AMS 4881 NICKEL ALUMINUM BRONZE (C95520)

Offered in solid & hollow bars






The high strength, ductility, and good abrasion resistance under severe loading conditions make AMS 4881 an ideal choice as the base metal for landing gear bushings. AMS 4881 is commonly used in applications involving heavy loads abrasion, friction, and deformation at high temperatures. In many cases AMS 4881 can replace C63020 with the advantage of this material being available in tube form, which provides economic cost savings to you the customer.

Sizes Available from NBM

Hollow Bar.....1" – 16" O.D.

Solid Bar.....½" - 2 ½" diameter

Similar or Equivalent Specifications

Continuous
ASTM B-505
AMS 4881D
SAE J462, J461

Centrifugal
ASTM B-271
AMS 4881

Euro Equivalents Designation
CuAl10Fe5Ni5-B | CB333G

Standard
EN 1982 : 1998-11

Typical Uses

Aerospace
Landing Gear Bushings and Bearings

Oil & Gas
Rock Bit Bearings, Bushings, & Washers, BOP Parts, Wellhead Components

Automotive
Bearings, Off-Highway Truck Bushings, Forming Roll Bearings

Marine
Pump Parts, Bushings

Industrial
Cams, Shafting, Hydraulic Bushings for Earth Moving Equipment, Valve Balls, Cryogenics, Drill Guide Bushings

Military
Tank Track Bearings, Bushings, Aircraft Components

NBM Metals
www.nbmmetals.com
The Leading USA Manufacturer & Master Distributor of Brass, Bronze, & Copper Alloys

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Chemical Composition, Thermal Properties, Physical Properties

AMS 4881D Standards

Section Size (Inches)	Tensile Strength (KSI) Min	Yield Strength (KSI) Min	Elongation	Hardness
1" and over	125	90	2%	26 HRC

AMS 4881D typical results obtained by NBM production

Section Size (Inches)	Tensile Strength (KSI) Min	Yield Strength (KSI) Min	Elongation	Hardness
1" and over	**135**	**100**	**3%**	**30 HRC**

Chemical Composition (AMS 4881D)

	Cu(1)	Al	Cr	Co	Fe	Pb	Mn	Ni(1)	Sn	Zn
min/max	74.5 min	10.5-11.5	.05	.20	4.0-5.5	.03	1.5	4.2-6.0	.25	.30
nominal	-	11.0	-	-	4.7	-	-	5.1	-	-

(1) Ni value includes Co.

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

Physical Properties

(Based on AMS4881D)

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^{-6} 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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