

3.12 CuSn8 - C52100 - CW453K

Application Range

Contact springs, connectors, membranes, switch elements, fixed contacts. Ultra-high strength spring elements

Physical Properties							Chemical Position (reference value) %					
Density *	g/cm ³	8.8					Cu	Rest				
Thermal conductivity *	W/(m·K)	67					Sn	7.5 - 8.5				
Electr. conductivity ***	MS/m	6.5					P	0.01 - 0.4				
Electr. conductivity ***	IACS (%)	11										
Thermal expansion c. **	10 ⁻⁶ K	18.5										
Modulus of elasticity *	Gpa	115										
Condition	Temper class	Tensile strength T.S. min. - max. MPa	Yield strength		Elongation		Hardness (reference value) HV	Electr. Conductivity MS/m	Bendability 90° ^{1) 2) 3)}			
			Rp 0.2		A50				Strip thickness ≤0.5mm			
			min.	min.	min.	min.			R/t			
			MPa	MPa	%			GW	Stretch leveled		BW	
			3)	4)	3)	4)			Stretch leveled	Thermal stress relieved	Stretch leveled	Thermal stress relieved

*Reference values at room temperature

**Between 20 and 300 °C

*** Values for the lowest temper class

¹⁾ $r = x \cdot t$ (strips up to $t = 0.50$ mm)

²⁾ Sample width = 10 mm / bending at smaller bending widths on request (Evaluation according to page 5.4.2. of Hand-Out)

³⁾ Valid only as thermal stress relieved qualities

⁴⁾ Thermal stress relieved

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