CORAM

Material Designation

GB	/
UNS	C17300
EN	CW102C/CuBe2Pb
JIS	/

Chemical Composition

Copper, Cu	Rem.
Beryllium, Be	1.80 – 2.00%
Lead, Pb	0.20 – 0.60%
Co+Ni	Min. 0.20%
Co+Ni+Fe	Max. 0.60%

Physical Properties

Density	8.36 g/cm3
Electrical Conductivity	Min. 22 %IACS
Thermal Conductivity	107.3 W/(m·K)
Coefficiency of Thermal Expansion	17.8 μm/(m·K)
Specific Heat Capacity	377.1 J/(kg·K)
Modulus of Elasticity	128 Gpa

Characteristics

CAMK17300 is a kind of wear-resistant copper, with excellent hardness, excellent electrical conductivity and good tempering resistance, good uprightness, and the sheet is not easy to bend. It is a very good aerospace material processing electrode.

It offers the strength properties with the added benefit of being "free machining". The bar and wire contain a small amount of lead to provide an alloy tailored for automatic machining operations. Lead promotes formation of finely divided chips thus extending cutting tool life.

Application

CAMK17300 has the same properties and uses as CAMK17200. It has excellent cold working performance and good hot working performance. It is mainly used as diaphragm, diaphragm, bellows and spring.

1. Electrical Industry: RF Coaxial Connector, Switch Parts, Relay parts, Electrical Connectors, Fuse Clips, Contact Bridges, Electrical Motor Components, Navigational Instruments, Electrical Switch and Relay Blades.

2. Industrial: Bushings, Non-Sparking Safety Tools, Shafts, Pumps, Springs, Welding Equipment, Rolling Mill Parts, Spline Shafts, Pump Parts, Valves, Bourdon Tubes, Bellows, Electrochemical Springs, Flexible Metal Hose.

Mechanical Properties

Specification mm (up to)	Type	Temper	Tensile Strength Min. MPa	Yield Strength Min. MPa	Elongation Min. A%	Hardness Min.	Electrical Conductivity Min. % IACS
/	Bar	TB00	400	230	30	45 HRB	15
		TD04	620	480	5	88 HRB	15
		TF00	1100	970	2	35 HRC	22
		TH04	1200	1060	2	35 HRC	22
/	Wire	TB00	400	/	30	/	15
		TD04	915	/	1	/	15
		TF00	1050	/	3	/	22
		TH04	1300	/	1	/	22