29.731	29.760	29.789
1190	29.789	29.818	29.846	29.875	29.904	29.933	29.962	29.991	30.019	30.048	30.077
1200	30.077	30.106	30.135	30.164	30.193	30.221	30.250	30.279	30.308	30.337	30.366
1210	30.366	30.395	30.424	30.453	30.482	30.511	30.540	30.569	30.598	30.627	30.656
1220	30.656	30.685	30.714	30.743	30.772	30.801	30.830	30.859	30.889	30.918	30.947
1230	30.947	30.976	31.005	31.034	31.063	31.093	31.122	31.151	31.180	31.209	31.239
1240	31.239	31.268	31.297	31.326	31.355	31.385	31.414	31.443	31.473	31.502	31.531
1250	31.531	31.560	31.590	31.619	31.648	31.678	31.707	31.736	31.766	31.795	31.825
1260	31.825	31.854	31.883	31.913	31.942	31.972	32.001	32.031	32.060	32.089	32.119
1270	32.119	32.148	32.178	32.207	32.237	32.266	32.296	32.325	32.355	32.385	32.414
1280	32.414	32.444	32.473	32.503	32.532	32.562	32.592	32.621	32.651	32.680	32.710
1290	32.710	32.740	32.769	32.799	32.829	32.858	32.888	32.918	32.947	32.977	33.007
1300	33.007	33.037	33.066	33.096	33.126	33.156	33.185	33.215	33.245	33.275	33.304
1310	33.304	33.334	33.364	33.394	33.424	33.454	33.483	33.513	33.543	33.573	33.603
1320	33.603	33.633	33.663	33.693	33.722	33.752	33.782	33.812	33.842	33.872	33.902
1330	33.902	33.932	33.962	33.992	34.022	34.052	34.082	34.112	34.142	34.172	34.202
1340	34.202	34.232	34.262	34.292	34.322	34.352	34.382	34.412	34.442	34.473	34.503
1350	34.503	34.533	34.563	34.593	34.623	34.653	34.683	34.714	34.744	34.774	34.804
1360	34.804	34.834	34.865	34.895	34.925	34.955	34.985	35.016	35.046	35.076	35.106
1370	35.106	35.137	35.167	35.197	35.227	35.258	35.288	35.318	35.349	35.379	35.409
1380	35.409	35.440	35.470	35.500	35.531	35.561	35.591	35.622	35.652	35.683	35.713
1390	35.713	35.743	35.774	35.804	35.835	35.865	35.895	35.926	35.956	35.987	36.017
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
1400	36.017	36.048	36.078	36.109	36.139	36.170	36.200	36.231	36.261	36.292	36.322
1410	36.322	36.353	36.383	36.414	36.445	36.475	36.506	36.536	36.567	36.597	36.628
1420	36.628	36.659	36.689	36.720	36.750	36.781	36.812	36.842	36.873	36.904	36.934
1430	36.934	36.965	36.996	37.026	37.057	37.088	37.119	37.149	37.180	37.211	37.241
1440	37.241	37.272	37.303	37.334	37.364	37.395	37.426	37.457	37.488	37.518	37.549
1450	37.549	37.580	37.611	37.642	37.672	37.703	37.734	37.765	37.796	37.827	37.857
1460	37.857	37.888	37.919	37.950	37.981	38.012	38.043	38.074	38.105	38.135	38.166
1470	38.166	38.197	38.228	38.259	38.290	38.321	38.352	38.383	38.414	38.445	38.476
1480	38.476	38.507	38.538	38.569	38.600	38.631	38.662	38.693	38.724	38.755	38.786
1490	38.786	38.817	38.848	38.879	38.910	38.941	38.972	39.003	39.035	39.066	39.097
1500	39.097	39.128	39.159	39.190	39.221	39.252	39.283	39.315	39.346	39.377	39.408
1510	39.408	39.439	39.470	39.502	39.533	39.564	39.595	39.626	39.657	39.689	39.720
1520	39.720	39.751	39.782	39.814	39.845	39.876	39.907	39.939	39.970	40.001	40.032
1530	40.032	40.064	40.095	40.126	40.157	40.189	40.220	40.251	40.283	40.314	40.345
1540	40.345	40.377	40.408	40.439	40.471	40.502	40.533	40.565	40.596	40.627	40.659
1550	40.659	40.690	40.722	40.753	40.784	40.816	40.847	40.879	40.910	40.941	40.973
1560	40.973	41.004	41.036	41.067	41.099	41.130	41.161	41.193	41.224	41.256	41.287
1570	41.287	41.319	41.350	41.382	41.413	41.445	41.476	41.508	41.539	41.571	41.602
1580	41.602	41.634	41.665	41.697	41.728	41.760	41.792	41.823	41.855	41.886	41.918
1590	41.918	41.949	41.981	42.013	42.044	42.076	42.107	42.139	42.171	42.202	42.234
1600	42.234	42.265	42.297	42.329	42.360	42.392	42.424	42.455	42.487	42.519	42.550
1610	42.550	42.582	42.614	42.645	42.677	42.709	42.740	42.772	42.804	42.836	42.867
1620	42.867	42.899	42.931	42.962	42.994	43.026	43.058	43.089	43.121	43.153	43.185
1630	43.185	43.216	43.248	43.280	43.312	43.344	43.375	43.407	43.439	43.471	43.502
1640	43.502	43.534	43.566	43.598	43.630	43.662	43.693	43.725	43.757	43.789	43.821
1650	43.821	43.853	43.884	43.916	43.948	43.980	44.012	44.044	44.076	44.108	44.139
1660	44.139	44.171	44.203	44.235	44.267	44.299	44.331	44.363	44.395	44.427	44.459
1670	44.459	44.490	44.522	44.554	44.586	44.618	44.650	44.682	44.714	44.746	44.778
1680	44.778	44.810	44.842	44.874	44.906	44.938	44.970	45.002	45.034	45.066	45.098
1690	45.098	45.130	45.162	45.194	45.226	45.258	45.290	45.322	45.354	45.386	45.418
1700	45.418	45.450	45.482	45.514	45.547	45.579	45.611	45.643	45.675	45.707	45.739
1710	45.739	45.771	45.803	45.835	45.867	45.899	45.932	45.964	45.996	46.028	46.060
1720	46.060	46.092	46.124	46.156	46.189	46.221	46.253	46.285	46.317	46.349	46.381
1730	46.381	46.414	46.446	46.478	46.510	46.542	46.575	46.607	46.639	46.671	46.703
1740	46.703	46.735	46.768	46.800	46.832	46.864	46.897	46.929	46.961	46.993	47.025
1750	47.025	47.058	47.090	47.122	47.154	47.187	47.219	47.251	47.283	47.316	47.348
1760	47.348	47.380	47.413	47.445	47.477	47.509	47.542	47.574	47.606	47.639	47.671
1770	47.671	47.703	47.735	47.768	47.800	47.832	47.865	47.897	47.929	47.962	47.994
1780	47.994	48.026	48.059	48.091	48.123	48.156	48.188	48.220	48.253	48.285	48.318
1790	48.318	48.350	48.382	48.415	48.447	48.479	48.512	48.544	48.577	48.609	48.641
1800	48.641	48.674	48.706	48.739	48.771	48.803	48.836	48.868	48.901	48.933	48.966
1810	48.966	48.998	49.030	49.063	49.095	49.128	49.160	49.193	49.225	49.258	49.290
1820	49.290	49.323	49.355	49.387	49.420	49.452	49.485	49.517	49.550	49.582	49.615
1830	49.615	49.647	49.680	49.712	49.745	49.777	49.810	49.842	49.875	49.907	49.940
1840	49.940	49.972	50.005	50.038	50.070	50.103	50.135	50.168	50.200	50.233	50.265
1850	50.265	50.298	50.330	50.363	50.396	50.428	50.461	50.493	50.526	50.558	50.591
1860	50.591	50.624	50.656	50.689	50.721	50.754	50.787	50.819	50.852	50.884	50.917
1870	50.917	50.950	50.982	51.015	51.047	51.080	51.113	51.145	51.178	51.211	51.243
1880	51.243	51.276	51.309	51.341	51.374	51.407	51.439	51.472	51.505	51.537	51.570
1890	51.570	51.603	51.635	51.668	51.701	51.733	51.766	51.799	51.831	51.864	51.897
ºF	0	1	2	3	4	5	6	7	8	9	10

Type Nickel-0.8% Cobalt vs. Nickel-18% Molybdenum ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
1900	51.897	51.929	51.962	51.995	52.027	52.060	52.093	52.126	52.158	52.191	52.224
1910	52.224	52.256	52.289	52.322	52.355	52.387	52.420	52.453	52.486	52.518	52.551
1920	52.551	52.584	52.617	52.649	52.682	52.715	52.748	52.780	52.813	52.846	52.879
1930	52.879	52.911	52.944	52.977	53.010	53.043	53.075	53.108	53.141	53.174	53.207
1940	53.207	53.239	53.272	53.305	53.338	53.371	53.403	53.436	53.469	53.502	53.535
1950	53.535	53.568	53.600	53.633	53.666	53.699	53.732	53.765	53.797	53.830	53.863
1960	53.863	53.896	53.929	53.962	53.994	54.027	54.060	54.093	54.126	54.159	54.192
1970	54.192	54.225	54.257	54.290	54.323	54.356	54.389	54.422	54.455	54.488	54.520
1980	54.520	54.553	54.586	54.619	54.652	54.685	54.718	54.751	54.784	54.817	54.850
1990	54.850	54.882	54.915	54.948	54.981	55.014	55.047	55.080	55.113	55.146	55.179
2000	55.179	55.212	55.245	55.278	55.311	55.344	55.377	55.409	55.442	55.475	55.508
2010	55.508	55.541	55.574	55.607	55.640	55.673	55.706	55.739	55.772	55.805	55.838
2020	55.838	55.871	55.904	55.937	55.970	56.003	56.036	56.069	56.102	56.135	56.168
2030	56.168	56.201	56.234	56.267	56.300	56.333	56.366	56.399	56.432	56.465	56.498
2040	56.498	56.531	56.564	56.597	56.630	56.663	56.696	56.729	56.762	56.795	56.829
2050	56.829	56.862	56.895	56.928	56.961	56.994	57.027	57.060	57.093	57.126	57.159
2060	57.159	57.192	57.225	57.258	57.291	57.324	57.357	57.391	57.424	57.457	57.490
2070	57.490	57.523	57.556	57.589	57.622	57.655	57.688	57.721	57.754	57.788	57.821
2080	57.821	57.854	57.887	57.920	57.953	57.986	58.019	58.052	58.086	58.119	58.152
2090	58.152	58.185	58.218	58.251	58.284	58.317	58.350	58.384	58.417	58.450	58.483
2100	58.483	58.516	58.549	58.582	58.616	58.649	58.682	58.715	58.748	58.781	58.814
2110	58.814	58.848	58.881	58.914	58.947	58.980	59.013	59.046	59.080	59.113	59.146
2120	59.146	59.179	59.212	59.245	59.279	59.312	59.345	59.378	59.411	59.444	59.478
2130	59.478	59.511	59.544	59.577	59.610	59.644	59.677	59.710	59.743	59.776	59.809
2140	59.809	59.843	59.876	59.909	59.942	59.975	60.009	60.042	60.075	60.108	60.141
2150	60.141	60.175	60.208	60.241	60.274	60.307	60.341	60.374	60.407	60.440	60.473
2160	60.473	60.507	60.540	60.573	60.606	60.640	60.673	60.706	60.739	60.772	60.806
2170	60.806	60.839	60.872	60.905	60.939	60.972	61.005	61.038	61.071	61.105	61.138
2180	61.138	61.171	61.204	61.238	61.271	61.304	61.337	61.371	61.404	61.437	61.470
2190	61.470	61.503	61.537	61.570	61.603	61.636	61.670	61.703	61.736	61.769	61.803
2200	61.803	61.836	61.869	61.902	61.936	61.969	62.002	62.035	62.069	62.102	62.135
2210	62.135	62.168	62.202	62.235	62.268	62.301	62.335	62.368	62.401	62.434	62.468
2220	62.468	62.501	62.534	62.568	62.601	62.634	62.667	62.701	62.734	62.767	62.800
2230	62.800	62.834	62.867	62.900	62.933	62.967	63.000	63.033	63.066	63.100	63.133
2240	63.133	63.166	63.200	63.233	63.266	63.299	63.333	63.366	63.399	63.432	63.466
2250	63.466	63.499	63.532	63.565	63.599	63.632	63.665	63.699	63.732	63.765	63.798
2260	63.798	63.832	63.865	63.898	63.931	63.965	63.998	64.031	64.065	64.098	64.131
2270	64.131	64.164	64.198	64.231	64.264	64.297	64.331	64.364	64.397	64.431	64.464
2280	64.464	64.497	64.530	64.564	64.597	64.630	64.663	64.697	64.730	64.763	64.796
2290	64.796	64.830	64.863	64.896	64.930	64.963	64.996	65.029	65.063	65.096	65.129
2300	65.129	65.162	65.196	65.229	65.262	65.295	65.329	65.362	65.395	65.429	65.462
2310	65.462	65.495	65.528	65.562	65.595	65.628	65.661	65.695	65.728	65.761	65.794
2320	65.794	65.828	65.861	65.894	65.927	65.961	65.994	66.027	66.060	66.094	66.127
2330	66.127	66.160	66.193	66.227	66.260	66.293	66.326	66.360	66.393	66.426	66.459
2340	66.459	66.493	66.526	66.559	66.592	66.626	66.659	66.692	66.725	66.759	66.792
2350	66.792	66.825	66.858	66.892	66.925	66.958	66.991	67.025	67.058	67.091	67.124
2360	67.124	67.158	67.191	67.224	67.257	67.291	67.324	67.357	67.390	67.423	67.457
2370	67.457	67.490	67.523	67.556	67.590	67.623	67.656	67.689	67.723	67.756	67.789
2380	67.789	67.822	67.855	67.889	67.922	67.955	67.988	68.022	68.055	68.088	68.121
2390	68.121	68.154	68.188	68.221	68.254	68.287	68.320	68.354	68.387	68.420	68.453
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
2400	68.453	68.487	68.520	68.553	68.586	68.619	68.653	68.686	68.719	68.752	68.785
2410	68.785	68.819	68.852	68.885	68.918	68.951	68.985	69.018	69.051	69.084	69.117
2420	69.117	69.151	69.184	69.217	69.250	69.283	69.317	69.350	69.383	69.416	69.449
2430	69.449	69.483	69.516	69.549	69.582	69.615	69.649	69.682	69.715	69.748	69.781
2440	69.781	69.814	69.848	69.881	69.914	69.947	69.980	70.014	70.047	70.080	70.113
2450	70.113	70.146	70.180	70.213	70.246	70.279	70.312	70.345	70.379	70.412	70.445
2460	70.445	70.478	70.511	70.545	70.578	70.611	70.644	70.677	70.711	70.744	70.777
2470	70.777	70.810	70.843	70.877	70.910	70.943	70.976	71.009	71.042	71.076	71.109
2480	71.109	71.142	71.175	71.208	71.242	71.275	71.308	71.341	71.374	71.408	71.441
2490	71.441	71.474	71.507	71.540	71.574	71.607	71.640	71.673	71.707	71.740	71.773
2500	71.773	71.806	71.839	71.873	71.906	71.939	71.972	72.005	72.039	72.072	72.105
2510	72.105	72.138	72.172	72.205	72.238	72.271	72.305	72.338	72.371	72.404	72.438
2520	72.438	72.471	72.504	72.537	72.571	72.604	72.637	72.670	72.704	72.737	72.770
2530	72.770	72.803	72.837	72.870	72.903	72.937	72.970	73.003	73.036	73.070	73.103
2540	73.103	73.136	73.170	73.203	73.236	73.270	73.303	73.336	73.370	73.403	73.436
2550	73.436	73.470	73.503	73.536	73.570	73.603	73.636	73.670	73.703	73.736	73.770
2560	73.770	73.803	73.837	73.870	73.903	73.937	73.970	74.004	74.037	74.070	74.104
ºF	0	1	2	3	4	5	6	7	8	9	10

Type Platinel II Alloy 5355 vs Alloy 7674 ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
30			0.000	0.017	0.033	0.050	0.066	0.083	0.100	0.116	0.133
40	0.133	0.150	0.167	0.184	0.200	0.217	0.234	0.251	0.268	0.285	0.302
50	0.302	0.319	0.336	0.353	0.370	0.387	0.404	0.421	0.438	0.455	0.472
60	0.472	0.489	0.507	0.524	0.541	0.558	0.576	0.593	0.610	0.628	0.645
70	0.645	0.662	0.680	0.697	0.715	0.732	0.749	0.767	0.784	0.802	0.820
80	0.820	0.837	0.855	0.872	0.890	0.908	0.925	0.943	0.961	0.978	0.996
90	0.996	1.014	1.032	1.050	1.067	1.085	1.103	1.121	1.139	1.157	1.175
100	1.175	1.193	1.211	1.229	1.247	1.265	1.283	1.301	1.319	1.337	1.355
110	1.355	1.374	1.392	1.410	1.428	1.446	1.465	1.483	1.501	1.520	1.538
120	1.538	1.556	1.575	1.593	1.611	1.630	1.648	1.667	1.685	1.704	1.722
130	1.722	1.741	1.759	1.778	1.797	1.815	1.834	1.852	1.871	1.890	1.908
140	1.908	1.927	1.946	1.965	1.983	2.002	2.021	2.040	2.059	2.078	2.096
150	2.096	2.115	2.134	2.153	2.172	2.191	2.210	2.229	2.248	2.267	2.286
160	2.286	2.305	2.324	2.343	2.363	2.382	2.401	2.420	2.439	2.458	2.478
170	2.478	2.497	2.516	2.536	2.555	2.574	2.593	2.613	2.632	2.652	2.671
180	2.671	2.690	2.710	2.729	2.749	2.768	2.788	2.807	2.827	2.846	2.866
190	2.866	2.885	2.905	2.925	2.944	2.964	2.984	3.003	3.023	3.043	3.062
200	3.062	3.082	3.102	3.122	3.141	3.161	3.181	3.201	3.221	3.241	3.260
210	3.260	3.280	3.300	3.320	3.340	3.360	3.380	3.400	3.420	3.440	3.460
220	3.460	3.480	3.500	3.520	3.541	3.561	3.581	3.601	3.621	3.641	3.661
230	3.661	3.682	3.702	3.722	3.742	3.763	3.783	3.803	3.824	3.844	3.864
240	3.864	3.885	3.905	3.925	3.946	3.966	3.987	4.007	4.028	4.048	4.069
250	4.069	4.089	4.110	4.130	4.151	4.171	4.192	4.212	4.233	4.254	4.274
260	4.274	4.295	4.316	4.336	4.357	4.378	4.399	4.419	4.440	4.461	4.482
270	4.482	4.502	4.523	4.544	4.565	4.586	4.607	4.627	4.648	4.669	4.690
280	4.690	4.711	4.732	4.753	4.774	4.795	4.816	4.837	4.858	4.879	4.900
290	4.900	4.921	4.942	4.963	4.985	5.006	5.027	5.048	5.069	5.090	5.111
300	5.111	5.133	5.154	5.175	5.196	5.218	5.239	5.260	5.282	5.303	5.324
310	5.324	5.346	5.367	5.388	5.410	5.431	5.452	5.474	5.495	5.517	5.538
320	5.538	5.560	5.581	5.603	5.624	5.646	5.667	5.689	5.710	5.732	5.753
330	5.753	5.775	5.797	5.818	5.840	5.861	5.883	5.905	5.926	5.948	5.970
340	5.970	5.992	6.013	6.035	6.057	6.079	6.100	6.122	6.144	6.166	6.188
350	6.188	6.209	6.231	6.253	6.275	6.297	6.319	6.341	6.363	6.384	6.406
360	6.406	6.428	6.450	6.472	6.494	6.516	6.538	6.560	6.582	6.604	6.626
370	6.626	6.649	6.671	6.693	6.715	6.737	6.759	6.781	6.803	6.825	6.848
380	6.848	6.870	6.892	6.914	6.936	6.959	6.981	7.003	7.025	7.048	7.070
390	7.070	7.092	7.115	7.137	7.159	7.181	7.204	7.226	7.249	7.271	7.293
400	7.293	7.316	7.338	7.361	7.383	7.405	7.428	7.450	7.473	7.495	7.518
410	7.518	7.540	7.563	7.585	7.608	7.630	7.653	7.675	7.698	7.721	7.743
420	7.743	7.766	7.788	7.811	7.834	7.856	7.879	7.902	7.924	7.947	7.970
430	7.970	7.992	8.015	8.038	8.061	8.083	8.106	8.129	8.152	8.174	8.197
440	8.197	8.220	8.243	8.266	8.288	8.311	8.334	8.357	8.380	8.403	8.426
450	8.426	8.449	8.471	8.494	8.517	8.540	8.563	8.586	8.609	8.632	8.655
460	8.655	8.678	8.701	8.724	8.747	8.770	8.793	8.816	8.839	8.862	8.885
470	8.885	8.908	8.931	8.955	8.978	9.001	9.024	9.047	9.070	9.093	9.117
480	9.117	9.140	9.163	9.186	9.209	9.232	9.256	9.279	9.302	9.325	9.349
490	9.349	9.372	9.395	9.418	9.442	9.465	9.488	9.512	9.535	9.558	9.581
ºF	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10

ºF	0	1	2	3	4	5	6	7	8	9	10
500	9.581	9.605	9.628	9.652	9.675	9.698	9.722	9.745	9.768	9.792	9.815
510	9.815	9.839	9.862	9.885	9.909	9.932	9.956	9.979	10.003	10.026	10.050
520	10.050	10.073	10.097	10.120	10.144	10.167	10.191	10.214	10.238	10.262	10.285
530	10.285	10.309	10.332	10.356	10.379	10.403	10.427	10.450	10.474	10.498	10.521
540	10.521	10.545	10.568	10.592	10.616	10.639	10.663	10.687	10.711	10.734	10.758
550	10.758	10.782	10.805	10.829	10.853	10.877	10.900	10.924	10.948	10.972	10.995
560	10.995	11.019	11.043	11.067	11.091	11.114	11.138	11.162	11.186	11.210	11.234
570	11.234	11.258	11.281	11.305	11.329	11.353	11.377	11.401	11.425	11.449	11.473
580	11.473	11.497	11.520	11.544	11.568	11.592	11.616	11.640	11.664	11.688	11.712
590	11.712	11.736	11.760	11.784	11.808	11.832	11.856	11.880	11.904	11.928	11.952
600	11.952	11.976	12.000	12.024	12.049	12.073	12.097	12.121	12.145	12.169	12.193
610	12.193	12.217	12.241	12.265	12.290	12.314	12.338	12.362	12.386	12.410	12.434
620	12.434	12.459	12.483	12.507	12.531	12.555	12.580	12.604	12.628	12.652	12.676
630	12.676	12.701	12.725	12.749	12.773	12.798	12.822	12.846	12.870	12.895	12.919
640	12.919	12.943	12.967	12.992	13.016	13.040	13.065	13.089	13.113	13.138	13.162
650	13.162	13.186	13.211	13.235	13.259	13.284	13.308	13.332	13.357	13.381	13.405
660	13.405	13.430	13.454	13.479	13.503	13.527	13.552	13.576	13.601	13.625	13.649
670	13.649	13.674	13.698	13.723	13.747	13.772	13.796	13.821	13.845	13.869	13.894
680	13.894	13.918	13.943	13.967	13.992	14.016	14.041	14.065	14.090	14.114	14.139
690	14.139	14.163	14.188	14.212	14.237	14.262	14.286	14.311	14.335	14.360	14.384
700	14.384	14.409	14.433	14.458	14.483	14.507	14.532	14.556	14.581	14.606	14.630
710	14.630	14.655	14.679	14.704	14.729	14.753	14.778	14.802	14.827	14.852	14.876
720	14.876	14.901	14.926	14.950	14.975	15.000	15.024	15.049	15.074	15.098	15.123
730	15.123	15.148	15.172	15.197	15.222	15.246	15.271	15.296	15.320	15.345	15.370
740	15.370	15.395	15.419	15.444	15.469	15.493	15.518	15.543	15.568	15.592	15.617
750	15.617	15.642	15.667	15.691	15.716	15.741	15.766	15.790	15.815	15.840	15.865
760	15.865	15.890	15.914	15.939	15.964	15.989	16.013	16.038	16.063	16.088	16.113
770	16.113	16.137	16.162	16.187	16.212	16.237	16.262	16.286	16.311	16.336	16.361
780	16.361	16.386	16.411	16.435	16.460	16.485	16.510	16.535	16.560	16.585	16.609
790	16.609	16.634	16.659	16.684	16.709	16.734	16.759	16.784	16.808	16.833	16.858
800	16.858	16.883	16.908	16.933	16.958	16.983	17.008	17.032	17.057	17.082	17.107
810	17.107	17.132	17.157	17.182	17.207	17.232	17.257	17.282	17.307	17.331	17.356
820	17.356	17.381	17.406	17.431	17.456	17.481	17.506	17.531	17.556	17.581	17.606
830	17.606	17.631	17.656	17.681	17.706	17.731	17.756	17.781	17.806	17.830	17.855
840	17.855	17.880	17.905	17.930	17.955	17.980	18.005	18.030	18.055	18.080	18.105
850	18.105	18.130	18.155	18.180	18.205	18.230	18.255	18.280	18.305	18.330	18.355
860	18.355	18.380	18.405	18.430	18.455	18.480	18.505	18.530	18.555	18.580	18.605
870	18.605	18.630	18.655	18.680	18.705	18.730	18.755	18.781	18.806	18.831	18.856
880	18.856	18.881	18.906	18.931	18.956	18.981	19.006	19.031	19.056	19.081	19.106
890	19.106	19.131	19.156	19.181	19.206	19.231	19.256	19.281	19.306	19.331	19.356
900	19.356	19.381	19.407	19.432	19.457	19.482	19.507	19.532	19.557	19.582	19.607
910	19.607	19.632	19.657	19.682	19.707	19.732	19.757	19.782	19.807	19.833	19.858
920	19.858	19.883	19.908	19.933	19.958	19.983	20.008	20.033	20.058	20.083	20.108
930	20.108	20.133	20.158	20.183	20.209	20.234	20.259	20.284	20.309	20.334	20.359
940	20.359	20.384	20.409	20.434	20.459	20.484	20.509	20.534	20.560	20.585	20.610
950	20.610	20.635	20.660	20.685	20.710	20.735	20.760	20.785	20.810	20.835	20.860
960	20.860	20.885	20.911	20.936	20.961	20.986	21.011	21.036	21.061	21.086	21.111
970	21.111	21.136	21.161	21.186	21.211	21.237	21.262	21.287	21.312	21.337	21.362
980	21.362	21.387	21.412	21.437	21.462	21.487	21.512	21.537	21.562	21.587	21.613
990	21.613	21.638	21.663	21.688	21.713	21.738	21.763	21.788	21.813	21.838	21.863
ºF	0	1	2	3	4	5	6	7	8	9	10

