

Cadi 1815 Copper Alloy

Category : Metal , Nonferrous Metal , Copper Alloy

Material Notes:

Zirconium addition to chromium copper improves creep resistance at high operating temperatures and reportedly reduces sticking of electrodes to the work during spot welding of galvanized materials. C18150 is specified mainly for electrode application. Forms:

RodBarPlateInformation provided by Cadi Company.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Cadi-1815-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	980.0 - 1080 °C	1796 - 1976 °F	
Solidus	980.0 °C	1796 °F	
Liquidus	1080 °C	1976 °F	

Component Elements Properties	Metric	English	Comments
Chromium, Cr	1.0 %	1.0 %	
Copper, Cu	98.85 %	98.85 %	
Zirconium, Zr	0.15 %	0.15 %	

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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