



CA-17500 BeCu Alloy 10, CA-17510 BeCu Alloy 3

Characteristics

- * Conductivity to 60% IACS
- * Tensile Strength to 135 ksi.
- * Provided as a Mill Hardened Product
- * Great Alloy for High Reliability Relay Applications

Description

Copper Alloy Strip, CDA-17500 Beryllium Copper Alloy 10 and CDA-17510 Beryllium Copper Alloy 3 combine moderate yield strength, up to 120 ksi, with electrical and thermal conductivity measurements from 45 to 60 percent of pure copper. Alloys 10 and 3 are available in wrought product forms and can be supplied fully hardened by our producing mill.

Specifications

ASTM-B-768

Forms Available

COIL Gauge: .001 to .090 Width: .060 to 25.000
 SPOOL Gauge: .005 to .060 Width: .060 to 2.000 Weight: 5 lbs to 4,000 lbs per spool
 SHEET Gauge: .002 to .060 Width: .250 to 24.500 Length: .500 to 144"

Typical Property Values

CHEMICAL	Ca17500	Ca17510
Beryllium:	0.4 - 0.4%	0.2 - 0.6%
Cobalt:	2.4 - 2.7%	
Nickel:		1.4 - 2.2%
Copper:	Balance	Balance

PHYSICAL

Density	0.319	lbs per cu. In. @68°F (annealed)
Modulus of Elasticity	20.0	x 10 ⁶ PSI Tension
Electrical Conductivity	45 - 60	% IACS @68°F (annealed)
Thermal Conductivity	140	BTU per sq. ft. per hr. @68°F
Coef. Of Thermal Expansion	9.8	inches/inch/ F x 10x ⁻⁶ from 68°F to 572°F

MECHANICAL

	AT (TF00)	HT (TH04)	
Tensile Strength	100 - 130	110 - 135	x 1000
Yield (2% offset)	80 - 100	95 - 120	x 1000
Elongation	10 - 25	8 - 20	% in 2 inches
Rockwell Hardness (30T)	B92 - 100	B95 - 102	.020 gauge and above

(Properties listed above are provided for reference only)