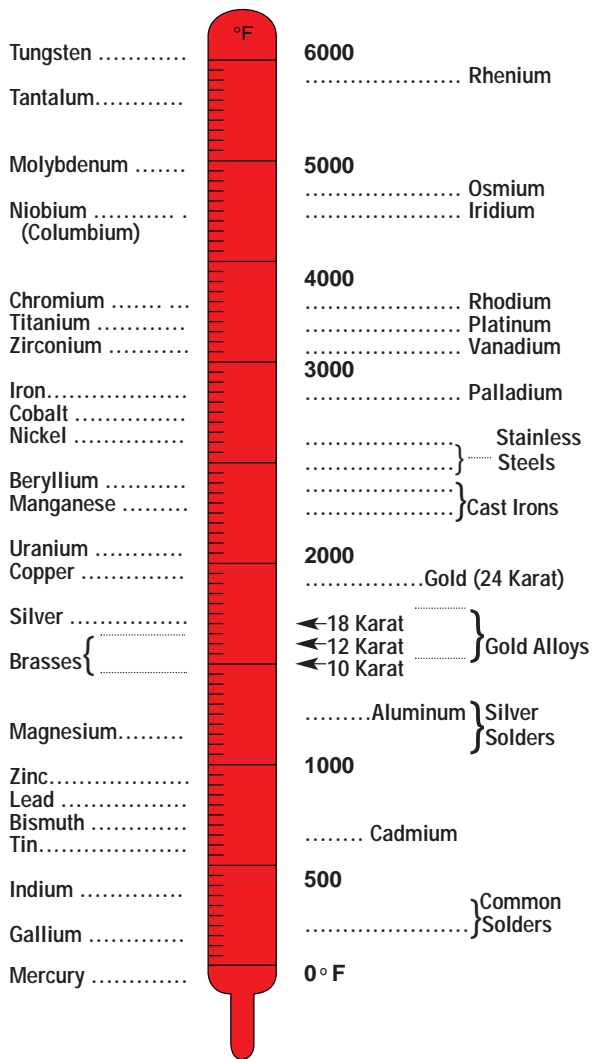


Melting Temperatures of Some Important Metals

Approximate melting points are given only as a guide for material selection since many factors including atmosphere, type of process, mounting, etc., all affect the operating maximum.



Very High Temperature Sheath Materials

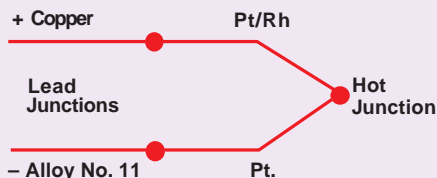
Sheath Material	Rec. Useful Temp.	Melting Point	Environmental Conditions			
			Oxidizing	Hydrogen	Inert	Vacuum
Molybdenum	4000°F	4730°F	Not Rec.	Fair	Fair	Good
Tantalum	4500°F	5425°F	Not Rec.	Not Rec.	Not Rec.	Good
Platinum	3050°F	3223°F	Very Good	Poor	Poor	Poor

Thermometry Fixed Points

THERMOELECTRIC FIXED POINT	MELTING POINTS FROM THE PRACTICAL INTERNATIONAL TEMPERATURE SCALE IPTS-68	
Boiling point of oxygen	-183.0 °C	-297.3 °F
Sublimation point of carbon dioxide	- 78.5	-109.2
Freezing point of mercury	- 38.9	- 38
Ice Point	0	32
Triple point of water	0.01	32
Boiling point of water	100.0	212
Triple point of benzoic acid	122.4	252.3
Boiling point of naphthalene	218	424.4
Freezing point of tin	231.9	449.4
Boiling point of benzophenone	305.9	582.6
Freezing point of cadmium	321.1	610
Freezing point of lead	327.5	621.5
Freezing point of zinc	419.6	787.2
Boiling point of sulfur	444.7	832.4
Freezing point of antimony	630.7	1167.3
Freezing point of aluminum	660.4	1220.7
Freezing point of silver	961.9	1763.5
Freezing point of gold	1064.4	1948
Freezing point of copper	1084.5	1984.1
Freezing point of palladium	1554	2829
Freezing point of platinum	1772	3222

Extension Grade Wires for Platinum and Tungsten-Rhenium Alloys

Compensating alloys made into extension wire for tungsten-rhenium thermocouples and platinum-rhodium thermocouples closely match the emf of the thermocouples over limited range



- The alloy 405/426 combination is used with Tungsten 5% Re vs Tungsten 26% Re.
- The alloy 200/226 combination is used with Tungsten vs Tungsten 26% Re.
- The alloy 203/225 combination is used with Tungsten 3% Re vs Tungsten 25%.
- The Combination copper/alloy #11 is used with platinum-rhodium alloys vs pure platinum.



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