

## California Fine Wire Permanickel® K-300 Nickel Alloy

Category : Metal , Nonferrous Metal , Nickel Alloy

### Material Notes:

All values may vary dependent on specific design and usage. Permanickel® is a registered trade name of the Inco family of products. Capabilities: Wire, Ribbon, Insulated, Plated. Information provided by California Fine Wire.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_California-Fine-Wire-Permanickel-K-300-Nickel-Alloy.php](http://www.lookpolymers.com/polymer_California-Fine-Wire-Permanickel-K-300-Nickel-Alloy.php)

Physical Properties	Metric	English	Comments
Density	8.75 g/cc	0.316 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	689 MPa	100000 psi	Annealed
	1140 MPa	165000 psi	Stress relieved
	1210 MPa	175000 psi	Hard
Tensile Strength, Yield	345 MPa	50000 psi	Annealed
	1000 MPa	145000 psi	Stress relieved
	1070 MPa	155000 psi	Hard
Modulus of Elasticity	207 GPa	30000 ksi	

Thermal Properties	Metric	English	Comments
CTE, linear	12.2 µm/m-°C	6.78 µin/in-°F	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Specific Heat Capacity	0.444 J/g-°C	0.106 BTU/lb-°F	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Thermal Conductivity	57.7 W/m-K	400 BTU-in/hr-ft <sup>2</sup> -°F	
Melting Point	1370 °C	2500 °F	

Component Elements Properties	Metric	English	Comments
Nickel, Ni	97 %	97 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.00001563 ohm-cm	0.00001563 ohm-cm	3% tolerance on sizes below 0.02, 5%

Electrical Properties	Metric	English	tolerance on sizes above 0.02 Comments
Descriptive Properties		Value	Comments
Temperature Coefficient of Resistance		0.0036 ohms/ohm-°C	0-100°C

## Contact Songhan Plastic Technology Co.,Ltd.

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