

TYPE	Alloy combination	Max. Temperature Range	Comments Enviroment- Bare Wire	Wire dia. (mm)
J	Iron Fe(magnetic)	-210 to 1200°C, -346 to 2193°F	Reducing, Vacuum, Inert. Limited Use in	0.02
	Constantan-Copper-Nickel Cu-Ni	Thermocouple Grade 0 to 200°C, 32 to 392°F Extension Grade	Oxidizing at High Temperatures Not	0.05
			Recommended for Low Temperatures	0.07
				0.13
				0.25
				0.38
				0.5
				0.8
				1.6
			K	Chromega Nickel- Chromium Ni-Cr
Alomega Nickel-Aluminum Ni-Al	Thermocouple Grade 0 to 200°C, 32 to 392°F Extension Grade	Vacuum or Reducing. Wide Temperature		0.02
		Range, Most Popular Calobration		0.05
				0.07
				0.13
				0.25
				0.38
				0.5
				0.8
				1.6

				3.3
	Copper Cu	-270 to 400°C, -454 to 752°F	Mild Oxidising, Reducing Vacuum or Inert.	0.013
T	Constantan Copper-Nickel Cu-Ni	Thermocouple Grade -60 to 100°C, -76 to 212°F Extension Grade	Good Where Moisture is Present. Low Temperature and Cryogenic Applications	0.02
				0.05
				0.07
				0.13
				0.25
				0.38
				0.5
				0.8
				1.6
	Chromega Nickel-Chromium Ni-Cr	-270 to 1000°C, -454 to 1832°F	Oxidising or Inert. Limited Use in Vacuum or	0.013
E	Constantan Copper-Nickel Cu-Ni	Thermocouple Grade 0 to 200°C, 32 to 392°F Extension Grade	Reducing. Highest EMF Change per Degree	0.02
				0.05
				0.07
				0.13
				0.25
				0.38
				0.5
				0.8
				1.6

				3.3
	Platinum-13% Rhodium Pt-13%Rh	-50 to 1768°C, -58 to 3214°F	Oxidising or Inert. Do Not Insert in Metal	0.03
R	Platinum Pt	thermocouple Grade 0 to 150°C, 32 to 300°F Extension Grade	Tubes. Beware of Contamination. High Temperature	0.05
				0.08
				0.13
				0.2
				0.25
				0.38
				0.51
				0.64
				0.81
	Platinum- 10% Rhodium Pt-10%Rh	-50 to 1768°C, -58 to 3214°F	Oxidising or Inert. Do Not Insert in Metal	0.03
S	Platinum Pt	Thermocouple Grade 0 to 150°C, 32 to 300°F Extension Grade	Tubes. Beware of Contamination. High Temperature	0.05
				0.08
				0.13
				0.2
				0.25
				0.38
				0.51
				0.64
				0.81

B	Platinum-30% Rhodium Pt-30% Rh	0 to 1820°C, 32 to 3308°F	Oxidising or Inert. Do Not Insert in Metal Tubes. Beware of Contamination. High Temperature. Common Use in Glass Industry	0.2
	Platinum-6% Rhodium Pt-6% Rh	Thermocouple Grade 0 to 100°C, 32 to 212°F Extension Grade		0.25
C*(W5)				0.38
				0.51
	Tungsten- 5% Rhenium W-5% Re	0 to 2320°C, 32 to 4208°F	Vacuum, Inert, Hydrogen. Beware of Embrittlement. Not Practical Below 399°C (750°F) Not for Oxidising Atmosphere	0.08
	Tungsten- 26% Rhenium W-26% Re	Thermocouple Grade 0 to 870°C, 32 to 1600°F Extension Grade		0.13
			0.25	
				0.38
D*(W3)				0.51
	Tungsten- 3% Rhenium W-3% Re	0 to 2320°C, 32 to 4208°F	Vacuum, Inert, Hydrogen. Beware of Embrittlement. Not Practical Below 399°C (750°F) Not for Oxidising Atmosphere	0.13
	Tungsten- 25% Rhenium W-25% Re	Thermocouple Grade 0 to 260°C, 32 to 500°F Extension Grade		0.25
				0.38
				0.51