KHP®15 (CuSn0.15)

Standard Designation

EN CW117C / UNS C14415

Chemical Composition

Cu [%]	Sn [%]		
Balance	0.15		

Description / Applications

KHP®15 is a low alloyed copper. KHP®15 has a high electrical conductivity and is harder than pure copper because of the Sn content. Applications: components for the electrical industry and the photovoltaics, bus bars, tabs, leadframes

Physical Properties[1)]

Density	8.9 g/cm³	Thermal expansion coefficient	$18 \cdot 10^{-6}$/K
Electrical conductivity	46 m/Ω·mm² 80 % IACS[2)]	Modulus of elasticity	130 GPa[3)]
Thermal conductivity	300 W/m·K		

[1)] Guideline values for soft temper, measured at room temperature

[2)] IACS = International Annealed Copper Standard

[3)] 1 GPa = 1 kN/mm²

Processing information

Weldability	good	Stress corrosion cracking	none
Solderability	good		

Mechanical properties

Temper	Tensile Strength Rm [MPa]	Yield Strength Rp0,2 [MPa]	Elongation A50 [%]	Hardness HV	Bendability[1)]			
					90° r/t[2)]		180° r/t[2)]	
					GW[3)]	BW[4)]	GW[3)]	BW[4)]
R250/H60	250 - 320	max. 200	min. 9	60 - 90	0	0	0	0
R300/H85	300 - 370	min. 250	min. 4	85 - 110	0	0	0	0
R360/H105	360 - 430	min. 300	min. 3	105 - 130	0	0	0.5	1
R420/H120	420 - 490	min. 350	min. 2	120 - 140	1	1	1	2.5

[1)] The r/t values are valid for a strip thickness up to 0.6 mm (without crack). The data refer to rolled-to-temper material and a width of the bending area of 5 mm. V-shape bend test according to ISO 7438

[2)] r = inner radius, t = thickness

[3)] GW = good way

[4)] BW = bad way

The details in this datasheet are exclusively meant for general information only. They correspond to the state of knowledge at the time of issue and cannot replace the examination by our customers. Liability cannot be derived from the information.

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