



Chromel®-P, Extension Grade*

Extension grade Chromel-P (KPX) is a lower cost version of the well-known Chromel-P Thermocouple Grade alloy. While virtually identical in composition and physical properties, it is guaranteed to a lower maximum use temperature (generally 200 °C max.).

Industry Specifications: ASTM E-230; UNS N06010

Nominal Composition: 90 Ni, 10 Cr

Typical Physical Property Data

Thermocouple Type (ANSI designation)	KPX	
Recommended Extension Wire	N.A.	
Approximate Melting Point	2600°F	
	(1427°C)	
Specific Gravity	8.73	
Density (lb./in ³)	.3154	
(g/cm ³)	8.73	
Nominal Resistivity (Ω•mil ² /ft.)	425	(at 20 °C)
(μΩ/cm ³)	70.6	(at 20 °C)
Temp. Coef. Of Resistance (Ω/Ω/°C) E-4	3.2	(20 to 100 °C)
Temp. Coef. Of Expansion (cm/cm/°C) E-6	13.1	(20 to 100 °C)
Thermal Cond. (W/cm ² /cm/°C)	0.192	(at 100 °C)
Magnetic Response	Non-Mag	(at 20 °C)

Typical Mechanical Properties:

Tensile Strength, annealed (ksi)	95
Yield Strength, annealed (ksi)	45
Elongation, annealed (%)	35

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