



## MA36B Free-Cutting Brass

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### Introduction

MA36B is the US reference standard for free-cutting brass with machinability rating of 100, moderate strength, and good resistance to corrosion. The alloy is used in the widest range of applications where excellent machining performance is the key selection criteria, including all types of special machined or micro-machined components with or without electrical requirement.

To learn more please contact our [sales department](#).

# MA36B Free-Cutting Brass

Chemical Composition - Limits		Chemical Composition - Nominal	
Cu 60-63 (99.5 min incl named elements)		Cu 61.5	
Pb 2.5-3.0		Pb 2.8	
Zn rem		Zn 35.7	
Fe 0.35 max			
Specifications		Fabrication Index	
ASTM B16		Soldering	5 - Excellent
EN 12164		Hot Worked	3 - Good
EN 12166		Cold Worked	3 - Good
		Brazing	4 - Very Good
		Machinability	5 - Excellent

## Physical Properties

Annealing Range (Min)	800 °F
Annealing Range (Max)	1100 °F
Density	0.307 lb/in <sup>3</sup>
Electrical Resistivity (Annealed)	39.9 Ω·cir-mil/ft @ 68 °F
Electrical Conductivity (Annealed)	26% IACS @ 68 °F
Thermal Conductivity	67 Btu/ft <sup>2</sup> /ft·hr/°F @ 68 °F
Coefficient of Thermal Expansion	11.4 per °F (68-572 °F)
Modulus of Elasticity (Tension)	14 ksi
Modulus of Rigidity (Tension)	5 ksi
Melting Point (Solidus)	1,700 °F
Melting Point (Liquidus)	1,900 °F

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## Round Wire - Pretempered

TEMPER NAME	TEMPER CODE	TENSILE STRENGTH (ksi) Min	YIELD STRENGTH, 0.5% EUL (ksi) Min	MILL LIMITS (inch)	ELONGATION (%) 1" GL
Annealed	O60	48.0	20.0	.01 - .2362	15.0
1/2 Hard	H02	57.0	25.0	.01 - .2362	4.00
Hard	H04	70.0	35.0	Over .1875 - 0.289	4.00
Hard	H04	70.0	35.0	Over .1875 - 0.289	4.00

## Round Rod - Pretempered

TEMPER NAME	TEMPER CODE	TENSILE STRENGTH (ksi) Min	YIELD STRENGTH, 0.5% EUL (ksi) Min	MILL LIMITS (inch)	ELONGATION (%) 1" GL
Annealed	O60	48.0	20.0	.0625 - .250	15.0
1/2 Hard	H02	57.0	25.0	.0625 - .250	7.00
Hard	H04	70.0	35.0	Over .1875 - 0.250	4.00
Hard	H04	70.0	35.0	Over .1875 - 0.250	4.00