



# Metal Alloys Corporation



## CADMIUM COPPER

### EQUIVALENT SPECIFICATIONS

SPECIFICATIONS	DESIGNATION
ISO	Cu-DHP
European	Cu-DHP
BS	C-106
JIS	C 1220
M1 f	M1 f

C16200 Cadmium Copper alloy offers a unique combination of high tensile strength and high electrical conductivity for an industry where these properties are generally considered incompatible. The nominal composition of 99.0% copper and 1.0% cadmium can lead to these unique properties.

### Typical Application for C16200 Cadmium Copper alloys:

**ELECTRICAL INDUSTRY:** Resistance Welding Electrodes, Circuit Breaker Switches, Stud Bases for Power Transmitters, Electrical Conductor Material

**CONSUMER:** Rod Extensions, Pencil-type, Light Soldering Guns, Tips

**INDUSTRIAL:** Connectors, Solderless Wrapped, Welding Wheels, Trolley Wires

### CHEMICAL COMPOSITION

	Al	Be	Cd	Cu	Fe
Min/Max	-	-	07-1.2	Rem	.02
Nominals	-	-	1.0	99.0	-

### PHYSICAL PROPERTIES

Product Property	US Customary	Metric
Melting Point - Liquidus	1969 F	1076 C
Melting Point - Solidus	1886 F	1030 C
Density	0.321 lb/in <sup>3</sup> at 68 F	8.89 gm/cm <sup>3</sup> @ 20 C
Specific Gravity	8.890	8.89
Electrical Resistivity	11.50 ohms-cmil/ft @ 68 F	1.91 microhm-cm @ 20 C
Electrical Conductivity	90 % IACS @ 68 F	0.527 MegaSiemens/cm @ 20 C
Thermal Conductivity	208 Btu • ft/(hr • ft <sup>2</sup> • oF)at 68F	360.0 W/m • oK at 20 C
Modulus of Elasticity in Tension	17000 ksi	117000 Mpa
Modulus of Rigidity	6400 ksi	44130 Mpa
Specific Heat Capacity	0.090 Btu/lb/°F at 68 F	377.1 J/kg • °K at 293 K

### SIZES AVAILABLE :

HOLLOW RODS  
 ROUND RODS  
 HEX  
 SQUARE  
 FLAT  
 BILLETS  
 INGOTS

Min Bore Size 20 mm and Max OD 100 mm  
 8mm To 100 mm  
 10mm To 60mm  
 10mm To 60mm  
 10mm Min Thickness and max Width 120mm  
 Up to 200 mm  
 As per Specification

Regd. Office & Plant

Plot No. 6 & 7, Village: Lakhabaval, Post: Khodiyar Colony, Jamnagar - 361006.

Tel.: +91-288-2889251 / 52, Fax: +91-288-2889223, Cell: +91-9924443396

Email: info@metalalloyscorp.com • web: www.metalalloyscorp.com



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