



SHREE EXTRUSIONS LIMITED



C18000

COPPER CHROMIUM NICKEL SILICON

EQUIVALENT SPECIFICATIONS

SPECIFICATIONS	DESIGNATION
ISO	CuNi2Si
European	CuNi2Si
Czech Republic	CuNi2Si

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.

TYPICAL USES for C18000 Copper Chromium Nickel Silicon:

INDUSTRIAL: Resistance Welding Tips, Resistance Welding Wheels and Fixtures, Stud Welding Collets and Tips, Sprue Bushing, Cavities for Injection Molds, Hot runner Systems for Injection Molds, Welding Dies for Wire and Flash, Blow Pins, Pinch Offs, Mold Cavities for Bold Molds, Blow Pins, Pinch Offs, Mold Cavities for Bold Molds, Cores, Core & Ejector Pins for Injection Molds, Plunger Tips for Metal Die Casting Machines, Heat Sink Inserts in Steel Plastic Molds

CHEMICAL COMPOSITION

	Cr	Cu	Fe	Ni	Si
Min/Max	0.10 - 0.8	Rem	0.15	1.8 - 3.0	0.4 - 0.8
Nominals	0.4500	-	-	2.4000	0.6000

PHYSICAL PROPERTIES

Product Property	US Customary
Elastic modulus	18.5x106 psi (128 GPa)
Density	• .318 lb/in3 (8.81 g/cm3)
Poisson's Ratio	• 0.3
Electrical Conductivity	45% IACS (26 MS/m) minimum
Thermal Conductivity at 212 °F (100 °C)	• 120 BTU/hr ft °F (208 W/m K)
Coefficient of Thermal Expansion	• 9.7 ppm/°F (17.5 ppm/°C)
Specific Heat (Heat Capacity) at 70 °F (20 °C)	• 0.092 BTU/lb °F (385 J/kg K)
Melting Temperature (Solidus)	• 1900 °F (1040 °C)

SIZES AVAILABLE :

HOLLOW RODS
 ROUND RODS/BARS
 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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