

High Performance Copper Alloy C14415

Standard

DIN: CuSn0.15
 EN: CuSn0.15 / CW117C
 UNS: C14415
 JIS: C1441

Applications

Applicable to large current-carrying shrapnel (electrical platforms above 800V, 300A), namely high-voltage contacts, knife contacts, relay boxes, busbars, etc.

Chemical Composition (%)

Cu: Remainder
 Sn: 0.1-0.15

Physical Properties

Density (g/cm ³)	8.93
Electrical conductivity IACS%(20°C)*	81
Modulus of elasticity (KN/mm ²)	120
Coefficient of thermal expansion 10 ⁻⁶ /K	18
Thermal conductivity W/(m*K)	340

*value for the lowest temper class

Merit

CuSn0.15 copper-tin alloy has high electrical conductivity of 88%, tensile strength close to 500Mpa, excellent high temperature resistance and corrosion resistance. It is suitable for soldering, brazing and copper welding.

Mechanical Properties

Temper	Tensile Strength		Yield Strength	Elongation	Hardness	Bending Test(90 °)	
	Mpa		Mpa	%	HV	GW	BW
R250 O50	250-320		min. 200	min. 9	60-90	0	0
R300 H02	300-370		min. 250	min. 4	85-110	0	0
R360 H04	360-430		min. 300	min. 3	105-130	0	0
R420 H06	420-490		min. 350	min. 2	120-140	1	1

Physical properties of the above materials are conventional performance indicators. If you have some special requirements, (for example property and tolerance), please contact Kinmachi Company directly, we will give you professional assessments and answers.

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