

TECHINICAL DATASHEET

CuBe2Pb - C17300

Beryllium Copper Alloys Rod

Chemical Composition		
Be		1.80-2.00%
Co		0.30% min.
Co+Ni+Fe		0.60% max.
Pb		0.2% min.
Cu+additions		99,5% min.

Physical Properties after precipitation hardening		
Melting Point	°C	865-980
Density	g/cm ³ at 20°C	8.26
Specific Heat	Cal/(g·°C) at 20°C	0.1
Coefficient of Linear Expansion	x10 ⁻⁶ /°C at 20°C to 200°C	17.3
Electrical Resistivity	10 ⁻⁸ Ω·m at 20°C	7.9
Electrical Conductivity	%IACS at 20°C	25
Thermal Conductivity	W/(m·k) at 20°C	84 - 130
Modulus of Elasticity	N/mm ²	130000
Modulus of Rigidity	N/mm ²	50000
Poisson's Ratio		0.3
Magnetic Paermeability	μ(μ=1+4πk)	1.000042
Fatigue Resistance	N/mm ² at 10 ⁸ cycles	≥ 300

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Mechanical Properties			
Age Hardenable			
	Temper		
	A	H	H
Diameter (mm)	All dimensions	$\phi \leq 25$	$\phi > 25$
Heat Treatment	---	---	---
Tensile Strength (N/mm ²)	420 - 600	620 - 900	600 - 800
Yield Strength 0.2% Offset (N/mm ²)	170 - 270	550 - 800	500 - 750
Hardness HV	90 - 150	200 - 250	180 - 240
Elongation %	35	3	5
Electrical Conductivity (% IACS)	15 - 19	15 - 19	15 - 19