

Cadi 182 Copper Alloy

Category : Metal , Nonferrous Metal , Copper Alloy

Material Notes:

Chromium copper is the primary copper alloy used for resistance spot and seam welding. This alloy achieves good hardness and electrical conductivity through a combination of heat treatment and cold work. C18200 is utilized for electrodes, holders, adaptors, as well as numerous electrical applications where resistance to deformation at high temperature is required or when higher mechanical properties than C11000 are required. Forms: RodBarPlateShapesTubeInformation provided by Cadi Company.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Cadi-182-Copper-Alloy.php

Physical Properties	Metric	English	Comments
Density	8.89 g/cc	0.321 lb/in ³	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell B	65	65	
	@Diameter 50.8 - 76.2 mm	@Diameter 2.00 - 3.00 in	
	70	70	
	@Diameter 25.4 - 50.8 mm	@Diameter 1.00 - 2.00 in	
	>= 75	>= 75	heat treated
	@Diameter <=25.4 mm	@Diameter <=1.00 in	
Tensile Strength at Break	>= 379 MPa	>= 55000 psi	Any thickness
Tensile Strength, Yield	>= 379 MPa	>= 55000 psi	Any thickness
	@Strain 0.500 %	@Strain 0.500 %	
Modulus of Elasticity	117 GPa	17000 ksi	
Poissons Ratio	0.181	0.181	
Shear Modulus	49.6 GPa	7200 ksi	

Thermal Properties	Metric	English	Comments
Thermal Conductivity	323.4 W/m-K	2244 BTU-in/hr-ft ² -°F	
Melting Point	1070 - 1080 °C	1958 - 1976 °F	
Solidus	1070 °C	1958 °F	
Liquidus	1080 °C	1976 °F	

Thermal Properties	Metric	English	Comments
Component Elements Properties	Metric	English	Comments
Chromium, Cr	0.90 %	0.90 %	
Copper, Cu	99.1 %	99.1 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	<= 0.00000382 ohm-cm	<= 0.00000382 ohm-cm	Calculated from Min 75 %IACS, up to 3" diameter/any thickness

Processing Properties	Metric	English	Comments
Processing Temperature	649 °C	1200 °F	Brazing, <15 minutes

Descriptive Properties	Value	Comments
RMWA Class	2	

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