Type Platinel II Alloy 5355 vs Alloy 7674 ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
1000	21.863	21.888	21.913	21.938	21.963	21.988	22.014	22.039	22.064	22.089	22.114
1010	22.114	22.139	22.164	22.189	22.214	22.239	22.264	22.289	22.314	22.339	22.364
1020	22.364	22.389	22.414	22.439	22.464	22.489	22.515	22.540	22.565	22.590	22.615
1030	22.615	22.640	22.665	22.690	22.715	22.740	22.765	22.790	22.815	22.840	22.865
1040	22.865	22.890	22.915	22.940	22.965	22.990	23.015	23.040	23.065	23.090	23.115
1050	23.115	23.140	23.165	23.190	23.215	23.240	23.265	23.290	23.315	23.340	23.365
1060	23.365	23.390	23.415	23.440	23.465	23.490	23.515	23.540	23.565	23.590	23.615
1070	23.615	23.640	23.665	23.690	23.715	23.740	23.765	23.790	23.815	23.840	23.865
1080	23.865	23.890	23.915	23.940	23.965	23.990	24.015	24.040	24.065	24.090	24.115
1090	24.115	24.139	24.164	24.189	24.214	24.239	24.264	24.289	24.314	24.339	24.364
1100	24.364	24.389	24.414	24.439	24.464	24.489	24.514	24.538	24.563	24.588	24.613
1110	24.613	24.638	24.663	24.688	24.713	24.738	24.763	24.788	24.812	24.837	24.862
1120	24.862	24.887	24.912	24.937	24.962	24.987	25.012	25.036	25.061	25.086	25.111
1130	25.111	25.136	25.161	25.186	25.210	25.235	25.260	25.285	25.310	25.335	25.360
1140	25.360	25.384	25.409	25.434	25.459	25.484	25.509	25.533	25.558	25.583	25.608
1150	25.608	25.633	25.658	25.682	25.707	25.732	25.757	25.782	25.806	25.831	25.856
1160	25.856	25.881	25.906	25.930	25.955	25.980	26.005	26.029	26.054	26.079	26.104
1170	26.104	26.129	26.153	26.178	26.203	26.228	26.252	26.277	26.302	26.327	26.351
1180	26.351	26.376	26.401	26.426	26.450	26.475	26.500	26.524	26.549	26.574	26.599
1190	26.599	26.623	26.648	26.673	26.697	26.722	26.747	26.771	26.796	26.821	26.845
1200	26.845	26.870	26.895	26.919	26.944	26.969	26.993	27.018	27.043	27.067	27.092
1210	27.092	27.117	27.141	27.166	27.191	27.215	27.240	27.265	27.289	27.314	27.338
1220	27.338	27.363	27.388	27.412	27.437	27.461	27.486	27.511	27.535	27.560	27.584
1230	27.584	27.609	27.633	27.658	27.683	27.707	27.732	27.756	27.781	27.805	27.830
1240	27.830	27.854	27.879	27.903	27.928	27.953	27.977	28.002	28.026	28.051	28.075
1250	28.075	28.100	28.124	28.149	28.173	28.198	28.222	28.247	28.271	28.295	28.320
1260	28.320	28.344	28.369	28.393	28.418	28.442	28.467	28.491	28.516	28.540	28.564
1270	28.564	28.589	28.613	28.638	28.662	28.686	28.711	28.735	28.760	28.784	28.808
1280	28.808	28.833	28.857	28.882	28.906	28.930	28.955	28.979	29.003	29.028	29.052
1290	29.052	29.076	29.101	29.125	29.149	29.174	29.198	29.222	29.247	29.271	29.295
1300	29.295	29.320	29.344	29.368	29.392	29.417	29.441	29.465	29.490	29.514	29.538
1310	29.538	29.562	29.587	29.611	29.635	29.659	29.684	29.708	29.732	29.756	29.780
1320	29.780	29.805	29.829	29.853	29.877	29.901	29.926	29.950	29.974	29.998	30.022
1330	30.022	30.046	30.071	30.095	30.119	30.143	30.167	30.191	30.215	30.240	30.264
1340	30.264	30.288	30.312	30.336	30.360	30.384	30.408	30.432	30.457	30.481	30.505
1350	30.505	30.529	30.553	30.577	30.601	30.625	30.649	30.673	30.697	30.721	30.745
1360	30.745	30.769	30.793	30.817	30.841	30.865	30.889	30.913	30.937	30.961	30.985
1370	30.985	31.009	31.033	31.057	31.081	31.105	31.129	31.153	31.177	31.201	31.225
1380	31.225	31.248	31.272	31.296	31.320	31.344	31.368	31.392	31.416	31.440	31.463
1390	31.463	31.487	31.511	31.535	31.559	31.583	31.607	31.631	31.654	31.678	31.702
1400	31.702	31.726	31.750	31.774	31.797	31.821	31.845	31.869	31.893	31.916	31.940
1410	31.940	31.964	31.988	32.011	32.035	32.059	32.083	32.107	32.130	32.154	32.178
1420	32.178	32.202	32.225	32.249	32.273	32.296	32.320	32.344	32.368	32.391	32.415
1430	32.415	32.439	32.462	32.486	32.510	32.533	32.557	32.581	32.604	32.628	32.652
1440	32.652	32.675	32.699	32.723	32.746	32.770	32.794	32.817	32.841	32.864	32.888
1450	32.888	32.912	32.935	32.959	32.982	33.006	33.030	33.053	33.077	33.100	33.124
1460	33.124	33.147	33.171	33.195	33.218	33.242	33.265	33.289	33.312	33.336	33.359
1470	33.359	33.383	33.406	33.430	33.453	33.477	33.500	33.524	33.547	33.571	33.594
1480	33.594	33.618	33.641	33.664	33.688	33.711	33.735	33.758	33.782	33.805	33.828
1490	33.828	33.852	33.875	33.899	33.922	33.946	33.969	33.992	34.016	34.039	34.062
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
1500	34.062	34.086	34.109	34.132	34.156	34.179	34.203	34.226	34.249	34.273	34.296
1510	34.296	34.319	34.342	34.366	34.389	34.412	34.436	34.459	34.482	34.506	34.529
1520	34.529	34.552	34.575	34.599	34.622	34.645	34.668	34.692	34.715	34.738	34.761
1530	34.761	34.784	34.808	34.831	34.854	34.877	34.900	34.924	34.947	34.970	34.993
1540	34.993	35.016	35.040	35.063	35.086	35.109	35.132	35.155	35.178	35.202	35.225
1550	35.225	35.248	35.271	35.294	35.317	35.340	35.363	35.386	35.409	35.433	35.456
1560	35.456	35.479	35.502	35.525	35.548	35.571	35.594	35.617	35.640	35.663	35.686
1570	35.686	35.709	35.732	35.755	35.778	35.801	35.824	35.847	35.870	35.893	35.916
1580	35.916	35.939	35.962	35.985	36.008	36.031	36.054	36.077	36.099	36.122	36.145
1590	36.145	36.168	36.191	36.214	36.237	36.260	36.283	36.306	36.328	36.351	36.374
1600	36.374	36.397	36.420	36.443	36.466	36.488	36.511	36.534	36.557	36.580	36.603
1610	36.603	36.625	36.648	36.671	36.694	36.716	36.739	36.762	36.785	36.808	36.830
1620	36.830	36.853	36.876	36.899	36.921	36.944	36.967	36.989	37.012	37.035	37.058
1630	37.058	37.080	37.103	37.126	37.148	37.171	37.194	37.216	37.239	37.262	37.284
1640	37.284	37.307	37.330	37.352	37.375	37.398	37.420	37.443	37.465	37.488	37.511
1650	37.511	37.533	37.556	37.578	37.601	37.623	37.646	37.669	37.691	37.714	37.736
1660	37.736	37.759	37.781	37.804	37.826	37.849	37.871	37.894	37.916	37.939	37.961
1670	37.961	37.984	38.006	38.029	38.051	38.074	38.096	38.119	38.141	38.163	38.186
1680	38.186	38.208	38.231	38.253	38.275	38.298	38.320	38.343	38.365	38.387	38.410
1690	38.410	38.432	38.455	38.477	38.499	38.522	38.544	38.566	38.589	38.611	38.633
1700	38.633	38.656	38.678	38.700	38.722	38.745	38.767	38.789	38.812	38.834	38.856
1710	38.856	38.878	38.901	38.923	38.945	38.967	38.990	39.012	39.034	39.056	39.078
1720	39.078	39.101	39.123	39.145	39.167	39.189	39.211	39.234	39.256	39.278	39.300
1730	39.300	39.322	39.344	39.367	39.389	39.411	39.433	39.455	39.477	39.499	39.521
1740	39.521	39.543	39.565	39.588	39.610	39.632	39.654	39.676	39.698	39.720	39.742
1750	39.742	39.764	39.786	39.808	39.830	39.852	39.874	39.896	39.918	39.940	39.962
1760	39.962	39.984	40.006	40.028	40.050	40.072	40.094	40.116	40.137	40.159	40.181
1770	40.181	40.203	40.225	40.247	40.269	40.291	40.313	40.335	40.356	40.378	40.400
1780	40.400	40.422	40.444	40.466	40.487	40.509	40.531	40.553	40.575	40.597	40.618
1790	40.618	40.640	40.662	40.684	40.705	40.727	40.749	40.771	40.793	40.814	40.836
1800	40.836	40.858	40.879	40.901	40.923	40.945	40.966	40.988	41.010	41.031	41.053
1810	41.053	41.075	41.096	41.118	41.140	41.161	41.183	41.205	41.226	41.248	41.270
1820	41.270	41.291	41.313	41.334	41.356	41.378	41.399	41.421	41.442	41.464	41.485
1830	41.485	41.507	41.529	41.550	41.572	41.593	41.615	41.636	41.658	41.679	41.701
1840	41.701	41.722	41.744	41.765	41.787	41.808	41.830	41.851	41.873	41.894	41.915
1850	41.915	41.937	41.958	41.980	42.001	42.023	42.044	42.065	42.087	42.108	42.129
1860	42.129	42.151	42.172	42.194	42.215	42.236	42.258	42.279	42.300	42.322	42.343
1870	42.343	42.364	42.386	42.407	42.428	42.449	42.471	42.492	42.513	42.535	42.556
1880	42.556	42.577	42.598	42.620	42.641	42.662	42.683	42.704	42.726	42.747	42.768
1890	42.768	42.789	42.810	42.832	42.853	42.874	42.895	42.916	42.937	42.959	42.980
1900	42.980	43.001	43.022	43.043	43.064	43.085	43.106	43.128	43.149	43.170	43.191
1910	43.191	43.212	43.233	43.254	43.275	43.296	43.317	43.338	43.359	43.380	43.401
1920	43.401	43.422	43.443	43.464	43.485	43.506	43.527	43.548	43.569	43.590	43.611
1930	43.611	43.632	43.653	43.674	43.695	43.716	43.737	43.758	43.778	43.799	43.820
1940	43.820	43.841	43.862	43.883	43.904	43.925	43.945	43.966	43.987	44.008	44.029
1950	44.029	44.050	44.070	44.091	44.112	44.133	44.154	44.174	44.195	44.216	44.237
1960	44.237	44.258	44.278	44.299	44.320	44.341	44.361	44.382	44.403	44.423	44.444
1970	44.444	44.465	44.486	44.506	44.527	44.548	44.568	44.589	44.610	44.630	44.651
1980	44.651	44.672	44.692	44.713	44.733	44.754	44.775	44.795	44.816	44.836	44.857
1990	44.857	44.878	44.898	44.919	44.939	44.960	44.980	45.001	45.021	45.042	45.063
ºF	0	1	2	3	4	5	6	7	8	9	10

Type Platinel II Alloy 5355 vs Alloy 7674 ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
2000	45.063	45.083	45.104	45.124	45.145	45.165	45.186	45.206	45.226	45.247	45.267
2010	45.267	45.288	45.308	45.329	45.349	45.370	45.390	45.410	45.431	45.451	45.472
2020	45.472	45.492	45.512	45.533	45.553	45.574	45.594	45.614	45.635	45.655	45.675
2030	45.675	45.696	45.716	45.736	45.757	45.777	45.797	45.817	45.838	45.858	45.878
2040	45.878	45.899	45.919	45.939	45.959	45.980	46.000	46.020	46.040	46.060	46.081
2050	46.081	46.101	46.121	46.141	46.161	46.182	46.202	46.222	46.242	46.262	46.282
2060	46.282	46.303	46.323	46.343	46.363	46.383	46.403	46.423	46.443	46.463	46.484
2070	46.484	46.504	46.524	46.544	46.564	46.584	46.604	46.624	46.644	46.664	46.684
2080	46.684	46.704	46.724	46.744	46.764	46.784	46.804	46.824	46.844	46.864	46.884
2090	46.884	46.904	46.924	46.944	46.964	46.984	47.004	47.023	47.043	47.063	47.083
2100	47.083	47.103	47.123	47.143	47.163	47.183	47.202	47.222	47.242	47.262	47.282
2110	47.282	47.302	47.321	47.341	47.361	47.381	47.401	47.420	47.440	47.460	47.480
2120	47.480	47.500	47.519	47.539	47.559	47.579	47.598	47.618	47.638	47.657	47.677
2130	47.677	47.697	47.717	47.736	47.756	47.776	47.795	47.815	47.835	47.854	47.874
2140	47.874	47.894	47.913	47.933	47.952	47.972	47.992	48.011	48.031	48.050	48.070
2150	48.070	48.090	48.109	48.129	48.148	48.168	48.187	48.207	48.226	48.246	48.265
2160	48.265	48.285	48.304	48.324	48.343	48.363	48.382	48.402	48.421	48.441	48.460
2170	48.460	48.480	48.499	48.519	48.538	48.557	48.577	48.596	48.616	48.635	48.654
2180	48.654	48.674	48.693	48.713	48.732	48.751	48.771	48.790	48.809	48.829	48.848
2190	48.848	48.867	48.887	48.906	48.925	48.945	48.964	48.983	49.002	49.022	49.041
2200	49.041	49.060	49.079	49.099	49.118	49.137	49.156	49.176	49.195	49.214	49.233
2210	49.233	49.252	49.272	49.291	49.310	49.329	49.348	49.367	49.387	49.406	49.425
2220	49.425	49.444	49.463	49.482	49.501	49.520	49.540	49.559	49.578	49.597	49.616
2230	49.616	49.635	49.654	49.673	49.692	49.711	49.730	49.749	49.768	49.787	49.806
2240	49.806	49.825	49.844	49.863	49.882	49.901	49.920	49.939	49.958	49.977	49.996
2250	49.996	50.015	50.034	50.053	50.072	50.091	50.110	50.128	50.147	50.166	50.185
2260	50.185	50.204	50.223	50.242	50.261	50.279	50.298	50.317	50.336	50.355	50.374
2270	50.374	50.392	50.411	50.430	50.449	50.467	50.486	50.505	50.524	50.543	50.561
2280	50.561	50.580	50.599	50.618	50.636	50.655	50.674	50.692	50.711	50.730	50.748
2290	50.748	50.767	50.786	50.804	50.823	50.842	50.860	50.879	50.898	50.916	50.935
2300	50.935	50.954	50.972	50.991	51.009	51.028	51.047	51.065	51.084	51.102	51.121
2310	51.121	51.139	51.158	51.176	51.195	51.213	51.232	51.250	51.269	51.287	51.306
2320	51.306	51.324	51.343	51.361	51.380	51.398	51.417	51.435	51.454	51.472	51.490
2330	51.490	51.509	51.527	51.546	51.564	51.582	51.601	51.619	51.638	51.656	51.674
2340	51.674	51.693	51.711	51.729	51.748	51.766	51.784	51.803	51.821	51.839	51.858
2350	51.858	51.876	51.894	51.912	51.931	51.949	51.967	51.985	52.004	52.022	52.040
2360	52.040	52.058	52.076	52.095	52.113	52.131	52.149	52.167	52.186	52.204	52.222
2370	52.222	52.240	52.258	52.276	52.294	52.313	52.331	52.349	52.367	52.385	52.403
2380	52.403	52.421	52.439	52.457	52.475	52.493	52.511	52.529	52.548	52.566	52.584
2390	52.584	52.602	52.620	52.638	52.656	52.674	52.692	52.709	52.727	52.745	52.763
2400	52.763	52.781	52.799	52.817	52.835	52.853	52.871	52.889	52.907	52.925	52.942
2410	52.942	52.960	52.978	52.996	53.014	53.032	53.050	53.067	53.085	53.103	53.121
2420	53.121	53.139	53.157	53.174	53.192	53.210	53.228	53.245	53.263	53.281	53.299
2430	53.299	53.316	53.334	53.352	53.370	53.387	53.405	53.423	53.440	53.458	53.476
2440	53.476	53.493	53.511	53.529	53.546	53.564	53.582	53.599	53.617	53.634	53.652
2450	53.652	53.670	53.687	53.705	53.722	53.740	53.757	53.775	53.793	53.810	53.828
2460	53.828	53.845	53.863	53.880	53.898	53.915	53.933	53.950	53.968	53.985	54.003
2470	54.003	54.020	54.037	54.055	54.072	54.090	54.107	54.125	54.142	54.159	54.177
2480	54.177	54.194	54.211	54.229	54.246	54.263	54.281	54.298	54.315	54.333	54.350
2490	54.350	54.367	54.385	54.402	54.419	54.437	54.454	54.471	54.488	54.506	54.523
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
2500	54.523	54.540	54.557	54.574	54.592	54.609	54.626	54.643	54.660	54.678	54.695
2510	54.695	54.712	54.729	54.746	54.763	54.780	54.798	54.815	54.832	54.849	54.866
2520	54.866	54.883	54.900	54.917	54.934	54.951	54.968	54.985	55.002	55.019	55.036
2530	55.036	55.053	55.070	55.087	55.104	55.121	55.138	55.155	55.172	55.189	55.206
2540	55.206	55.223	55.240	55.257							
ºF	0	1	2	3	4	5	6	7	8	9	10

Type R Platinum vs. Platinum-13% Rodium ITS-90 ºF

ºF	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
-50	-0.210	-0.212	-0.214	-0.216	-0.218	-0.220	-0.222	-0.224	-0.226		
-40	-0.188	-0.190	-0.192	-0.194	-0.197	-0.199	-0.201	-0.203	-0.205	-0.208	-0.210
-30	-0.165	-0.167	-0.169	-0.172	-0.174	-0.176	-0.179	-0.181	-0.183	-0.185	-0.188
-20	-0.141	-0.143	-0.145	-0.148	-0.150	-0.153	-0.155	-0.158	-0.160	-0.162	-0.165
-10	-0.116	-0.118	-0.121	-0.123	-0.126	-0.128	-0.131	-0.133	-0.136	-0.138	-0.141
0	-0.090	-0.092	-0.095	-0.097	-0.100	-0.103	-0.105	-0.108	-0.110	-0.113	-0.116
ºF	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10

ºF	0	1	2	3	4	5	6	7	8	9	10
0	-0.090	-0.087	-0.084	-0.082	-0.079	-0.076	-0.073	-0.071	-0.068	-0.065	-0.063
10	-0.063	-0.060	-0.057	-0.054	-0.051	-0.049	-0.046	-0.043	-0.040	-0.037	-0.035
20	-0.035	-0.032	-0.029	-0.026	-0.023	-0.020	-0.017	-0.015	-0.012	-0.009	-0.006
30	-0.006	-0.003	0.000	0.003	0.006	0.009	0.012	0.015	0.018	0.021	0.024
40	0.024	0.027	0.030	0.033	0.036	0.039	0.042	0.045	0.048	0.051	0.054
50	0.054	0.057	0.060	0.064	0.067	0.070	0.073	0.076	0.079	0.082	0.086
60	0.086	0.089	0.092	0.095	0.098	0.102	0.105	0.108	0.111	0.114	0.118
70	0.118	0.121	0.124	0.127	0.131	0.134	0.137	0.141	0.144	0.147	0.151
80	0.151	0.154	0.157	0.161	0.164	0.167	0.171	0.174	0.177	0.181	0.184
90	0.184	0.188	0.191	0.194	0.198	0.201	0.205	0.208	0.212	0.215	0.218
100	0.218	0.222	0.225	0.229	0.232	0.236	0.239	0.243	0.246	0.250	0.254
110	0.254	0.257	0.261	0.264	0.268	0.271	0.275	0.278	0.282	0.286	0.289
120	0.289	0.293	0.296	0.300	0.304	0.307	0.311	0.315	0.318	0.322	0.326
130	0.326	0.329	0.333	0.337	0.340	0.344	0.348	0.352	0.355	0.359	0.363
140	0.363	0.366	0.370	0.374	0.378	0.382	0.385	0.389	0.393	0.397	0.400
150	0.400	0.404	0.408	0.412	0.416	0.420	0.423	0.427	0.431	0.435	0.439
160	0.439	0.443	0.447	0.450	0.454	0.458	0.462	0.466	0.470	0.474	0.478
170	0.478	0.482	0.486	0.489	0.493	0.497	0.501	0.505	0.509	0.513	0.517
180	0.517	0.521	0.525	0.529	0.533	0.537	0.541	0.545	0.549	0.553	0.557
190	0.557	0.561	0.565	0.569	0.573	0.578	0.582	0.586	0.590	0.594	0.598
200	0.598	0.602	0.606	0.610	0.614	0.618	0.623	0.627	0.631	0.635	0.639
210	0.639	0.643	0.647	0.652	0.656	0.660	0.664	0.668	0.672	0.677	0.681
220	0.681	0.685	0.689	0.693	0.698	0.702	0.706	0.710	0.715	0.719	0.723
230	0.723	0.727	0.732	0.736	0.740	0.744	0.749	0.753	0.757	0.761	0.766
240	0.766	0.770	0.774	0.779	0.783	0.787	0.792	0.796	0.800	0.805	0.809
250	0.809	0.813	0.818	0.822	0.826	0.831	0.835	0.839	0.844	0.848	0.853
260	0.853	0.857	0.861	0.866	0.870	0.875	0.879	0.883	0.888	0.892	0.897
270	0.897	0.901	0.906	0.910	0.915	0.919	0.923	0.928	0.932	0.937	0.941
280	0.941	0.946	0.950	0.955	0.959	0.964	0.968	0.973	0.977	0.982	0.986
290	0.986	0.991	0.995	1.000	1.005	1.009	1.014	1.018	1.023	1.027	1.032
300	1.032	1.036	1.041	1.046	1.050	1.055	1.059	1.064	1.069	1.073	1.078
310	1.078	1.082	1.087	1.092	1.096	1.101	1.105	1.110	1.115	1.119	1.124
320	1.124	1.129	1.133	1.138	1.143	1.147	1.152	1.157	1.161	1.166	1.171
330	1.171	1.175	1.180	1.185	1.190	1.194	1.199	1.204	1.208	1.213	1.218
340	1.218	1.223	1.227	1.232	1.237	1.242	1.246	1.251	1.256	1.261	1.265
350	1.265	1.270	1.275	1.280	1.284	1.289	1.294	1.299	1.304	1.308	1.313
360	1.313	1.318	1.323	1.328	1.332	1.337	1.342	1.347	1.352	1.356	1.361
370	1.361	1.366	1.371	1.376	1.381	1.386	1.390	1.395	1.400	1.405	1.410
380	1.410	1.415	1.420	1.425	1.429	1.434	1.439	1.444	1.449	1.454	1.459
390	1.459	1.464	1.469	1.473	1.478	1.483	1.488	1.493	1.498	1.503	1.508
ºF	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10

ºF	0	1	2	3	4	5	6	7	8	9	10
400	1.508	1.513	1.518	1.523	1.528	1.533	1.538	1.543	1.548	1.553	1.558
410	1.558	1.563	1.568	1.572	1.577	1.582	1.587	1.592	1.597	1.602	1.607
420	1.607	1.612	1.617	1.622	1.627	1.632	1.638	1.643	1.648	1.653	1.658
430	1.658	1.663	1.668	1.673	1.678	1.683	1.688	1.693	1.698	1.703	1.708
440	1.708	1.713	1.718	1.723	1.728	1.733	1.739	1.744	1.749	1.754	1.759
450	1.759	1.764	1.769	1.774	1.779	1.784	1.790	1.795	1.800	1.805	1.810
460	1.810	1.815	1.820	1.825	1.831	1.836	1.841	1.846	1.851	1.856	1.861
470	1.861	1.867	1.872	1.877	1.882	1.887	1.892	1.898	1.903	1.908	1.913
480	1.913	1.918	1.923	1.929	1.934	1.939	1.944	1.949	1.955	1.960	1.965
490	1.965	1.970	1.975	1.981	1.986	1.991	1.996	2.002	2.007	2.012	2.017
500	2.017	2.022	2.028	2.033	2.038	2.043	2.049	2.054	2.059	2.064	2.070
510	2.070	2.075	2.080	2.085	2.091	2.096	2.101	2.107	2.112	2.117	2.122
520	2.122	2.128	2.133	2.138	2.144	2.149	2.154	2.159	2.165	2.170	2.175
530	2.175	2.181	2.186	2.191	2.197	2.202	2.207	2.213	2.218	2.223	2.229
540	2.229	2.234	2.239	2.245	2.250	2.255	2.261	2.266	2.271	2.277	2.282
550	2.282	2.287	2.293	2.298	2.304	2.309	2.314	2.320	2.325	2.330	2.336
560	2.336	2.341	2.347	2.352	2.357	2.363	2.368	2.374	2.379	2.384	2.390
570	2.390	2.395	2.401	2.406	2.411	2.417	2.422	2.428	2.433	2.438	2.444
580	2.444	2.449	2.455	2.460	2.466	2.471	2.477	2.482	2.487	2.493	2.498
590	2.498	2.504	2.509	2.515	2.520	2.526	2.531	2.537	2.542	2.547	2.553
600	2.553	2.558	2.564	2.569	2.575	2.580	2.586	2.591	2.597	2.602	2.608
610	2.608	2.613	2.619	2.624	2.630	2.635	2.641	2.646	2.652	2.657	2.663
620	2.663	2.668	2.674	2.679	2.685	2.690	2.696	2.701	2.707	2.713	2.718
630	2.718	2.724	2.729	2.735	2.740	2.746	2.751	2.757	2.762	2.768	2.773
640	2.773	2.779	2.785	2.790	2.796	2.801	2.807	2.812	2.818	2.824	2.829
650	2.829	2.835	2.840	2.846	2.851	2.857	2.863	2.868	2.874	2.879	2.885
660	2.885	2.891	2.896	2.902	2.907	2.913	2.919	2.924	2.930	2.935	2.941
670	2.941	2.947	2.952	2.958	2.964	2.969	2.975	2.980	2.986	2.992	2.997
680	2.997	3.003	3.009	3.014	3.020	3.026	3.031	3.037	3.042	3.048	3.054
690	3.054	3.059	3.065	3.071	3.076	3.082	3.088	3.093	3.099	3.105	3.110
700	3.110	3.116	3.122	3.127	3.133	3.139	3.144	3.150	3.156	3.161	3.167
710	3.167	3.173	3.179	3.184	3.190	3.196	3.201	3.207	3.213	3.218	3.224
720	3.224	3.230	3.236	3.241	3.247	3.253	3.258	3.264	3.270	3.276	3.281
730	3.281	3.287	3.293	3.298	3.304	3.310	3.316	3.321	3.327	3.333	3.339
740	3.339	3.344	3.350	3.356	3.362	3.367	3.373	3.379	3.385	3.390	3.396
750	3.396	3.402	3.408	3.413	3.419	3.425	3.431	3.437	3.442	3.448	3.454
760	3.454	3.460	3.465	3.471	3.477	3.483	3.489	3.494	3.500	3.506	3.512
770	3.512	3.517	3.523	3.529	3.535	3.541	3.546	3.552	3.558	3.564	3.570
780	3.570	3.576	3.581	3.587	3.593	3.599	3.605	3.610	3.616	3.622	3.628
790	3.628	3.634	3.640	3.645	3.651	3.657	3.663	3.669	3.675	3.680	3.686
800	3.686	3.692	3.698	3.704	3.710	3.716	3.721	3.727	3.733	3.739	3.745
810	3.745	3.751	3.757	3.762	3.768	3.774	3.780	3.786	3.792	3.798	3.803
820	3.803	3.809	3.815	3.821	3.827	3.833	3.839	3.845	3.851	3.856	3.862
830	3.862	3.868	3.874	3.880	3.886	3.892	3.898	3.904	3.909	3.915	3.921
840	3.921	3.927	3.933	3.939	3.945	3.951	3.957	3.963	3.969	3.975	3.980
850	3.980	3.986	3.992	3.998	4.004	4.010	4.016	4.022	4.028	4.034	4.040
860	4.040	4.046	4.052	4.058	4.064	4.069	4.075	4.081	4.087	4.093	4.099
870	4.099	4.105	4.111	4.117	4.123	4.129	4.135	4.141	4.147	4.153	4.159
880	4.159	4.165	4.171	4.177	4.183	4.189	4.195	4.201	4.207	4.213	4.219
890	4.219	4.225	4.231	4.237	4.243	4.249	4.255	4.261	4.267	4.273	4.279
ºF	0	1	2	3	4	5	6	7	8	9	10

Type R Platinum vs. Platinum-13% Rodium ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
900	4.279	4.285	4.291	4.297	4.303	4.309	4.315	4.321	4.327	4.333	4.339
910	4.339	4.345	4.351	4.357	4.363	4.369	4.375	4.381	4.387	4.393	4.399
920	4.399	4.405	4.411	4.417	4.423	4.429	4.435	4.441	4.447	4.453	4.459
930	4.459	4.465	4.471	4.477	4.483	4.489	4.495	4.502	4.508	4.514	4.520
940	4.520	4.526	4.532	4.538	4.544	4.550	4.556	4.562	4.568	4.574	4.580
950	4.580	4.586	4.593	4.599	4.605	4.611	4.617	4.623	4.629	4.635	4.641
960	4.641	4.647	4.653	4.659	4.666	4.672	4.678	4.684	4.690	4.696	4.702
970	4.702	4.708	4.714	4.720	4.727	4.733	4.739	4.745	4.751	4.757	4.763
980	4.763	4.769	4.775	4.782	4.788	4.794	4.800	4.806	4.812	4.818	4.824
990	4.824	4.831	4.837	4.843	4.849	4.855	4.861	4.867	4.874	4.880	4.886
1000	4.886	4.892	4.898	4.904	4.910	4.917	4.923	4.929	4.935	4.941	4.947
1010	4.947	4.954	4.960	4.966	4.972	4.978	4.984	4.991	4.997	5.003	5.009
1020	5.009	5.015	5.021	5.028	5.034	5.040	5.046	5.052	5.059	5.065	5.071
1030	5.071	5.077	5.083	5.090	5.096	5.102	5.108	5.114	5.121	5.127	5.133
1040	5.133	5.139	5.145	5.152	5.158	5.164	5.170	5.176	5.183	5.189	5.195
1050	5.195	5.201	5.207	5.214	5.220	5.226	5.232	5.239	5.245	5.251	5.257
1060	5.257	5.264	5.270	5.276	5.282	5.289	5.295	5.301	5.307	5.313	5.320
1070	5.320	5.326	5.332	5.338	5.345	5.351	5.357	5.364	5.370	5.376	5.382
1080	5.382	5.389	5.395	5.401	5.407	5.414	5.420	5.426	5.432	5.439	5.445
1090	5.445	5.451	5.458	5.464	5.470	5.476	5.483	5.489	5.495	5.502	5.508
1100	5.508	5.514	5.520	5.527	5.533	5.539	5.546	5.552	5.558	5.565	5.571
1110	5.571	5.577	5.583	5.590	5.596	5.602	5.609	5.615	5.621	5.628	5.634
1120	5.634	5.640	5.647	5.653	5.659	5.666	5.672	5.678	5.685	5.691	5.697
1130	5.697	5.704	5.710	5.716	5.723	5.729	5.735	5.742	5.748	5.754	5.761
1140	5.761	5.767	5.773	5.780	5.786	5.792	5.799	5.805	5.812	5.818	5.824
1150	5.824	5.831	5.837	5.843	5.850	5.856	5.862	5.869	5.875	5.882	5.888
1160	5.888	5.894	5.901	5.907	5.913	5.920	5.926	5.933	5.939	5.945	5.952
1170	5.952	5.958	5.965	5.971	5.977	5.984	5.990	5.997	6.003	6.009	6.016
1180	6.016	6.022	6.029	6.035	6.041	6.048	6.054	6.061	6.067	6.074	6.080
1190	6.080	6.086	6.093	6.099	6.106	6.112	6.119	6.125	6.131	6.138	6.144
1200	6.144	6.151	6.157	6.164	6.170	6.176	6.183	6.189	6.196	6.202	6.209
1210	6.209	6.215	6.222	6.228	6.235	6.241	6.247	6.254	6.260	6.267	6.273
1220	6.273	6.280	6.286	6.293	6.299	6.306	6.312	6.319	6.325	6.332	6.338
1230	6.338	6.345	6.351	6.358	6.364	6.370	6.377	6.383	6.390	6.396	6.403
1240	6.403	6.409	6.416	6.422	6.429	6.435	6.442	6.448	6.455	6.461	6.468
1250	6.468	6.474	6.481	6.488	6.494	6.501	6.507	6.514	6.520	6.527	6.533
1260	6.533	6.540	6.546	6.553	6.559	6.566	6.572	6.579	6.585	6.592	6.598
1270	6.598	6.605	6.612	6.618	6.625	6.631	6.638	6.644	6.651	6.657	6.664
1280	6.664	6.671	6.677	6.684	6.690	6.697	6.703	6.710	6.716	6.723	6.730
1290	6.730	6.736	6.743	6.749	6.756	6.762	6.769	6.776	6.782	6.789	6.795
1300	6.795	6.802	6.809	6.815	6.822	6.828	6.835	6.841	6.848	6.855	6.861
1310	6.861	6.868	6.874	6.881	6.888	6.894	6.901	6.907	6.914	6.921	6.927
1320	6.927	6.934	6.941	6.947	6.954	6.960	6.967	6.974	6.980	6.987	6.994
1330	6.994	7.000	7.007	7.013	7.020	7.027	7.033	7.040	7.047	7.053	7.060
1340	7.060	7.067	7.073	7.080	7.086	7.093	7.100	7.106	7.113	7.120	7.126
1350	7.126	7.133	7.140	7.146	7.153	7.160	7.166	7.173	7.180	7.186	7.193
1360	7.193	7.200	7.206	7.213	7.220	7.226	7.233	7.240	7.247	7.253	7.260
1370	7.260	7.267	7.273	7.280	7.287	7.293	7.300	7.307	7.313	7.320	7.327
1380	7.327	7.334	7.340	7.347	7.354	7.360	7.367	7.374	7.381	7.387	7.394
1390	7.394	7.401	7.407	7.414	7.421	7.428	7.434	7.441	7.448	7.454	7.461
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
1400	7.461	7.468	7.475	7.481	7.488	7.495	7.502	7.508	7.515	7.522	7.529
1410	7.529	7.535	7.542	7.549	7.556	7.562	7.569	7.576	7.583	7.589	7.596
1420	7.596	7.603	7.610	7.616	7.623	7.630	7.637	7.644	7.650	7.657	7.664
1430	7.664	7.671	7.677	7.684	7.691	7.698	7.705	7.711	7.718	7.725	7.732
1440	7.732	7.739	7.745	7.752	7.759	7.766	7.772	7.779	7.786	7.793	7.800
1450	7.800	7.807	7.813	7.820	7.827	7.834	7.841	7.847	7.854	7.861	7.868
1460	7.868	7.875	7.882	7.888	7.895	7.902	7.909	7.916	7.922	7.929	7.936
1470	7.936	7.943	7.950	7.957	7.964	7.970	7.977	7.984	7.991	7.998	8.005
1480	8.005	8.011	8.018	8.025	8.032	8.039	8.046	8.053	8.059	8.066	8.073
1490	8.073	8.080	8.087	8.094	8.101	8.108	8.114	8.121	8.128	8.135	8.142
1500	8.142	8.149	8.156	8.163	8.169	8.176	8.183	8.190	8.197	8.204	8.211
1510	8.211	8.218	8.225	8.232	8.238	8.245	8.252	8.259	8.266	8.273	8.280
1520	8.280	8.287	8.294	8.301	8.308	8.314	8.321	8.328	8.335	8.342	8.349
1530	8.349	8.356	8.363	8.370	8.377	8.384	8.391	8.398	8.405	8.411	8.418
1540	8.418	8.425	8.432	8.439	8.446	8.453	8.460	8.467	8.474	8.481	8.488
1550	8.488	8.495	8.502	8.509	8.516	8.523	8.530	8.537	8.544	8.551	8.557
1560	8.557	8.564	8.571	8.578	8.585	8.592	8.599	8.606	8.613	8.620	8.627
1570	8.627	8.634	8.641	8.648	8.655	8.662	8.669	8.676	8.683	8.690	8.697
1580	8.697	8.704	8.711	8.718	8.725	8.732	8.739	8.746	8.753	8.760	8.767
1590	8.767	8.774	8.781	8.788	8.795	8.802	8.809	8.816	8.823	8.830	8.837
1600	8.837	8.844	8.852	8.859	8.866	8.873	8.880	8.887	8.894	8.901	8.908
1610	8.908	8.915	8.922	8.929	8.936	8.943	8.950	8.957	8.964	8.971	8.978
1620	8.978	8.985	8.992	8.999	9.007	9.014	9.021	9.028	9.035	9.042	9.049
1630	9.049	9.056	9.063	9.070	9.077	9.084	9.091	9.098	9.106	9.113	9.120
1640	9.120	9.127	9.134	9.141	9.148	9.155	9.162	9.169	9.176	9.184	9.191
1650	9.191	9.198	9.205	9.212	9.219	9.226	9.233	9.240	9.248	9.255	9.262
1660	9.262	9.269	9.276	9.283	9.290	9.297	9.304	9.312	9.319	9.326	9.333
1670	9.333	9.340	9.347	9.354	9.361	9.369	9.376	9.383	9.390	9.397	9.404
1680	9.404	9.411	9.419	9.426	9.433	9.440	9.447	9.454	9.461	9.469	9.476
1690	9.476	9.483	9.490	9.497	9.504	9.512	9.519	9.526	9.533	9.540	9.547
1700	9.547	9.555	9.562	9.569	9.576	9.583	9.590	9.598	9.605	9.612	9.619
1710	9.619	9.626	9.634	9.641	9.648	9.655	9.662	9.670	9.677	9.684	9.691
1720	9.691	9.698	9.706	9.713	9.720	9.727	9.734	9.742	9.749	9.756	9.763
1730	9.763	9.770	9.778	9.785	9.792	9.799	9.806	9.814	9.821	9.828	9.835
1740	9.835	9.843	9.850	9.857	9.864	9.872	9.879	9.886	9.893	9.900	9.908
1750	9.908	9.915	9.922	9.929	9.937	9.944	9.951	9.958	9.966	9.973	9.980
1760	9.980	9.987	9.995	10.002	10.009	10.016	10.024	10.031	10.038	10.046	10.053
1770	10.053	10.060	10.067	10.075	10.082	10.089	10.096	10.104	10.111	10.118	10.126
1780	10.126	10.133	10.140	10.147	10.155	10.162	10.169	10.177	10.184	10.191	10.198
1790	10.198	10.206	10.213	10.220	10.228	10.235	10.242	10.250	10.257	10.264	10.271
1800	10.271	10.279	10.286	10.293	10.301	10.308	10.315	10.323	10.330	10.337	10.345
1810	10.345	10.352	10.359	10.367	10.374	10.381	10.389	10.396	10.403	10.411	10.418
1820	10.418	10.425	10.433	10.440	10.447	10.455	10.462	10.469	10.477	10.484	10.491
1830	10.491	10.499	10.506	10.513	10.521	10.528	10.535	10.543	10.550	10.557	10.565
1840	10.565	10.572	10.580	10.587	10.594	10.602	10.609	10.616	10.624	10.631	10.638
1850	10.638	10.646	10.653	10.661	10.668	10.675	10.683	10.690	10.698	10.705	10.712
1860	10.712	10.720	10.727	10.734	10.742	10.749	10.757	10.764	10.771	10.779	10.786
1870	10.786	10.794	10.801	10.808	10.816	10.823	10.831	10.838	10.845	10.853	10.860
1880	10.860	10.868	10.875	10.883	10.890	10.897	10.905	10.912	10.920	10.927	10.934
1890	10.934	10.942	10.949	10.957	10.964	10.972	10.979	10.986	10.994	11.001	11.009
ºF	0	1	2	3	4	5	6	7	8	9	10

