



SHREE EXTRUSIONS LIMITED



C15000

ZIRCONIUM COPPER

Excellent welding material with very high softening temperature. Adding a small amount of zirconium into copper raises the softening temperature dramatically and also the strength of copper is improved. The softening temperature of CuZr is very high: about 500 C. Zirconium copper is suitable for power semiconductor bases, connectors, spot welding electrodes and adaptors etc.

TYPICAL APPLICATIONS:

- **CONSUMER:** Pencil-type & Light Soldering Guns: Tips, Rod Extensions
- **ELECTRICAL:** Switches, Commutators, Resistance Welding Electrodes, Circuit Breaker Switches, Stud Bases for Power Transmitters & Rectifiers
- **INDUSTRIAL:** Resistance Welding Tips, Welding Wheels, Connectors, Solderless Wrapped

CHEMICAL COMPOSITION

	Cu	Zr
Min/Max	99.8	0.10 - 0.20
Nominals	-	0.1500

PHYSICAL PROPERTIES

Product Property	US Customary	Metric
Coefficient of Thermal Expansion	9.4 • 10 ⁶ ? per °F (68-212 F)	16.9 • 10 ⁶ ? per °C (20-100 C)
Coefficient of Thermal Expansion	9.8 • 10 ⁶ ? per °F (68-572 F)	17.6 • 10 ⁶ ? per °C (20-300 C)
Density	0.321 lb/in ³ @ 68 F	8.89 gm/cm ³ @ 20 C
Electrical Conductivity	93 %IACS @ 68 F	0.544 MegaSiemens/cm @ 20 C
Electrical Resistivity	11.2 ohms-cmil/ft @ 68 F	1.86 microhm-cm @ 20 C
Melting Point Liquid US	1976 F	1080 C
Melting Point Solid US	1796 F	980 C
Modulus of Elasticity in Tension	18700 ksi	129000 Mpa
Specific Gravity	8.89	8.89
Specific Heat Capacity	0.092 Btu/lb/°F @ 68 F	393.5 J/kg • °K @ 293 K
Thermal Conductivity	212.0 Btu • ft/(hr • ft ² • °F) @ 68 F	366.9 W/m • °K @ 20 C

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

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