

C36000 FREE-MACHINING BRASS

Offered in solid, flats, hollow bars, and profiles.



C36000 is the most versatile and commonly used copper alloy bar stock used in both the North and South American Markets, second only to copper itself! It is used excessively to make an indescribable amount and variety of screw machine products. It's 100% machinability stems from a favorable interaction between the material's basic structure and a few percents of lead. The result is an alloy with good engineering properties and the ability to be machined at an extremely low cost.

Typical Uses

Automotive

Fluid Connectors, Threaded Inserts for Plastic Molding, Hose Barbs, Couplings, Fittings, Sensor Bodies, Thermostat Parts and Profiles

Builders Hardware

Lock Bodies, Latches, Hardware, Fittings, Hinges

Fasteners

Bolts, Nuts, Screws, Barbs, Cable Glands

Other Industrial

Automatic High Speed Screw Machine Parts, Valve Stems, Valve Seats, Fluid Connectors, Nozzles, Unions, Adapters, Pinions, Gears, Faucet Components, Pneumatic Fittings, Gauges

Plumbing

Plumbers' Brass Goods, Faucet Stems, Faucet Seats, Plumbing Fittings, Hose Barbs

Plastic

Insert Molding Components

Sizes Available from NBM

Hollow Bar	.....	up to 3" O.D. (with min w/t of 3/16")
Solid Bar	.....	3/32" - 16" diameter
Hex Bar	.....	5/32" - 4" hex
Rectangular Bar	.....	1/8" - 2" thick and to 8" wide
Square Bar	.....	1/8" - 4" square
Profiles / Sections	.....	made to order

Similar or Equivalent Specifications

ASTM B-16, B-249	SAE J461, J463
AMS 4610	MIL-V-18436

 **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

Chemical Composition

	Cu ⁽¹⁾	Pb	Zn	Fe
min	60.0	2.5	-	-
max	63.0	3.0	Rem	0.35

1. Cu + Sum of Named Elements, 99.7% min.



Thermal Properties

Treatment	Minimum*	Maximum*
Annealing	800	1100
Hot Treatment	1300	1450

*Measured in Fahrenheit

Physical Properties

Melting Point - Liquidus °F.....	1650
Melting Point - Solidus °F.....	1630
Density lb/cu in @ 68 °F.....	0.307
Specific Gravity.....	8.5
Electrical Conductivity % IACS @ 68 °F.....	26
Thermal Conductivity Btu/ sq ft/ ft hr/ °F at 68 °F.....	67
Coefficient of Thermal Expansion 10 ⁻⁶ per °F (68-212 °F).....	11.4
Specific Heat Capacity Btu/lb/ °F @ 68 °F.....	0.09
Modulus of Elasticity in Tension ksi.....	14000
Modulus of Rigidity ksi.....	5300
Machinability Rating.....	100

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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