Type R Platinum vs. Platinum-13% Rodium ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
1900	11.009	11.016	11.024	11.031	11.039	11.046	11.053	11.061	11.068	11.076	11.083
1910	11.083	11.091	11.098	11.106	11.113	11.121	11.128	11.135	11.143	11.150	11.158
1920	11.158	11.165	11.173	11.180	11.188	11.195	11.203	11.210	11.218	11.225	11.233
1930	11.233	11.240	11.247	11.255	11.262	11.270	11.277	11.285	11.292	11.300	11.307
1940	11.307	11.315	11.322	11.330	11.337	11.345	11.352	11.360	11.367	11.375	11.382
1950	11.382	11.390	11.397	11.405	11.412	11.420	11.427	11.435	11.442	11.450	11.457
1960	11.457	11.465	11.472	11.480	11.487	11.495	11.502	11.510	11.518	11.525	11.533
1970	11.533	11.540	11.548	11.555	11.563	11.570	11.578	11.585	11.593	11.600	11.608
1980	11.608	11.615	11.623	11.631	11.638	11.646	11.653	11.661	11.668	11.676	11.683
1990	11.683	11.691	11.698	11.706	11.714	11.721	11.729	11.736	11.744	11.751	11.759
2000	11.759	11.766	11.774	11.782	11.789	11.797	11.804	11.812	11.819	11.827	11.834
2010	11.834	11.842	11.850	11.857	11.865	11.872	11.880	11.888	11.895	11.903	11.910
2020	11.910	11.918	11.925	11.933	11.941	11.948	11.956	11.963	11.971	11.979	11.986
2030	11.986	11.994	12.001	12.009	12.016	12.024	12.032	12.039	12.047	12.054	12.062
2040	12.062	12.070	12.077	12.085	12.092	12.100	12.108	12.115	12.123	12.131	12.138
2050	12.138	12.146	12.153	12.161	12.169	12.176	12.184	12.191	12.199	12.207	12.214
2060	12.214	12.222	12.230	12.237	12.245	12.252	12.260	12.268	12.275	12.283	12.291
2070	12.291	12.298	12.306	12.313	12.321	12.329	12.336	12.344	12.352	12.359	12.367
2080	12.367	12.375	12.382	12.390	12.397	12.405	12.413	12.420	12.428	12.436	12.443
2090	12.443	12.451	12.459	12.466	12.474	12.482	12.489	12.497	12.505	12.512	12.520
2100	12.520	12.528	12.535	12.543	12.551	12.558	12.566	12.574	12.581	12.589	12.597
2110	12.597	12.604	12.612	12.620	12.627	12.635	12.643	12.650	12.658	12.666	12.673
2120	12.673	12.681	12.689	12.696	12.704	12.712	12.719	12.727	12.735	12.742	12.750
2130	12.750	12.758	12.765	12.773	12.781	12.788	12.796	12.804	12.812	12.819	12.827
2140	12.827	12.835	12.842	12.850	12.858	12.865	12.873	12.881	12.889	12.896	12.904
2150	12.904	12.912	12.919	12.927	12.935	12.942	12.950	12.958	12.966	12.973	12.981
2160	12.981	12.989	12.996	13.004	13.012	13.019	13.027	13.035	13.043	13.050	13.058
2170	13.058	13.066	13.073	13.081	13.089	13.097	13.104	13.112	13.120	13.128	13.135
2180	13.135	13.143	13.151	13.158	13.166	13.174	13.182	13.189	13.197	13.205	13.213
2190	13.213	13.220	13.228	13.236	13.243	13.251	13.259	13.267	13.274	13.282	13.290
2200	13.290	13.298	13.305	13.313	13.321	13.329	13.336	13.344	13.352	13.359	13.367
2210	13.367	13.375	13.383	13.390	13.398	13.406	13.414	13.421	13.429	13.437	13.445
2220	13.445	13.452	13.460	13.468	13.476	13.483	13.491	13.499	13.507	13.514	13.522
2230	13.522	13.530	13.538	13.545	13.553	13.561	13.569	13.577	13.584	13.592	13.600
2240	13.600	13.608	13.615	13.623	13.631	13.639	13.646	13.654	13.662	13.670	13.677
2250	13.677	13.685	13.693	13.701	13.709	13.716	13.724	13.732	13.740	13.747	13.755
2260	13.755	13.763	13.771	13.778	13.786	13.794	13.802	13.810	13.817	13.825	13.833
2270	13.833	13.841	13.848	13.856	13.864	13.872	13.880	13.887	13.895	13.903	13.911
2280	13.911	13.919	13.926	13.934	13.942	13.950	13.957	13.965	13.973	13.981	13.989
2290	13.989	13.996	14.004	14.012	14.020	14.028	14.035	14.043	14.051	14.059	14.066
2300	14.066	14.074	14.082	14.090	14.098	14.105	14.113	14.121	14.129	14.137	14.144
2310	14.144	14.152	14.160	14.168	14.176	14.183	14.191	14.199	14.207	14.215	14.222
2320	14.222	14.230	14.238	14.246	14.254	14.261	14.269	14.277	14.285	14.293	14.300
2330	14.300	14.308	14.316	14.324	14.332	14.340	14.347	14.355	14.363	14.371	14.379
2340	14.379	14.386	14.394	14.402	14.410	14.418	14.425	14.433	14.441	14.449	14.457
2350	14.457	14.465	14.472	14.480	14.488	14.496	14.504	14.511	14.519	14.527	14.535
2360	14.535	14.543	14.551	14.558	14.566	14.574	14.582	14.590	14.597	14.605	14.613
2370	14.613	14.621	14.629	14.637	14.644	14.652	14.660	14.668	14.676	14.683	14.691
2380	14.691	14.699	14.707	14.715	14.723	14.730	14.738	14.746	14.754	14.762	14.770
2390	14.770	14.777	14.785	14.793	14.801	14.809	14.817	14.824	14.832	14.840	14.848
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
2400	14.848	14.856	14.864	14.871	14.879	14.887	14.895	14.903	14.911	14.918	14.926
2410	14.926	14.934	14.942	14.950	14.958	14.965	14.973	14.981	14.989	14.997	15.005
2420	15.005	15.012	15.020	15.028	15.036	15.044	15.052	15.059	15.067	15.075	15.083
2430	15.083	15.091	15.099	15.106	15.114	15.122	15.130	15.138	15.146	15.153	15.161
2440	15.161	15.169	15.177	15.185	15.193	15.200	15.208	15.216	15.224	15.232	15.240
2450	15.240	15.248	15.255	15.263	15.271	15.279	15.287	15.295	15.302	15.310	15.318
2460	15.318	15.326	15.334	15.342	15.349	15.357	15.365	15.373	15.381	15.389	15.397
2470	15.397	15.404	15.412	15.420	15.428	15.436	15.444	15.451	15.459	15.467	15.475
2480	15.475	15.483	15.491	15.499	15.506	15.514	15.522	15.530	15.538	15.546	15.553
2490	15.553	15.561	15.569	15.577	15.585	15.593	15.601	15.608	15.616	15.624	15.632
2500	15.632	15.640	15.648	15.655	15.663	15.671	15.679	15.687	15.695	15.703	15.710
2510	15.710	15.718	15.726	15.734	15.742	15.750	15.758	15.765	15.773	15.781	15.789
2520	15.789	15.797	15.805	15.812	15.820	15.828	15.836	15.844	15.852	15.860	15.867
2530	15.867	15.875	15.883	15.891	15.899	15.907	15.915	15.922	15.930	15.938	15.946
2540	15.946	15.954	15.962	15.969	15.977	15.985	15.993	16.001	16.009	16.017	16.024
2550	16.024	16.032	16.040	16.048	16.056	16.064	16.071	16.079	16.087	16.095	16.103
2560	16.103	16.111	16.119	16.126	16.134	16.142	16.150	16.158	16.166	16.174	16.181
2570	16.181	16.189	16.197	16.205	16.213	16.221	16.228	16.236	16.244	16.252	16.260
2580	16.260	16.268	16.276	16.283	16.291	16.299	16.307	16.315	16.323	16.330	16.338
2590	16.338	16.346	16.354	16.362	16.370	16.378	16.385	16.393	16.401	16.409	16.417
2600	16.417	16.425	16.432	16.440	16.448	16.456	16.464	16.472	16.480	16.487	16.495
2610	16.495	16.503	16.511	16.519	16.527	16.534	16.542	16.550	16.558	16.566	16.574
2620	16.574	16.582	16.589	16.597	16.605	16.613	16.621	16.629	16.636	16.644	16.652
2630	16.652	16.660	16.668	16.676	16.683	16.691	16.699	16.707	16.715	16.723	16.731
2640	16.731	16.738	16.746	16.754	16.762	16.770	16.778	16.785	16.793	16.801	16.809
2650	16.809	16.817	16.825	16.832	16.840	16.848	16.856	16.864	16.872	16.879	16.887
2660	16.887	16.895	16.903	16.911	16.919	16.926	16.934	16.942	16.950	16.958	16.966
2670	16.966	16.973	16.981	16.989	16.997	17.005	17.013	17.020	17.028	17.036	17.044
2680	17.044	17.052	17.060	17.067	17.075	17.083	17.091	17.099	17.107	17.114	17.122
2690	17.122	17.130	17.138	17.146	17.154	17.161	17.169	17.177	17.185	17.193	17.200
2700	17.200	17.208	17.216	17.224	17.232	17.240	17.247	17.255	17.263	17.271	17.279
2710	17.279	17.286	17.294	17.302	17.310	17.318	17.326	17.333	17.341	17.349	17.357
2720	17.357	17.365	17.373	17.380	17.388	17.396	17.404	17.412	17.419	17.427	17.435
2730	17.435	17.443	17.451	17.458	17.466	17.474	17.482	17.490	17.498	17.505	17.513
2740	17.513	17.521	17.529	17.537	17.544	17.552	17.560	17.568	17.576	17.583	17.591
2750	17.591	17.599	17.607	17.615	17.622	17.630	17.638	17.646	17.654	17.661	17.669
2760	17.669	17.677	17.685	17.693	17.700	17.708	17.716	17.724	17.732	17.739	17.747
2770	17.747	17.755	17.763	17.771	17.778	17.786	17.794	17.802	17.810	17.817	17.825
2780	17.825	17.833	17.841	17.849	17.856	17.864	17.872	17.880	17.888	17.895	17.903
2790	17.903	17.911	17.919	17.926	17.934	17.942	17.950	17.958	17.965	17.973	17.981
2800	17.981	17.989	17.997	18.004	18.012	18.020	18.028	18.035	18.043	18.051	18.059
2810	18.059	18.067	18.074	18.082	18.090	18.098	18.105	18.113	18.121	18.129	18.137
2820	18.137	18.144	18.152	18.160	18.168	18.175	18.183	18.191	18.199	18.206	18.214
2830	18.214	18.222	18.230	18.238	18.245	18.253	18.261	18.269	18.276	18.284	18.292
2840	18.292	18.300	18.307	18.315	18.323	18.331	18.338	18.346	18.354	18.362	18.369
2850	18.369	18.377	18.385	18.393	18.400	18.408	18.416	18.424	18.431	18.439	18.447
2860	18.447	18.455	18.462	18.470	18.478	18.486	18.493	18.501	18.509	18.517	18.524
2870	18.524	18.532	18.540	18.548	18.555	18.563	18.571	18.579	18.586	18.594	18.602
2880	18.602	18.610	18.617	18.625	18.633	18.640	18.648	18.656	18.664	18.671	18.679
2890	18.679	18.687	18.695	18.702	18.710	18.718	18.725	18.733	18.741	18.749	18.756
ºF	0	1	2	3	4	5	6	7	8	9	10

Type R Platinum vs. Platinum-13% Rodium ITS-90 °F

°F	0	1	2	3	4	5	6	7	8	9	10
2900	18.756	18.764	18.772	18.779	18.787	18.795	18.803	18.810	18.818	18.826	18.834
2910	18.834	18.841	18.849	18.857	18.864	18.872	18.880	18.887	18.895	18.903	18.911
2920	18.911	18.918	18.926	18.934	18.941	18.949	18.957	18.965	18.972	18.980	18.988
2930	18.988	18.995	19.003	19.011	19.018	19.026	19.034	19.042	19.049	19.057	19.065
2940	19.065	19.072	19.080	19.088	19.095	19.103	19.111	19.118	19.126	19.134	19.141
2950	19.141	19.149	19.157	19.165	19.172	19.180	19.188	19.195	19.203	19.211	19.218
2960	19.218	19.226	19.234	19.241	19.249	19.257	19.264	19.272	19.280	19.287	19.295
2970	19.295	19.303	19.310	19.318	19.326	19.333	19.341	19.349	19.356	19.364	19.372
2980	19.372	19.379	19.387	19.395	19.402	19.410	19.418	19.425	19.433	19.440	19.448
2990	19.448	19.456	19.463	19.471	19.479	19.486	19.494	19.502	19.509	19.517	19.525
3000	19.525	19.532	19.540	19.547	19.555	19.563	19.570	19.578	19.586	19.593	19.601
3010	19.601	19.609	19.616	19.624	19.631	19.639	19.647	19.654	19.662	19.670	19.677
3020	19.677	19.685	19.692	19.700	19.708	19.715	19.723	19.730	19.738	19.746	19.753
3030	19.753	19.761	19.769	19.776	19.784	19.791	19.799	19.807	19.814	19.822	19.829
3040	19.829	19.837	19.845	19.852	19.860	19.867	19.875	19.882	19.890	19.898	19.905
3050	19.905	19.913	19.920	19.928	19.936	19.943	19.951	19.958	19.966	19.973	19.981
3060	19.981	19.989	19.996	20.004	20.011	20.019	20.026	20.034	20.041	20.049	20.056
3070	20.056	20.064	20.072	20.079	20.087	20.094	20.102	20.109	20.117	20.124	20.132
3080	20.132	20.139	20.147	20.154	20.162	20.169	20.177	20.184	20.192	20.199	20.207
3090	20.207	20.214	20.222	20.229	20.237	20.244	20.252	20.259	20.266	20.274	20.281
3100	20.281	20.289	20.296	20.304	20.311	20.319	20.326	20.333	20.341	20.348	20.356
3110	20.356	20.363	20.371	20.378	20.385	20.393	20.400	20.407	20.415	20.422	20.430
3120	20.430	20.437	20.444	20.452	20.459	20.466	20.474	20.481	20.488	20.496	20.503
3130	20.503	20.510	20.518	20.525	20.532	20.540	20.547	20.554	20.562	20.569	20.576
3140	20.576	20.583	20.591	20.598	20.605	20.612	20.620	20.627	20.634	20.641	20.649
3150	20.649	20.656	20.663	20.670	20.678	20.685	20.692	20.699	20.706	20.714	20.721
3160	20.721	20.728	20.735	20.742	20.749	20.756	20.764	20.771	20.778	20.785	20.792
3170	20.792	20.799	20.806	20.813	20.821	20.828	20.835	20.842	20.849	20.856	20.863
3180	20.863	20.870	20.877	20.884	20.891	20.898	20.905	20.912	20.919	20.926	20.933
3190	20.933	20.940	20.947	20.954	20.961	20.968	20.975	20.982	20.989	20.996	21.003
3200	21.003	21.010	21.016	21.023	21.030	21.037	21.044	21.051	21.058	21.065	21.071
3210	21.071	21.078	21.085	21.092	21.099						

°F	0	1	2	3	4	5	6	7	8	9	10

°F	0	1	2	3	4	5	6	7	8	9	10

°F	0	1	2	3	4	5	6	7	8	9	10

Type S Platinum vs. Platinum-10% Rhodium ITS-90 ºF

ºF	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
-50	-0.218	-0.220	-0.222	-0.224	-0.227	-0.229	-0.231	-0.233	-0.236		
-40	-0.194	-0.197	-0.199	-0.201	-0.204	-0.206	-0.208	-0.211	-0.213	-0.215	-0.218
-30	-0.170	-0.173	-0.175	-0.178	-0.180	-0.182	-0.185	-0.187	-0.190	-0.192	-0.194
-20	-0.145	-0.148	-0.150	-0.153	-0.155	-0.158	-0.160	-0.163	-0.165	-0.168	-0.170
-10	-0.119	-0.122	-0.124	-0.127	-0.129	-0.132	-0.135	-0.137	-0.140	-0.142	-0.145
0	-0.092	-0.095	-0.097	-0.100	-0.103	-0.106	-0.108	-0.111	-0.114	-0.116	-0.119
ºF	**-0**	**-1**	**-2**	**-3**	**-4**	**-5**	**-6**	**-7**	**-8**	**-9**	**-10**

ºF	0	1	2	3	4	5	6	7	8	9	10
0	-0.092	-0.089	-0.086	-0.084	-0.081	-0.078	-0.075	-0.073	-0.070	-0.067	-0.064
10	-0.064	-0.061	-0.058	-0.056	-0.053	-0.050	-0.047	-0.044	-0.041	-0.038	-0.035
20	-0.035	-0.033	-0.030	-0.027	-0.024	-0.021	-0.018	-0.015	-0.012	-0.009	-0.006
30	-0.006	-0.003	0.000	0.003	0.006	0.009	0.012	0.015	0.018	0.021	0.024
40	0.024	0.027	0.030	0.033	0.037	0.040	0.043	0.046	0.049	0.052	0.055
50	0.055	0.058	0.062	0.065	0.068	0.071	0.074	0.077	0.081	0.084	0.087
60	0.087	0.090	0.093	0.097	0.100	0.103	0.106	0.110	0.113	0.116	0.119
70	0.119	0.123	0.126	0.129	0.133	0.136	0.139	0.143	0.146	0.149	0.153
80	0.153	0.156	0.159	0.163	0.166	0.169	0.173	0.176	0.180	0.183	0.186
90	0.186	0.190	0.193	0.197	0.200	0.204	0.207	0.210	0.214	0.217	0.221
100	0.221	0.224	0.228	0.231	0.235	0.238	0.242	0.245	0.249	0.252	0.256
110	0.256	0.260	0.263	0.267	0.270	0.274	0.277	0.281	0.285	0.288	0.292
120	0.292	0.295	0.299	0.303	0.306	0.310	0.313	0.317	0.321	0.324	0.328
130	0.328	0.332	0.335	0.339	0.343	0.346	0.350	0.354	0.357	0.361	0.365
140	0.365	0.369	0.372	0.376	0.380	0.384	0.387	0.391	0.395	0.399	0.402
150	0.402	0.406	0.410	0.414	0.417	0.421	0.425	0.429	0.433	0.436	0.440
160	0.440	0.444	0.448	0.452	0.456	0.459	0.463	0.467	0.471	0.475	0.479
170	0.479	0.483	0.487	0.490	0.494	0.498	0.502	0.506	0.510	0.514	0.518
180	0.518	0.522	0.526	0.530	0.534	0.538	0.541	0.545	0.549	0.553	0.557
190	0.557	0.561	0.565	0.569	0.573	0.577	0.581	0.585	0.589	0.593	0.597
200	0.597	0.601	0.605	0.609	0.613	0.617	0.622	0.626	0.630	0.634	0.638
210	0.638	0.642	0.646	0.650	0.654	0.658	0.662	0.666	0.670	0.675	0.679
220	0.679	0.683	0.687	0.691	0.695	0.699	0.703	0.708	0.712	0.716	0.720
230	0.720	0.724	0.728	0.732	0.737	0.741	0.745	0.749	0.753	0.758	0.762
240	0.762	0.766	0.770	0.774	0.779	0.783	0.787	0.791	0.795	0.800	0.804
250	0.804	0.808	0.812	0.817	0.821	0.825	0.829	0.834	0.838	0.842	0.847
260	0.847	0.851	0.855	0.859	0.864	0.868	0.872	0.877	0.881	0.885	0.889
270	0.889	0.894	0.898	0.902	0.907	0.911	0.915	0.920	0.924	0.928	0.933
280	0.933	0.937	0.942	0.946	0.950	0.955	0.959	0.963	0.968	0.972	0.977
290	0.977	0.981	0.985	0.990	0.994	0.998	1.003	1.007	1.012	1.016	1.021
300	1.021	1.025	1.029	1.034	1.038	1.043	1.047	1.052	1.056	1.061	1.065
310	1.065	1.069	1.074	1.078	1.083	1.087	1.092	1.096	1.101	1.105	1.110
320	1.110	1.114	1.119	1.123	1.128	1.132	1.137	1.141	1.146	1.150	1.155
330	1.155	1.159	1.164	1.168	1.173	1.177	1.182	1.186	1.191	1.196	1.200
340	1.200	1.205	1.209	1.214	1.218	1.223	1.227	1.232	1.237	1.241	1.246
350	1.246	1.250	1.255	1.260	1.264	1.269	1.273	1.278	1.283	1.287	1.292
360	1.292	1.296	1.301	1.306	1.310	1.315	1.319	1.324	1.329	1.333	1.338
370	1.338	1.343	1.347	1.352	1.357	1.361	1.366	1.371	1.375	1.380	1.385
380	1.385	1.389	1.394	1.399	1.403	1.408	1.413	1.417	1.422	1.427	1.431
390	1.431	1.436	1.441	1.445	1.450	1.455	1.460	1.464	1.469	1.474	1.478
ºF	**-0**	**-1**	**-2**	**-3**	**-4**	**-5**	**-6**	**-7**	**-8**	**-9**	**-10**

ºF	0	1	2	3	4	5	6	7	8	9	10
400	1.478	1.483	1.488	1.493	1.497	1.502	1.507	1.512	1.516	1.521	1.526
410	1.526	1.531	1.535	1.540	1.545	1.550	1.554	1.559	1.564	1.569	1.573
420	1.573	1.578	1.583	1.588	1.592	1.597	1.602	1.607	1.612	1.616	1.621
430	1.621	1.626	1.631	1.636	1.640	1.645	1.650	1.655	1.660	1.664	1.669
440	1.669	1.674	1.679	1.684	1.689	1.693	1.698	1.703	1.708	1.713	1.718
450	1.718	1.722	1.727	1.732	1.737	1.742	1.747	1.752	1.756	1.761	1.766
460	1.766	1.771	1.776	1.781	1.786	1.790	1.795	1.800	1.805	1.810	1.815
470	1.815	1.820	1.825	1.829	1.834	1.839	1.844	1.849	1.854	1.859	1.864
480	1.864	1.869	1.874	1.878	1.883	1.888	1.893	1.898	1.903	1.908	1.913
490	1.913	1.918	1.923	1.928	1.933	1.938	1.942	1.947	1.952	1.957	1.962
500	1.962	1.967	1.972	1.977	1.982	1.987	1.992	1.997	2.002	2.007	2.012
510	2.012	2.017	2.022	2.027	2.032	2.037	2.042	2.047	2.052	2.057	2.062
520	2.062	2.067	2.072	2.076	2.081	2.086	2.091	2.096	2.101	2.106	2.111
530	2.111	2.116	2.121	2.126	2.131	2.136	2.141	2.147	2.152	2.157	2.162
540	2.162	2.167	2.172	2.177	2.182	2.187	2.192	2.197	2.202	2.207	2.212
550	2.212	2.217	2.222	2.227	2.232	2.237	2.242	2.247	2.252	2.257	2.262
560	2.262	2.267	2.272	2.277	2.283	2.288	2.293	2.298	2.303	2.308	2.313
570	2.313	2.318	2.323	2.328	2.333	2.338	2.343	2.348	2.354	2.359	2.364
580	2.364	2.369	2.374	2.379	2.384	2.389	2.394	2.399	2.404	2.410	2.415
590	2.415	2.420	2.425	2.430	2.435	2.440	2.445	2.450	2.455	2.461	2.466
600	2.466	2.471	2.476	2.481	2.486	2.491	2.496	2.502	2.507	2.512	2.517
610	2.517	2.522	2.527	2.532	2.537	2.543	2.548	2.553	2.558	2.563	2.568
620	2.568	2.574	2.579	2.584	2.589	2.594	2.599	2.604	2.610	2.615	2.620
630	2.620	2.625	2.630	2.635	2.641	2.646	2.651	2.656	2.661	2.666	2.672
640	2.672	2.677	2.682	2.687	2.692	2.697	2.703	2.708	2.713	2.718	2.723
650	2.723	2.729	2.734	2.739	2.744	2.749	2.755	2.760	2.765	2.770	2.775
660	2.775	2.781	2.786	2.791	2.796	2.801	2.807	2.812	2.817	2.822	2.827
670	2.827	2.833	2.838	2.843	2.848	2.854	2.859	2.864	2.869	2.874	2.880
680	2.880	2.885	2.890	2.895	2.901	2.906	2.911	2.916	2.922	2.927	2.932
690	2.932	2.937	2.943	2.948	2.953	2.958	2.964	2.969	2.974	2.979	2.985
700	2.985	2.990	2.995	3.000	3.006	3.011	3.016	3.021	3.027	3.032	3.037
710	3.037	3.042	3.048	3.053	3.058	3.063	3.069	3.074	3.079	3.085	3.090
720	3.090	3.095	3.100	3.106	3.111	3.116	3.122	3.127	3.132	3.137	3.143
730	3.143	3.148	3.153	3.159	3.164	3.169	3.174	3.180	3.185	3.190	3.196
740	3.196	3.201	3.206	3.212	3.217	3.222	3.227	3.233	3.238	3.243	3.249
750	3.249	3.254	3.259	3.265	3.270	3.275	3.281	3.286	3.291	3.297	3.302
760	3.302	3.307	3.313	3.318	3.323	3.329	3.334	3.339	3.345	3.350	3.355
770	3.355	3.361	3.366	3.371	3.377	3.382	3.387	3.393	3.398	3.403	3.409
780	3.409	3.414	3.419	3.425	3.430	3.435	3.441	3.446	3.451	3.457	3.462
790	3.462	3.468	3.473	3.478	3.484	3.489	3.494	3.500	3.505	3.510	3.516
800	3.516	3.521	3.527	3.532	3.537	3.543	3.548	3.553	3.559	3.564	3.570
810	3.570	3.575	3.580	3.586	3.591	3.596	3.602	3.607	3.613	3.618	3.623
820	3.623	3.629	3.634	3.640	3.645	3.650	3.656	3.661	3.667	3.672	3.677
830	3.677	3.683	3.688	3.694	3.699	3.704	3.710	3.715	3.721	3.726	3.731
840	3.731	3.737	3.742	3.748	3.753	3.758	3.764	3.769	3.775	3.780	3.786
850	3.786	3.791	3.796	3.802	3.807	3.813	3.818	3.823	3.829	3.834	3.840
860	3.840	3.845	3.851	3.856	3.862	3.867	3.872	3.878	3.883	3.889	3.894
870	3.894	3.900	3.905	3.910	3.916	3.921	3.927	3.932	3.938	3.943	3.949
880	3.949	3.954	3.959	3.965	3.970	3.976	3.981	3.987	3.992	3.998	4.003
890	4.003	4.009	4.014	4.020	4.025	4.030	4.036	4.041	4.047	4.052	4.058
ºF	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

