C86300 (SAE 430-B) MANGANESE BRONZE

Offered in solid & hollow bars, and wear plates.



C86300 (SAE 430-B) High Strength Cast Manganese Bronze, has outstanding mechanical properties to withstand the most rigorous industrial requirements. Its high strength and corrosion resistance make it ideal for heavy-duty applications. It outperforms and outlasts general purpose bronzes in the toughest applications.

Typical Uses

Oil & Gas

Bearings, Wear Bushings, Pump Impellers, Lineage Bushings, Valve Guides & Seats, Worm Gears

Aerospace

Heavy Load Bearings & Bushings, Screw Down Nuts, Hydraulic Cylindrical Parts

Automotive

Cams, Transmission Parts, Connector Rods

Builders Hardware

Brackets

Electrical

Electrical Components, Switches

Fasteners

Screw Down Nuts

Other Industrial

Hydraulic Cylinder Parts, Large Valve Stems, Bushings, Hooks, Cams, Gib, Gears, Slow Speed Heavy Load Bearings, Wear Rings, Forming Dies for Wood Pulp Industry, Struts, High Strength Machine Parts, Frames, Propellers, Bridge Pins, Hold Down Nuts for the Machine Tool Industry, Heavy Duty Off-Highway Vehicles

Marine

Marine Hardware, Boat Parts, Covers for Marine Hardware, Rudders, Clamps, Prop Shaft Nuts

Sizes Available from NBM

Hollow Bar (Continuous Cast)	1" x 2" I.D. thru 16" O.D.
Solid Bar	3/4" - 16" diameter
Wear Plate	3/8" - 4" thick thru 12" wide

Similar or Equivalent Specifications

Continuous ASTM B-505

Centrifugal AMS 4862, ASTM B-271, SAE J461, SAE J462

NBM Metals www.nbmmetals.com

The Leading USA Manufacturer & Master Distributor of Brass, Bronze, & Copper Alloys

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Chemical Composition, Tensile & Hardness, Physical Properties

Chemical Composition

	Cu(1,2)	Pb	Sn	Zn	Fe	Ni(3)	AL	Mn	
Min (%)	60.0			22.0	2.0		5.0	2.5	
Max (%)	66.0	0.20	0.20	28.0	4.0	1.0	7.5	5.0	

(1) Cu + Sum of Named Elements, 99.0% min.

(2) In determining Cu min., Cu may be calculated as Cu + Ni.

(3) Ni value includes Co.

Room Temp Tensile & Hardness Data

Casting Process	Temper	Tensile (KSI) Min	Yield (KSI) Min	Elongation In Hd Min	Brinell (3000 Kg)
Continuous	As Cast	110	62	14	225

Physical Properties

Melting Point - Liquidus °F	
Melting Point - Solidus °F	
Density lb/cu in @ 68 °F	0.283
Specific Gravity	7.83
Electrical Conductivity % IACS @ 68 °F	8
Thermal Conductivity Btu/ sq ft/ ft hr/ °F at 68°F	
Coefficient of Thermal Expansion 10 ⁻⁶ per °F (68-212 °F)	12
Specific Heat Capacity Btu/lb/ °F @ 68 °F	0.09
Modulus of Elasticity in Tension ksi	
Machinability Rating	8

The values listed on this document represent reasonable approximations suitable for general engineering use. Due to commercial variations in composition and to manufacturing limitations, they should not be used for specification purposes. See applicable A.S.T.M. Specification references.





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