

CLAL-MSX SICLANIC S® TH4 Quenched Copper Alloy, 4/4 Hard, precipitation treated

Category : Metal , Nonferrous Metal , Copper Alloy

Material Notes:

SICLANIC S® is particularly recommended for the production of conductive contact blades. SICLANIC S® offers :electrical conductivity greatly superior to that of bronzes, brasses and nickel silvermechanicals properties on a par with those of copper cobalt- beryllium and of bronzeexcellent fatigue strengthvery competitive cost compared with copper-cobalt-beryllium.Information provided by CLAL-MSX

Order this product through the following link:

http://www.lookpolymers.com/polymer_CLAL-MSX-SICLANIC-S-TH4-Quenched-Copper-Alloy-44-Hard-precipitation-treated.php

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

Mechanical Properties	Metric	English	Comments
Hardness, Vickers	195 - 250	195 - 250	
	200	200	
	@Time 3600 sec	@Time 1.00 hour	
	212	212	
	@Time 7200 sec	@Time 2.00 hour	
	220	220	
	@Time 10800 sec	@Time 3.00 hour	
Tensile Strength, Ultimate	630 - 800 MPa	91400 - 116000 psi	
	590 - 700 MPa	85600 - 102000 psi	
Tensile Strength, Yield	@Strain 0.200 %	@Strain 0.200 %	
	8.0 - 20 %	8.0 - 20 %	
Elongation at Break	8.0 - 20 %	8.0 - 20 %	
Flexural Strength	>= 560 MPa	>= 81200 psi	Limit of elasticity in Bending
Fatigue Strength	245 MPa	35500 psi	
	@# of Cycles 1.00e+7	@# of Cycles 1.00e+7	

Thermal Properties	Metric	English	Comments
CTE, linear	19.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	10.6 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	
	@Temperature 20.0 - 300 $^{\circ}\text{C}$	@Temperature 68.0 - 572 $^{\circ}\text{F}$	
Specific Heat Capacity	0.370 J/g- $^{\circ}\text{C}$	0.0884 BTU/lb- $^{\circ}\text{F}$	
Thermal Conductivity	84.0 W/m-K	583 BTU-in/hr-ft ² - $^{\circ}\text{F}$	solid solution (or quenched) state
	188.4 W/m-K	1307 BTU-in/hr-ft ² - $^{\circ}\text{F}$	quenched state
Melting Point	1040 - 1060 $^{\circ}\text{C}$	1900 - 1940 $^{\circ}\text{F}$	
Solidus	1040 $^{\circ}\text{C}$	1900 $^{\circ}\text{F}$	
Liquidus	1060 $^{\circ}\text{C}$	1940 $^{\circ}\text{F}$	

Component Elements Properties	Metric	English	Comments
Copper, Cu	96.9 %	96.9 %	
Nickel, Ni	2.5 %	2.5 %	
Silicon, Si	0.60 %	0.60 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	≤ 0.00000400 ohm-cm	≤ 0.00000400 ohm-cm	precipitation hardened
	0.00000430 ohm-cm	0.00000430 ohm-cm	precipitation hardened (4 hr)
	0.00000430 ohm-cm	0.00000430 ohm-cm	precipitation hardened (5 hr)
	0.00000440 ohm-cm	0.00000440 ohm-cm	precipitation hardened (3 hr)
	0.00000450 ohm-cm	0.00000450 ohm-cm	precipitation hardened (2 hr)
	0.00000480 ohm-cm	0.00000480 ohm-cm	precipitation hardened (1 hr)
	0.00000780 ohm-cm	0.00000780 ohm-cm	quenched

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