C102 Copper Alloy Wire

Introduction

C102 is an oxygen-free copper which has better forming, resistance to hydrogen embrittlement, and brazing characteristics than C110 ETP. C102 has good solderability and corrosion resistance and is used for high current applications.

To learn more please contact our sales department.

Fisk Alloy Wire Inc.
P.O. Box 26
10 Thomas Road N.
Hawthorne, NJ 07506 U.S.A.

Phone: (973) 825-8500
Fax: (973) 427-4585
E-mail: sales@fiskalloy.com

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Chemical Composition - Limits	Chemical Composition - Nominal
Cu 99.95 min - incl Ag (100 less all impurities)	Cu 99.95
O 0.001 max	O 0.001

Specifications	Fabrication Index	
ASTM B1	Soldering	5 - Excellent
ASTM B2	Hot Worked	5 - Excellent
ASTM B3	Cold Worked	5 - Excellent
ASTM B33	Brazing	5 - Excellent
ASTM B48	Machinability	1 - Poor
ASTM B152		
ASTM B246		
ASTM B272		
ASTM B298		
ASTM B355		

Physical Properties

Annealing Range (Min)	700 °F
Annealing Range (Max)	1200 °F
Density	0.323 lb/in³
Electrical Resistivity (Annealed)	10.3 Ω·cir-mil/ft @ 68 °F
Electrical Conductivity (Annealed)	101% IACS @ 68 °F
Thermal Conductivity	226 Btu/ft²/ft·hr/°F @ 68 °F
Coefficient of Thermal Expansion	9.8 per °F (68-572 °F)
Modulus of Elasticity (Tension)	17 ksi
Modulus of Rigidity (Tension)	6 ksi
Melting Point (Solidus)	1,750 °F

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Melting Point (Liquidus)	1,920 °F

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Round Wire

TEMPER NAME	TEMPER CODE	TENSILE STRENGTH (ksi) Typical	MILL LIMITS (inch)
Annealed	OS050	35.0	.0010 - .1285 inch
Hard Drawn	H04	60.0	

Square Wire

TEMPER NAME	TEMPER CODE	TENSILE STRENGTH (ksi) Typical	MILL LIMITS (inch)
Annealed	OS050	35.0	.0100 - .0808 inch
Hard Drawn	H04	60.0	

Rolled Flat

TEMPER NAME	TEMPER CODE	TENSILE STRENGTH (ksi) Min	Max	MILL LIMITS (inch)
Annealed	OS050	26.0	38.0	Thickness: .0100 - .0500 inch Width: .0150 - .2500 inch
1/4 Hard	H01	34.0	42.0	
1/2 Hard	H02	37.0	46.0	
Hard	H04	43.0	52.0	
Spring	H08	50.0	58.0	

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