

# CuSn6

Designation	EN / CuSn6	EN / CW452K	UNS / C51900
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This bronze alloy with 6 % tin is characterized by its adequate electrical conductivity, its high mechanical strength and its good spring properties. CuSn6 is resilient towards corrosion and is well suited for soldering.

## COMPOSITION OF MATERIAL

- Sn: 5,5 - 7 %
- Cu: balance

## PHYSICAL PROPERTIES

• Density	8,82 g/cm <sup>3</sup>
• Melting point	900-1050 °C
• Electrical conductivity	9 m/Ω mm <sup>2</sup> (at 20 °C R350)
• Electrical resistivity	0,111 Ω mm <sup>2</sup> /m (at 20 °C R350)
• Temperature coefficient of electrical resistance	0,065·10 <sup>-3</sup> /K (at 0 to 200 °C R350)
• Thermal conductivity	75 W/K m (at 20 °C)
• Thermal capacity	0,377 J/g K (at 20 °C)
• Coefficient of thermal expansion (linear)	18,5·10 <sup>-6</sup> /K (at 20 to 300 °C)
• Modulus of elasticity (tensile)	118 GPa (at 20 °C R350)

MANUFACTURING PROGRAM	THICKNESS	WIDTH
Rolls, spools, sheets	0,01 - 0,2 mm	1 - 640 mm
<i>not all combinations of thickness and width are available or different dimensions please contact our technical service</i>		

TEMPER ACCORDING TO DIN EN 1652			TYPICAL VALUES (information only)
	Tensile strength Rm in MPa	Yield strength Rp <sub>0,2</sub> in MPa	Elongation in % L <sub>0</sub> = 100 mm
R350	≤ 420	≤ 300	> 10
R420	420 - 520	≥ 260	< 30
R500	500 - 590	≥ 450	< 25
R560	560 - 650	≥ 500	< 16
R640	≥ 640	≥ 600	< 13

*The values in the table are valid only for foils with thickness > 0,1 mm.*

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