



SHREE EXTRUSIONS LIMITED



C86500

HIGH TENSILE MANGANESE BRONZE

EQUIVALENT SPECIFICATIONS

SPECIFICATIONS	DESIGNATION
ASTM	C86500
BS	BS 1400 HTB1
EN	CC765S
DIN	2.034
ISO	CuZn35AlFeMn

C86500 High Tensile Manganese bronzes high strength copper-based alloys that include manganese as an alloying agent and high levels of zinc. They are characterized by high strength and hardness. This grade provides tensile strength to 110,000 psi and hardness well over 200 BHN. Manganese bronzes are used for trunnion bearings, heavily stressed gears, gearshift forks, impellers, marine propellers, valve stems, worm gears, and worms. It is also used for highly stressed machine parts.

TYPICAL USES for C86300 High Tensile Manganese Bronze:

Industrial: Marine hardware, clamps, covers for marine hardware, boat parts, and rudders, Bushings, High Strength Machine Parts, Gears, Bridge Pins, Propellers, Hydraulic Cylinder Parts, Large Valve Stems, Heavy Load Bearings, Hydraulic Cylinder Parts.

CHEMICAL COMPOSITION

	Cu	Pb	Sn	Zn	Fe	Ni	Al	Mn
Min	55.0	-	-	36.0	0.40	-	0.50	0.10
Max	60.0	0.40	1.00	42.0	2.0	1.0	1.5	1.5

PHYSICAL PROPERTIES

Melting Point – Liquidus °F	1616
Melting Point – Solidus °F	1583
Density lb./cu in. at 68°F	0.301
Specific Gravity	7.83
Electrical Conductivity*% IACS at 68°F	8.3
Thermal Conductivity Btu/ sq. ft/ ft.Hr/ °F at 68°F	22
Coefficient of Thermal Expansion 68-57210 ⁻⁶ per °F (68 – 572°F)	11.3
Specific Heat Capacity Btu/ lb. /°F at 68°F	0.09
Modulus of Elasticity in Tension (ksi)	15000

SIZES AVAILABLE :

ROUND RODS	1.2mm To 250 mm
HEX	5mm To 65mm
SQUARE	4mm To 60mm
FLAT	4mm Min Thickness and max Width 120mm
BILLETS	Up to 200 mm
INGOTS	As per Specification

Regd. Office & Works:
217/218 Phase - II Okha Rajkot Road, Dared, Jamnagar - 361 004. INDIA
Tel.: +91 - 288 - 2730118 | Mobile: +91 - 9328105172 mail@shree-extrusion.com | www.shree-extrusion.com



NABL / ISO : 15189
Accreditation Number M - 0000

