KHP®7025 (CuNi3SiMg)

Standard Designation

EN not standardised /UNS C70250

Chemical Composition

Cu [%]	Ni [%]	Si [%]	Mg [%]
Balance	3	0.65	0.15

Description / Applications

KHP®7025 is a CuNiSi (Corson type) alloy. KHP®7025 provides a high electrical conductivity combined with high strength and good resistance against stress-relaxation.
Applications: connector springs, tabs, contact springs, switches, relays, leadframes

Physical Properties[1)]

Density	8.8 g/cm³	Thermal expansion coefficient	$17 \cdot 10^{-6}$/K
Electrical conductivity	25 m/Ω·mm² 43 % IACS[2)]	Modulus of elasticity	130 GPa[3)]
Thermal conductivity	190 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)]
R620	620 - 760	min. 500	min. 11	180 - 220	0	0	0.5	0.5
R650	650 - 780	min. 585	min. 10	200 - 240	0.5	0.5	2	1.5
R690	690 - 800	min. 655	min. 8	210 - 250	1.5	1	2	1.5
R760	760 - 860	min. 700	min. 7	220 - 260	2	1.5	2.5	2.5

[1)] The r/t values are valid for a strip thickness up to 0.5 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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