

## California Fine Wire Nico Copper Nickel Resistance Wire

Category : Metal , Electronic/Magnetic Alloy , Nonferrous Metal , Copper Alloy , Nickel Alloy

### Material Notes:

All values may vary dependent on specific design and usage Capabilities: WireRibbonSquareInsulatedPlated Information provided by California Fine Wire.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_California-Fine-Wire-Nico-Copper-Nickel-Resistance-Wire.php](http://www.lookpolymers.com/polymer_California-Fine-Wire-Nico-Copper-Nickel-Resistance-Wire.php)

Physical Properties	Metric	English	Comments
Density	8.91 g/cc	0.322 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	414 MPa	60000 psi	Annealed
	758 MPa	110000 psi	Stress relieved
	931 MPa	135000 psi	Hard

Thermal Properties	Metric	English	Comments
CTE, linear	14.9 $\mu\text{m}/\text{m}\cdot\text{°C}$	8.28 $\mu\text{in}/\text{in}\cdot\text{°F}$	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Specific Heat Capacity	0.393 J/g·°C	0.0939 BTU/lb·°F	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Thermal Conductivity	21.0 W/m-K	146 BTU-in/hr-ft <sup>2</sup> -°F	
Melting Point	1210 °C	2210 °F	
Maximum Service Temperature, Air	1000 °C	1830 °F	Operating Temperature

Component Elements Properties	Metric	English	Comments
Copper, Cu	55 %	55 %	
Nickel, Ni	45 %	45 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.0000489 ohm-cm	0.0000489 ohm-cm	3% tolerance on sizes below 0.02, 5% tolerance on sizes above 0.02

Descriptive Properties	Value	Comments
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Magnetic Descriptive Properties	None Value	Comments
Temperature Coefficient of Resistance	$\pm 0.00002$ ohms/ohm-°C	0-100°C
Thermal EMF vs. Copper	-0.045	

## Contact Songhan Plastic Technology Co.,Ltd.

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