

Free Cutting Brass

C360

Alloy C360 is a leaded free cutting brass with machinability rating of 100. It is used where good machinability is required. Otherwise, the alloy has similar attributes to C260.

Mechanical Properties

ROUND & SQUARE WIRE...as drawn	
Temper	Tensile Strength PSI
Annealed	48-54,000
1/4 Hard	60-75,000
1/2 Hard	76-91,000
3/4 Hard	88-103,000
Hard	98-113,000
Extra Hard	110-124,000
ROLLED FLAT WIRE...wire other than square	
Temper	Tensile Strength PSI
Annealed	44-54,000
1/4 Half Hard	49-59,000
1/2 Hard	55-65,000
3/4 Hard	62-72,000
Hard	68-78,000
Extra Hard	79-89,000
Spring	86-95,000

Note: Flat wire sections having a 3:1 width to thickness ratio or less are by commercial convention processed to the same tensile strength values as round or square wire.

Physical Properties

Physical Properties	English Units	Metric Units
Melting Point (Liquidus)	1650°F	900°C
Melting Point (Solidus)	1630°F	885°C
Density	.307 lb/cu in @ 68°F	8.5 gm/cu cm
Thermal Conductivity (Annealed)	67 Btu ft/sq ft hr °F @ 68°F	.28 cal cm/sq cm sec °C @ 20°C
Coefficient of Thermal Expansion	.0000114 per °F (68-572°F)	.0000205 per °C (20-300°C)
Electrical Resistivity (Annealed)	39.9 ohms (cir mil/ft) @ 68°F	6.63 microhm/cm @ 20°C
Electrical Conductivity (Annealed)	26% IACS*	.151 megmho/cm @ 20°C
Modulus of Elasticity	14,000,000 psi	9,800 kg/sq mm

*International Annealed Copper Standard

Conversion Factors Metric Tensile Strengths

$$\text{kg/mm}^2 = \text{KSI} \times .7031$$

$$\text{Newtons/mm}^2 = \text{KSI} \times 6.895$$

or
MPa



Chemical Composition

Nominal Composition	
Copper	61.5%
Zinc	35.4%
Lead	3.1%
Composition Limits	
Copper	60.0 - 63.0%
Zinc	Remainder
Lead	2.5 - 3.7%
Iron	0.35% Max.

Specifications

ASTM B250
ASTM B16

Mill Limits

Round	.0010 - .1285 inch .0254 - 3.264 mm
Square and Rectangular	.0100 - .0808 inch .2540 - 1.905 mm Corner Radius as Specified
Flat	Thickness: .0100 - .0500 inch .2540 - 1.270 mm Width: .0150 - .2500 inch .3810 - 6.350 mm Edge Condition as Specified
Shapes	Special Shapes and Sizes Produced to Order

The information provided on this page is for reference purposes only.
Fisk Alloy Wire, Inc. • P.O. Box 26 • 10 Thomas Road • Hawthorne, NJ 07507 • U.S.A.
Phone (973) 427-7550 • Fax (973) 427-4585 • E-mail: sales@fiskalloy.com