

TECHINICAL DATASHEET

CuBe2 - C17200

Beryllium Copper Alloys Wire

Chemical Composition

Be	1.80-2.00%
Co+Ni	0.20% min.
Co+Ni+Fe	0.60% max.
Others	0.50% max.
Cu	Balance
Note	Cu+Be+Co+Ni+Fe: 99.50% min.

Physical Properties

Density	lb/in ³ at 68 F	0.302
Specific Gravity	g/cm ³	8.36
Melting Point - Liquidus	F	1800
Melting Point - Solidus	F	1600
Electrical Resistivity	ohms-cmil/ft @ 68 F	46.2
Electrical Conductivity	%IACS @ 68 F (heat-treated)	22
Thermal Conductivity	Btu · ft/(hr · ft ² · °F) at 68 F	62.0
Coefficient of Thermal Expansion	x 10 ⁻⁶ per °F (68-572 F)	9.7
Specific Heat Capacity	Btu/lb/°F at 68 F	0.10
Modulus of Elasticity in Tension	ksi	18500
Modulus of Rigidity	ksi	7300
Machinability Rating	%	20

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Mechanical Properties

	Temper						
	A	¼ H	½ H	¾ H	H	AT	HT
Heat Treatment						3 h 315 - 330 °C	3 h 315 - 330 °C
Tensile Strength (N/mm ²)	400 - 540	620 - 800	750 - 940	850 - 1070	920 - 1140	1100 - 1380	1340 - 1590
Yield Strength 0.2% Offset (N/mm ²)	130 - 210	510 - 730	620 - 870	750 - 1040	830 - 1110	990 - 1250	1240 - 1520
Hardness HRB/HRC	---	---	---	---	---	---	---
Elongation %	30 - 60	3 - 25	2 - 15	2 - 8	1 - 6	3 min.	2 min.
Electrical Conductivity (% IACS)	15 - 19	15 - 19	15 - 19	15 - 19	15 - 19	22 - 28	22 - 28