

# AMS 4880 NICKEL ALUMINUM BRONZE (C95510)



## Nickel Aluminum Bronze



### Typical Uses

#### Aerospace

Landing Gear Bushings & Bearings, Valve Guides, Stems, and Seats

#### Other Industrial

Corrosion Resistant Parts, Wear Rings, Machine Tool Parts, Piston Guides, Seals

#### Marine

Propeller Hubs, Wear Rings, Hardware, Worm Gears, Shafts, Sleeves

### Sizes Available from NBM

Solid Bar..... $\frac{1}{2}$ " - 2  $\frac{1}{2}$ " diameter  
Hollow Bar.....1" O.D. thru 16" O.D.

### Spec Equivalents

**Continuous**  
ASTM B-505  
AMS 4880  
SAE J461, J462

**Centrifugal**  
ASTM B-271  
AMS 4880  
SAE J461, J462



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

# AMS 4880 NICKEL ALUMINUM BRONZE (C95510)

Chemical Composition, Thermal Properties, Physical Properties

## Chemical Composition

	Cu(1)	Al	Fe	Mn	Ni(1)	Sn	Zn
min/max	78.0 min	9.7-10.9	2.0-3.5	1.5	4.5-5.5	.20	.30
nominal	-	10.3	2.7	-	5.0	-	-

(1) Ni value includes Co.

Note: Cu + Sum of Named Elements, 99.8% min

## Room Temp Tensile & Hardness Data

Section Size (Inches)	Tensile Strength (KSI) Min	Yield Strength (KSI) Min	Elongation In Hd Min	Brinell (3000 Kg)
1" and under	105	62.5	9%	-
1" and over	95	50	8%	195

## Physical Properties (Based on C95500)

Melting Point - Liquidus °F.....	1930
Melting Point - Solidus °F.....	1900
Density lb/cu in @ 68 °F.....	0.272
Specific Gravity.....	7.53
Electrical Resistivity ohms-cmil/ft @ 68 °F.....	122.8
Electrical Conductivity %IACS @ 68 °F.....	8.5
Thermal Conductivity Btu/sq ft/ft hr/°F @ 68 °F.....	24.2
Coefficient of Thermal Expansion 10 <sup>-6</sup> per °F (68-212 °F).....	90
Specific Heat Capacity Btu/lb/°F @ 68 °F.....	0.1
Modulus of Elasticity in Tension ksi.....	16000
Magnetic Permeability.....	1.2
Machinability Rating.....	50%

## General Notes

- Our material is DFARS compliant.
- Many popular sizes are now available from stock.
- Other sizes available on request.

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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