NWB®

High Performance Bearing Technology

C36000 FREE-MACHINING BRASS



C36000 has a 100% machinability rating and withstands exposure to a wide range of water chemistries and is inert to organic liquids and gases. Brass can safely be substituted for leaded steel in the majority of common screw machine products. Its most common fabrication processes are machining, roll threading, and knurling. No material of comparable strength machines faster and produces better surface finishes than Free-Cutting Brass. In many cases brass parts cost less than steel!

Alternative Specifications

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

Physical Properties

Melting Point - Liquidus	1650 F
Melting Point - Solidus	1630 F
Density	0.307 lb/in^3 at 68 F
Specific Gravity	8.5
Electrical Resistivity	39.9 ohms-cmil/ft at 68 F
Electrical Conductivity	26 %IACS at 68 F
Thermal Conductivity	67.0 Btu · ft/(hr · ft2·°F) at 68F
Coefficient of Thermal Expansion	11.4 ·10^{-6} per °F (68-572 F)
Modulus of Elasticity in Tension	14000 ksi
Modulus of Rigidity	5300 ksi
Machinability Rating	100%

Room Temp Tensile & Hardness Data

TEMPER	SECTION SIZE (INCHES)	TENSILE (KSI) MIN	YIELD (KSI) MIN	ELONGATION IN HD MIN	BRINELL (3000 KG)
H04	0.625	65	30	6	-
H02	3.0	45	15	20	-

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

Chemical Composition

	Cu	Fe	Pb	Zn
min/max	60.0-63.0	.35	2.5-3.7	Rem.
nominal	61.5	-	3.1	35.4

NOTE: Cu + (sum of named elements) = 99.5% min.

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