C7E25 High Performance Alloy Wire

Introduction

Utilizing its expertise in copper alloy wire processing, Fisk Alloy has been able to improve the conductivity of C70250 to 55% IACS (a 35% increase) while still maintaining a high tensile strength and good formability. Available in sizes of .0159? and smaller, the alloy is able to achieve a minimum tensile strength of around 110 ksi, with fine wire sizes (.009? or smaller) achieving a strength of 120 – 145 ksi.

To learn more please contact our sales department.

Fisk Alloy Wire Inc.
P.O. Box 26
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Phone: (973) 825-8500
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C7E25 High Performance Alloy Wire

Chemical Composition - Limits	Chemical Composition - Nominal
Cu rem (99.5 min incl named elements)	Cu 96.3
Ni 2.2-4.2 - incl Co	Ni 3.0
Si 0.25-1.2	Si 0.7
Mg 0.05-0.30	
Zn 1.0 max	
Pb 0.05 max	
Fe 0.20 max	
Mn 0.10 max	

Specifications	Fabrication Index	
ASTM B422	Soldering	
ASTM B910	Hot Worked	
	Cold Worked	
	Brazing	
	Machinability	1 - Poor

Physical Properties

Density	0.318 lb/in³
Electrical Resistivity (Annealed)	18.9 Ω·cir-mil/ft @ 68 °F
Electrical Conductivity (Age Hardened)	55% IACS @ 68 °F
Thermal Conductivity	98 Btu/ft²/ft·hr/°F @ 68 °F
Modulus of Elasticity (Tension)	19 ksi
Melting Point (Solidus)	1,700 °F
Melting Point (Liquidus)	1,900 °F

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Round Wire - Variable

TEMPER NAME	TEMPER CODE	TENSILE STRENGTH (ksi) Min	Max	MILL LIMITS (inch)
TL	TL	110		Over .009" - .0159"
TL	TL	120	145	.009" & under

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