

## Resistalloy International Resistalloy 8020 Nickel Chromium Electrical Resistance Alloy

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

### Material Notes:

Used mainly for electrical elements in both industrial and domestic applications. Industrial applications vary from small laboratory kilns to heavy-duty heat-treatment furnaces under all types of atmospheres. Available as wire and strip. Non-magnetic. Information provided by Resistalloy International Limited.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Resistalloy-International-Resistalloy-8020-Nickel-Chromium-Electrical-Resistance-Alloy.php](http://www.lookpolymers.com/polymer_Resistalloy-International-Resistalloy-8020-Nickel-Chromium-Electrical-Resistance-Alloy.php)

Physical Properties	Metric	English	Comments
Density	8.30 g/cc	0.300 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Vickers	180	180	
Tensile Strength, Ultimate	750 MPa	109000 psi	
	100 MPa	14500 psi	
	@Temperature 900 °C	@Temperature 1650 °F	
Tensile Strength, Yield	450 MPa	65300 psi	
Elongation at Break	25 - 30 %	25 - 30 %	
	@Thickness 50.0 mm	@Thickness 1.97 in	

Thermal Properties	Metric	English	Comments
CTE, linear	15.0 µm/m-°C	8.33 µin/in-°F	
	@Temperature 20.0 - 250 °C	@Temperature 68.0 - 482 °F	
	16.0 µm/m-°C	8.89 µin/in-°F	
	@Temperature 20.0 - 500 °C	@Temperature 68.0 - 932 °F	
	18.0 µm/m-°C	10.0 µin/in-°F	
	@Temperature 20.0 - 1000 °C	@Temperature 68.0 - 1830 °F	
Specific Heat Capacity	0.460 J/g-°C	0.110 BTU/lb-°F	
Thermal Conductivity	15.0 W/m-K	104 BTU-in/hr-ft <sup>2</sup> -°F	
Melting Point	1400 °C	2550 °F	

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	1200 °C	2190 °F	

Optical Properties	Metric	English	Comments
Emissivity (0-1)	0.88	0.88	Fully Oxidized

Component Elements Properties	Metric	English	Comments
Chromium, Cr	20 %	20 %	
Nickel, Ni	80 %	80 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.000109 ohm-cm	0.000109 ohm-cm	Temperature Factor is 1.04 at 800°C (1470°F). Temperature Factor is 1.05 at 1000°C (1830°F). Temperature Factor is 1.07 at 1200°C (2190°F).

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China