Type S Platinum vs. Platinum-10% Rhodium ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
900	4.058	4.063	4.069	4.074	4.080	4.085	4.091	4.096	4.102	4.107	4.113
910	4.113	4.118	4.123	4.129	4.134	4.140	4.145	4.151	4.156	4.162	4.167
920	4.167	4.173	4.178	4.184	4.189	4.195	4.200	4.206	4.211	4.217	4.222
930	4.222	4.228	4.233	4.239	4.244	4.250	4.255	4.261	4.266	4.272	4.277
940	4.277	4.283	4.288	4.294	4.299	4.305	4.310	4.316	4.321	4.327	4.332
950	4.332	4.338	4.343	4.349	4.355	4.360	4.366	4.371	4.377	4.382	4.388
960	4.388	4.393	4.399	4.404	4.410	4.415	4.421	4.426	4.432	4.437	4.443
970	4.443	4.449	4.454	4.460	4.465	4.471	4.476	4.482	4.487	4.493	4.498
980	4.498	4.504	4.510	4.515	4.521	4.526	4.532	4.537	4.543	4.548	4.554
990	4.554	4.559	4.565	4.571	4.576	4.582	4.587	4.593	4.598	4.604	4.610
1000	4.610	4.615	4.621	4.626	4.632	4.637	4.643	4.648	4.654	4.660	4.665
1010	4.665	4.671	4.676	4.682	4.688	4.693	4.699	4.704	4.710	4.715	4.721
1020	4.721	4.727	4.732	4.738	4.743	4.749	4.755	4.760	4.766	4.771	4.777
1030	4.777	4.782	4.788	4.794	4.799	4.805	4.810	4.816	4.822	4.827	4.833
1040	4.833	4.838	4.844	4.850	4.855	4.861	4.866	4.872	4.878	4.883	4.889
1050	4.889	4.895	4.900	4.906	4.911	4.917	4.923	4.928	4.934	4.939	4.945
1060	4.945	4.951	4.956	4.962	4.968	4.973	4.979	4.984	4.990	4.996	5.001
1070	5.001	5.007	5.013	5.018	5.024	5.030	5.035	5.041	5.046	5.052	5.058
1080	5.058	5.063	5.069	5.075	5.080	5.086	5.092	5.097	5.103	5.109	5.114
1090	5.114	5.120	5.125	5.131	5.137	5.142	5.148	5.154	5.159	5.165	5.171
1100	5.171	5.176	5.182	5.188	5.193	5.199	5.205	5.210	5.216	5.222	5.227
1110	5.227	5.233	5.239	5.244	5.250	5.256	5.261	5.267	5.273	5.278	5.284
1120	5.284	5.290	5.295	5.301	5.307	5.312	5.318	5.324	5.330	5.335	5.341
1130	5.341	5.347	5.352	5.358	5.364	5.369	5.375	5.381	5.386	5.392	5.398
1140	5.398	5.404	5.409	5.415	5.421	5.426	5.432	5.438	5.443	5.449	5.455
1150	5.455	5.461	5.466	5.472	5.478	5.483	5.489	5.495	5.501	5.506	5.512
1160	5.512	5.518	5.523	5.529	5.535	5.541	5.546	5.552	5.558	5.563	5.569
1170	5.569	5.575	5.581	5.586	5.592	5.598	5.604	5.609	5.615	5.621	5.627
1180	5.627	5.632	5.638	5.644	5.649	5.655	5.661	5.667	5.672	5.678	5.684
1190	5.684	5.690	5.695	5.701	5.707	5.713	5.718	5.724	5.730	5.736	5.741
1200	5.741	5.747	5.753	5.759	5.764	5.770	5.776	5.782	5.788	5.793	5.799
1210	5.799	5.805	5.811	5.816	5.822	5.828	5.834	5.839	5.845	5.851	5.857
1220	5.857	5.863	5.868	5.874	5.880	5.886	5.891	5.897	5.903	5.909	5.915
1230	5.915	5.920	5.926	5.932	5.938	5.944	5.949	5.955	5.961	5.967	5.972
1240	5.972	5.978	5.984	5.990	5.996	6.001	6.007	6.013	6.019	6.025	6.030
1250	6.030	6.036	6.042	6.048	6.054	6.060	6.065	6.071	6.077	6.083	6.089
1260	6.089	6.094	6.100	6.106	6.112	6.118	6.124	6.129	6.135	6.141	6.147
1270	6.147	6.153	6.158	6.164	6.170	6.176	6.182	6.188	6.193	6.199	6.205
1280	6.205	6.211	6.217	6.223	6.228	6.234	6.240	6.246	6.252	6.258	6.264
1290	6.264	6.269	6.275	6.281	6.287	6.293	6.299	6.305	6.310	6.316	6.322
1300	6.322	6.328	6.334	6.340	6.346	6.351	6.357	6.363	6.369	6.375	6.381
1310	6.381	6.387	6.392	6.398	6.404	6.410	6.416	6.422	6.428	6.434	6.439
1320	6.439	6.445	6.451	6.457	6.463	6.469	6.475	6.481	6.486	6.492	6.498
1330	6.498	6.504	6.510	6.516	6.522	6.528	6.534	6.539	6.545	6.551	6.557
1340	6.557	6.563	6.569	6.575	6.581	6.587	6.593	6.598	6.604	6.610	6.616
1350	6.616	6.622	6.628	6.634	6.640	6.646	6.652	6.658	6.664	6.669	6.675
1360	6.675	6.681	6.687	6.693	6.699	6.705	6.711	6.717	6.723	6.729	6.735
1370	6.735	6.741	6.746	6.752	6.758	6.764	6.770	6.776	6.782	6.788	6.794
1380	6.794	6.800	6.806	6.812	6.818	6.824	6.830	6.836	6.842	6.847	6.853
1390	6.853	6.859	6.865	6.871	6.877	6.883	6.889	6.895	6.901	6.907	6.913
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
1400	6.913	6.919	6.925	6.931	6.937	6.943	6.949	6.955	6.961	6.967	6.973
1410	6.973	6.979	6.985	6.991	6.997	7.003	7.008	7.014	7.020	7.026	7.032
1420	7.032	7.038	7.044	7.050	7.056	7.062	7.068	7.074	7.080	7.086	7.092
1430	7.092	7.098	7.104	7.110	7.116	7.122	7.128	7.134	7.140	7.146	7.152
1440	7.152	7.158	7.164	7.170	7.176	7.182	7.188	7.194	7.200	7.206	7.212
1450	7.212	7.218	7.224	7.230	7.236	7.242	7.249	7.255	7.261	7.267	7.273
1460	7.273	7.279	7.285	7.291	7.297	7.303	7.309	7.315	7.321	7.327	7.333
1470	7.333	7.339	7.345	7.351	7.357	7.363	7.369	7.375	7.381	7.387	7.393
1480	7.393	7.399	7.405	7.411	7.418	7.424	7.430	7.436	7.442	7.448	7.454
1490	7.454	7.460	7.466	7.472	7.478	7.484	7.490	7.496	7.502	7.508	7.514
1500	7.514	7.521	7.527	7.533	7.539	7.545	7.551	7.557	7.563	7.569	7.575
1510	7.575	7.581	7.587	7.593	7.600	7.606	7.612	7.618	7.624	7.630	7.636
1520	7.636	7.642	7.648	7.654	7.660	7.667	7.673	7.679	7.685	7.691	7.697
1530	7.697	7.703	7.709	7.715	7.721	7.728	7.734	7.740	7.746	7.752	7.758
1540	7.758	7.764	7.770	7.776	7.783	7.789	7.795	7.801	7.807	7.813	7.819
1550	7.819	7.825	7.832	7.838	7.844	7.850	7.856	7.862	7.868	7.874	7.881
1560	7.881	7.887	7.893	7.899	7.905	7.911	7.917	7.923	7.930	7.936	7.942
1570	7.942	7.948	7.954	7.960	7.966	7.973	7.979	7.985	7.991	7.997	8.003
1580	8.003	8.010	8.016	8.022	8.028	8.034	8.040	8.047	8.053	8.059	8.065
1590	8.065	8.071	8.077	8.083	8.090	8.096	8.102	8.108	8.114	8.121	8.127
1600	8.127	8.133	8.139	8.145	8.151	8.158	8.164	8.170	8.176	8.182	8.189
1610	8.189	8.195	8.201	8.207	8.213	8.219	8.226	8.232	8.238	8.244	8.250
1620	8.250	8.257	8.263	8.269	8.275	8.281	8.288	8.294	8.300	8.306	8.312
1630	8.312	8.319	8.325	8.331	8.337	8.343	8.350	8.356	8.362	8.368	8.375
1640	8.375	8.381	8.387	8.393	8.399	8.406	8.412	8.418	8.424	8.431	8.437
1650	8.437	8.443	8.449	8.455	8.462	8.468	8.474	8.480	8.487	8.493	8.499
1660	8.499	8.505	8.512	8.518	8.524	8.530	8.537	8.543	8.549	8.555	8.562
1670	8.562	8.568	8.574	8.580	8.587	8.593	8.599	8.605	8.612	8.618	8.624
1680	8.624	8.630	8.637	8.643	8.649	8.655	8.662	8.668	8.674	8.680	8.687
1690	8.687	8.693	8.699	8.706	8.712	8.718	8.724	8.731	8.737	8.743	8.749
1700	8.749	8.756	8.762	8.768	8.775	8.781	8.787	8.793	8.800	8.806	8.812
1710	8.812	8.819	8.825	8.831	8.837	8.844	8.850	8.856	8.863	8.869	8.875
1720	8.875	8.882	8.888	8.894	8.900	8.907	8.913	8.919	8.926	8.932	8.938
1730	8.938	8.945	8.951	8.957	8.964	8.970	8.976	8.983	8.989	8.995	9.001
1740	9.001	9.008	9.014	9.020	9.027	9.033	9.039	9.046	9.052	9.058	9.065
1750	9.065	9.071	9.077	9.084	9.090	9.096	9.103	9.109	9.115	9.122	9.128
1760	9.128	9.134	9.141	9.147	9.153	9.160	9.166	9.172	9.179	9.185	9.192
1770	9.192	9.198	9.204	9.211	9.217	9.223	9.230	9.236	9.242	9.249	9.255
1780	9.255	9.261	9.268	9.274	9.281	9.287	9.293	9.300	9.306	9.312	9.319
1790	9.319	9.325	9.331	9.338	9.344	9.351	9.357	9.363	9.370	9.376	9.382
1800	9.382	9.389	9.395	9.402	9.408	9.414	9.421	9.427	9.434	9.440	9.446
1810	9.446	9.453	9.459	9.465	9.472	9.478	9.485	9.491	9.497	9.504	9.510
1820	9.510	9.517	9.523	9.529	9.536	9.542	9.549	9.555	9.561	9.568	9.574
1830	9.574	9.581	9.587	9.594	9.600	9.606	9.613	9.619	9.626	9.632	9.638
1840	9.638	9.645	9.651	9.658	9.664	9.671	9.677	9.683	9.690	9.696	9.703
1850	9.703	9.709	9.716	9.722	9.728	9.735	9.741	9.748	9.754	9.761	9.767
1860	9.767	9.773	9.780	9.786	9.793	9.799	9.806	9.812	9.819	9.825	9.831
1870	9.831	9.838	9.844	9.851	9.857	9.864	9.870	9.877	9.883	9.889	9.896
1880	9.896	9.902	9.909	9.915	9.922	9.928	9.935	9.941	9.948	9.954	9.961
1890	9.961	9.967	9.973	9.980	9.986	9.993	9.999	10.006	10.012	10.019	10.025
ºF	0	1	2	3	4	5	6	7	8	9	10

Type S Platinum vs. Platinum-10% Rhodium ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
1900	10.025	10.032	10.038	10.045	10.051	10.058	10.064	10.071	10.077	10.084	10.090
1910	10.090	10.097	10.103	10.110	10.116	10.123	10.129	10.136	10.142	10.149	10.155
1920	10.155	10.162	10.168	10.175	10.181	10.188	10.194	10.201	10.207	10.214	10.220
1930	10.220	10.227	10.233	10.240	10.246	10.253	10.259	10.266	10.272	10.279	10.285
1940	10.285	10.292	10.298	10.305	10.311	10.318	10.324	10.331	10.337	10.344	10.350
1950	10.350	10.357	10.363	10.370	10.376	10.383	10.390	10.396	10.403	10.409	10.416
1960	10.416	10.422	10.429	10.435	10.442	10.448	10.455	10.461	10.468	10.475	10.481
1970	10.481	10.488	10.494	10.501	10.507	10.514	10.520	10.527	10.533	10.540	10.547
1980	10.547	10.553	10.560	10.566	10.573	10.579	10.586	10.592	10.599	10.606	10.612
1990	10.612	10.619	10.625	10.632	10.638	10.645	10.651	10.658	10.665	10.671	10.678
2000	10.678	10.684	10.691	10.697	10.704	10.711	10.717	10.724	10.730	10.737	10.743
2010	10.743	10.750	10.757	10.763	10.770	10.776	10.783	10.789	10.796	10.803	10.809
2020	10.809	10.816	10.822	10.829	10.836	10.842	10.849	10.855	10.862	10.868	10.875
2030	10.875	10.882	10.888	10.895	10.901	10.908	10.915	10.921	10.928	10.934	10.941
2040	10.941	10.948	10.954	10.961	10.967	10.974	10.981	10.987	10.994	11.000	11.007
2050	11.007	11.014	11.020	11.027	11.033	11.040	11.047	11.053	11.060	11.066	11.073
2060	11.073	11.080	11.086	11.093	11.099	11.106	11.113	11.119	11.126	11.132	11.139
2070	11.139	11.146	11.152	11.159	11.166	11.172	11.179	11.185	11.192	11.199	11.205
2080	11.205	11.212	11.219	11.225	11.232	11.238	11.245	11.252	11.258	11.265	11.272
2090	11.272	11.278	11.285	11.291	11.298	11.305	11.311	11.318	11.325	11.331	11.338
2100	11.338	11.345	11.351	11.358	11.364	11.371	11.378	11.384	11.391	11.398	11.404
2110	11.404	11.411	11.418	11.424	11.431	11.437	11.444	11.451	11.457	11.464	11.471
2120	11.471	11.477	11.484	11.491	11.497	11.504	11.511	11.517	11.524	11.531	11.537
2130	11.537	11.544	11.550	11.557	11.564	11.570	11.577	11.584	11.590	11.597	11.604
2140	11.604	11.610	11.617	11.624	11.630	11.637	11.644	11.650	11.657	11.664	11.670
2150	11.670	11.677	11.684	11.690	11.697	11.704	11.710	11.717	11.724	11.730	11.737
2160	11.737	11.744	11.750	11.757	11.764	11.770	11.777	11.784	11.790	11.797	11.804
2170	11.804	11.810	11.817	11.824	11.830	11.837	11.844	11.850	11.857	11.864	11.870
2180	11.870	11.877	11.884	11.890	11.897	11.904	11.910	11.917	11.924	11.931	11.937
2190	11.937	11.944	11.951	11.957	11.964	11.971	11.977	11.984	11.991	11.997	12.004
2200	12.004	12.011	12.017	12.024	12.031	12.037	12.044	12.051	12.058	12.064	12.071
2210	12.071	12.078	12.084	12.091	12.098	12.104	12.111	12.118	12.124	12.131	12.138
2220	12.138	12.145	12.151	12.158	12.165	12.171	12.178	12.185	12.191	12.198	12.205
2230	12.205	12.211	12.218	12.225	12.232	12.238	12.245	12.252	12.258	12.265	12.272
2240	12.272	12.278	12.285	12.292	12.299	12.305	12.312	12.319	12.325	12.332	12.339
2250	12.339	12.346	12.352	12.359	12.366	12.372	12.379	12.386	12.392	12.399	12.406
2260	12.406	12.413	12.419	12.426	12.433	12.439	12.446	12.453	12.460	12.466	12.473
2270	12.473	12.480	12.486	12.493	12.500	12.507	12.513	12.520	12.527	12.533	12.540
2280	12.540	12.547	12.554	12.560	12.567	12.574	12.580	12.587	12.594	12.601	12.607
2290	12.607	12.614	12.621	12.627	12.634	12.641	12.648	12.654	12.661	12.668	12.675
2300	12.675	12.681	12.688	12.695	12.701	12.708	12.715	12.722	12.728	12.735	12.742
2310	12.742	12.748	12.755	12.762	12.769	12.775	12.782	12.789	12.796	12.802	12.809
2320	12.809	12.816	12.822	12.829	12.836	12.843	12.849	12.856	12.863	12.870	12.876
2330	12.876	12.883	12.890	12.896	12.903	12.910	12.917	12.923	12.930	12.937	12.944
2340	12.944	12.950	12.957	12.964	12.971	12.977	12.984	12.991	12.997	13.004	13.011
2350	13.011	13.018	13.024	13.031	13.038	13.045	13.051	13.058	13.065	13.072	13.078
2360	13.078	13.085	13.092	13.098	13.105	13.112	13.119	13.125	13.132	13.139	13.146
2370	13.146	13.152	13.159	13.166	13.173	13.179	13.186	13.193	13.199	13.206	13.213
2380	13.213	13.220	13.226	13.233	13.240	13.247	13.253	13.260	13.267	13.274	13.280
2390	13.280	13.287	13.294	13.301	13.307	13.314	13.321	13.328	13.334	13.341	13.348
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
2400	13.348	13.354	13.361	13.368	13.375	13.381	13.388	13.395	13.402	13.408	13.415
2410	13.415	13.422	13.429	13.435	13.442	13.449	13.456	13.462	13.469	13.476	13.483
2420	13.483	13.489	13.496	13.503	13.510	13.516	13.523	13.530	13.537	13.543	13.550
2430	13.550	13.557	13.563	13.570	13.577	13.584	13.590	13.597	13.604	13.611	13.617
2440	13.617	13.624	13.631	13.638	13.644	13.651	13.658	13.665	13.671	13.678	13.685
2450	13.685	13.692	13.698	13.705	13.712	13.719	13.725	13.732	13.739	13.746	13.752
2460	13.752	13.759	13.766	13.773	13.779	13.786	13.793	13.800	13.806	13.813	13.820
2470	13.820	13.826	13.833	13.840	13.847	13.853	13.860	13.867	13.874	13.880	13.887
2480	13.887	13.894	13.901	13.907	13.914	13.921	13.928	13.934	13.941	13.948	13.955
2490	13.955	13.961	13.968	13.975	13.982	13.988	13.995	14.002	14.009	14.015	14.022
2500	14.022	14.029	14.036	14.042	14.049	14.056	14.063	14.069	14.076	14.083	14.089
2510	14.089	14.096	14.103	14.110	14.116	14.123	14.130	14.137	14.143	14.150	14.157
2520	14.157	14.164	14.170	14.177	14.184	14.191	14.197	14.204	14.211	14.218	14.224
2530	14.224	14.231	14.238	14.245	14.251	14.258	14.265	14.272	14.278	14.285	14.292
2540	14.292	14.298	14.305	14.312	14.319	14.325	14.332	14.339	14.346	14.352	14.359
2550	14.359	14.366	14.373	14.379	14.386	14.393	14.400	14.406	14.413	14.420	14.426
2560	14.426	14.433	14.440	14.447	14.453	14.460	14.467	14.474	14.480	14.487	14.494
2570	14.494	14.501	14.507	14.514	14.521	14.528	14.534	14.541	14.548	14.554	14.561
2580	14.561	14.568	14.575	14.581	14.588	14.595	14.602	14.608	14.615	14.622	14.629
2590	14.629	14.635	14.642	14.649	14.655	14.662	14.669	14.676	14.682	14.689	14.696
2600	14.696	14.703	14.709	14.716	14.723	14.729	14.736	14.743	14.750	14.756	14.763
2610	14.763	14.770	14.777	14.783	14.790	14.797	14.803	14.810	14.817	14.824	14.830
2620	14.830	14.837	14.844	14.851	14.857	14.864	14.871	14.877	14.884	14.891	14.898
2630	14.898	14.904	14.911	14.918	14.925	14.931	14.938	14.945	14.951	14.958	14.965
2640	14.965	14.972	14.978	14.985	14.992	14.998	15.005	15.012	15.019	15.025	15.032
2650	15.032	15.039	15.045	15.052	15.059	15.066	15.072	15.079	15.086	15.092	15.099
2660	15.099	15.106	15.113	15.119	15.126	15.133	15.139	15.146	15.153	15.160	15.166
2670	15.166	15.173	15.180	15.186	15.193	15.200	15.207	15.213	15.220	15.227	15.233
2680	15.233	15.240	15.247	15.254	15.260	15.267	15.274	15.280	15.287	15.294	15.300
2690	15.300	15.307	15.314	15.321	15.327	15.334	15.341	15.347	15.354	15.361	15.367
2700	15.367	15.374	15.381	15.388	15.394	15.401	15.408	15.414	15.421	15.428	15.434
2710	15.434	15.441	15.448	15.455	15.461	15.468	15.475	15.481	15.488	15.495	15.501
2720	15.501	15.508	15.515	15.521	15.528	15.535	15.542	15.548	15.555	15.562	15.568
2730	15.568	15.575	15.582	15.588	15.595	15.602	15.608	15.615	15.622	15.628	15.635
2740	15.635	15.642	15.649	15.655	15.662	15.669	15.675	15.682	15.689	15.695	15.702
2750	15.702	15.709	15.715	15.722	15.729	15.735	15.742	15.749	15.755	15.762	15.769
2760	15.769	15.775	15.782	15.789	15.795	15.802	15.809	15.815	15.822	15.829	15.835
2770	15.835	15.842	15.849	15.855	15.862	15.869	15.875	15.882	15.889	15.895	15.902
2780	15.902	15.909	15.915	15.922	15.929	15.935	15.942	15.949	15.955	15.962	15.969
2790	15.969	15.975	15.982	15.989	15.995	16.002	16.009	16.015	16.022	16.029	16.035
2800	16.035	16.042	16.049	16.055	16.062	16.069	16.075	16.082	16.089	16.095	16.102
2810	16.102	16.108	16.115	16.122	16.128	16.135	16.142	16.148	16.155	16.162	16.168
2820	16.168	16.175	16.182	16.188	16.195	16.202	16.208	16.215	16.221	16.228	16.235
2830	16.235	16.241	16.248	16.255	16.261	16.268	16.275	16.281	16.288	16.294	16.301
2840	16.301	16.308	16.314	16.321	16.328	16.334	16.341	16.347	16.354	16.361	16.367
2850	16.367	16.374	16.381	16.387	16.394	16.400	16.407	16.414	16.420	16.427	16.434
2860	16.434	16.440	16.447	16.453	16.460	16.467	16.473	16.480	16.486	16.493	16.500
2870	16.500	16.506	16.513	16.520	16.526	16.533	16.539	16.546	16.553	16.559	16.566
2880	16.566	16.572	16.579	16.586	16.592	16.599	16.605	16.612	16.619	16.625	16.632
2890	16.632	16.638	16.645	16.652	16.658	16.665	16.671	16.678	16.685	16.691	16.698
ºF	0	1	2	3	4	5	6	7	8	9	10

Type S Platinum vs. Platinum-10% Rhodium ITS-90 °F

°F	0	1	2	3	4	5	6	7	8	9	10
2900	16.698	16.704	16.711	16.718	16.724	16.731	16.737	16.744	16.751	16.757	16.764
2910	16.764	16.770	16.777	16.783	16.790	16.797	16.803	16.810	16.816	16.823	16.829
2920	16.829	16.836	16.843	16.849	16.856	16.862	16.869	16.876	16.882	16.889	16.895
2930	16.895	16.902	16.908	16.915	16.922	16.928	16.935	16.941	16.948	16.954	16.961
2940	16.961	16.967	16.974	16.981	16.987	16.994	17.000	17.007	17.013	17.020	17.026
2950	17.026	17.033	17.040	17.046	17.053	17.059	17.066	17.072	17.079	17.085	17.092
2960	17.092	17.099	17.105	17.112	17.118	17.125	17.131	17.138	17.144	17.151	17.157
2970	17.157	17.164	17.171	17.177	17.184	17.190	17.197	17.203	17.210	17.216	17.223
2980	17.223	17.229	17.236	17.242	17.249	17.255	17.262	17.268	17.275	17.282	17.288
2990	17.288	17.295	17.301	17.308	17.314	17.321	17.327	17.334	17.340	17.347	17.353
3000	17.353	17.360	17.366	17.373	17.379	17.386	17.392	17.399	17.405	17.412	17.418
3010	17.418	17.425	17.431	17.438	17.444	17.451	17.457	17.464	17.470	17.477	17.483
3020	17.483	17.490	17.496	17.503	17.509	17.516	17.522	17.529	17.535	17.542	17.548
3030	17.548	17.555	17.561	17.568	17.574	17.581	17.587	17.594	17.600	17.607	17.613
3040	17.613	17.620	17.626	17.633	17.639	17.645	17.652	17.658	17.665	17.671	17.678
3050	17.678	17.684	17.691	17.697	17.704	17.710	17.717	17.723	17.729	17.736	17.742
3060	17.742	17.749	17.755	17.762	17.768	17.775	17.781	17.787	17.794	17.800	17.807
3070	17.807	17.813	17.819	17.826	17.832	17.839	17.845	17.852	17.858	17.864	17.871
3080	17.871	17.877	17.884	17.890	17.896	17.903	17.909	17.915	17.922	17.928	17.935
3090	17.935	17.941	17.947	17.954	17.960	17.966	17.973	17.979	17.985	17.992	17.998
3100	17.998	18.004	18.011	18.017	18.023	18.030	18.036	18.042	18.049	18.055	18.061
3110	18.061	18.068	18.074	18.080	18.086	18.093	18.099	18.105	18.112	18.118	18.124
3120	18.124	18.130	18.137	18.143	18.149	18.155	18.162	18.168	18.174	18.180	18.187
3130	18.187	18.193	18.199	18.205	18.211	18.218	18.224	18.230	18.236	18.242	18.248
3140	18.248	18.255	18.261	18.267	18.273	18.279	18.285	18.292	18.298	18.304	18.310
3150	18.310	18.316	18.322	18.328	18.334	18.341	18.347	18.353	18.359	18.365	18.371
3160	18.371	18.377	18.383	18.389	18.395	18.401	18.407	18.413	18.419	18.425	18.431
3170	18.431	18.437	18.443	18.449	18.455	18.461	18.467	18.473	18.479	18.485	18.491
3180	18.491	18.497	18.503	18.509	18.515	18.521	18.527	18.533	18.539	18.545	18.551
3190	18.551	18.557	18.562	18.568	18.574	18.580	18.586	18.592	18.598	18.603	18.609
3200	18.609	18.615	18.621	18.627	18.633	18.638	18.644	18.650	18.656	18.661	18.667
3210	18.667	18.673	18.679	18.684	18.690						

°F	0	1	2	3	4	5	6	7	8	9	10

°F	0	1	2	3	4	5	6	7	8	9	10

°F	0	1	2	3	4	5	6	7	8	9	10

Type T — Copper vs. Constantan ITS-90 — ºF

ºF	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
-450	-6.254	-6.255	-6.256	-6.257	-6.258						
-440	-6.240	-6.242	-6.243	-6.245	-6.247	-6.248	-6.250	-6.251	-6.252	-6.253	-6.254
-430	-6.217	-6.220	-6.222	-6.225	-6.227	-6.230	-6.232	-6.234	-6.236	-6.238	-6.240
-420	-6.187	-6.191	-6.194	-6.197	-6.200	-6.203	-6.206	-6.209	-6.212	-6.215	-6.217
-410	-6.150	-6.154	-6.158	-6.162	-6.166	-6.170	-6.173	-6.177	-6.180	-6.184	-6.187
-400	-6.105	-6.110	-6.115	-6.119	-6.124	-6.128	-6.133	-6.137	-6.141	-6.146	-6.150
-390	-6.053	-6.059	-6.064	-6.069	-6.075	-6.080	-6.085	-6.090	-6.095	-6.100	-6.105
-380	-5.994	-6.001	-6.007	-6.013	-6.019	-6.025	-6.030	-6.036	-6.042	-6.047	-6.053
-370	-5.930	-5.937	-5.943	-5.950	-5.956	-5.963	-5.969	-5.976	-5.982	-5.988	-5.994
-360	-5.860	-5.867	-5.874	-5.881	-5.888	-5.896	-5.902	-5.909	-5.916	-5.923	-5.930
-350	-5.785	-5.792	-5.800	-5.808	-5.815	-5.823	-5.830	-5.838	-5.845	-5.853	-5.860
-340	-5.705	-5.713	-5.721	-5.729	-5.737	-5.745	-5.753	-5.761	-5.769	-5.777	-5.785
-330	-5.620	-5.629	-5.638	-5.646	-5.655	-5.663	-5.672	-5.680	-5.688	-5.697	-5.705
-320	-5.532	-5.541	-5.550	-5.559	-5.568	-5.577	-5.585	-5.594	-5.603	-5.612	-5.620
-310	-5.439	-5.448	-5.458	-5.467	-5.476	-5.486	-5.495	-5.504	-5.513	-5.523	-5.532
-300	-5.341	-5.351	-5.361	-5.371	-5.381	-5.391	-5.400	-5.410	-5.420	-5.429	-5.439
-290	-5.240	-5.250	-5.261	-5.271	-5.281	-5.291	-5.301	-5.312	-5.322	-5.332	-5.341
-280	-5.135	-5.145	-5.156	-5.167	-5.177	-5.188	-5.198	-5.209	-5.219	-5.230	-5.240
-270	-5.025	-5.036	-5.048	-5.059	-5.070	-5.081	-5.091	-5.102	-5.113	-5.124	-5.135
-260	-4.912	-4.923	-4.935	-4.946	-4.958	-4.969	-4.980	-4.992	-5.003	-5.014	-5.025
-250	-4.794	-4.806	-4.818	-4.830	-4.842	-4.854	-4.865	-4.877	-4.889	-4.900	-4.912
-240	-4.673	-4.685	-4.698	-4.710	-4.722	-4.734	-4.746	-4.759	-4.771	-4.783	-4.794
-230	-4.548	-4.561	-4.573	-4.586	-4.599	-4.611	-4.624	-4.636	-4.648	-4.661	-4.673
-220	-4.419	-4.432	-4.445	-4.458	-4.471	-4.484	-4.497	-4.510	-4.523	-4.535	-4.548
-210	-4.286	-4.300	-4.313	-4.326	-4.340	-4.353	-4.366	-4.380	-4.393	-4.406	-4.419
-200	-4.149	-4.163	-4.177	-4.191	-4.205	-4.218	-4.232	-4.246	-4.259	-4.273	-4.286
-190	-4.009	-4.023	-4.037	-4.052	-4.066	-4.080	-4.094	-4.108	-4.122	-4.136	-4.149
-180	-3.865	-3.879	-3.894	-3.908	-3.923	-3.937	-3.952	-3.966	-3.980	-3.995	-4.009
-170	-3.717	-3.732	-3.747	-3.762	-3.777	-3.791	-3.806	-3.821	-3.836	-3.850	-3.865
-160	-3.565	-3.581	-3.596	-3.611	-3.626	-3.642	-3.657	-3.672	-3.687	-3.702	-3.717
-150	-3.410	-3.426	-3.441	-3.457	-3.473	-3.488	-3.504	-3.519	-3.535	-3.550	-3.565
-140	-3.251	-3.267	-3.283	-3.299	-3.315	-3.331	-3.347	-3.363	-3.379	-3.394	-3.410
-130	-3.089	-3.105	-3.122	-3.138	-3.154	-3.171	-3.187	-3.203	-3.219	-3.235	-3.251
-120	-2.923	-2.940	-2.956	-2.973	-2.990	-3.006	-3.023	-3.040	-3.056	-3.072	-3.089
-110	-2.754	-2.771	-2.788	-2.805	-2.822	-2.839	-2.856	-2.873	-2.889	-2.906	-2.923
-100	-2.581	-2.598	-2.616	-2.633	-2.651	-2.668	-2.685	-2.702	-2.719	-2.737	-2.754
-90	-2.405	-2.423	-2.440	-2.458	-2.476	-2.493	-2.511	-2.529	-2.546	-2.564	-2.581
-80	-2.225	-2.244	-2.262	-2.280	-2.298	-2.316	-2.334	-2.351	-2.369	-2.387	-2.405
-70	-2.043	-2.061	-2.079	-2.098	-2.116	-2.134	-2.153	-2.171	-2.189	-2.207	-2.225
-60	-1.857	-1.875	-1.894	-1.913	-1.931	-1.950	-1.969	-1.987	-2.006	-2.024	-2.043
-50	-1.667	-1.686	-1.705	-1.724	-1.743	-1.762	-1.781	-1.800	-1.819	-1.838	-1.857
-40	-1.475	-1.494	-1.514	-1.533	-1.552	-1.572	-1.591	-1.610	-1.629	-1.648	-1.667
-30	-1.279	-1.299	-1.319	-1.338	-1.358	-1.378	-1.397	-1.417	-1.436	-1.456	-1.475
-20	-1.081	-1.101	-1.121	-1.141	-1.161	-1.181	-1.200	-1.220	-1.240	-1.260	-1.279
-10	-0.879	-0.900	-0.920	-0.940	-0.960	-0.980	-1.001	-1.021	-1.041	-1.061	-1.081
0	-0.675	-0.695	-0.716	-0.736	-0.757	-0.777	-0.798	-0.818	-0.839	-0.859	-0.879
ºF	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10

