



ALLOY

C66800

Data Sheet

Description: C66800 is a high tensile brass containing silicon and manganese. In conjunction with good fatigue strength, this alloy possesses excellent wear resistance. Primary applications for this alloy include: clutch bearings, shaft bushings, sleeve bearings and most notably bearing slippers.

Typical Chemistry & Mechanical Properties

Alloy Number	Name	Chemical Composition								
		Cu	Al	Fe	Pb	Mn	Ni	Si	Sn	Zn
C66800	Manganese Bronze	60.0~63.0%	0.25%max	0.35%max	0.50%max	2.0~3.5%	0.25%max	0.5~1.0%	0.30%max	Rem
		Mechanical Properties								
		Tensile Strength	(ksi)	Yield Strength	(ksi)	% Elongation	Rockwell B Hardness			
		72 - 80		50 - 62		15 - 25	135 - 165			

Typical Physical Properties

Density	0.300 lb / in ³
Melting Range	1690 - 1730° F
Coefficient of Expansion (68o to 572oF)	11 µin/in °F
Thermal Conductivity	55 Btu/ft / hr °F
Electrical Conductivity	21% of IAC
Electrical Resistivity	54 Ω
Relative Magnetic Permeability	< 1.02
Coefficient of Friction	0.15



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Shapes and Sizes

Round	0.375" to 4.000"
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Drawn Length Tolerances

0.375" to 2.000" (inclusive)	+/-0.500"
> 2.000 to 3.000" (inclusive)	+/-0.500"
> 3.000" to 4.000" (inclusive)	+/-0.500"

Notes:

Standard Lengths: 12', 14', 15' & 16'
All other lengths considered non-standard
Cut to lengths available for nominal charge

Diameter Tolerances

Up to 1.000" (inclusive)	+/- 0.003"
> 1.000" to 2.000" (inclusive)	+/- 0.004"
> 2.000" to 2.500" (inclusive)	+/- 0.004"
> 2.500" to 3.000" (inclusive)	+/- 0.005"
> 3.000" to 3.500" (inclusive)	+/- 0.006"
> 3.500" to 4.000" (inclusive)	

Fabrication

Machinability	40
Hot Working	Good
Hot Working Range	1290° - 1400°F
Cold Working	Good

Typical Uses

Industrial	Gears, Sealing Rings, Thrust Bearing Bushings, Cams, Spindles, Bearing Idler Pins, Connecting Rods
Marine	Pump Parts, Hardware, High Strength

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