

# Melting Points of Metals

Metal melting points refer to the temperature at which a metal changes from a solid to a liquid state. By definition the melting point temperature is the lowest temperature at which the metal starts to transform from a solid phase into a liquid phase.

Different metals have different melting points, which are determined by their atomic structure and bonding. For example, copper melts at 1084°C and pure aluminium at 660°C, carbon steel has a melting point that typically ranges from 1371°C to 1593°C depending on the carbon content and stainless steel melts at around 1510°C.

It's important to note that melting points can vary depending on impurities and alloying elements present in the metal. These values are approximate and can differ slightly depending on the source.

## Melting Points of Commonly Used Metals & Alloys

The first chart features the melting points for the most common metals used in manufacturing, scroll down further to see the full list. The metals are sorted from the lowest to the highest melting point.

Metal	Melting Point		
	Celsius (°C)	Fahrenheit (°F)	Kelvin
Aluminium	660	1220	933
Yellow Brass	905 – 932	1660 – 1710	1178 – 1205
Bronze	913	1675	1186
Red Brass	990 – 1025	1810 – 1880	1261 – 1300
Copper	1084	1983	1357

Cast Iron	1127 – 1204	2060 – 2200	1400 – 1478
Carbon Steel	1371-1593	2500 – 2800	1644 – 1811
Nickel	1453	2647	1726
Wrought Iron	1482 – 1593	2700- 2900	1755 – 1866
Stainless Steel	1510	2750	1783
Titanium	1670	3040	1944

## Full List of Metal Melting Points

Metal	Melting Point		
	Celsius (°C)	Fahrenheit (°F)	Kelvin
Mercury	-39	-38	234
Phosphorus	44	111	317
Potassium	63	145	336
Sodium	98	208	371
Solder 50-50	215	419	488
Selenium	217	423	490
Tin	232	449	505
Babbitt	249	480	522
Bismuth	272	521	545
Cadmium	321	610	594
Lead	328	621	600
Magnesium Alloys	349 – 649	660 – 1200	622 – 922
Zinc	420	787	693
Aluminium Alloys	463 – 671	865 – 1240	736 – 944
Aluminium Bronze	600 – 655	1190 – 1215	916 – 930
Antimony	630	1166	903

Plutonium	640	1184	913
Magnesium	650	1200	922
Aluminium (Pure)	660	1220	933
Beryllium Copper	865 – 955	1587 – 1750	1137 – 1228
Manganese Bronze	865 – 890	1590 – 1630	1139 – 1161
Coin Silver	879	1614	1152
Sterling Silver	893	1640	1166
Admiralty Brass	900 – 940	1650 – 1720	1172 – 1211
Yellow Brass	905 – 932	1660 – 1710	1178 – 1205
Bronze	913	1675	1186
Silver (Pure)	961	1761	1234
Red Brass	990 – 1025	1810 – 1880	1261 – 1300
Gold	1063	1945	1330
Copper	1084	1983	1357
Cast Iron	1127 – 1204	2060 – 2200	1400 – 1478
Uranium	1132	2070	1405
Ductile Iron	1149	2100	1422
Cupronickel	1170 – 1240	2138 – 2264	1443 – 1513
Manganese	1244	2271	1517
Beryllium	1285	2345	1558
Monel	1300 – 1350	2370 – 2460	1572 – 1622
Hastelloy	1320 – 1350	2410 – 2460	1594 – 1622
Carbon Steel	1371 – 1540	2500 – 2800	1644 – 1811
Inconel	1390 – 1425	2540 – 2600	1666 – 1700
Incoloy	1390 – 1425	2540 – 2600	1666 – 1700
Silicon	1411	2572	1684
Nickel	1453	2647	1726
Wrought Iron	1482 – 1593	2700 – 2900	1755 – 1866

Cobalt	1495	2723	1768
Stainless Steel	1510	2750	1783
Palladium	1555	2831	1828
Titanium	1670	3040	1944
Thorium	1750	3180	2022
Platinum	1770	3220	2044
Zirconium	1854	3369	2127
Chromium	1860	3380	2133
Vanadium	1900	3452	2173
Rhodium	1965	3569	2238
Niobium (Columbium)	2470	4473	2740
Ruthenium	2482	4500	2755
Molybdenum	2620	4750	2894
Tantalum	2980	5400	3255
Osmium	3025	5477	3298
Rhenium	3186	5767	3459
Tungsten	3400	6150	3672

Celsius to Fahrenheit:  $(^{\circ}\text{C} \times 9/5) + 32$

Fahrenheit to Celsius:  $(^{\circ}\text{F} - 32) \times 5/9$

Celsius to Kelvin:  $^{\circ}\text{C} + 273.15$

Fahrenheit to Kelvin:  $(^{\circ}\text{F} - 32) \times 5/9 + 273.15$