

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 Properties¹⁾

Density	8.9 g/cm ³	Thermal expansion coefficient	18·10 ⁻⁶ /K
Electrical conductivity	46 m/Ω·mm ² 80 % IACS ²⁾	Modulus of elasticity	130 GPa ³⁾
Thermal conductivity	300 W/m·K		

¹⁾ Guideline values for soft temper, measured at room temperature³⁾ 1 GPa = 1 kN/mm²²⁾ IACS = International Annealed Copper Standard

Processing information

Weldability	Stress corrosion cracking
Solderability	

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 = thickness³⁾ GW = good way⁴⁾ 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.

Rev.: 01/2022

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