ºF	0	1	2	3	4	5	6	7	8	9	10
0	-0.675	-0.654	-0.633	-0.613	-0.592	-0.571	-0.550	-0.530	-0.509	-0.488	-0.467
10	-0.467	-0.446	-0.425	-0.404	-0.383	-0.362	-0.341	-0.320	-0.299	-0.278	-0.256
20	-0.256	-0.235	-0.214	-0.193	-0.171	-0.150	-0.129	-0.107	-0.086	-0.064	-0.043
30	-0.043	-0.022	0.000	0.022	0.043	0.065	0.086	0.108	0.130	0.151	0.173
40	0.173	0.195	0.216	0.238	0.260	0.282	0.303	0.325	0.347	0.369	0.391
50	0.391	0.413	0.435	0.457	0.479	0.501	0.523	0.545	0.567	0.589	0.611
60	0.611	0.634	0.656	0.678	0.700	0.723	0.745	0.767	0.790	0.812	0.834
70	0.834	0.857	0.879	0.902	0.924	0.947	0.969	0.992	1.015	1.037	1.060
80	1.060	1.083	1.105	1.128	1.151	1.174	1.196	1.219	1.242	1.265	1.288
90	1.288	1.311	1.334	1.357	1.380	1.403	1.426	1.449	1.472	1.496	1.519
100	1.519	1.542	1.565	1.588	1.612	1.635	1.658	1.682	1.705	1.729	1.752
110	1.752	1.776	1.799	1.823	1.846	1.870	1.893	1.917	1.941	1.964	1.988
120	1.988	2.012	2.036	2.060	2.083	2.107	2.131	2.155	2.179	2.203	2.227
130	2.227	2.251	2.275	2.299	2.323	2.347	2.371	2.395	2.420	2.444	2.468
140	2.468	2.492	2.517	2.541	2.565	2.590	2.614	2.639	2.663	2.687	2.712
150	2.712	2.737	2.761	2.786	2.810	2.835	2.860	2.884	2.909	2.934	2.958
160	2.958	2.983	3.008	3.033	3.058	3.082	3.107	3.132	3.157	3.182	3.207
170	3.207	3.232	3.257	3.282	3.307	3.333	3.358	3.383	3.408	3.433	3.459
180	3.459	3.484	3.509	3.534	3.560	3.585	3.610	3.636	3.661	3.687	3.712
190	3.712	3.738	3.763	3.789	3.814	3.840	3.866	3.891	3.917	3.943	3.968
200	3.968	3.994	4.020	4.046	4.071	4.097	4.123	4.149	4.175	4.201	4.227
210	4.227	4.253	4.279	4.305	4.331	4.357	4.383	4.409	4.435	4.461	4.487
220	4.487	4.513	4.540	4.566	4.592	4.618	4.645	4.671	4.697	4.724	4.750
230	4.750	4.776	4.803	4.829	4.856	4.882	4.909	4.935	4.962	4.988	5.015
240	5.015	5.042	5.068	5.095	5.122	5.148	5.175	5.202	5.228	5.255	5.282
250	5.282	5.309	5.336	5.363	5.389	5.416	5.443	5.470	5.497	5.524	5.551
260	5.551	5.578	5.605	5.632	5.660	5.687	5.714	5.741	5.768	5.795	5.823
270	5.823	5.850	5.877	5.904	5.932	5.959	5.986	6.014	6.041	6.068	6.096
280	6.096	6.123	6.151	6.178	6.206	6.233	6.261	6.288	6.316	6.343	6.371
290	6.371	6.399	6.426	6.454	6.482	6.510	6.537	6.565	6.593	6.621	6.648
300	6.648	6.676	6.704	6.732	6.760	6.788	6.816	6.844	6.872	6.900	6.928
310	6.928	6.956	6.984	7.012	7.040	7.068	7.096	7.124	7.152	7.181	7.209
320	7.209	7.237	7.265	7.294	7.322	7.350	7.378	7.407	7.435	7.463	7.492
330	7.492	7.520	7.549	7.577	7.606	7.634	7.663	7.691	7.720	7.748	7.777
340	7.777	7.805	7.834	7.863	7.891	7.920	7.949	7.977	8.006	8.035	8.064
350	8.064	8.092	8.121	8.150	8.179	8.208	8.237	8.266	8.294	8.323	8.352
360	8.352	8.381	8.410	8.439	8.468	8.497	8.526	8.555	8.585	8.614	8.643
370	8.643	8.672	8.701	8.730	8.759	8.789	8.818	8.847	8.876	8.906	8.935
380	8.935	8.964	8.994	9.023	9.052	9.082	9.111	9.141	9.170	9.200	9.229
390	9.229	9.259	9.288	9.318	9.347	9.377	9.406	9.436	9.466	9.495	9.525
400	9.525	9.555	9.584	9.614	9.644	9.673	9.703	9.733	9.763	9.793	9.822
410	9.822	9.852	9.882	9.912	9.942	9.972	10.002	10.032	10.062	10.092	10.122
420	10.122	10.152	10.182	10.212	10.242	10.272	10.302	10.332	10.362	10.392	10.423
430	10.423	10.453	10.483	10.513	10.543	10.574	10.604	10.634	10.664	10.695	10.725
440	10.725	10.755	10.786	10.816	10.847	10.877	10.907	10.938	10.968	10.999	11.029
450	11.029	11.060	11.090	11.121	11.151	11.182	11.213	11.243	11.274	11.304	11.335
460	11.335	11.366	11.396	11.427	11.458	11.489	11.519	11.550	11.581	11.612	11.643
470	11.643	11.673	11.704	11.735	11.766	11.797	11.828	11.859	11.890	11.920	11.951
480	11.951	11.982	12.013	12.044	12.075	12.106	12.138	12.169	12.200	12.231	12.262
490	12.262	12.293	12.324	12.355	12.386	12.418	12.449	12.480	12.511	12.543	12.574
ºF	0	1	2	3	4	5	6	7	8	9	10

Type T Copper vs. Constantan ITS-90 °F

°F	0	1	2	3	4	5	6	7	8	9	10
500	12.574	12.605	12.636	12.668	12.699	12.730	12.762	12.793	12.824	12.856	12.887
510	12.887	12.919	12.950	12.982	13.013	13.045	13.076	13.108	13.139	13.171	13.202
520	13.202	13.234	13.265	13.297	13.328	13.360	13.392	13.423	13.455	13.487	13.518
530	13.518	13.550	13.582	13.614	13.645	13.677	13.709	13.741	13.772	13.804	13.836
540	13.836	13.868	13.900	13.932	13.964	13.995	14.027	14.059	14.091	14.123	14.155
550	14.155	14.187	14.219	14.251	14.283	14.315	14.347	14.379	14.411	14.444	14.476
560	14.476	14.508	14.540	14.572	14.604	14.636	14.669	14.701	14.733	14.765	14.797
570	14.797	14.830	14.862	14.894	14.926	14.959	14.991	15.023	15.056	15.088	15.121
580	15.121	15.153	15.185	15.218	15.250	15.283	15.315	15.347	15.380	15.412	15.445
590	15.445	15.477	15.510	15.543	15.575	15.608	15.640	15.673	15.705	15.738	15.771
600	15.771	15.803	15.836	15.869	15.901	15.934	15.967	15.999	16.032	16.065	16.098
610	16.098	16.130	16.163	16.196	16.229	16.262	16.295	16.327	16.360	16.393	16.426
620	16.426	16.459	16.492	16.525	16.558	16.591	16.624	16.657	16.690	16.723	16.756
630	16.756	16.789	16.822	16.855	16.888	16.921	16.954	16.987	17.020	17.053	17.086
640	17.086	17.120	17.153	17.186	17.219	17.252	17.286	17.319	17.352	17.385	17.418
650	17.418	17.452	17.485	17.518	17.552	17.585	17.618	17.652	17.685	17.718	17.752
660	17.752	17.785	17.819	17.852	17.886	17.919	17.952	17.986	18.019	18.053	18.086
670	18.086	18.120	18.153	18.187	18.221	18.254	18.288	18.321	18.355	18.389	18.422
680	18.422	18.456	18.490	18.523	18.557	18.591	18.624	18.658	18.692	18.725	18.759
690	18.759	18.793	18.827	18.861	18.894	18.928	18.962	18.996	19.030	19.064	19.097
700	19.097	19.131	19.165	19.199	19.233	19.267	19.301	19.335	19.369	19.403	19.437
710	19.437	19.471	19.505	19.539	19.573	19.607	19.641	19.675	19.709	19.743	19.777
720	19.777	19.811	19.845	19.879	19.913	19.947	19.982	20.016	20.050	20.084	20.118
730	20.118	20.152	20.187	20.221	20.255	20.289	20.323	20.358	20.392	20.426	20.460
740	20.460	20.495	20.529	20.563	20.597	20.632	20.666	20.700	20.735	20.769	20.803
750	20.803	20.838	20.872								

°F	0	1	2	3	4	5	6	7	8	9	10

°F	0	1	2	3	4	5	6	7	8	9	10

°F	0	1	2	3	4	5	6	7	8	9	10

Type Tungsten-3% Rhenium vs Tungsten-25% Rhenium ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
30			0.000	0.005	0.011	0.016	0.021	0.027	0.032	0.038	0.043
40	0.043	0.048	0.054	0.059	0.065	0.070	0.076	0.081	0.087	0.092	0.098
50	0.098	0.103	0.109	0.115	0.120	0.126	0.131	0.137	0.143	0.148	0.154
60	0.154	0.160	0.165	0.171	0.177	0.183	0.188	0.194	0.200	0.206	0.211
70	0.211	0.217	0.223	0.229	0.235	0.240	0.246	0.252	0.258	0.264	0.270
80	0.270	0.276	0.282	0.288	0.294	0.299	0.305	0.311	0.317	0.323	0.329
90	0.329	0.335	0.342	0.348	0.354	0.360	0.366	0.372	0.378	0.384	0.390
100	0.390	0.396	0.403	0.409	0.415	0.421	0.427	0.433	0.440	0.446	0.452
110	0.452	0.458	0.465	0.471	0.477	0.484	0.490	0.496	0.503	0.509	0.515
120	0.515	0.522	0.528	0.534	0.541	0.547	0.554	0.560	0.566	0.573	0.579
130	0.579	0.586	0.592	0.599	0.605	0.612	0.618	0.625	0.632	0.638	0.645
140	0.645	0.651	0.658	0.664	0.671	0.678	0.684	0.691	0.698	0.704	0.711
150	0.711	0.718	0.724	0.731	0.738	0.745	0.751	0.758	0.765	0.772	0.778
160	0.778	0.785	0.792	0.799	0.806	0.812	0.819	0.826	0.833	0.840	0.847
170	0.847	0.854	0.861	0.868	0.875	0.881	0.888	0.895	0.902	0.909	0.916
180	0.916	0.923	0.930	0.937	0.944	0.951	0.958	0.966	0.973	0.980	0.987
190	0.987	0.994	1.001	1.008	1.015	1.022	1.030	1.037	1.044	1.051	1.058
200	1.058	1.065	1.073	1.080	1.087	1.094	1.102	1.109	1.116	1.123	1.131
210	1.131	1.138	1.145	1.153	1.160	1.167	1.175	1.182	1.189	1.197	1.204
220	1.204	1.212	1.219	1.226	1.234	1.241	1.249	1.256	1.264	1.271	1.278
230	1.278	1.286	1.293	1.301	1.308	1.316	1.324	1.331	1.339	1.346	1.354
240	1.354	1.361	1.369	1.377	1.384	1.392	1.399	1.407	1.415	1.422	1.430
250	1.430	1.438	1.445	1.453	1.461	1.468	1.476	1.484	1.492	1.499	1.507
260	1.507	1.515	1.523	1.530	1.538	1.546	1.554	1.562	1.569	1.577	1.585
270	1.585	1.593	1.601	1.609	1.617	1.624	1.632	1.640	1.648	1.656	1.664
280	1.664	1.672	1.680	1.688	1.696	1.704	1.712	1.720	1.728	1.736	1.744
290	1.744	1.752	1.760	1.768	1.776	1.784	1.792	1.800	1.808	1.816	1.824
300	1.824	1.832	1.841	1.849	1.857	1.865	1.873	1.881	1.889	1.898	1.906
310	1.906	1.914	1.922	1.930	1.939	1.947	1.955	1.963	1.971	1.980	1.988
320	1.988	1.996	2.004	2.013	2.021	2.029	2.038	2.046	2.054	2.063	2.071
330	2.071	2.079	2.088	2.096	2.104	2.113	2.121	2.130	2.138	2.146	2.155
340	2.155	2.163	2.172	2.180	2.188	2.197	2.205	2.214	2.222	2.231	2.239
350	2.239	2.248	2.256	2.265	2.273	2.282	2.290	2.299	2.307	2.316	2.325
360	2.325	2.333	2.342	2.350	2.359	2.368	2.376	2.385	2.393	2.402	2.411
370	2.411	2.419	2.428	2.437	2.445	2.454	2.463	2.471	2.480	2.489	2.497
380	2.497	2.506	2.515	2.524	2.532	2.541	2.550	2.559	2.567	2.576	2.585
390	2.585	2.594	2.603	2.611	2.620	2.629	2.638	2.647	2.655	2.664	2.673
400	2.673	2.682	2.691	2.700	2.709	2.718	2.726	2.735	2.744	2.753	2.762
410	2.762	2.771	2.780	2.789	2.798	2.807	2.816	2.825	2.834	2.843	2.852
420	2.852	2.861	2.870	2.879	2.888	2.897	2.906	2.915	2.924	2.933	2.942
430	2.942	2.951	2.960	2.969	2.978	2.987	2.996	3.005	3.014	3.024	3.033
440	3.033	3.042	3.051	3.060	3.069	3.078	3.088	3.097	3.106	3.115	3.124
450	3.124	3.133	3.143	3.152	3.161	3.170	3.179	3.189	3.198	3.207	3.216
460	3.216	3.226	3.235	3.244	3.253	3.263	3.272	3.281	3.290	3.300	3.309
470	3.309	3.318	3.328	3.337	3.346	3.356	3.365	3.374	3.384	3.393	3.402
480	3.402	3.412	3.421	3.431	3.440	3.449	3.459	3.468	3.477	3.487	3.496
490	3.496	3.506	3.515	3.525	3.534	3.543	3.553	3.562	3.572	3.581	3.591
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
500	3.591	3.600	3.610	3.619	3.629	3.638	3.648	3.657	3.667	3.676	3.686
510	3.686	3.695	3.705	3.714	3.724	3.734	3.743	3.753	3.762	3.772	3.781
520	3.781	3.791	3.801	3.810	3.820	3.829	3.839	3.849	3.858	3.868	3.878
530	3.878	3.887	3.897	3.907	3.916	3.926	3.936	3.945	3.955	3.965	3.974
540	3.974	3.984	3.994	4.003	4.013	4.023	4.033	4.042	4.052	4.062	4.071
550	4.071	4.081	4.091	4.101	4.111	4.120	4.130	4.140	4.150	4.159	4.169
560	4.169	4.179	4.189	4.199	4.208	4.218	4.228	4.238	4.248	4.258	4.267
570	4.267	4.277	4.287	4.297	4.307	4.317	4.327	4.336	4.346	4.356	4.366
580	4.366	4.376	4.386	4.396	4.406	4.416	4.426	4.435	4.445	4.455	4.465
590	4.465	4.475	4.485	4.495	4.505	4.515	4.525	4.535	4.545	4.555	4.565
600	4.565	4.575	4.585	4.595	4.605	4.615	4.625	4.635	4.645	4.655	4.665
610	4.665	4.675	4.685	4.695	4.705	4.715	4.725	4.735	4.745	4.755	4.766
620	4.766	4.776	4.786	4.796	4.806	4.816	4.826	4.836	4.846	4.856	4.866
630	4.866	4.877	4.887	4.897	4.907	4.917	4.927	4.937	4.948	4.958	4.968
640	4.968	4.978	4.988	4.998	5.009	5.019	5.029	5.039	5.049	5.060	5.070
650	5.070	5.080	5.090	5.100	5.111	5.121	5.131	5.141	5.151	5.162	5.172
660	5.172	5.182	5.192	5.203	5.213	5.223	5.233	5.244	5.254	5.264	5.275
670	5.275	5.285	5.295	5.305	5.316	5.326	5.336	5.347	5.357	5.367	5.378
680	5.378	5.388	5.398	5.409	5.419	5.429	5.440	5.450	5.460	5.471	5.481
690	5.481	5.491	5.502	5.512	5.522	5.533	5.543	5.554	5.564	5.574	5.585
700	5.585	5.595	5.606	5.616	5.626	5.637	5.647	5.658	5.668	5.678	5.689
710	5.689	5.699	5.710	5.720	5.731	5.741	5.752	5.762	5.772	5.783	5.793
720	5.793	5.804	5.814	5.825	5.835	5.846	5.856	5.867	5.877	5.888	5.898
730	5.898	5.909	5.919	5.930	5.940	5.951	5.961	5.972	5.982	5.993	6.003
740	6.003	6.014	6.025	6.035	6.046	6.056	6.067	6.077	6.088	6.098	6.109
750	6.109	6.120	6.130	6.141	6.151	6.162	6.172	6.183	6.194	6.204	6.215
760	6.215	6.225	6.236	6.247	6.257	6.268	6.278	6.289	6.300	6.310	6.321
770	6.321	6.332	6.342	6.353	6.364	6.374	6.385	6.395	6.406	6.417	6.427
780	6.427	6.438	6.449	6.459	6.470	6.481	6.491	6.502	6.513	6.524	6.534
790	6.534	6.545	6.556	6.566	6.577	6.588	6.598	6.609	6.620	6.631	6.641
800	6.641	6.652	6.663	6.673	6.684	6.695	6.706	6.716	6.727	6.738	6.749
810	6.749	6.759	6.770	6.781	6.792	6.802	6.813	6.824	6.835	6.845	6.856
820	6.856	6.867	6.878	6.889	6.899	6.910	6.921	6.932	6.942	6.953	6.964
830	6.964	6.975	6.986	6.997	7.007	7.018	7.029	7.040	7.051	7.061	7.072
840	7.072	7.083	7.094	7.105	7.116	7.126	7.137	7.148	7.159	7.170	7.181
850	7.181	7.191	7.202	7.213	7.224	7.235	7.246	7.257	7.268	7.278	7.289
860	7.289	7.300	7.311	7.322	7.333	7.344	7.355	7.365	7.376	7.387	7.398
870	7.398	7.409	7.420	7.431	7.442	7.453	7.464	7.475	7.485	7.496	7.507
880	7.507	7.518	7.529	7.540	7.551	7.562	7.573	7.584	7.595	7.606	7.617
890	7.617	7.628	7.639	7.649	7.660	7.671	7.682	7.693	7.704	7.715	7.726
900	7.726	7.737	7.748	7.759	7.770	7.781	7.792	7.803	7.814	7.825	7.836
910	7.836	7.847	7.858	7.869	7.880	7.891	7.902	7.913	7.924	7.935	7.946
920	7.946	7.957	7.968	7.979	7.990	8.001	8.012	8.023	8.034	8.045	8.056
930	8.056	8.067	8.078	8.089	8.100	8.111	8.122	8.133	8.144	8.155	8.167
940	8.167	8.178	8.189	8.200	8.211	8.222	8.233	8.244	8.255	8.266	8.277
950	8.277	8.288	8.299	8.310	8.321	8.332	8.343	8.355	8.366	8.377	8.388
960	8.388	8.399	8.410	8.421	8.432	8.443	8.454	8.465	8.476	8.488	8.499
970	8.499	8.510	8.521	8.532	8.543	8.554	8.565	8.576	8.588	8.599	8.610
980	8.610	8.621	8.632	8.643	8.654	8.665	8.676	8.688	8.699	8.710	8.721
990	8.721	8.732	8.743	8.754	8.765	8.777	8.788	8.799	8.810	8.821	8.832
ºF	0	1	2	3	4	5	6	7	8	9	10

Type Tungsten-3% Rhenium vs Tungsten-25% Rhenium ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
1000	8.832	8.843	8.855	8.866	8.877	8.888	8.899	8.910	8.922	8.933	8.944
1010	8.944	8.955	8.966	8.977	8.988	9.000	9.011	9.022	9.033	9.044	9.055
1020	9.055	9.067	9.078	9.089	9.100	9.111	9.123	9.134	9.145	9.156	9.167
1030	9.167	9.178	9.190	9.201	9.212	9.223	9.234	9.246	9.257	9.268	9.279
1040	9.279	9.290	9.302	9.313	9.324	9.335	9.346	9.358	9.369	9.380	9.391
1050	9.391	9.402	9.414	9.425	9.436	9.447	9.458	9.470	9.481	9.492	9.503
1060	9.503	9.515	9.526	9.537	9.548	9.559	9.571	9.582	9.593	9.604	9.616
1070	9.616	9.627	9.638	9.649	9.661	9.672	9.683	9.694	9.705	9.717	9.728
1080	9.728	9.739	9.750	9.762	9.773	9.784	9.795	9.807	9.818	9.829	9.840
1090	9.840	9.852	9.863	9.874	9.885	9.897	9.908	9.919	9.930	9.942	9.953
1100	9.953	9.964	9.975	9.987	9.998	10.009	10.021	10.032	10.043	10.054	10.066
1110	10.066	10.077	10.088	10.099	10.111	10.122	10.133	10.144	10.156	10.167	10.178
1120	10.178	10.190	10.201	10.212	10.223	10.235	10.246	10.257	10.268	10.280	10.291
1130	10.291	10.302	10.314	10.325	10.336	10.347	10.359	10.370	10.381	10.393	10.404
1140	10.404	10.415	10.426	10.438	10.449	10.460	10.472	10.483	10.494	10.505	10.517
1150	10.517	10.528	10.539	10.551	10.562	10.573	10.585	10.596	10.607	10.618	10.630
1160	10.630	10.641	10.652	10.664	10.675	10.686	10.698	10.709	10.720	10.731	10.743
1170	10.743	10.754	10.765	10.777	10.788	10.799	10.811	10.822	10.833	10.845	10.856
1180	10.856	10.867	10.878	10.890	10.901	10.912	10.924	10.935	10.946	10.958	10.969
1190	10.969	10.980	10.992	11.003	11.014	11.026	11.037	11.048	11.059	11.071	11.082
1200	11.082	11.093	11.105	11.116	11.127	11.139	11.150	11.161	11.173	11.184	11.195
1210	11.195	11.207	11.218	11.229	11.241	11.252	11.263	11.275	11.286	11.297	11.309
1220	11.309	11.320	11.331	11.343	11.354	11.365	11.377	11.388	11.399	11.410	11.422
1230	11.422	11.433	11.444	11.456	11.467	11.478	11.490	11.501	11.512	11.524	11.535
1240	11.535	11.546	11.558	11.569	11.580	11.592	11.603	11.614	11.626	11.637	11.648
1250	11.648	11.660	11.671	11.682	11.694	11.705	11.716	11.728	11.739	11.750	11.762
1260	11.762	11.773	11.784	11.796	11.807	11.818	11.830	11.841	11.852	11.864	11.875
1270	11.875	11.886	11.898	11.909	11.921	11.932	11.943	11.955	11.966	11.977	11.989
1280	11.989	12.000	12.011	12.023	12.034	12.045	12.057	12.068	12.079	12.091	12.102
1290	12.102	12.113	12.125	12.136	12.147	12.159	12.170	12.181	12.193	12.204	12.215
1300	12.215	12.227	12.238	12.249	12.261	12.272	12.283	12.295	12.306	12.317	12.329
1310	12.329	12.340	12.351	12.363	12.374	12.386	12.397	12.408	12.420	12.431	12.442
1320	12.442	12.454	12.465	12.476	12.488	12.499	12.510	12.522	12.533	12.544	12.556
1330	12.556	12.567	12.578	12.590	12.601	12.612	12.624	12.635	12.647	12.658	12.669
1340	12.669	12.681	12.692	12.703	12.715	12.726	12.737	12.749	12.760	12.771	12.783
1350	12.783	12.794	12.805	12.817	12.828	12.840	12.851	12.862	12.874	12.885	12.896
1360	12.896	12.908	12.919	12.930	12.942	12.953	12.964	12.976	12.987	12.998	13.010
1370	13.010	13.021	13.033	13.044	13.055	13.067	13.078	13.089	13.101	13.112	13.123
1380	13.123	13.135	13.146	13.158	13.169	13.180	13.192	13.203	13.214	13.226	13.237
1390	13.237	13.248	13.260	13.271	13.282	13.294	13.305	13.317	13.328	13.339	13.351
1400	13.351	13.362	13.373	13.385	13.396	13.408	13.419	13.430	13.442	13.453	13.464
1410	13.464	13.476	13.487	13.498	13.510	13.521	13.533	13.544	13.555	13.567	13.578
1420	13.578	13.589	13.601	13.612	13.624	13.635	13.646	13.658	13.669	13.681	13.692
1430	13.692	13.703	13.715	13.726	13.737	13.749	13.760	13.772	13.783	13.794	13.806
1440	13.806	13.817	13.829	13.840	13.851	13.863	13.874	13.885	13.897	13.908	13.920
1450	13.920	13.931	13.942	13.954	13.965	13.977	13.988	13.999	14.011	14.022	14.033
1460	14.033	14.045	14.056	14.068	14.079	14.090	14.102	14.113	14.125	14.136	14.147
1470	14.147	14.159	14.170	14.182	14.193	14.204	14.216	14.227	14.238	14.250	14.261
1480	14.261	14.273	14.284	14.295	14.307	14.318	14.329	14.341	14.352	14.364	14.375
1490	14.375	14.386	14.398	14.409	14.421	14.432	14.443	14.455	14.466	14.477	14.489
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
1500	14.489	14.500	14.512	14.523	14.534	14.546	14.557	14.568	14.580	14.591	14.603
1510	14.603	14.614	14.625	14.637	14.648	14.659	14.671	14.682	14.693	14.705	14.716
1520	14.716	14.728	14.739	14.750	14.762	14.773	14.784	14.796	14.807	14.819	14.830
1530	14.830	14.841	14.853	14.864	14.875	14.887	14.898	14.909	14.921	14.932	14.944
1540	14.944	14.955	14.966	14.978	14.989	15.000	15.012	15.023	15.034	15.046	15.057
1550	15.057	15.068	15.080	15.091	15.103	15.114	15.125	15.137	15.148	15.159	15.171
1560	15.171	15.182	15.193	15.205	15.216	15.227	15.239	15.250	15.261	15.273	15.284
1570	15.284	15.295	15.307	15.318	15.330	15.341	15.352	15.364	15.375	15.386	15.398
1580	15.398	15.409	15.420	15.432	15.443	15.454	15.466	15.477	15.488	15.500	15.511
1590	15.511	15.522	15.534	15.545	15.556	15.568	15.579	15.590	15.602	15.613	15.624
1600	15.624	15.636	15.647	15.658	15.670	15.681	15.692	15.703	15.715	15.726	15.737
1610	15.737	15.749	15.760	15.771	15.783	15.794	15.805	15.817	15.828	15.839	15.851
1620	15.851	15.862	15.873	15.885	15.896	15.907	15.919	15.930	15.941	15.952	15.964
1630	15.964	15.975	15.986	15.998	16.009	16.020	16.032	16.043	16.054	16.065	16.077
1640	16.077	16.088	16.099	16.111	16.122	16.133	16.145	16.156	16.167	16.178	16.190
1650	16.190	16.201	16.212	16.224	16.235	16.246	16.257	16.269	16.280	16.291	16.303
1660	16.303	16.314	16.325	16.336	16.348	16.359	16.370	16.382	16.393	16.404	16.415
1670	16.415	16.427	16.438	16.449	16.460	16.472	16.483	16.494	16.506	16.517	16.528
1680	16.528	16.539	16.551	16.562	16.573	16.584	16.596	16.607	16.618	16.629	16.641
1690	16.641	16.652	16.663	16.675	16.686	16.697	16.708	16.720	16.731	16.742	16.753
1700	16.753	16.765	16.776	16.787	16.798	16.810	16.821	16.832	16.843	16.854	16.866
1710	16.866	16.877	16.888	16.899	16.911	16.922	16.933	16.944	16.956	16.967	16.978
1720	16.978	16.989	17.001	17.012	17.023	17.034	17.045	17.057	17.068	17.079	17.090
1730	17.090	17.102	17.113	17.124	17.135	17.146	17.158	17.169	17.180	17.191	17.203
1740	17.203	17.214	17.225	17.236	17.247	17.259	17.270	17.281	17.292	17.303	17.315
1750	17.315	17.326	17.337	17.348	17.359	17.371	17.382	17.393	17.404	17.415	17.427
1760	17.427	17.438	17.449	17.460	17.471	17.483	17.494	17.505	17.516	17.527	17.538
1770	17.538	17.550	17.561	17.572	17.583	17.594	17.606	17.617	17.628	17.639	17.650
1780	17.650	17.661	17.673	17.684	17.695	17.706	17.717	17.728	17.740	17.751	17.762
1790	17.762	17.773	17.784	17.795	17.807	17.818	17.829	17.840	17.851	17.862	17.873
1800	17.873	17.885	17.896	17.907	17.918	17.929	17.940	17.951	17.963	17.974	17.985
1810	17.985	17.996	18.007	18.018	18.029	18.041	18.052	18.063	18.074	18.085	18.096
1820	18.096	18.107	18.118	18.130	18.141	18.152	18.163	18.174	18.185	18.196	18.207
1830	18.207	18.219	18.230	18.241	18.252	18.263	18.274	18.285	18.296	18.307	18.319
1840	18.319	18.330	18.341	18.352	18.363	18.374	18.385	18.396	18.407	18.418	18.430
1850	18.430	18.441	18.452	18.463	18.474	18.485	18.496	18.507	18.518	18.529	18.540
1860	18.540	18.552	18.563	18.574	18.585	18.596	18.607	18.618	18.629	18.640	18.651
1870	18.651	18.662	18.673	18.684	18.695	18.707	18.718	18.729	18.740	18.751	18.762
1880	18.762	18.773	18.784	18.795	18.806	18.817	18.828	18.839	18.850	18.861	18.872
1890	18.872	18.883	18.894	18.905	18.917	18.928	18.939	18.950	18.961	18.972	18.983
1900	18.983	18.994	19.005	19.016	19.027	19.038	19.049	19.060	19.071	19.082	19.093
1910	19.093	19.104	19.115	19.126	19.137	19.148	19.159	19.170	19.181	19.192	19.203
1920	19.203	19.214	19.225	19.236	19.247	19.258	19.269	19.280	19.291	19.302	19.313
1930	19.313	19.324	19.335	19.346	19.357	19.368	19.379	19.390	19.401	19.412	19.423
1940	19.423	19.434	19.445	19.456	19.467	19.478	19.489	19.500	19.511	19.522	19.533
1950	19.533	19.544	19.555	19.566	19.577	19.588	19.599	19.610	19.621	19.632	19.643
1960	19.643	19.654	19.664	19.675	19.686	19.697	19.708	19.719	19.730	19.741	19.752
1970	19.752	19.763	19.774	19.785	19.796	19.807	19.818	19.829	19.840	19.851	19.861
1980	19.861	19.872	19.883	19.894	19.905	19.916	19.927	19.938	19.949	19.960	19.971
1990	19.971	19.982	19.993	20.003	20.014	20.025	20.036	20.047	20.058	20.069	20.080
ºF	0	1	2	3	4	5	6	7	8	9	10

