

## C93200 Leaded Tin Bearing Hollow Bar

### Product Description

#### CC333G Nickel Aluminum Bronze

#### ASTM B505

**CC333G Nickel Aluminum Bronze 9D** is available with salt water corrosion resistance. It also is resistant to cavitation and erosion. Along with the advantage of pressure tightness, this high strength alloy is excellent for welding and is available in many forms at a lower cost to you.



### Typical Uses :

Builders Hardware: Window Hardware

Consumer: Piano Keys, Musical Instruments

Electrical: Electrical Hardware

Fasteners: Stuffing Box Nuts

Industrial: Pickling Equipment, Valve Guides, Piston Guides, Valve Seats, Pump Fluid Ends, Glands, Worms, Worms Wheels, Hot Mill Guides, Hand Gun Recoil Mechanisms, Landing Gear Parts, Air Craft Components, Wear Plates, Welding Jaws, Landing Gear Parts, Glass Molds, Machine Parts, Sewage Treatment Applications, Valve Components, Bearings, Bushings, Valve Bodies, Gears

Oil & Gas: Piping for Vertical Pump Columns, Firefighting and Fire Suppression Systems, Seawater Lift Pumps, Piping Layout, Flanges and Fittings, Discharge Elbows, Cooling Loops for Power Plants, Bronze Valve Bodies, Piping Systems, Desalination Equipment, Tube Sheets, Circulating Pumps and Pump Shafts, Fasteners and Hardware for Cooling towers.

Marine: Marine Applications, Covers for Marine Hardware, Ship Building, Marine Hardware

Ordinance: Government Fittings

<b>Chemical Composition:</b>					
	Al	Cu	Fe	Mn	Ni
Min/Max	10.0-11.5	78.0 min	3.0-5.0	3.5	3.0-5.5
Nominals	11	80	4	-	4.3

<b>Fabrication</b>	
Joining Technique	Suitability
Brazing	Good
Coated Metal Arc Welding	Not Recommended
Gas Shielded Arc Welding	Not Recommended
Machinability Rating	40
Oxyacetylene Welding	Not Recommended
Soldering	Excellent

<b>Physical Properties</b>		
Product Property	US Customary	Metric
Coefficient of Thermal Expansion	9.0 · 10 <sup>-6</sup> per °F (68-572 F)	16.2 · 10 <sup>-6</sup> per °C (20-300 C)
Density	0.272 lb/in <sup>3</sup> at 68 F	7.53 gm/cm <sup>3</sup> @ 20 C
Electrical Conductivity	8 % IACS @ 68 F	0.049 MegaSiemens/cm @ 20 C
Electrical Resistivity	122.8 ohms-cmil/ft @ 68 F	20.41 microhm-cm @ 20 C
Magnetic Permeability (As Cast)	1.32	1.32
Magnetic Permeability (TQ50 temper)	1.2	1.2

Melting Point - Liquidus	1930 F	1054 C
Melting Point - Solidus	1900 F	1038 C
Modulus of Elasticity in Tension	16000 ksi	110000 MPa
Poisson's Ratio	0.32	0.32
Specific Gravity	7.53	7.53
Specific Heat Capacity	0.1 Btu/lb/oF at 68 F	419.0 J/kg · oK at 293 K
Thermal Conductivity	24.2 Btu · ft/(hr · ft <sup>2</sup> ·oF)at 68F	41.9 W/m · oK at 20 C

<b>Sizes Available:</b>	
ROUND RODS	8mm To 70 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

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