



C93200

BEARING BRONZE (SAE 660)

WWW.NBMMETALS.COM

LEADING MANUFACTURER & MASTER DISTRIBUTOR OF BRASS, BRONZE, & COPPER ALLOYS



Offered in solid & hollow bars and wear plates.

C93200, better known as Bearing Bronze, is widely used in all aspects of industry today. Our stock is a continuous cast leaded tin bronze with enhanced properties that make it superior to the traditional SAE 660 alloys. C93200 allows for a choice of more design flexibility, permitting higher bearing loads and longer life for bearing surfaces.

Sizes Available From NBM

- SOLID BAR 3/8" - 16" diameter
- HOLLOW BAR (Continuous Cast) 1/2" I.D. x 1" O.D. thru 14" I.D. x 16" O.D.
- HOLLOW BAR (Centrifugal) up to 30" O.D. (stock) / 100" O.D. plus, special order
- SQUARE BAR up to 10" square
- WEAR PLATE 1/4" - 10" thick thru 18" widths

Spec Equivalents

Continuous
 ASTM B-505
 SAE 660, J461, J462

Centrifugal
 ASTM B-271
 SAE 660, J461, J462

Chemical Composition

	Cu ⁽¹⁾	Al	Sb	Fe	Pb	Ni ⁽²⁾	P ⁽³⁾	Si	S	Sn	Zn
min/max	81.0-85.0	.005	.35	.20	6.0-8.0	1.0	.15	.005	.08	6.3-7.5	1.0-4.0
nominal	83.0	-	-	-	7.0	-	-	-	-	6.9	2.5

(1) In determining Cu min, Cu may be calculated as Cu + Ni.
 (2) Ni value includes Co.
 (3) For continuous castings, P shall be 1.5%, max.
 NOTE: Cu +(sum of named elements) = 99.0% min.

Typical Uses

- Oil & Gas**
 General Utility Bearings and Bushings, Metal to Metal Wear Applications
- Automotive**
 Automotive Fittings, Couplings, Bushings, Earth Moving Equipment
- Fasteners**
 Washers
- Other Industrial**
 Pump Impellers, Main Spindle Bearings, Machine Tool Bearings, Bearings for Cranes, Trunnion Bearings, Roll Neck Bearings, Rolling Mill Bearings, Linkage Bushings for Presses, Fuel Pump Bushings, Water Pump Bushings, Diesel Engine Wrist Pin Bushings, Forging Press Toggle Lever Bearings, Hydraulic Press Stuffing Box, Hydraulic Press Main Lining, Fittings, Pump Fixtures, Insert Bearings, Machine Parts, Bearings, Thrust Washers, Pumps, Bushings, General Purpose Bushings



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Room Temp Tensile & Hardness Data

CASTING PROCESS	TEMPER	TENSILE (KSI) MIN	YIELD (KSI) MIN	ELONGATION IN HD MIN	BRINELL (3000 KG)
CENTRIFUGAL	M02	30	14	15	-
CONTINUOUS	M07	35	20	10	-

Physical Properties

Melting Point - Liquidus	1790 F
Melting Point - Solidus	1570F
Density	0.322 lb/in ³ at 68 F
Specific Gravity	8.91
Electrical Resistivity	85.9 ohms-cmil/ft @ 68 F
Electrical Conductivity	12 %IACS @ 68 F
Thermal Conductivity	33.6 Btu · ft/(hr · ft ² ·°F)at 68F
Coefficient of Thermal Expansion	10.0 ·10 ⁻⁶ per °F (68-572 F)
Specific Heat Capacity	0.09 Btu/lb/°F at 68 F
Modulus of Elasticity in Tension	14500 ksi
Machinability Rating	70%



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