Type Tungsten-3% Rhenium vs Tungsten-25% Rhenium ITS-90 °F

°F	0	1	2	3	4	5	6	7	8	9	10
2000	20.080	20.091	20.102	20.113	20.123	20.134	20.145	20.156	20.167	20.178	20.189
2010	20.189	20.200	20.211	20.222	20.232	20.243	20.254	20.265	20.276	20.287	20.298
2020	20.298	20.309	20.319	20.330	20.341	20.352	20.363	20.374	20.385	20.396	20.406
2030	20.406	20.417	20.428	20.439	20.450	20.461	20.472	20.482	20.493	20.504	20.515
2040	20.515	20.526	20.537	20.548	20.558	20.569	20.580	20.591	20.602	20.613	20.624
2050	20.624	20.634	20.645	20.656	20.667	20.678	20.689	20.699	20.710	20.721	20.732
2060	20.732	20.743	20.753	20.764	20.775	20.786	20.797	20.808	20.818	20.829	20.840
2070	20.840	20.851	20.862	20.872	20.883	20.894	20.905	20.916	20.926	20.937	20.948
2080	20.948	20.959	20.970	20.980	20.991	21.002	21.013	21.024	21.034	21.045	21.056
2090	21.056	21.067	21.078	21.088	21.099	21.110	21.121	21.131	21.142	21.153	21.164
2100	21.164	21.175	21.185	21.196	21.207	21.218	21.228	21.239	21.250	21.261	21.271
2110	21.271	21.282	21.293	21.304	21.314	21.325	21.336	21.347	21.357	21.368	21.379
2120	21.379	21.390	21.400	21.411	21.422	21.433	21.443	21.454	21.465	21.475	21.486
2130	21.486	21.497	21.508	21.518	21.529	21.540	21.551	21.561	21.572	21.583	21.593
2140	21.593	21.604	21.615	21.626	21.636	21.647	21.658	21.668	21.679	21.690	21.700
2150	21.700	21.711	21.722	21.733	21.743	21.754	21.765	21.775	21.786	21.797	21.807
2160	21.807	21.818	21.829	21.839	21.850	21.861	21.871	21.882	21.893	21.903	21.914
2170	21.914	21.925	21.936	21.946	21.957	21.968	21.978	21.989	21.999	22.010	22.021
2180	22.021	22.031	22.042	22.053	22.063	22.074	22.085	22.095	22.106	22.117	22.127
2190	22.127	22.138	22.149	22.159	22.170	22.180	22.191	22.202	22.212	22.223	22.234
2200	22.234	22.244	22.255	22.266	22.276	22.287	22.297	22.308	22.319	22.329	22.340
2210	22.340	22.350	22.361	22.372	22.382	22.393	22.403	22.414	22.425	22.435	22.446
2220	22.446	22.456	22.467	22.478	22.488	22.499	22.509	22.520	22.531	22.541	22.552
2230	22.552	22.562	22.573	22.584	22.594	22.605	22.615	22.626	22.636	22.647	22.658
2240	22.658	22.668	22.679	22.689	22.700	22.710	22.721	22.731	22.742	22.753	22.763
2250	22.763	22.774	22.784	22.795	22.805	22.816	22.826	22.837	22.848	22.858	22.869
2260	22.869	22.879	22.890	22.900	22.911	22.921	22.932	22.942	22.953	22.963	22.974
2270	22.974	22.984	22.995	23.006	23.016	23.027	23.037	23.048	23.058	23.069	23.079
2280	23.079	23.090	23.100	23.111	23.121	23.132	23.142	23.153	23.163	23.174	23.184
2290	23.184	23.195	23.205	23.216	23.226	23.237	23.247	23.258	23.268	23.279	23.289
2300	23.289	23.300	23.310	23.320	23.331	23.341	23.352	23.362	23.373	23.383	23.394
2310	23.394	23.404	23.415	23.425	23.436	23.446	23.457	23.467	23.477	23.488	23.498
2320	23.498	23.509	23.519	23.530	23.540	23.551	23.561	23.571	23.582	23.592	23.603
2330	23.603	23.613	23.624	23.634	23.644	23.655	23.665	23.676	23.686	23.697	23.707
2340	23.707	23.717	23.728	23.738	23.749	23.759	23.770	23.780	23.790	23.801	23.811
2350	23.811	23.822	23.832	23.842	23.853	23.863	23.874	23.884	23.894	23.905	23.915
2360	23.915	23.926	23.936	23.946	23.957	23.967	23.977	23.988	23.998	24.009	24.019
2370	24.019	24.029	24.040	24.050	24.060	24.071	24.081	24.092	24.102	24.112	24.123
2380	24.123	24.133	24.143	24.154	24.164	24.174	24.185	24.195	24.205	24.216	24.226
2390	24.226	24.237	24.247	24.257	24.268	24.278	24.288	24.299	24.309	24.319	24.330
2400	24.330	24.340	24.350	24.361	24.371	24.381	24.391	24.402	24.412	24.422	24.433
2410	24.433	24.443	24.453	24.464	24.474	24.484	24.495	24.505	24.515	24.526	24.536
2420	24.536	24.546	24.556	24.567	24.577	24.587	24.598	24.608	24.618	24.628	24.639
2430	24.639	24.649	24.659	24.670	24.680	24.690	24.700	24.711	24.721	24.731	24.742
2440	24.742	24.752	24.762	24.772	24.783	24.793	24.803	24.813	24.824	24.834	24.844
2450	24.844	24.854	24.865	24.875	24.885	24.895	24.906	24.916	24.926	24.936	24.947
2460	24.947	24.957	24.967	24.977	24.988	24.998	25.008	25.018	25.028	25.039	25.049
2470	25.049	25.059	25.069	25.080	25.090	25.100	25.110	25.120	25.131	25.141	25.151
2480	25.151	25.161	25.171	25.182	25.192	25.202	25.212	25.222	25.233	25.243	25.253
2490	25.253	25.263	25.273	25.284	25.294	25.304	25.314	25.324	25.335	25.345	25.355
°F	0	1	2	3	4	5	6	7	8	9	10

°F	0	1	2	3	4	5	6	7	8	9	10
2500	25.355	25.365	25.375	25.385	25.396	25.406	25.416	25.426	25.436	25.446	25.457
2510	25.457	25.467	25.477	25.487	25.497	25.507	25.517	25.528	25.538	25.548	25.558
2520	25.558	25.568	25.578	25.589	25.599	25.609	25.619	25.629	25.639	25.649	25.659
2530	25.659	25.670	25.680	25.690	25.700	25.710	25.720	25.730	25.740	25.751	25.761
2540	25.761	25.771	25.781	25.791	25.801	25.811	25.821	25.831	25.842	25.852	25.862
2550	25.862	25.872	25.882	25.892	25.902	25.912	25.922	25.932	25.942	25.953	25.963
2560	25.963	25.973	25.983	25.993	26.003	26.013	26.023	26.033	26.043	26.053	26.063
2570	26.063	26.073	26.084	26.094	26.104	26.114	26.124	26.134	26.144	26.154	26.164
2580	26.164	26.174	26.184	26.194	26.204	26.214	26.224	26.234	26.244	26.254	26.264
2590	26.264	26.274	26.285	26.295	26.305	26.315	26.325	26.335	26.345	26.355	26.365
2600	26.365	26.375	26.385	26.395	26.405	26.415	26.425	26.435	26.445	26.455	26.465
2610	26.465	26.475	26.485	26.495	26.505	26.515	26.525	26.535	26.545	26.555	26.565
2620	26.565	26.575	26.585	26.595	26.605	26.615	26.625	26.635	26.645	26.655	26.665
2630	26.665	26.675	26.685	26.695	26.705	26.714	26.724	26.734	26.744	26.754	26.764
2640	26.764	26.774	26.784	26.794	26.804	26.814	26.824	26.834	26.844	26.854	26.864
2650	26.864	26.874	26.884	26.894	26.904	26.913	26.923	26.933	26.943	26.953	26.963
2660	26.963	26.973	26.983	26.993	27.003	27.013	27.023	27.033	27.042	27.052	27.062
2670	27.062	27.072	27.082	27.092	27.102	27.112	27.122	27.132	27.141	27.151	27.161
2680	27.161	27.171	27.181	27.191	27.201	27.211	27.221	27.230	27.240	27.250	27.260
2690	27.260	27.270	27.280	27.290	27.300	27.309	27.319	27.329	27.339	27.349	27.359
2700	27.359	27.369	27.379	27.388	27.398	27.408	27.418	27.428	27.438	27.447	27.457
2710	27.457	27.467	27.477	27.487	27.497	27.507	27.516	27.526	27.536	27.546	27.556
2720	27.556	27.566	27.575	27.585	27.595	27.605	27.615	27.624	27.634	27.644	27.654
2730	27.654	27.664	27.673	27.683	27.693	27.703	27.713	27.723	27.732	27.742	27.752
2740	27.752	27.762	27.771	27.781	27.791	27.801	27.811	27.820	27.830	27.840	27.850
2750	27.850	27.860	27.869	27.879	27.889	27.899	27.908	27.918	27.928	27.938	27.947
2760	27.947	27.957	27.967	27.977	27.987	27.996	28.006	28.016	28.026	28.035	28.045
2770	28.045	28.055	28.065	28.074	28.084	28.094	28.103	28.113	28.123	28.133	28.142
2780	28.142	28.152	28.162	28.172	28.181	28.191	28.201	28.210	28.220	28.230	28.240
2790	28.240	28.249	28.259	28.269	28.278	28.288	28.298	28.308	28.317	28.327	28.337
2800	28.337	28.346	28.356	28.366	28.375	28.385	28.395	28.404	28.414	28.424	28.434
2810	28.434	28.443	28.453	28.463	28.472	28.482	28.492	28.501	28.511	28.521	28.530
2820	28.530	28.540	28.550	28.559	28.569	28.579	28.588	28.598	28.607	28.617	28.627
2830	28.627	28.636	28.646	28.656	28.665	28.675	28.685	28.694	28.704	28.714	28.723
2840	28.723	28.733	28.742	28.752	28.762	28.771	28.781	28.790	28.800	28.810	28.819
2850	28.819	28.829	28.839	28.848	28.858	28.867	28.877	28.887	28.896	28.906	28.915
2860	28.915	28.925	28.935	28.944	28.954	28.963	28.973	28.982	28.992	29.002	29.011
2870	29.011	29.021	29.030	29.040	29.050	29.059	29.069	29.078	29.088	29.097	29.107
2880	29.107	29.116	29.126	29.136	29.145	29.155	29.164	29.174	29.183	29.193	29.202
2890	29.202	29.212	29.221	29.231	29.241	29.250	29.260	29.269	29.279	29.288	29.298
2900	29.298	29.307	29.317	29.326	29.336	29.345	29.355	29.364	29.374	29.383	29.393
2910	29.393	29.402	29.412	29.421	29.431	29.440	29.450	29.459	29.469	29.478	29.488
2920	29.488	29.497	29.507	29.516	29.526	29.535	29.545	29.554	29.564	29.573	29.583
2930	29.583	29.592	29.602	29.611	29.621	29.630	29.640	29.649	29.658	29.668	29.677
2940	29.677	29.687	29.696	29.706	29.715	29.725	29.734	29.743	29.753	29.762	29.772
2950	29.772	29.781	29.791	29.800	29.810	29.819	29.828	29.838	29.847	29.857	29.866
2960	29.866	29.876	29.885	29.894	29.904	29.913	29.923	29.932	29.941	29.951	29.960
2970	29.960	29.970	29.979	29.988	29.998	30.007	30.017	30.026	30.035	30.045	30.054
2980	30.054	30.063	30.073	30.082	30.092	30.101	30.110	30.120	30.129	30.138	30.148
2990	30.148	30.157	30.167	30.176	30.185	30.195	30.204	30.213	30.223	30.232	30.241
°F	0	1	2	3	4	5	6	7	8	9	10

Type Tungsten-3% Rhenium vs Tungsten-25% Rhenium ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
3000	30.241	30.251	30.260	30.269	30.279	30.288	30.297	30.307	30.316	30.325	30.335
3010	30.335	30.344	30.353	30.363	30.372	30.381	30.391	30.400	30.409	30.419	30.428
3020	30.428	30.437	30.447	30.456	30.465	30.474	30.484	30.493	30.502	30.512	30.521
3030	30.521	30.530	30.540	30.549	30.558	30.567	30.577	30.586	30.595	30.604	30.614
3040	30.614	30.623	30.632	30.642	30.651	30.660	30.669	30.679	30.688	30.697	30.706
3050	30.706	30.716	30.725	30.734	30.743	30.753	30.762	30.771	30.780	30.790	30.799
3060	30.799	30.808	30.817	30.827	30.836	30.845	30.854	30.863	30.873	30.882	30.891
3070	30.891	30.900	30.909	30.919	30.928	30.937	30.946	30.956	30.965	30.974	30.983
3080	30.983	30.992	31.002	31.011	31.020	31.029	31.038	31.047	31.057	31.066	31.075
3090	31.075	31.084	31.093	31.103	31.112	31.121	31.130	31.139	31.148	31.157	31.167
3100	31.167	31.176	31.185	31.194	31.203	31.212	31.222	31.231	31.240	31.249	31.258
3110	31.258	31.267	31.276	31.286	31.295	31.304	31.313	31.322	31.331	31.340	31.349
3120	31.349	31.359	31.368	31.377	31.386	31.395	31.404	31.413	31.422	31.431	31.440
3130	31.440	31.450	31.459	31.468	31.477	31.486	31.495	31.504	31.513	31.522	31.531
3140	31.531	31.540	31.550	31.559	31.568	31.577	31.586	31.595	31.604	31.613	31.622
3150	31.622	31.631	31.640	31.649	31.658	31.667	31.676	31.685	31.694	31.703	31.713
3160	31.713	31.722	31.731	31.740	31.749	31.758	31.767	31.776	31.785	31.794	31.803
3170	31.803	31.812	31.821	31.830	31.839	31.848	31.857	31.866	31.875	31.884	31.893
3180	31.893	31.902	31.911	31.920	31.929	31.938	31.947	31.956	31.965	31.974	31.983
3190	31.983	31.992	32.001	32.010	32.019	32.028	32.037	32.045	32.054	32.063	32.072
3200	32.072	32.081	32.090	32.099	32.108	32.117	32.126	32.135	32.144	32.153	32.162
3210	32.162	32.171	32.180	32.189	32.197	32.206	32.215	32.224	32.233	32.242	32.251
3220	32.251	32.260	32.269	32.278	32.287	32.296	32.304	32.313	32.322	32.331	32.340
3230	32.340	32.349	32.358	32.367	32.376	32.384	32.393	32.402	32.411	32.420	32.429
3240	32.429	32.438	32.447	32.455	32.464	32.473	32.482	32.491	32.500	32.509	32.517
3250	32.517	32.526	32.535	32.544	32.553	32.562	32.570	32.579	32.588	32.597	32.606
3260	32.606	32.615	32.623	32.632	32.641	32.650	32.659	32.667	32.676	32.685	32.694
3270	32.694	32.703	32.712	32.720	32.729	32.738	32.747	32.755	32.764	32.773	32.782
3280	32.782	32.791	32.799	32.808	32.817	32.826	32.834	32.843	32.852	32.861	32.870
3290	32.870	32.878	32.887	32.896	32.905	32.913	32.922	32.931	32.940	32.948	32.957
3300	32.957	32.966	32.974	32.983	32.992	33.001	33.009	33.018	33.027	33.036	33.044
3310	33.044	33.053	33.062	33.070	33.079	33.088	33.096	33.105	33.114	33.123	33.131
3320	33.131	33.140	33.149	33.157	33.166	33.175	33.183	33.192	33.201	33.209	33.218
3330	33.218	33.227	33.235	33.244	33.253	33.261	33.270	33.279	33.287	33.296	33.305
3340	33.305	33.313	33.322	33.330	33.339	33.348	33.356	33.365	33.374	33.382	33.391
3350	33.391	33.399	33.408	33.417	33.425	33.434	33.443	33.451	33.460	33.468	33.477
3360	33.477	33.486	33.494	33.503	33.511	33.520	33.528	33.537	33.546	33.554	33.563
3370	33.563	33.571	33.580	33.588	33.597	33.606	33.614	33.623	33.631	33.640	33.648
3380	33.648	33.657	33.665	33.674	33.683	33.691	33.700	33.708	33.717	33.725	33.734
3390	33.734	33.742	33.751	33.759	33.768	33.776	33.785	33.793	33.802	33.810	33.819
3400	33.819	33.827	33.836	33.844	33.853	33.861	33.870	33.878	33.887	33.895	33.904
3410	33.904	33.912	33.921	33.929	33.937	33.946	33.954	33.963	33.971	33.980	33.988
3420	33.988	33.997	34.005	34.014	34.022	34.030	34.039	34.047	34.056	34.064	34.073
3430	34.073	34.081	34.089	34.098	34.106	34.115	34.123	34.131	34.140	34.148	34.157
3440	34.157	34.165	34.173	34.182	34.190	34.199	34.207	34.215	34.224	34.232	34.240
3450	34.240	34.249	34.257	34.266	34.274	34.282	34.291	34.299	34.307	34.316	34.324
3460	34.324	34.332	34.341	34.349	34.357	34.366	34.374	34.382	34.391	34.399	34.407
3470	34.407	34.416	34.424	34.432	34.440	34.449	34.457	34.465	34.474	34.482	34.490
3480	34.490	34.499	34.507	34.515	34.523	34.532	34.540	34.548	34.556	34.565	34.573
3490	34.573	34.581	34.590	34.598	34.606	34.614	34.623	34.631	34.639	34.647	34.655
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
3500	34.655	34.664	34.672	34.680	34.688	34.697	34.705	34.713	34.721	34.729	34.738
3510	34.738	34.746	34.754	34.762	34.770	34.779	34.787	34.795	34.803	34.811	34.820
3520	34.820	34.828	34.836	34.844	34.852	34.860	34.869	34.877	34.885	34.893	34.901
3530	34.901	34.909	34.918	34.926	34.934	34.942	34.950	34.958	34.966	34.974	34.983
3540	34.983	34.991	34.999	35.007	35.015	35.023	35.031	35.039	35.047	35.056	35.064
3550	35.064	35.072	35.080	35.088	35.096	35.104	35.112	35.120	35.128	35.136	35.144
3560	35.144	35.152	35.161	35.169	35.177	35.185	35.193	35.201	35.209	35.217	35.225
3570	35.225	35.233	35.241	35.249	35.257	35.265	35.273	35.281	35.289	35.297	35.305
3580	35.305	35.313	35.321	35.329	35.337	35.345	35.353	35.361	35.369	35.377	35.385
3590	35.385	35.393	35.401	35.409	35.417	35.425	35.433	35.441	35.449	35.457	35.464
3600	35.464	35.472	35.480	35.488	35.496	35.504	35.512	35.520	35.528	35.536	35.544
3610	35.544	35.552	35.560	35.567	35.575	35.583	35.591	35.599	35.607	35.615	35.623
3620	35.623	35.631	35.638	35.646	35.654	35.662	35.670	35.678	35.686	35.693	35.701
3630	35.701	35.709	35.717	35.725	35.733	35.740	35.748	35.756	35.764	35.772	35.780
3640	35.780	35.787	35.795	35.803	35.811	35.819	35.826	35.834	35.842	35.850	35.858
3650	35.858	35.865	35.873	35.881	35.889	35.896	35.904	35.912	35.920	35.927	35.935
3660	35.935	35.943	35.951	35.958	35.966	35.974	35.982	35.989	35.997	36.005	36.013
3670	36.013	36.020	36.028	36.036	36.043	36.051	36.059	36.067	36.074	36.082	36.090
3680	36.090	36.097	36.105	36.113	36.120	36.128	36.136	36.143	36.151	36.159	36.166
3690	36.166	36.174	36.182	36.189	36.197	36.204	36.212	36.220	36.227	36.235	36.243
3700	36.243	36.250	36.258	36.265	36.273	36.281	36.288	36.296	36.303	36.311	36.319
3710	36.319	36.326	36.334	36.341	36.349	36.356	36.364	36.371	36.379	36.387	36.394
3720	36.394	36.402	36.409	36.417	36.424	36.432	36.439	36.447	36.454	36.462	36.469
3730	36.469	36.477	36.484	36.492	36.499	36.507	36.514	36.522	36.529	36.537	36.544
3740	36.544	36.552	36.559	36.567	36.574	36.582	36.589	36.597	36.604	36.611	36.619
3750	36.619	36.626	36.634	36.641	36.649	36.656	36.663	36.671	36.678	36.686	36.693
3760	36.693	36.700	36.708	36.715	36.723	36.730	36.737	36.745	36.752	36.759	36.767
3770	36.767	36.774	36.782	36.789	36.796	36.804	36.811	36.818	36.826	36.833	36.840
3780	36.840	36.848	36.855	36.862	36.870	36.877	36.884	36.891	36.899	36.906	36.913
3790	36.913	36.921	36.928	36.935	36.942	36.950	36.957	36.964	36.971	36.979	36.986
3800	36.986	36.993	37.000	37.008	37.015	37.022	37.029	37.037	37.044	37.051	37.058
3810	37.058	37.065	37.073	37.080	37.087	37.094	37.101	37.109	37.116	37.123	37.130
3820	37.130	37.137	37.144	37.152	37.159	37.166	37.173	37.180	37.187	37.194	37.202
3830	37.202	37.209	37.216	37.223	37.230	37.237	37.244	37.251	37.258	37.266	37.273
3840	37.273	37.280	37.287	37.294	37.301	37.308	37.315	37.322	37.329	37.336	37.343
3850	37.343	37.350	37.357	37.364	37.371	37.379	37.386	37.393	37.400	37.407	37.414
3860	37.414	37.421	37.428	37.435	37.442	37.449	37.456	37.463	37.469	37.476	37.483
3870	37.483	37.490	37.497	37.504	37.511	37.518	37.525	37.532	37.539	37.546	37.553
3880	37.553	37.560	37.567	37.574	37.580	37.587	37.594	37.601	37.608	37.615	37.622
3890	37.622	37.629	37.636	37.642	37.649	37.656	37.663	37.670	37.677	37.684	37.690
3900	37.690	37.697	37.704	37.711	37.718	37.724	37.731	37.738	37.745	37.752	37.758
3910	37.758	37.765	37.772	37.779	37.786	37.792	37.799	37.806	37.813	37.819	37.826
3920	37.826	37.833	37.840	37.846	37.853	37.860	37.866	37.873	37.880	37.887	37.893
3930	37.893	37.900	37.907	37.913	37.920	37.927	37.933	37.940	37.947	37.953	37.960
3940	37.960	37.967	37.973	37.980	37.987	37.993	38.000	38.006	38.013	38.020	38.026
3950	38.026	38.033	38.040	38.046	38.053	38.059	38.066	38.072	38.079	38.086	38.092
3960	38.092	38.099	38.105	38.112	38.118	38.125	38.131	38.138	38.144	38.151	38.157
3970	38.157	38.164	38.170	38.177	38.183	38.190	38.196	38.203	38.209	38.216	38.222
3980	38.222	38.229	38.235	38.242	38.248	38.255	38.261	38.267	38.274	38.280	38.287
3990	38.287	38.293	38.299	38.306	38.312	38.319	38.325	38.331	38.338	38.344	38.351
ºF	0	1	2	3	4	5	6	7	8	9	10

Type Tungsten-3% Rhenium vs Tungsten-25% Rhenium ITS-90 °F

°F	0	1	2	3	4	5	6	7	8	9	10
4000	38.351	38.357	38.363	38.370	38.376	38.382	38.389	38.395	38.401	38.408	38.414
4010	38.414	38.420	38.427	38.433	38.439	38.445	38.452	38.458	38.464	38.471	38.477
4020	38.477	38.483	38.489	38.496	38.502	38.508	38.514	38.520	38.527	38.533	38.539
4030	38.539	38.545	38.552	38.558	38.564	38.570	38.576	38.582	38.589	38.595	38.601
4040	38.601	38.607	38.613	38.619	38.626	38.632	38.638	38.644	38.650	38.656	38.662
4050	38.662	38.668	38.674	38.681	38.687	38.693	38.699	38.705	38.711	38.717	38.723
4060	38.723	38.729	38.735	38.741	38.747	38.753	38.759	38.765	38.771	38.777	38.783
4070	38.783	38.789	38.795	38.801	38.807	38.813	38.819	38.825	38.831	38.837	38.843
4080	38.843	38.849	38.855	38.861	38.867	38.873	38.878	38.884	38.890	38.896	38.902
4090	38.902	38.908	38.914	38.920	38.926	38.931	38.937	38.943	38.949	38.955	38.961
4100	38.961	38.966	38.972	38.978	38.984	38.990	38.995	39.001	39.007	39.013	39.019
4110	39.019	39.024	39.030	39.036	39.042	39.047	39.053	39.059	39.065	39.070	39.076
4120	39.076	39.082	39.087	39.093	39.099	39.104	39.110	39.116	39.122	39.127	39.133
4130	39.133	39.138	39.144	39.150	39.155	39.161	39.167	39.172	39.178	39.183	39.189
4140	39.189	39.195	39.200	39.206	39.211	39.217	39.223	39.228	39.234	39.239	39.245
4150	39.245	39.250	39.256	39.261	39.267	39.272	39.278	39.283	39.289	39.294	39.300
4160	39.300	39.305	39.311	39.316	39.322	39.327	39.332	39.338	39.343	39.349	39.354
4170	39.354	39.360	39.365	39.370	39.376	39.381	39.387	39.392	39.397	39.403	39.408
4180	39.408	39.413	39.419	39.424	39.429	39.435	39.440	39.445	39.451	39.456	39.461
4190	39.461	39.466	39.472	39.477	39.482	39.487	39.493	39.498	39.503	39.508	39.514

°F	0	1	2	3	4	5	6	7	8	9	10

°F	0	1	2	3	4	5	6	7	8	9	10

Type Tungsten vs Tungsten-26% Rhenium ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
30			0.000	0.001	0.001	0.002	0.003	0.004	0.005	0.005	0.006
40	0.006	0.007	0.008	0.009	0.009	0.010	0.011	0.012	0.013	0.014	0.015
50	0.015	0.016	0.017	0.018	0.019	0.020	0.021	0.022	0.023	0.024	0.025
60	0.025	0.026	0.027	0.028	0.030	0.031	0.032	0.033	0.034	0.035	0.037
70	0.037	0.038	0.039	0.040	0.041	0.043	0.044	0.045	0.047	0.048	0.049
80	0.049	0.051	0.052	0.053	0.055	0.056	0.058	0.059	0.060	0.062	0.063
90	0.063	0.065	0.066	0.068	0.069	0.071	0.072	0.074	0.075	0.077	0.079
100	0.079	0.080	0.082	0.083	0.085	0.087	0.088	0.090	0.092	0.093	0.095
110	0.095	0.097	0.099	0.100	0.102	0.104	0.106	0.107	0.109	0.111	0.113
120	0.113	0.115	0.117	0.119	0.120	0.122	0.124	0.126	0.128	0.130	0.132
130	0.132	0.134	0.136	0.138	0.140	0.142	0.144	0.146	0.148	0.150	0.152
140	0.152	0.154	0.156	0.159	0.161	0.163	0.165	0.167	0.169	0.172	0.174
150	0.174	0.176	0.178	0.180	0.183	0.185	0.187	0.189	0.192	0.194	0.196
160	0.196	0.199	0.201	0.203	0.206	0.208	0.211	0.213	0.215	0.218	0.220
170	0.220	0.223	0.225	0.228	0.230	0.233	0.235	0.238	0.240	0.243	0.245
180	0.245	0.248	0.250	0.253	0.256	0.258	0.261	0.264	0.266	0.269	0.272
190	0.272	0.274	0.277	0.280	0.282	0.285	0.288	0.291	0.293	0.296	0.299
200	0.299	0.302	0.305	0.307	0.310	0.313	0.316	0.319	0.322	0.325	0.327
210	0.327	0.330	0.333	0.336	0.339	0.342	0.345	0.348	0.351	0.354	0.357
220	0.357	0.360	0.363	0.366	0.369	0.372	0.375	0.379	0.382	0.385	0.388
230	0.388	0.391	0.394	0.397	0.401	0.404	0.407	0.410	0.413	0.417	0.420
240	0.420	0.423	0.426	0.430	0.433	0.436	0.440	0.443	0.446	0.450	0.453
250	0.453	0.456	0.460	0.463	0.466	0.470	0.473	0.477	0.480	0.484	0.487
260	0.487	0.491	0.494	0.498	0.501	0.505	0.508	0.512	0.515	0.519	0.522
270	0.522	0.526	0.529	0.533	0.537	0.540	0.544	0.548	0.551	0.555	0.559
280	0.559	0.562	0.566	0.570	0.573	0.577	0.581	0.585	0.588	0.592	0.596
290	0.596	0.600	0.604	0.607	0.611	0.615	0.619	0.623	0.627	0.631	0.634
300	0.634	0.638	0.642	0.646	0.650	0.654	0.658	0.662	0.666	0.670	0.674
310	0.674	0.678	0.682	0.686	0.690	0.694	0.698	0.702	0.706	0.710	0.715
320	0.715	0.719	0.723	0.727	0.731	0.735	0.739	0.744	0.748	0.752	0.756
330	0.756	0.760	0.765	0.769	0.773	0.777	0.782	0.786	0.790	0.794	0.799
340	0.799	0.803	0.807	0.812	0.816	0.820	0.825	0.829	0.834	0.838	0.842
350	0.842	0.847	0.851	0.856	0.860	0.865	0.869	0.874	0.878	0.883	0.887
360	0.887	0.892	0.896	0.901	0.905	0.910	0.914	0.919	0.923	0.928	0.933
370	0.933	0.937	0.942	0.947	0.951	0.956	0.961	0.965	0.970	0.975	0.979
380	0.979	0.984	0.989	0.993	0.998	1.003	1.008	1.013	1.017	1.022	1.027
390	1.027	1.032	1.037	1.041	1.046	1.051	1.056	1.061	1.066	1.071	1.076
400	1.076	1.080	1.085	1.090	1.095	1.100	1.105	1.110	1.115	1.120	1.125
410	1.125	1.130	1.135	1.140	1.145	1.150	1.155	1.160	1.165	1.170	1.176
420	1.176	1.181	1.186	1.191	1.196	1.201	1.206	1.211	1.217	1.222	1.227
430	1.227	1.232	1.237	1.243	1.248	1.253	1.258	1.264	1.269	1.274	1.279
440	1.279	1.285	1.290	1.295	1.301	1.306	1.311	1.317	1.322	1.327	1.333
450	1.333	1.338	1.343	1.349	1.354	1.360	1.365	1.371	1.376	1.381	1.387
460	1.387	1.392	1.398	1.403	1.409	1.414	1.420	1.425	1.431	1.437	1.442
470	1.442	1.448	1.453	1.459	1.464	1.470	1.476	1.481	1.487	1.492	1.498
480	1.498	1.504	1.509	1.515	1.521	1.526	1.532	1.538	1.544	1.549	1.555
490	1.555	1.561	1.567	1.572	1.578	1.584	1.590	1.595	1.601	1.607	1.613
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
500	1.613	1.619	1.625	1.630	1.636	1.642	1.648	1.654	1.660	1.666	1.672
510	1.672	1.677	1.683	1.689	1.695	1.701	1.707	1.713	1.719	1.725	1.731
520	1.731	1.737	1.743	1.749	1.755	1.761	1.767	1.773	1.779	1.785	1.792
530	1.792	1.798	1.804	1.810	1.816	1.822	1.828	1.834	1.841	1.847	1.853
540	1.853	1.859	1.865	1.871	1.878	1.884	1.890	1.896	1.903	1.909	1.915
550	1.915	1.921	1.928	1.934	1.940	1.946	1.953	1.959	1.965	1.972	1.978
560	1.978	1.984	1.991	1.997	2.003	2.010	2.016	2.023	2.029	2.035	2.042
570	2.042	2.048	2.055	2.061	2.068	2.074	2.080	2.087	2.093	2.100	2.106
580	2.106	2.113	2.119	2.126	2.132	2.139	2.146	2.152	2.159	2.165	2.172
590	2.172	2.178	2.185	2.192	2.198	2.205	2.211	2.218	2.225	2.231	2.238
600	2.238	2.245	2.251	2.258	2.265	2.272	2.278	2.285	2.292	2.298	2.305
610	2.305	2.312	2.319	2.325	2.332	2.339	2.346	2.353	2.359	2.366	2.373
620	2.373	2.380	2.387	2.393	2.400	2.407	2.414	2.421	2.428	2.435	2.442
630	2.442	2.448	2.455	2.462	2.469	2.476	2.483	2.490	2.497	2.504	2.511
640	2.511	2.518	2.525	2.532	2.539	2.546	2.553	2.560	2.567	2.574	2.581
650	2.581	2.588	2.595	2.602	2.609	2.616	2.624	2.631	2.638	2.645	2.652
660	2.652	2.659	2.666	2.673	2.681	2.688	2.695	2.702	2.709	2.717	2.724
670	2.724	2.731	2.738	2.745	2.753	2.760	2.767	2.774	2.782	2.789	2.796
680	2.796	2.803	2.811	2.818	2.825	2.833	2.840	2.847	2.855	2.862	2.869
690	2.869	2.877	2.884	2.891	2.899	2.906	2.914	2.921	2.928	2.936	2.943
700	2.943	2.951	2.958	2.965	2.973	2.980	2.988	2.995	3.003	3.010	3.018
710	3.018	3.025	3.033	3.040	3.048	3.055	3.063	3.070	3.078	3.086	3.093
720	3.093	3.101	3.108	3.116	3.123	3.131	3.139	3.146	3.154	3.161	3.169
730	3.169	3.177	3.184	3.192	3.200	3.207	3.215	3.223	3.230	3.238	3.246
740	3.246	3.254	3.261	3.269	3.277	3.284	3.292	3.300	3.308	3.315	3.323
750	3.323	3.331	3.339	3.347	3.354	3.362	3.370	3.378	3.386	3.394	3.401
760	3.401	3.409	3.417	3.425	3.433	3.441	3.449	3.456	3.464	3.472	3.480
770	3.480	3.488	3.496	3.504	3.512	3.520	3.528	3.536	3.544	3.552	3.560
780	3.560	3.568	3.576	3.584	3.592	3.600	3.608	3.616	3.624	3.632	3.640
790	3.640	3.648	3.656	3.664	3.672	3.680	3.688	3.696	3.704	3.712	3.721
800	3.721	3.729	3.737	3.745	3.753	3.761	3.769	3.777	3.786	3.794	3.802
810	3.802	3.810	3.818	3.826	3.835	3.843	3.851	3.859	3.868	3.876	3.884
820	3.884	3.892	3.900	3.909	3.917	3.925	3.934	3.942	3.950	3.958	3.967
830	3.967	3.975	3.983	3.992	4.000	4.008	4.017	4.025	4.033	4.042	4.050
840	4.050	4.058	4.067	4.075	4.084	4.092	4.100	4.109	4.117	4.126	4.134
850	4.134	4.142	4.151	4.159	4.168	4.176	4.185	4.193	4.202	4.210	4.219
860	4.219	4.227	4.236	4.244	4.253	4.261	4.270	4.278	4.287	4.295	4.304
870	4.304	4.312	4.321	4.329	4.338	4.346	4.355	4.364	4.372	4.381	4.389
880	4.389	4.398	4.407	4.415	4.424	4.433	4.441	4.450	4.458	4.467	4.476
890	4.476	4.484	4.493	4.502	4.511	4.519	4.528	4.537	4.545	4.554	4.563
900	4.563	4.571	4.580	4.589	4.598	4.606	4.615	4.624	4.633	4.641	4.650
910	4.650	4.659	4.668	4.677	4.685	4.694	4.703	4.712	4.721	4.730	4.738
920	4.738	4.747	4.756	4.765	4.774	4.783	4.791	4.800	4.809	4.818	4.827
930	4.827	4.836	4.845	4.854	4.863	4.872	4.880	4.889	4.898	4.907	4.916
940	4.916	4.925	4.934	4.943	4.952	4.961	4.970	4.979	4.988	4.997	5.006
950	5.006	5.015	5.024	5.033	5.042	5.051	5.060	5.069	5.078	5.087	5.096
960	5.096	5.105	5.114	5.123	5.133	5.142	5.151	5.160	5.169	5.178	5.187
970	5.187	5.196	5.205	5.214	5.224	5.233	5.242	5.251	5.260	5.269	5.278
980	5.278	5.288	5.297	5.306	5.315	5.324	5.334	5.343	5.352	5.361	5.370
990	5.370	5.380	5.389	5.398	5.407	5.416	5.426	5.435	5.444	5.453	5.463
ºF	0	1	2	3	4	5	6	7	8	9	10

