



FISK MA34B Leaded Brass

UNS C34500 / CuZn35Pb2 / CW601N

MA34B is a leaded brass with machinability rating of 90, moderate strength, and capacity for cold work. The alloy is very similar to MA35B / C35300, but optimized to provide better bending performance. Example uses include parts requiring a combination of machining and forming operations, such as crimping, knurling, or thread rolling.

Fabrication Indices		Available Forms	Chemical Composition
Machinability	90	Rod and Wire, round	62-65% Copper
Cold Working	fair		1.5-2.5% Lead
Hot Working	poor	Typical Standards	0.15% max Iron
Brazing	good	ASTM B453	Remainder Zinc (34.5% nominal)
Soldering	excellent	ASTM B249, B250	
Welding	poor	EN 12164, 12166	

Mechanical Properties

○ Round Rod

TEMPER NAME	TEMPER CODE	TENSILE STRENGTH	YIELD STRENGTH	ELONGATION	MILL LIMITS
		min, ksi (MPa)	min, ksi (MPa) @ 0.5% EUL	min, %	
soft anneal	O60	46 (315)	16 (110)	20	0.0394 - 0.3150" (1 - 8 mm)
1/4 hard	H01	52 - 65 (360 - 450)	25 (170)	10	
1/4 hard and Stress Relieved	HR01	52 - 65 (360 - 450)	25 (170)	10	
1/2 hard	H02	57 - 80 (395 - 555)	25 (170)	7	

○ Round Wire

TEMPER NAME	TEMPER CODE	TENSILE STRENGTH	YIELD STRENGTH	ELONGATION	MILL LIMITS
		min, ksi (MPa)	min, ksi (MPa) @ 0.5% EUL	min, %	
soft anneal	O60	46 (315)	16 (110)	20	0.0100 - 0.2362" (0.25 - 6 mm)
1/4 hard	H01	52 - 65 (360 - 450)	25 (170)	7	
1/4 hard and Stress Relieved	HR01	52 - 65 (360 - 450)	25 (170)	7	
1/2 hard	H02	57 - 80 (395 - 555)	25 (170)	4	

Physical Properties

Melting Point (Liquidus)	1670 °F	910 °C
Melting Point (Solidus)	1630 °F	890 °C
Annealing Range (min - max)	800 - 1100 °F	425 - 595 °C
Density	0.306 lb/in ³	8.47 gm/cm ³
Electrical Resistivity (Annealed)	39.9 Ω-cir-mil/ft @ 68 °F	6.62 μΩ-cm @ 20 °C
Electrical Conductivity (Annealed)	26% IACS @ 68 °F	0.151 MS/cm @ 20 °C
Thermal Conductivity	67 Btu/ft ² /ft-hr/°F @ 68 °F	116 W/m-K @ 20 °C
Coefficient of Thermal Expansion	11.3 x 10 ⁻⁶ per °F (68-572 °F)	20.4 x 10 ⁻⁶ per °C (20-300 °C)
Modulus of Elasticity (Tension)	15,000 ksi	103,500 MPa
Modulus of Rigidity	5,600 ksi	38,600 MPa

The information provided on this page is for reference purposes only.

Fisk Alloy Wire, Inc. • P.O. Box 26 • 10 Thomas Road N • Hawthorne, NJ 07507 U.S.A.
Phone: 973-825-8500 • Fax (973) 825-8501 • E-mail: sales@fiskalloy.com