



Metal Alloys Corporation



HIGH SILICON BRONZE "A"

EQUIVALENT SPECIFICATIONS

SPECIFICATIONS	DESIGNATION
ISO	CuSi3Mn1
European	CuSi3Mn1
BS	CS 101
Russian	BrKMo3-1

ASTM B96, ASTM B248, ASTM B98

C65500 is a high strength, engineering alloy that has excellent resistance to a wide range of corrosives, including fresh and salt water, most acids, alkalis, salts, and organic chemicals. However, it is not suitable for use with sulfides, nitric acid, acid chromates, or oxidizing salts such as ferric chloride. 655 Bronze has a combination of corrosion resistance, strength, resilience, and formability that makes them among the most widely used copper alloys. Noted to be non-sparking, galling resistant, and fatigue resistant. Typical applications of C65500 include electrical conduit, pump shafts, valve stems, tie rods, fasteners, marine and pole-line hardware, nuts, bolts, screws, rivets, nails, bushings, screen cloth and wire.

Typical Uses for C65100 Low Silicon Bronze "B":

CONSUMER : Sculptures, Electrical, Pole Line Hardware, Motors Rotor Bar **FASTENERS:** Screws, Rivets, Burrs, Nuts, Nails, Cotter, Pins, Clamps, Bolts, Hinges **INDUSTRIAL:** Screen Cloth, Wear Plates, Screen Plates, Shafting, Wire, Welded Pressure Vessels, Oil Refinery Plumbing Tube, Bearing Plates, Butts, Marine, Vessel Hardware, Propeller Shaft

CHEMICAL COMPOSITION

	Cu	Fe	Pb	Mn	Ni	Si	Zn
Min/Max	Rem	0.8	0.05	0.50 - 1.3	0.6	2.8 - 3.8	1.5
Nominals	97.0000	-	-	0.9000	-	3.0000	-

PHYSICAL PROPERTIES

Product Property	US Customary
Coefficient of Thermal Expansion	10.0 Å • 10 ⁻⁶ per oF (68-212 F)
Density	0.308 lb/in ³ at 68 F
Electrical Conductivity	7 %IACS @ 68 F
Electrical Resistivity	148.0 ohms-cmil/ft @ 68 F
Melting Point - Liquidus	1880 F
Melting Point - Solidus	1780 F
Modulus of Elasticity in Tension	15000 ksi
Modulus of Rigidity	5600 ksi
Specific Gravity	8.53
Specific Heat Capacity	0.09 Btu/lb/oF at 68 F
Thermal Conductivity	21.0.0 Btu Å • ft/(hr Å • ft ² Å • oF)at 68F

SIZES AVAILABLE :

ROUND RODS	8mm To 100 mm
HEX	10mm To 60mm
SQUARE	10mm To 60mm
FLAT	10mm Min Thickness and max Width 120mm
BILLETS	Up to 200 mm
INGOTS	As per Specification

Regd. Office & Plant

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