CLAL-MSX SICLANIC S® TB Quenched Copper Alloy

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-TB-Quenched-Copper-Alloy.php

Physical Properties	Metric	English	Comments
Density	8.90 g/cc	0.322 lb/in³	

Mechanical Properties	Metric	English	Comments
Hardness, Vickers	79 - 85	79 - 85	
	173 @Time 3600 sec	173 @Time 1.00 hour	
	195 @Time 7200 sec	195 @Time 2.00 hour	
	195 @Time 18000 sec	195 @Time 5.00 hour	
	198 @Time 14400 sec	198 @Time 4.00 hour	
	199 @Time 10800 sec	199 @Time 3.00 hour	
Tensile Strength, Ultimate	270 - 300 MPa	39200 - 43500 psi	
Tensile Strength, Yield	140 - 170 MPa @Strain 0.200 %	20300 - 24700 psi @Strain 0.200 %	
Elongation at Break	30 - 47 %	30 - 47 %	
Modulus of Elasticity	120 GPa	17400 ksi	longitudinal
Fatigue Strength	245 MPa @# of Cycles 1.00e+7	35500 psi @# of Cycles 1.00e+7	

Thermal Properties	Metric	English	Comments

Thermal Properties	Metric	English	Comments
CTE, linear	@Temperature 20.0 - 300 °C	@Temperature 68.0 - 572 °F	
Specific Heat Capacity	0.370 J/g-°C	0.0884 BTU/lb-°F	
Thermal Conductivity	84.0 W/m-K	583 BTU-in/hr-ft²-°F	solid solution (or quenched) state
	188.4 W/m-K	1307 BTU-in/hr-ft²-°F	quenched state
Melting Point	1040 - 1060 °C	1900 - 1940 °F	
Solidus	1040 °C	1900 °F	
Liquidus	1060 °C	1940 °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	0.00000395 ohm-cm	0.00000395 ohm-cm	precipitation hardened (5 hr)
	<= 0.00000400 ohm-cm	<= 0.00000400 ohm-cm	precipitation hardened
	0.00000400 ohm-cm	0.00000400 ohm-cm	precipitation hardened (4 hr)
	0.00000410 ohm-cm	0.00000410 ohm-cm	precipitation hardened (3 hr)
	0.00000420 ohm-cm	0.00000420 ohm-cm	precipitation hardened (2 hr)
	0.00000450 ohm-cm	0.00000450 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