Type Tungsten vs Tungsten-26% Rhenium ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
1000	5.463	5.472	5.481	5.491	5.500	5.509	5.518	5.528	5.537	5.546	5.556
1010	5.556	5.565	5.574	5.584	5.593	5.602	5.612	5.621	5.630	5.640	5.649
1020	5.649	5.658	5.668	5.677	5.687	5.696	5.705	5.715	5.724	5.734	5.743
1030	5.743	5.752	5.762	5.771	5.781	5.790	5.800	5.809	5.818	5.828	5.837
1040	5.837	5.847	5.856	5.866	5.875	5.885	5.894	5.904	5.913	5.923	5.932
1050	5.932	5.942	5.951	5.961	5.970	5.980	5.989	5.999	6.008	6.018	6.027
1060	6.027	6.037	6.047	6.056	6.066	6.075	6.085	6.095	6.104	6.114	6.123
1070	6.123	6.133	6.143	6.152	6.162	6.171	6.181	6.191	6.200	6.210	6.220
1080	6.220	6.229	6.239	6.249	6.258	6.268	6.278	6.287	6.297	6.307	6.316
1090	6.316	6.326	6.336	6.345	6.355	6.365	6.374	6.384	6.394	6.404	6.413
1100	6.413	6.423	6.433	6.443	6.452	6.462	6.472	6.482	6.491	6.501	6.511
1110	6.511	6.521	6.531	6.540	6.550	6.560	6.570	6.580	6.589	6.599	6.609
1120	6.609	6.619	6.629	6.638	6.648	6.658	6.668	6.678	6.688	6.698	6.707
1130	6.707	6.717	6.727	6.737	6.747	6.757	6.767	6.777	6.786	6.796	6.806
1140	6.806	6.816	6.826	6.836	6.846	6.856	6.866	6.876	6.886	6.896	6.905
1150	6.905	6.915	6.925	6.935	6.945	6.955	6.965	6.975	6.985	6.995	7.005
1160	7.005	7.015	7.025	7.035	7.045	7.055	7.065	7.075	7.085	7.095	7.105
1170	7.105	7.115	7.125	7.135	7.145	7.155	7.165	7.175	7.185	7.196	7.206
1180	7.206	7.216	7.226	7.236	7.246	7.256	7.266	7.276	7.286	7.296	7.306
1190	7.306	7.317	7.327	7.337	7.347	7.357	7.367	7.377	7.387	7.398	7.408
1200	7.408	7.418	7.428	7.438	7.448	7.458	7.469	7.479	7.489	7.499	7.509
1210	7.509	7.519	7.530	7.540	7.550	7.560	7.570	7.581	7.591	7.601	7.611
1220	7.611	7.622	7.632	7.642	7.652	7.662	7.673	7.683	7.693	7.703	7.714
1230	7.714	7.724	7.734	7.745	7.755	7.765	7.775	7.786	7.796	7.806	7.816
1240	7.816	7.827	7.837	7.847	7.858	7.868	7.878	7.889	7.899	7.909	7.920
1250	7.920	7.930	7.940	7.951	7.961	7.971	7.982	7.992	8.002	8.013	8.023
1260	8.023	8.034	8.044	8.054	8.065	8.075	8.085	8.096	8.106	8.117	8.127
1270	8.127	8.137	8.148	8.158	8.169	8.179	8.190	8.200	8.210	8.221	8.231
1280	8.231	8.242	8.252	8.263	8.273	8.284	8.294	8.305	8.315	8.325	8.336
1290	8.336	8.346	8.357	8.367	8.378	8.388	8.399	8.409	8.420	8.430	8.441
1300	8.441	8.451	8.462	8.472	8.483	8.493	8.504	8.515	8.525	8.536	8.546
1310	8.546	8.557	8.567	8.578	8.588	8.599	8.610	8.620	8.631	8.641	8.652
1320	8.652	8.662	8.673	8.684	8.694	8.705	8.715	8.726	8.737	8.747	8.758
1330	8.758	8.768	8.779	8.790	8.800	8.811	8.821	8.832	8.843	8.853	8.864
1340	8.864	8.875	8.885	8.896	8.907	8.917	8.928	8.939	8.949	8.960	8.971
1350	8.971	8.981	8.992	9.003	9.013	9.024	9.035	9.045	9.056	9.067	9.078
1360	9.078	9.088	9.099	9.110	9.120	9.131	9.142	9.153	9.163	9.174	9.185
1370	9.185	9.196	9.206	9.217	9.228	9.239	9.249	9.260	9.271	9.282	9.292
1380	9.292	9.303	9.314	9.325	9.335	9.346	9.357	9.368	9.379	9.389	9.400
1390	9.400	9.411	9.422	9.433	9.443	9.454	9.465	9.476	9.487	9.498	9.508
1400	9.508	9.519	9.530	9.541	9.552	9.563	9.573	9.584	9.595	9.606	9.617
1410	9.617	9.628	9.638	9.649	9.660	9.671	9.682	9.693	9.704	9.715	9.725
1420	9.725	9.736	9.747	9.758	9.769	9.780	9.791	9.802	9.813	9.824	9.834
1430	9.834	9.845	9.856	9.867	9.878	9.889	9.900	9.911	9.922	9.933	9.944
1440	9.944	9.955	9.966	9.977	9.988	9.998	10.009	10.020	10.031	10.042	10.053
1450	10.053	10.064	10.075	10.086	10.097	10.108	10.119	10.130	10.141	10.152	10.163
1460	10.163	10.174	10.185	10.196	10.207	10.218	10.229	10.240	10.251	10.262	10.273
1470	10.273	10.284	10.295	10.306	10.317	10.328	10.339	10.350	10.361	10.372	10.383
1480	10.383	10.395	10.406	10.417	10.428	10.439	10.450	10.461	10.472	10.483	10.494
1490	10.494	10.505	10.516	10.527	10.538	10.549	10.561	10.572	10.583	10.594	10.605
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
1500	10.605	10.616	10.627	10.638	10.649	10.660	10.671	10.683	10.694	10.705	10.716
1510	10.716	10.727	10.738	10.749	10.760	10.772	10.783	10.794	10.805	10.816	10.827
1520	10.827	10.838	10.850	10.861	10.872	10.883	10.894	10.905	10.916	10.928	10.939
1530	10.939	10.950	10.961	10.972	10.983	10.995	11.006	11.017	11.028	11.039	11.051
1540	11.051	11.062	11.073	11.084	11.095	11.106	11.118	11.129	11.140	11.151	11.162
1550	11.162	11.174	11.185	11.196	11.207	11.219	11.230	11.241	11.252	11.263	11.275
1560	11.275	11.286	11.297	11.308	11.320	11.331	11.342	11.353	11.365	11.376	11.387
1570	11.387	11.398	11.410	11.421	11.432	11.443	11.455	11.466	11.477	11.488	11.500
1580	11.500	11.511	11.522	11.533	11.545	11.556	11.567	11.579	11.590	11.601	11.612
1590	11.612	11.624	11.635	11.646	11.658	11.669	11.680	11.692	11.703	11.714	11.725
1600	11.725	11.737	11.748	11.759	11.771	11.782	11.793	11.805	11.816	11.827	11.839
1610	11.839	11.850	11.861	11.873	11.884	11.895	11.907	11.918	11.929	11.941	11.952
1620	11.952	11.963	11.975	11.986	11.997	12.009	12.020	12.032	12.043	12.054	12.066
1630	12.066	12.077	12.088	12.100	12.111	12.123	12.134	12.145	12.157	12.168	12.179
1640	12.179	12.191	12.202	12.214	12.225	12.236	12.248	12.259	12.271	12.282	12.293
1650	12.293	12.305	12.316	12.328	12.339	12.350	12.362	12.373	12.385	12.396	12.407
1660	12.407	12.419	12.430	12.442	12.453	12.465	12.476	12.487	12.499	12.510	12.522
1670	12.522	12.533	12.545	12.556	12.567	12.579	12.590	12.602	12.613	12.625	12.636
1680	12.636	12.648	12.659	12.670	12.682	12.693	12.705	12.716	12.728	12.739	12.751
1690	12.751	12.762	12.774	12.785	12.797	12.808	12.819	12.831	12.842	12.854	12.865
1700	12.865	12.877	12.888	12.900	12.911	12.923	12.934	12.946	12.957	12.969	12.980
1710	12.980	12.992	13.003	13.015	13.026	13.038	13.049	13.061	13.072	13.084	13.095
1720	13.095	13.107	13.118	13.130	13.141	13.153	13.164	13.176	13.187	13.199	13.210
1730	13.210	13.222	13.234	13.245	13.257	13.268	13.280	13.291	13.303	13.314	13.326
1740	13.326	13.337	13.349	13.360	13.372	13.383	13.395	13.407	13.418	13.430	13.441
1750	13.441	13.453	13.464	13.476	13.487	13.499	13.510	13.522	13.534	13.545	13.557
1760	13.557	13.568	13.580	13.591	13.603	13.615	13.626	13.638	13.649	13.661	13.672
1770	13.672	13.684	13.696	13.707	13.719	13.730	13.742	13.753	13.765	13.777	13.788
1780	13.788	13.800	13.811	13.823	13.835	13.846	13.858	13.869	13.881	13.892	13.904
1790	13.904	13.916	13.927	13.939	13.950	13.962	13.974	13.985	13.997	14.009	14.020
1800	14.020	14.032	14.043	14.055	14.067	14.078	14.090	14.101	14.113	14.125	14.136
1810	14.136	14.148	14.159	14.171	14.183	14.194	14.206	14.218	14.229	14.241	14.252
1820	14.252	14.264	14.276	14.287	14.299	14.311	14.322	14.334	14.345	14.357	14.369
1830	14.369	14.380	14.392	14.404	14.415	14.427	14.439	14.450	14.462	14.474	14.485
1840	14.485	14.497	14.508	14.520	14.532	14.543	14.555	14.567	14.578	14.590	14.602
1850	14.602	14.613	14.625	14.637	14.648	14.660	14.672	14.683	14.695	14.707	14.718
1860	14.718	14.730	14.742	14.753	14.765	14.777	14.788	14.800	14.812	14.823	14.835
1870	14.835	14.847	14.858	14.870	14.882	14.893	14.905	14.917	14.928	14.940	14.952
1880	14.952	14.963	14.975	14.987	14.998	15.010	15.022	15.033	15.045	15.057	15.069
1890	15.069	15.080	15.092	15.104	15.115	15.127	15.139	15.150	15.162	15.174	15.185
1900	15.185	15.197	15.209	15.220	15.232	15.244	15.256	15.267	15.279	15.291	15.302
1910	15.302	15.314	15.326	15.337	15.349	15.361	15.373	15.384	15.396	15.408	15.419
1920	15.419	15.431	15.443	15.455	15.466	15.478	15.490	15.501	15.513	15.525	15.536
1930	15.536	15.548	15.560	15.572	15.583	15.595	15.607	15.618	15.630	15.642	15.654
1940	15.654	15.665	15.677	15.689	15.701	15.712	15.724	15.736	15.747	15.759	15.771
1950	15.771	15.783	15.794	15.806	15.818	15.829	15.841	15.853	15.865	15.876	15.888
1960	15.888	15.900	15.912	15.923	15.935	15.947	15.958	15.970	15.982	15.994	16.005
1970	16.005	16.017	16.029	16.041	16.052	16.064	16.076	16.087	16.099	16.111	16.123
1980	16.123	16.134	16.146	16.158	16.170	16.181	16.193	16.205	16.217	16.228	16.240
1990	16.240	16.252	16.264	16.275	16.287	16.299	16.310	16.322	16.334	16.346	16.357
ºF	0	1	2	3	4	5	6	7	8	9	10

Type Tungsten vs Tungsten-26% Rhenium ITS-90 ºF

ºF	0	1	2	3	4	5	6	7	8	9	10
2000	16.357	16.369	16.381	16.393	16.404	16.416	16.428	16.440	16.451	16.463	16.475
2010	16.475	16.487	16.498	16.510	16.522	16.534	16.545	16.557	16.569	16.581	16.592
2020	16.592	16.604	16.616	16.628	16.639	16.651	16.663	16.675	16.686	16.698	16.710
2030	16.710	16.722	16.733	16.745	16.757	16.769	16.780	16.792	16.804	16.816	16.827
2040	16.827	16.839	16.851	16.863	16.874	16.886	16.898	16.910	16.921	16.933	16.945
2050	16.945	16.957	16.968	16.980	16.992	17.004	17.015	17.027	17.039	17.051	17.062
2060	17.062	17.074	17.086	17.098	17.109	17.121	17.133	17.145	17.156	17.168	17.180
2070	17.180	17.192	17.203	17.215	17.227	17.239	17.250	17.262	17.274	17.286	17.298
2080	17.298	17.309	17.321	17.333	17.345	17.356	17.368	17.380	17.392	17.403	17.415
2090	17.415	17.427	17.439	17.450	17.462	17.474	17.486	17.497	17.509	17.521	17.533
2100	17.533	17.544	17.556	17.568	17.580	17.591	17.603	17.615	17.627	17.638	17.650
2110	17.650	17.662	17.674	17.685	17.697	17.709	17.721	17.732	17.744	17.756	17.768
2120	17.768	17.780	17.791	17.803	17.815	17.827	17.838	17.850	17.862	17.874	17.885
2130	17.885	17.897	17.909	17.921	17.932	17.944	17.956	17.968	17.979	17.991	18.003
2140	18.003	18.015	18.026	18.038	18.050	18.062	18.073	18.085	18.097	18.109	18.120
2150	18.120	18.132	18.144	18.156	18.167	18.179	18.191	18.203	18.214	18.226	18.238
2160	18.238	18.250	18.261	18.273	18.285	18.297	18.308	18.320	18.332	18.344	18.355
2170	18.355	18.367	18.379	18.391	18.402	18.414	18.426	18.438	18.449	18.461	18.473
2180	18.473	18.485	18.496	18.508	18.520	18.532	18.543	18.555	18.567	18.579	18.590
2190	18.590	18.602	18.614	18.625	18.637	18.649	18.661	18.672	18.684	18.696	18.708
2200	18.708	18.719	18.731	18.743	18.755	18.766	18.778	18.790	18.802	18.813	18.825
2210	18.825	18.837	18.849	18.860	18.872	18.884	18.895	18.907	18.919	18.931	18.942
2220	18.942	18.954	18.966	18.978	18.989	19.001	19.013	19.025	19.036	19.048	19.060
2230	19.060	19.071	19.083	19.095	19.107	19.118	19.130	19.142	19.154	19.165	19.177
2240	19.177	19.189	19.200	19.212	19.224	19.236	19.247	19.259	19.271	19.282	19.294
2250	19.294	19.306	19.318	19.329	19.341	19.353	19.364	19.376	19.388	19.400	19.411
2260	19.411	19.423	19.435	19.446	19.458	19.470	19.482	19.493	19.505	19.517	19.528
2270	19.528	19.540	19.552	19.564	19.575	19.587	19.599	19.610	19.622	19.634	19.646
2280	19.646	19.657	19.669	19.681	19.692	19.704	19.716	19.727	19.739	19.751	19.763
2290	19.763	19.774	19.786	19.798	19.809	19.821	19.833	19.844	19.856	19.868	19.880
2300	19.880	19.891	19.903	19.915	19.926	19.938	19.950	19.961	19.973	19.985	19.996
2310	19.996	20.008	20.020	20.031	20.043	20.055	20.067	20.078	20.090	20.102	20.113
2320	20.113	20.125	20.137	20.148	20.160	20.172	20.183	20.195	20.207	20.218	20.230
2330	20.230	20.242	20.253	20.265	20.277	20.288	20.300	20.312	20.323	20.335	20.347
2340	20.347	20.358	20.370	20.382	20.393	20.405	20.417	20.428	20.440	20.452	20.463
2350	20.463	20.475	20.487	20.498	20.510	20.522	20.533	20.545	20.557	20.568	20.580
2360	20.580	20.592	20.603	20.615	20.627	20.638	20.650	20.661	20.673	20.685	20.696
2370	20.696	20.708	20.720	20.731	20.743	20.755	20.766	20.778	20.790	20.801	20.813
2380	20.813	20.824	20.836	20.848	20.859	20.871	20.883	20.894	20.906	20.918	20.929
2390	20.929	20.941	20.952	20.964	20.976	20.987	20.999	21.011	21.022	21.034	21.045
2400	21.045	21.057	21.069	21.080	21.092	21.103	21.115	21.127	21.138	21.150	21.162
2410	21.162	21.173	21.185	21.196	21.208	21.220	21.231	21.243	21.254	21.266	21.278
2420	21.278	21.289	21.301	21.312	21.324	21.336	21.347	21.359	21.370	21.382	21.394
2430	21.394	21.405	21.417	21.428	21.440	21.452	21.463	21.475	21.486	21.498	21.509
2440	21.509	21.521	21.533	21.544	21.556	21.567	21.579	21.591	21.602	21.614	21.625
2450	21.625	21.637	21.648	21.660	21.672	21.683	21.695	21.706	21.718	21.729	21.741
2460	21.741	21.753	21.764	21.776	21.787	21.799	21.810	21.822	21.833	21.845	21.857
2470	21.857	21.868	21.880	21.891	21.903	21.914	21.926	21.937	21.949	21.960	21.972
2480	21.972	21.984	21.995	22.007	22.018	22.030	22.041	22.053	22.064	22.076	22.087
2490	22.087	22.099	22.110	22.122	22.134	22.145	22.157	22.168	22.180	22.191	22.203
ºF	0	1	2	3	4	5	6	7	8	9	10

ºF	0	1	2	3	4	5	6	7	8	9	10
2500	22.203	22.214	22.226	22.237	22.249	22.260	22.272	22.283	22.295	22.306	22.318
2510	22.318	22.329	22.341	22.352	22.364	22.375	22.387	22.398	22.410	22.421	22.433
2520	22.433	22.444	22.456	22.467	22.479	22.490	22.502	22.513	22.525	22.536	22.548
2530	22.548	22.559	22.571	22.582	22.594	22.605	22.617	22.628	22.640	22.651	22.663
2540	22.663	22.674	22.686	22.697	22.709	22.720	22.731	22.743	22.754	22.766	22.777
2550	22.777	22.789	22.800	22.812	22.823	22.835	22.846	22.858	22.869	22.880	22.892
2560	22.892	22.903	22.915	22.926	22.938	22.949	22.961	22.972	22.983	22.995	23.006
2570	23.006	23.018	23.029	23.041	23.052	23.063	23.075	23.086	23.098	23.109	23.121
2580	23.121	23.132	23.143	23.155	23.166	23.178	23.189	23.201	23.212	23.223	23.235
2590	23.235	23.246	23.258	23.269	23.280	23.292	23.303	23.315	23.326	23.337	23.349
2600	23.349	23.360	23.372	23.383	23.394	23.406	23.417	23.429	23.440	23.451	23.463
2610	23.463	23.474	23.486	23.497	23.508	23.520	23.531	23.542	23.554	23.565	23.577
2620	23.577	23.588	23.599	23.611	23.622	23.633	23.645	23.656	23.668	23.679	23.690
2630	23.690	23.702	23.713	23.724	23.736	23.747	23.758	23.770	23.781	23.792	23.804
2640	23.804	23.815	23.826	23.838	23.849	23.860	23.872	23.883	23.894	23.906	23.917
2650	23.917	23.928	23.940	23.951	23.962	23.974	23.985	23.996	24.008	24.019	24.030
2660	24.030	24.042	24.053	24.064	24.076	24.087	24.098	24.110	24.121	24.132	24.143
2670	24.143	24.155	24.166	24.177	24.189	24.200	24.211	24.222	24.234	24.245	24.256
2680	24.256	24.268	24.279	24.290	24.301	24.313	24.324	24.335	24.347	24.358	24.369
2690	24.369	24.380	24.392	24.403	24.414	24.425	24.437	24.448	24.459	24.470	24.482
2700	24.482	24.493	24.504	24.516	24.527	24.538	24.549	24.560	24.572	24.583	24.594
2710	24.594	24.605	24.617	24.628	24.639	24.650	24.662	24.673	24.684	24.695	24.707
2720	24.707	24.718	24.729	24.740	24.751	24.763	24.774	24.785	24.796	24.807	24.819
2730	24.819	24.830	24.841	24.852	24.863	24.875	24.886	24.897	24.908	24.919	24.931
2740	24.931	24.942	24.953	24.964	24.975	24.987	24.998	25.009	25.020	25.031	25.042
2750	25.042	25.054	25.065	25.076	25.087	25.098	25.109	25.121	25.132	25.143	25.154
2760	25.154	25.165	25.176	25.188	25.199	25.210	25.221	25.232	25.243	25.254	25.266
2770	25.266	25.277	25.288	25.299	25.310	25.321	25.332	25.344	25.355	25.366	25.377
2780	25.377	25.388	25.399	25.410	25.421	25.433	25.444	25.455	25.466	25.477	25.488
2790	25.488	25.499	25.510	25.521	25.532	25.544	25.555	25.566	25.577	25.588	25.599
2800	25.599	25.610	25.621	25.632	25.643	25.654	25.666	25.677	25.688	25.699	25.710
2810	25.710	25.721	25.732	25.743	25.754	25.765	25.776	25.787	25.798	25.809	25.820
2820	25.820	25.832	25.843	25.854	25.865	25.876	25.887	25.898	25.909	25.920	25.931
2830	25.931	25.942	25.953	25.964	25.975	25.986	25.997	26.008	26.019	26.030	26.041
2840	26.041	26.052	26.063	26.074	26.085	26.096	26.107	26.118	26.129	26.140	26.151
2850	26.151	26.162	26.173	26.184	26.195	26.206	26.217	26.228	26.239	26.250	26.261
2860	26.261	26.272	26.283	26.294	26.305	26.316	26.327	26.338	26.349	26.360	26.371
2870	26.371	26.382	26.393	26.404	26.415	26.426	26.437	26.447	26.458	26.469	26.480
2880	26.480	26.491	26.502	26.513	26.524	26.535	26.546	26.557	26.568	26.579	26.590
2890	26.590	26.601	26.611	26.622	26.633	26.644	26.655	26.666	26.677	26.688	26.699
2900	26.699	26.710	26.721	26.731	26.742	26.753	26.764	26.775	26.786	26.797	26.808
2910	26.808	26.819	26.829	26.840	26.851	26.862	26.873	26.884	26.895	26.905	26.916
2920	26.916	26.927	26.938	26.949	26.960	26.971	26.981	26.992	27.003	27.014	27.025
2930	27.025	27.036	27.047	27.057	27.068	27.079	27.090	27.101	27.112	27.122	27.133
2940	27.133	27.144	27.155	27.166	27.176	27.187	27.198	27.209	27.220	27.230	27.241
2950	27.241	27.252	27.263	27.274	27.284	27.295	27.306	27.317	27.328	27.338	27.349
2960	27.349	27.360	27.371	27.382	27.392	27.403	27.414	27.425	27.435	27.446	27.457
2970	27.457	27.468	27.478	27.489	27.500	27.511	27.521	27.532	27.543	27.554	27.564
2980	27.564	27.575	27.586	27.597	27.607	27.618	27.629	27.639	27.650	27.661	27.672
2990	27.672	27.682	27.693	27.704	27.714	27.725	27.736	27.747	27.757	27.768	27.779
ºF	0	1	2	3	4	5	6	7	8	9	10

Type Tungsten vs Tungsten-26% Rhenium ITS-90 °F

°F	0	1	2	3	4	5	6	7	8	9	10
3000	27.779	27.789	27.800	27.811	27.821	27.832	27.843	27.854	27.864	27.875	27.886
3010	27.886	27.896	27.907	27.918	27.928	27.939	27.950	27.960	27.971	27.982	27.992
3020	27.992	28.003	28.013	28.024	28.035	28.045	28.056	28.067	28.077	28.088	28.099
3030	28.099	28.109	28.120	28.130	28.141	28.152	28.162	28.173	28.184	28.194	28.205
3040	28.205	28.215	28.226	28.237	28.247	28.258	28.268	28.279	28.290	28.300	28.311
3050	28.311	28.321	28.332	28.342	28.353	28.364	28.374	28.385	28.395	28.406	28.416
3060	28.416	28.427	28.438	28.448	28.459	28.469	28.480	28.490	28.501	28.511	28.522
3070	28.522	28.533	28.543	28.554	28.564	28.575	28.585	28.596	28.606	28.617	28.627
3080	28.627	28.638	28.648	28.659	28.669	28.680	28.690	28.701	28.711	28.722	28.732
3090	28.732	28.743	28.753	28.764	28.774	28.785	28.795	28.806	28.816	28.827	28.837
3100	28.837	28.848	28.858	28.869	28.879	28.889	28.900	28.910	28.921	28.931	28.942
3110	28.942	28.952	28.963	28.973	28.983	28.994	29.004	29.015	29.025	29.036	29.046
3120	29.046	29.056	29.067	29.077	29.088	29.098	29.109	29.119	29.129	29.140	29.150
3130	29.150	29.161	29.171	29.181	29.192	29.202	29.213	29.223	29.233	29.244	29.254
3140	29.254	29.264	29.275	29.285	29.296	29.306	29.316	29.327	29.337	29.347	29.358
3150	29.358	29.368	29.378	29.389	29.399	29.409	29.420	29.430	29.440	29.451	29.461
3160	29.461	29.471	29.482	29.492	29.502	29.513	29.523	29.533	29.544	29.554	29.564
3170	29.564	29.575	29.585	29.595	29.605	29.616	29.626	29.636	29.647	29.657	29.667
3180	29.667	29.677	29.688	29.698	29.708	29.718	29.729	29.739	29.749	29.760	29.770
3190	29.770	29.780	29.790	29.801	29.811	29.821	29.831	29.841	29.852	29.862	29.872
3200	29.872	29.882	29.893	29.903	29.913	29.923	29.933	29.944	29.954	29.964	29.974
3210	29.974	29.985	29.995	30.005	30.015	30.025	30.035	30.046	30.056	30.066	30.076
3220	30.076	30.086	30.097	30.107	30.117	30.127	30.137	30.147	30.158	30.168	30.178
3230	30.178	30.188	30.198	30.208	30.218	30.229	30.239	30.249	30.259	30.269	30.279
3240	30.279	30.289	30.299	30.310	30.320	30.330	30.340	30.350	30.360	30.370	30.380
3250	30.380	30.390	30.401	30.411	30.421	30.431	30.441	30.451	30.461	30.471	30.481
3260	30.481	30.491	30.501	30.511	30.521	30.532	30.542	30.552	30.562	30.572	30.582
3270	30.582	30.592	30.602	30.612	30.622	30.632	30.642	30.652	30.662	30.672	30.682
3280	30.682	30.692	30.702	30.712	30.722	30.732	30.742	30.752	30.762	30.772	30.782
3290	30.782	30.792	30.802	30.812	30.822	30.832	30.842	30.852	30.862	30.872	30.882
3300	30.882	30.892	30.902	30.912	30.922	30.932	30.942	30.952	30.962	30.972	30.982
3310	30.982	30.991	31.001	31.011	31.021	31.031	31.041	31.051	31.061	31.071	31.081
3320	31.081	31.091	31.101	31.111	31.120	31.130	31.140	31.150	31.160	31.170	31.180
3330	31.180	31.190	31.200	31.209	31.219	31.229	31.239	31.249	31.259	31.269	31.279
3340	31.279	31.288	31.298	31.308	31.318	31.328	31.338	31.347	31.357	31.367	31.377
3350	31.377	31.387	31.397	31.406	31.416	31.426	31.436	31.446	31.456	31.465	31.475
3360	31.475	31.485	31.495	31.505	31.514	31.524	31.534	31.544	31.553	31.563	31.573
3370	31.573	31.583	31.593	31.602	31.612	31.622	31.632	31.641	31.651	31.661	31.671
3380	31.671	31.680	31.690	31.700	31.710	31.719	31.729	31.739	31.749	31.758	31.768
3390	31.768	31.778	31.787	31.797	31.807	31.817	31.826	31.836	31.846	31.855	31.865
3400	31.865	31.875	31.884	31.894	31.904	31.913	31.923	31.933	31.942	31.952	31.962
3410	31.962	31.971	31.981	31.991	32.000	32.010	32.020	32.029	32.039	32.049	32.058
3420	32.058	32.068	32.078	32.087	32.097	32.106	32.116	32.126	32.135	32.145	32.154
3430	32.154	32.164	32.174	32.183	32.193	32.202	32.212	32.222	32.231	32.241	32.250
3440	32.250	32.260	32.269	32.279	32.289	32.298	32.308	32.317	32.327	32.336	32.346
3450	32.346	32.356	32.365	32.375	32.384	32.394	32.403	32.413	32.422	32.432	32.441
3460	32.441	32.451	32.460	32.470	32.479	32.489	32.498	32.508	32.517	32.527	32.536
3470	32.536	32.546	32.555	32.565	32.574	32.584	32.593	32.603	32.612	32.622	32.631
3480	32.631	32.640	32.650	32.659	32.669	32.678	32.688	32.697	32.707	32.716	32.725
3490	32.725	32.735	32.744	32.754	32.763	32.773	32.782	32.791	32.801	32.810	32.820
°F	0	1	2	3	4	5	6	7	8	9	10

