

Brass

C260

Alloy C260 is commonly used for electrical components, electronic parts, and mechanical fasteners. The alloy has good strength but poor stress relaxation characteristics and does not make a particularly good spring material. Although it has good conductivity, the solderability of the alloy is severely impaired by its high zinc content.



Mechanical Properties

ROUND & SQUARE WIRE...as drawn			
Temper	Tensile Strength PSI	Nominal Yield Strength PSI	Nominal Elongation %
Annealed	48-54,000	16-23,000	56-64
1/8 Hard	50-65,000	46,000	35
1/4 Hard	62-77,000	57,000	20
1/2 Hard	79-94,000	65,000	8
3/4 Hard	92-107,000	70,000	6
Hard	102-117,000	70,000	5
Extra hard	115-129,000	70,000	4
Spring	120,000 Min	70,000	3
ROLLED FLAT WIRE...wire other than square			
Temper	Tensile Strength PSI	Nominal Yield Strength PSI	Nominal Elongation %
Annealed	44-53,000	11-22,000	54-66
Quarter Hard	49-59,000	40,000	43
Half Hard	57-67,000	52,000	25
3/4 Hard	64-74,000	57,000	10
Hard	71-81,000	63,000	8
Extra Hard	83-92,000	65,000	5
Spring	91-100,000	65,000	3

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)	1750°F	955°C
Melting Point (Solidus)	1680°F	915°C
Density	.308 lbs/cu in	8.53 gm/cu cm
Thermal Conductivity (Annealed)	70 Btu ft/sq ft hr °F @ 68°F	.29 cal cm/sq cm sec °C @ 20°C
Coefficient of Thermal Expansion	.0000111°F (68-572°F)	.0000199°C (20-300°C)
Electrical Resistivity (Annealed)	37 ohm (cir mil/ft) @ 68°F	6.2 microhm-cm @ 20°C
Electrical Conductivity (Annealed)	28% IACS* @ 68°F	.162 megmho/cm @ 20°C
Modulus of Elasticity	16,000,000 psi	11,200 kg/sq mm

*International Annealed Copper Standard

Chemical Composition

Nominal	
Copper	70%
Zinc	30%
Composition Limits	
Copper	68.5 - 71.5%
Lead	0.05% Max.
Iron	0.05% Max.
Zinc	Remainder

Specifications

ASTM B36
ASTM B134
ASTM B250

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

Conversion Factors Metric Tensile Strengths

kg/mm² = KSI x .7031

Newtons/mm² = KSI x 6.895
or
MPa

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