

CLAL-MSX NICLAFOR® 1000 TH2 Quenched/Cold Rolled/Precipitation Heat Treated, Rolled Copper Alloy

Category : Metal , Nonferrous Metal , Copper Alloy

Material Notes:

Finished parts can be produced with: reduction in sections, high mechanical properties even at high temperature, high spring properties, high conductivity, good resistance to corrosion, low permeability, good formability, long life duration. Meets environmental concern by not containing Beryllium, Cadmium nor Titanium. Applications: Electrotechnic, Electromechanic, Electronic, Connective, Automotive, Domestic appliances, Spectacle industry, Turned parts. Information provided by CLAL-MSX

Order this product through the following link:

http://www.lookpolymers.com/polymer_CLAL-MSX-NICLAFOR-1000-TH2-QuenchedCold-RolledPrecipitation-Heat-Treated-Rolled-Copper-Alloy.php

Physical Properties	Metric	English	Comments
Density	8.90 g/cc	0.322 lb/in ³	

Mechanical Properties	Metric	English	Comments
Hardness, Vickers	290 - 320	290 - 320	
Tensile Strength, Ultimate	880 - 980 MPa	128000 - 142000 psi	
Tensile Strength, Yield	>= 720 MPa @Strain 0.200 %	>= 104000 psi @Strain 0.200 %	
Elongation at Break	>= 8.0 %	>= 8.0 %	A_{50 mm}
Modulus of Elasticity	120 GPa	17400 ksi	
Modulus of Rigidity	50.0 GPa	7250 ksi	Torsion
Flexural Strength	730 MPa	106000 psi	Rigidty. Elastic bending fatigue, Longitudinal
	770 MPa	112000 psi	Rigidty. Elastic bending fatigue, Transverse
Fatigue Strength	450 MPa @# of Cycles 1.00e+7	65300 psi @# of Cycles 1.00e+7	

Thermal Properties	Metric	English	Comments
CTE, linear	17.25 µm/m-°C @Temperature 20.0 - 200 °C	9.583 µin/in-°F @Temperature 68.0 - 392 °F	
Thermal Conductivity	53.6 W/m-K	372 BTU-in/hr-ft ² -°F	

Melting Point Thermal Properties	968 - 1078 °C Metric	1770 - 1972 °F English	Comments
Solidus	968 °C	1770 °F	
Liquidus	1078 °C	1972 °F	

Component Elements Properties	Metric	English	Comments
Copper, Cu	82.65 - 85.95 %	82.65 - 85.95 %	
Iron, Fe	<= 0.50 %	<= 0.50 %	
Lead, Pb	<= 0.030 %	<= 0.030 %	
Manganese, Mn	0.050 - 0.30 %	0.050 - 0.30 %	
Nickel, Ni	8.5 - 9.5 %	8.5 - 9.5 %	
Phosphorous, P	<= 0.020 %	<= 0.020 %	
Tin, Sn	5.5 - 6.5 %	5.5 - 6.5 %	
Zinc, Zn	<= 0.50 %	<= 0.50 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	<= 0.00001433 ohm-cm	<= 0.00001433 ohm-cm	precipitation hardened (3h)
	<= 0.00001911 ohm-cm	<= 0.00001911 ohm-cm	quenched

Descriptive Properties	Value	Comments
Bending	2	90° bending across and in the rolling direction, longitudinal
	2	90° bending across and in the rolling direction, transverse

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

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