°F	0	1	2	3	4	5	6	7	8	9	10
3500	32.820	32.829	32.838	32.848	32.857	32.867	32.876	32.885	32.895	32.904	32.913
3510	32.913	32.923	32.932	32.942	32.951	32.960	32.970	32.979	32.988	32.998	33.007
3520	33.007	33.016	33.026	33.035	33.044	33.054	33.063	33.072	33.082	33.091	33.100
3530	33.100	33.109	33.119	33.128	33.137	33.147	33.156	33.165	33.175	33.184	33.193
3540	33.193	33.202	33.212	33.221	33.230	33.239	33.249	33.258	33.267	33.276	33.286
3550	33.286	33.295	33.304	33.313	33.323	33.332	33.341	33.350	33.360	33.369	33.378
3560	33.378	33.387	33.396	33.406	33.415	33.424	33.433	33.442	33.452	33.461	33.470
3570	33.470	33.479	33.488	33.498	33.507	33.516	33.525	33.534	33.543	33.553	33.562
3580	33.562	33.571	33.580	33.589	33.598	33.607	33.617	33.626	33.635	33.644	33.653
3590	33.653	33.662	33.671	33.680	33.690	33.699	33.708	33.717	33.726	33.735	33.744
3600	33.744	33.753	33.762	33.771	33.781	33.790	33.799	33.808	33.817	33.826	33.835
3610	33.835	33.844	33.853	33.862	33.871	33.880	33.889	33.898	33.907	33.916	33.925
3620	33.925	33.934	33.943	33.952	33.961	33.970	33.979	33.988	33.997	34.006	34.015
3630	34.015	34.024	34.033	34.042	34.051	34.060	34.069	34.078	34.087	34.096	34.105
3640	34.105	34.114	34.123	34.132	34.141	34.150	34.159	34.168	34.177	34.186	34.195
3650	34.195	34.204	34.213	34.222	34.230	34.239	34.248	34.257	34.266	34.275	34.284
3660	34.284	34.293	34.302	34.311	34.319	34.328	34.337	34.346	34.355	34.364	34.373
3670	34.373	34.382	34.390	34.399	34.408	34.417	34.426	34.435	34.444	34.452	34.461
3680	34.461	34.470	34.479	34.488	34.497	34.505	34.514	34.523	34.532	34.541	34.549
3690	34.549	34.558	34.567	34.576	34.585	34.593	34.602	34.611	34.620	34.628	34.637
3700	34.637	34.646	34.655	34.664	34.672	34.681	34.690	34.699	34.707	34.716	34.725
3710	34.725	34.734	34.742	34.751	34.760	34.768	34.777	34.786	34.795	34.803	34.812
3720	34.812	34.821	34.829	34.838	34.847	34.855	34.864	34.873	34.881	34.890	34.899
3730	34.899	34.908	34.916	34.925	34.933	34.942	34.951	34.959	34.968	34.977	34.985
3740	34.985	34.994	35.003	35.011	35.020	35.028	35.037	35.046	35.054	35.063	35.072
3750	35.072	35.080	35.089	35.097	35.106	35.115	35.123	35.132	35.140	35.149	35.157
3760	35.157	35.166	35.175	35.183	35.192	35.200	35.209	35.217	35.226	35.234	35.243
3770	35.243	35.251	35.260	35.269	35.277	35.286	35.294	35.303	35.311	35.320	35.328
3780	35.328	35.337	35.345	35.354	35.362	35.371	35.379	35.388	35.396	35.404	35.413
3790	35.413	35.421	35.430	35.438	35.447	35.455	35.464	35.472	35.481	35.489	35.497
3800	35.497	35.506	35.514	35.523	35.531	35.540	35.548	35.556	35.565	35.573	35.582
3810	35.582	35.590	35.598	35.607	35.615	35.623	35.632	35.640	35.649	35.657	35.665
3820	35.665	35.674	35.682	35.690	35.699	35.707	35.715	35.724	35.732	35.740	35.749
3830	35.749	35.757	35.765	35.774	35.782	35.790	35.799	35.807	35.815	35.824	35.832
3840	35.832	35.840	35.848	35.857	35.865	35.873	35.882	35.890	35.898	35.906	35.915
3850	35.915	35.923	35.931	35.939	35.948	35.956	35.964	35.972	35.981	35.989	35.997
3860	35.997	36.005	36.013	36.022	36.030	36.038	36.046	36.054	36.063	36.071	36.079
3870	36.079	36.087	36.095	36.104	36.112	36.120	36.128	36.136	36.144	36.153	36.161
3880	36.161	36.169	36.177	36.185	36.193	36.201	36.210	36.218	36.226	36.234	36.242
3890	36.242	36.250	36.258	36.266	36.275	36.283	36.291	36.299	36.307	36.315	36.323
3900	36.323	36.331	36.339	36.347	36.355	36.363	36.371	36.380	36.388	36.396	36.404
3910	36.404	36.412	36.420	36.428	36.436	36.444	36.452	36.460	36.468	36.476	36.484
3920	36.484	36.492	36.500	36.508	36.516	36.524	36.532	36.540	36.548	36.556	36.564
3930	36.564	36.572	36.580	36.588	36.596	36.604	36.612	36.619	36.627	36.635	36.643
3940	36.643	36.651	36.659	36.667	36.675	36.683	36.691	36.699	36.707	36.715	36.722
3950	36.722	36.730	36.738	36.746	36.754	36.762	36.770	36.778	36.785	36.793	36.801
3960	36.801	36.809	36.817	36.825	36.833	36.840	36.848	36.856	36.864	36.872	36.880
3970	36.880	36.887	36.895	36.903	36.911	36.919	36.926	36.934	36.942	36.950	36.958
3980	36.958	36.965	36.973	36.981	36.989	36.996	37.004	37.012	37.020	37.028	37.035
3990	37.035	37.043	37.051	37.058	37.066	37.074	37.082	37.089	37.097	37.105	37.113
°F	0	1	2	3	4	5	6	7	8	9	10

Type Tungsten vs Tungsten-26% Rhenium ITS-90 °F

°F	0	1	2	3	4	5	6	7	8	9	10
4000	37.113	37.120	37.128	37.136	37.143	37.151	37.159	37.166	37.174	37.182	37.189
4010	37.189	37.197	37.205	37.212	37.220	37.228	37.235	37.243	37.251	37.258	37.266
4020	37.266	37.274	37.281	37.289	37.296	37.304	37.312	37.319	37.327	37.334	37.342
4030	37.342	37.350	37.357	37.365	37.372	37.380	37.388	37.395	37.403	37.410	37.418
4040	37.418	37.425	37.433	37.440	37.448	37.455	37.463	37.471	37.478	37.486	37.493
4050	37.493	37.501	37.508	37.516	37.523	37.531	37.538	37.546	37.553	37.561	37.568
4060	37.568	37.576	37.583	37.590	37.598	37.605	37.613	37.620	37.628	37.635	37.643
4070	37.643	37.650	37.658	37.665	37.672	37.680	37.687	37.695	37.702	37.709	37.717
4080	37.717	37.724	37.732	37.739	37.746	37.754	37.761	37.768	37.776	37.783	37.791
4090	37.791	37.798	37.805	37.813	37.820	37.827	37.835	37.842	37.849	37.857	37.864
4100	37.864	37.871	37.879	37.886	37.893	37.900	37.908	37.915	37.922	37.930	37.937
4110	37.937	37.944	37.951	37.959	37.966	37.973	37.980	37.988	37.995	38.002	38.009
4120	38.009	38.017	38.024	38.031	38.038	38.046	38.053	38.060	38.067	38.074	38.082
4130	38.082	38.089	38.096	38.103	38.110	38.118	38.125	38.132	38.139	38.146	38.153
4140	38.153	38.161	38.168	38.175	38.182	38.189	38.196	38.203	38.210	38.218	38.225
4150	38.225	38.232	38.239	38.246	38.253	38.260	38.267	38.274	38.281	38.289	38.296
4160	38.296	38.303	38.310	38.317	38.324	38.331	38.338	38.345	38.352	38.359	38.366
4170	38.366	38.373	38.380	38.387	38.394	38.401	38.408	38.415	38.422	38.429	38.436
4180	38.436	38.443	38.450	38.457	38.464	38.471	38.478	38.485	38.492	38.499	38.506
4190	38.506	38.513	38.520	38.527	38.534	38.540	38.547	38.554	38.561	38.568	38.575

°F	0	1	2	3	4	5	6	7	8	9	10
°F	0	1	2	3	4	5	6	7	8	9	10

100Ω RTD 0.003911 Ω / Ω / °C IPTS-68 °F

°F	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
-320	19.21	18.96	18.72	18.48	18.23	17.99	17.75	17.50	17.26		
-310	21.63	21.39	21.15	20.90	20.66	20.42	20.18	19.93	19.69	19.45	19.21
-300	24.04	23.80	23.56	23.32	23.08	22.84	22.60	22.36	22.11	21.87	21.63
-290	26.45	26.21	25.97	25.73	25.49	25.25	25.01	24.77	24.53	24.29	24.04
-280	28.84	28.60	28.36	28.12	27.88	27.65	27.41	27.17	26.93	26.69	26.45
-270	31.22	30.99	30.75	30.51	30.27	30.03	29.80	29.56	29.32	29.08	28.84
-260	33.60	33.36	33.12	32.89	32.65	32.41	32.17	31.94	31.70	31.46	31.22
-250	35.96	35.73	35.49	35.25	35.02	34.78	34.54	34.31	34.07	33.83	33.60
-240	38.32	38.08	37.85	37.61	37.38	37.14	36.91	36.67	36.43	36.20	35.96
-230	40.67	40.43	40.20	39.96	39.73	39.49	39.26	39.02	38.79	38.55	38.32
-220	43.01	42.77	42.54	42.31	42.07	41.84	41.60	41.37	41.14	40.90	40.67
-210	45.34	45.11	44.87	44.64	44.41	44.17	43.94	43.71	43.47	43.24	43.01
-200	47.66	47.43	47.20	46.97	46.73	46.50	46.27	46.04	45.80	45.57	45.34
-190	49.98	49.75	49.52	49.29	49.05	48.82	48.59	48.36	48.13	47.90	47.66
-180	52.29	52.06	51.83	51.60	51.37	51.14	50.91	50.67	50.44	50.21	49.98
-170	54.59	54.36	54.13	53.90	53.67	53.44	53.21	52.98	52.75	52.52	52.29
-160	56.89	56.66	56.43	56.20	55.97	55.74	55.51	55.28	55.05	54.82	54.59
-150	59.18	58.95	58.72	58.50	58.27	58.04	57.81	57.58	57.35	57.12	56.89
-140	61.47	61.24	61.01	60.78	60.55	60.33	60.10	59.87	59.64	59.41	59.18
-130	63.75	63.52	63.29	63.06	62.84	62.61	62.38	62.15	61.92	61.70	61.47
-120	66.02	65.79	65.57	65.34	65.11	64.88	64.66	64.43	64.20	63.97	63.75
-110	68.29	68.06	67.83	67.61	67.38	67.15	66.93	66.70	66.47	66.25	66.02
-100	70.55	70.32	70.10	69.87	69.65	69.42	69.19	68.97	68.74	68.51	68.29
-90	72.81	72.58	72.36	72.13	71.91	71.68	71.45	71.23	71.00	70.78	70.55
-80	75.06	74.84	74.61	74.39	74.16	73.93	73.71	73.48	73.26	73.03	72.81
-70	77.31	77.08	76.86	76.63	76.41	76.19	75.96	75.74	75.51	75.29	75.06
-60	79.55	79.33	79.10	78.88	78.66	78.43	78.21	77.98	77.76	77.53	77.31
-50	81.79	81.57	81.34	81.12	80.90	80.67	80.45	80.22	80.00	79.78	79.55
-40	84.03	83.80	83.58	83.36	83.13	82.91	82.69	82.46	82.24	82.02	81.79
-30	86.26	86.03	85.81	85.59	85.37	85.14	84.92	84.70	84.47	84.25	84.03
-20	88.48	88.26	88.04	87.82	87.59	87.37	87.15	86.93	86.70	86.48	86.26
-10	90.71	90.48	90.26	90.04	89.82	89.60	89.37	89.15	88.93	88.71	88.48
0	92.93	92.70	92.48	92.26	92.04	91.82	91.59	91.37	91.15	90.93	90.71
°F	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10

°F	0	1	2	3	4	5	6	7	8	9	10
0	92.93	93.15	93.37	93.59	93.81	94.03	94.25	94.48	94.70	94.92	95.14
10	95.14	95.36	95.58	95.80	96.03	96.25	96.47	96.69	96.91	97.13	97.35
20	97.35	97.57	97.79	98.01	98.24	98.46	98.68	98.90	99.12	99.34	99.56
30	99.56	99.78	100.00	100.22	100.44	100.66	100.88	101.10	101.32	101.54	101.76
40	101.76	101.98	102.20	102.42	102.64	102.86	103.08	103.30	103.52	103.74	103.96
50	103.96	104.18	104.40	104.62	104.84	105.06	105.28	105.50	105.72	105.94	106.16
60	106.16	106.38	106.60	106.82	107.04	107.26	107.48	107.70	107.92	108.13	108.35
70	108.35	108.57	108.79	109.01	109.23	109.45	109.67	109.89	110.11	110.32	110.54
80	110.54	110.76	110.98	111.20	111.42	111.64	111.86	112.07	112.29	112.51	112.73
90	112.73	112.95	113.17	113.38	113.60	113.82	114.04	114.26	114.48	114.69	114.91
°F	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10

°F	0	1	2	3	4	5	6	7	8	9	10
100	114.91	115.13	115.35	115.57	115.78	116.00	116.22	116.44	116.65	116.87	117.09
110	117.09	117.31	117.53	117.74	117.96	118.18	118.40	118.61	118.83	119.05	119.27
120	119.27	119.48	119.70	119.92	120.13	120.35	120.57	120.79	121.00	121.22	121.44
130	121.44	121.65	121.87	122.09	122.30	122.52	122.74	122.95	123.17	123.39	123.60
140	123.60	123.82	124.04	124.25	124.47	124.69	124.90	125.12	125.34	125.55	125.77
150	125.77	125.99	126.20	126.42	126.63	126.85	127.07	127.28	127.50	127.71	127.93
160	127.93	128.15	128.36	128.58	128.79	129.01	129.22	129.44	129.66	129.87	130.09
170	130.09	130.30	130.52	130.73	130.95	131.16	131.38	131.59	131.81	132.02	132.24
180	132.24	132.46	132.67	132.89	133.10	133.32	133.53	133.75	133.96	134.18	134.39
190	134.39	134.60	134.82	135.03	135.25	135.46	135.68	135.89	136.11	136.32	136.54
200	136.54	136.75	136.96	137.18	137.39	137.61	137.82	138.04	138.25	138.46	138.68
210	138.68	138.89	139.11	139.32	139.53	139.75	139.96	140.18	140.39	140.60	140.82
220	140.82	141.03	141.25	141.46	141.67	141.89	142.10	142.31	142.53	142.74	142.95
230	142.95	143.17	143.38	143.59	143.81	144.02	144.23	144.45	144.66	144.87	145.08
240	145.08	145.30	145.51	145.72	145.94	146.15	146.36	146.58	146.79	147.00	147.21
250	147.21	147.43	147.64	147.85	148.06	148.28	148.49	148.70	148.91	149.13	149.34
260	149.34	149.55	149.76	149.97	150.19	150.40	150.61	150.82	151.03	151.25	151.46
270	151.46	151.67	151.88	152.09	152.31	152.52	152.73	152.94	153.15	153.36	153.58
280	153.58	153.79	154.00	154.21	154.42	154.63	154.84	155.06	155.27	155.48	155.69
290	155.69	155.90	156.11	156.32	156.53	156.75	156.96	157.17	157.38	157.59	157.80
300	157.80	158.01	158.22	158.43	158.64	158.85	159.06	159.27	159.49	159.70	159.91
310	159.91	160.12	160.33	160.54	160.75	160.96	161.17	161.38	161.59	161.80	162.01
320	162.01	162.22	162.43	162.64	162.85	163.06	163.27	163.48	163.69	163.90	164.11
330	164.11	164.32	164.53	164.74	164.95	165.16	165.37	165.58	165.79	165.99	166.20
340	166.20	166.41	166.62	166.83	167.04	167.25	167.46	167.67	167.88	168.09	168.30
350	168.30	168.51	168.71	168.92	169.13	169.34	169.55	169.76	169.97	170.18	170.38
360	170.38	170.59	170.80	171.01	171.22	171.43	171.64	171.84	172.05	172.26	172.47
370	172.47	172.68	172.89	173.09	173.30	173.51	173.72	173.93	174.13	174.34	174.55
380	174.55	174.76	174.97	175.17	175.38	175.59	175.80	176.01	176.21	176.42	176.63
390	176.63	176.84	177.04	177.25	177.46	177.67	177.87	178.08	178.29	178.50	178.70
400	178.70	178.91	179.12	179.32	179.53	179.74	179.95	180.15	180.36	180.57	180.77
410	180.77	180.98	181.19	181.39	181.60	181.81	182.01	182.22	182.43	182.63	182.84
420	182.84	183.05	183.25	183.46	183.67	183.87	184.08	184.28	184.49	184.70	184.90
430	184.90	185.11	185.32	185.52	185.73	185.93	186.14	186.34	186.55	186.76	186.96
440	186.96	187.17	187.37	187.58	187.79	187.99	188.20	188.40	188.61	188.81	189.02
450	189.02	189.22	189.43	189.63	189.84	190.05	190.25	190.46	190.66	190.87	191.07
460	191.07	191.28	191.48	191.69	191.89	192.10	192.30	192.51	192.71	192.91	193.12
470	193.12	193.32	193.53	193.73	193.94	194.14	194.35	194.55	194.76	194.96	195.16
480	195.16	195.37	195.57	195.78	195.98	196.19	196.39	196.59	196.80	197.00	197.21
490	197.21	197.41	197.61	197.82	198.02	198.23	198.43	198.63	198.84	199.04	199.24
500	199.24	199.45	199.65	199.85	200.06	200.26	200.47	200.67	200.87	201.08	201.28
510	201.28	201.48	201.68	201.89	202.09	202.29	202.50	202.70	202.90	203.11	203.31
520	203.31	203.51	203.71	203.92	204.12	204.32	204.53	204.73	204.93	205.13	205.34
530	205.34	205.54	205.74	205.94	206.15	206.35	206.55	206.75	206.96	207.16	207.36
540	207.36	207.56	207.76	207.97	208.17	208.37	208.57	208.77	208.98	209.18	209.38
550	209.38	209.58	209.78	209.98	210.19	210.39	210.59	210.79	210.99	211.19	211.40
560	211.40	211.60	211.80	212.00	212.20	212.40	212.60	212.81	213.01	213.21	213.41
570	213.41	213.61	213.81	214.01	214.21	214.41	214.61	214.82	215.02	215.22	215.42
580	215.42	215.62	215.82	216.02	216.22	216.42	216.62	216.82	217.02	217.22	217.42
590	217.42	217.62	217.82	218.02	218.22	218.42	218.62	218.82	219.02	219.22	219.42
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100Ω RTD 0.003911 Ω / Ω / °C IPTS-68 °F

°F	0	1	2	3	4	5	6	7	8	9	10
600	219.42	219.62	219.82	220.02	220.22	220.42	220.62	220.82	221.02	221.22	221.42
610	221.42	221.62	221.82	222.02	222.22	222.42	222.62	222.82	223.02	223.22	223.42
620	223.42	223.62	223.82	224.02	224.21	224.41	224.61	224.81	225.01	225.21	225.41
630	225.41	225.61	225.81	226.01	226.20	226.40	226.60	226.80	227.00	227.20	227.40
640	227.40	227.59	227.79	227.99	228.19	228.39	228.59	228.79	228.98	229.18	229.38
650	229.38	229.58	229.78	229.97	230.17	230.37	230.57	230.77	230.96	231.16	231.36
660	231.36	231.56	231.76	231.95	232.15	232.35	232.55	232.74	232.94	233.14	233.34
670	233.34	233.53	233.73	233.93	234.13	234.32	234.52	234.72	234.92	235.11	235.31
680	235.31	235.51	235.70	235.90	236.10	236.29	236.49	236.69	236.89	237.08	237.28
690	237.28	237.48	237.67	237.87	238.07	238.26	238.46	238.66	238.85	239.05	239.24
700	239.24	239.44	239.64	239.83	240.03	240.23	240.42	240.62	240.81	241.01	241.21
710	241.21	241.40	241.60	241.79	241.99	242.19	242.38	242.58	242.77	242.97	243.17
720	243.17	243.36	243.56	243.75	243.95	244.14	244.34	244.53	244.73	244.92	245.12
730	245.12	245.32	245.51	245.71	245.90	246.10	246.29	246.49	246.68	246.88	247.07
740	247.07	247.27	247.46	247.66	247.85	248.05	248.24	248.44	248.63	248.82	249.02
750	249.02	249.21	249.41	249.60	249.80	249.99	250.19	250.38	250.57	250.77	250.96
760	250.96	251.16	251.35	251.55	251.74	251.93	252.13	252.32	252.52	252.71	252.90
770	252.90	253.10	253.29	253.48	253.68	253.87	254.07	254.26	254.45	254.65	254.84
780	254.84	255.03	255.23	255.42	255.61	255.81	256.00	256.19	256.39	256.58	256.77
790	256.77	256.97	257.16	257.35	257.55	257.74	257.93	258.12	258.32	258.51	258.70
800	258.70	258.90	259.09	259.28	259.47	259.67	259.86	260.05	260.24	260.44	260.63
810	260.63	260.82	261.01	261.21	261.40	261.59	261.78	261.98	262.17	262.36	262.55
820	262.55	262.74	262.94	263.13	263.32	263.51	263.70	263.90	264.09	264.28	264.47
830	264.47	264.66	264.85	265.05	265.24	265.43	265.62	265.81	266.00	266.19	266.39
840	266.39	266.58	266.77	266.96	267.15	267.34	267.53	267.72	267.92	268.11	268.30
850	268.30	268.49	268.68	268.87	269.06	269.25	269.44	269.63	269.82	270.01	270.21
860	270.21	270.40	270.59	270.78	270.97	271.16	271.35	271.54	271.73	271.92	272.11
870	272.11	272.30	272.49	272.68	272.87	273.06	273.25	273.44	273.63	273.82	274.01
880	274.01	274.20	274.39	274.58	274.77	274.96	275.15	275.34	275.53	275.72	275.91
890	275.91	276.10	276.29	276.48	276.67	276.85	277.04	277.23	277.42	277.61	277.80
900	277.80	277.99	278.18	278.37	278.56	278.75	278.94	279.12	279.31	279.50	279.69
910	279.69	279.88	280.07	280.26	280.45	280.63	280.82	281.01	281.20	281.39	281.58
920	281.58	281.77	281.95	282.14	282.33	282.52	282.71	282.90	283.08	283.27	283.46
930	283.46	283.65	283.84	284.02	284.21	284.40	284.59	284.78	284.96	285.15	285.34
940	285.34	285.53	285.71	285.90	286.09	286.28	286.46	286.65	286.84	287.03	287.21
950	287.21	287.40	287.59	287.78	287.96	288.15	288.34	288.53	288.71	288.90	289.09
960	289.09	289.27	289.46	289.65	289.83	290.02	290.21	290.39	290.58	290.77	290.95
970	290.95	291.14	291.33	291.51	291.70	291.89	292.07	292.26	292.45	292.63	292.82
980	292.82	293.01	293.19	293.38	293.56	293.75	293.94	294.12	294.31	294.49	294.68
990	294.68	294.87	295.05	295.24	295.42	295.61	295.80	295.98	296.17	296.35	296.54
1000	296.54	296.72	296.91	297.09	297.28	297.46	297.65	297.84	298.02	298.21	298.39
1010	298.39	298.58	298.76	298.95	299.13	299.32	299.50	299.69	299.87	300.06	300.24
1020	300.24	300.43	300.61	300.80	300.98	301.17	301.35	301.53	301.72	301.90	302.09
1030	302.09	302.27	302.46	302.64	302.83	303.01	303.19	303.38	303.56	303.75	303.93
1040	303.93	304.12	304.30	304.48	304.67	304.85	305.04	305.22	305.40	305.59	305.77
1050	305.77	305.95	306.14	306.32	306.51	306.69	306.87	307.06	307.24	307.42	307.61
1060	307.61	307.79	307.97	308.16	308.34	308.52	308.71	308.89	309.07	309.26	309.44
1070	309.44	309.62	309.80	309.99	310.17	310.35	310.54	310.72	310.90	311.08	311.27
1080	311.27	311.45	311.63	311.81	312.00	312.18	312.36	312.54	312.73	312.91	313.09
1090	313.09	313.27	313.46	313.64	313.82	314.00	314.19	314.37	314.55	314.73	314.91
°F	0	1	2	3	4	5	6	7	8	9	10

°F	0	1	2	3	4	5	6	7	8	9	10
1100	314.91	315.10	315.28	315.46	315.64	315.82	316.00	316.19	316.37	316.55	316.73
1110	316.73	316.91	317.09	317.28	317.46	317.64	317.82	318.00	318.18	318.36	318.55
1120	318.55	318.73	318.91	319.09	319.27	319.45	319.63	319.81	319.99	320.17	320.36
1130	320.36	320.54	320.72	320.90	321.08	321.26	321.44	321.62	321.80	321.98	322.16
1140	322.16	322.34	322.52	322.70	322.88	323.06	323.24	323.43	323.61	323.79	323.97
1150	323.97	324.15	324.33	324.51	324.69	324.87	325.05	325.23	325.41	325.59	325.77
1160	325.77	325.95	326.12	326.30	326.48	326.66	326.84	327.02	327.20	327.38	327.56
1170	327.56	327.74	327.92	328.10	328.28	328.46	328.64	328.82	329.00	329.17	329.35
1180	329.35	329.53	329.71	329.89	330.07	330.25	330.43	330.61	330.79	330.96	331.14
1190	331.14	331.32	331.50	331.68	331.86	332.04	332.21	332.39	332.57	332.75	332.93
1200	332.93	333.11	333.28	333.46	333.64	333.82	334.00	334.18	334.35	334.53	334.71
°F	0	1	2	3	4	5	6	7	8	9	10

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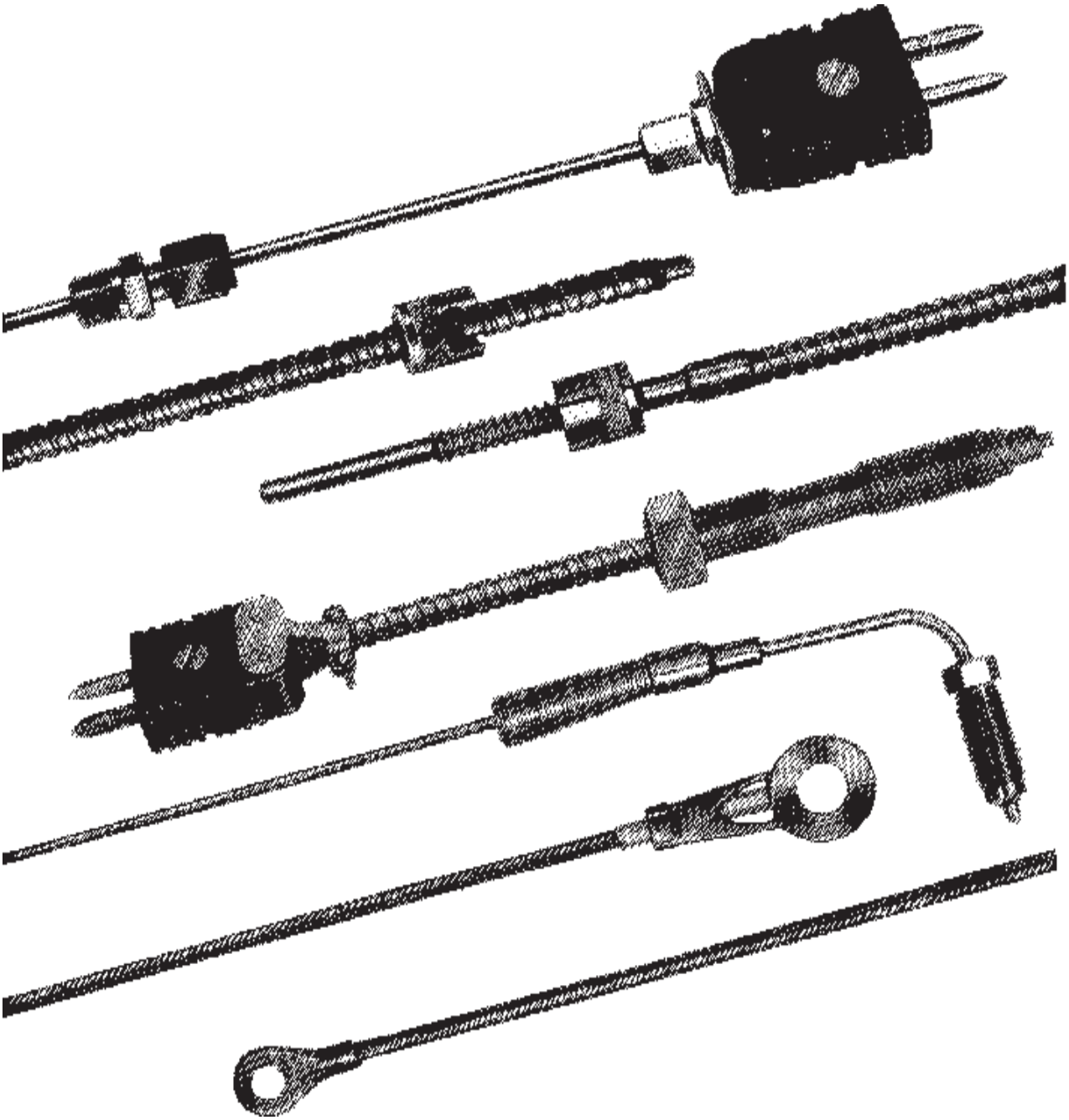

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