

CMW® 353 Copper Alloy

Category : Metal , Nonferrous Metal , Copper Alloy

Material Notes:

CMW® 353 material is an economical high strength, high conductivity copper base alloy. It is a heat treatable copper base alloy and its excellent properties are obtained largely through heat treatment. Its properties combine high hardness, strength and wear resistance with relatively high electrical and thermal conductivity. CMW® 353 is superior in its combination of hardness and conductivity to such non-ferrous alloys as Yellow Brass, Gear Bronze, Manganese Bronze and Aluminum Bronze. Any current or heat conducting members in electrical or other machinery will, therefore, be improved when made of CMW® 353 material. High hardness, combined with the toughness which characterizes CMW® 353 material, gives it excellent wear resistance and makes it useful for flash welding dies, back up bars, bushings and current carrying bearings in combination with CMW®3 shafts. Information provided by CMW Inc.

Order this product through the following link:

http://www.lookpolymers.com/polymer_CMW-353-Copper-Alloy.php

Physical Properties	Metric	English	Comments
Density	8.75 g/cc	0.316 lb/in ³	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell B	90	90	Castings
Tensile Strength, Ultimate	586 MPa	85000 psi	Castings
Tensile Strength, Yield	483 MPa	70100 psi	Castings
Elongation at Break	10 %	10 %	Castings
Reduction of Area	20 %	20 %	Castings
Modulus of Elasticity	114 GPa	16500 ksi	

Thermal Properties	Metric	English	Comments
CTE, linear	16.2 μm/m-°C	9.00 μin/in-°F	
	@Temperature 100 °C	@Temperature 212 °F	
Thermal Conductivity	183 W/m-K	1270 BTU-in/hr-ft ² -°F	
Melting Point	1038 - 1116 °C	1900 - 2041 °F	
Solidus	1038 °C	1900 °F	
Liquidus	1116 °C	2041 °F	
Softening Point	455 °C	851 °F	Permanent Softening

Component Elements Properties	Metric	English	Comments
Chromium, Cr	0.80 %	0.80 %	
Copper, Cu	96.1 %	96.1 %	
Nickel, Ni	2.5 %	2.5 %	
Silicon, Si	0.60 %	0.60 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.00000359 ohm-cm	0.00000359 ohm-cm	48 % IACS

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