

## BB60 Plus – CuSn6

Material Designation			Nominal Composition (mass content in %)		About The Alloy
DIN-EN Symbol	(CuSn6+)		Cu	Balance	
DIN-EN	CW452K		Sn	6	
UNS	C51900		Zn	< 0,2	
JIS	C5191		Ni	< 0,2	
Physical Properties			Fe	< 0,1	
			Pb	< 0,005	
			P	0,03 - 0,35	
			Other	< 0,1	
Electrical conductivity soft	8,1	MS/m	Typical Applications		
Thermal conductivity	66	W/(m·K)	<ul style="list-style-type: none"><li>• Connectors for electrical engineering, electronics and automotive technology</li><li>• Stamped-bent parts</li><li>• Contact springs</li><li>• Leaf springs for relays</li><li>• Slide bearings</li><li>• Slide bars</li></ul>		
Thermal expansion coefficient **	18	10-6/K			
Density	8,8	g/cm³			
Modulus of elasticity	115	GPa = kN/mm²			
* Reference values at room temperature					
** Between 20 and 300 °C					
The Ecobronze BB60 Plus is a modified 6 % tin bronze which is distinguished by a very fine structure with considerably higher strength and elongation and a high electrical conductivity. It is used for miniaturized connectors and current-carrying springs in contacts.					
Among the 4 to 8 % tin bronzes BB60 Plus exhibits an intermediate electrical conductivity. Regarding the strength it reaches the level of a standard 8 % bronze.					
The alloy is registered with the U.S. EPA as Antimicrobial and with respect to Pb and Cd meets the OEKO-TEX Standard 100.					

## Mechanical Properties \*)

Temper condition		H04S <b>R 590S</b> H 190S	H06S <b>R 650S</b> H 200S
Tensile strength in N/mm <sup>2</sup>		590 - 690	650 - 750
0.2 % yield Strength in N/mm <sup>2</sup>		> 540	620
Elongation A <sub>L50</sub> %		> 12	> 8
Vickers hardness HV		190 - 220	200 - 230
Electrical conductivity in % IACS		13	13
Minimum radius of the bending mandrel for 90° bend and strip thickness s with a thickness/width ratio of < 10			
0.10 ≤ s ≤ 0.25 mm	transverse	0 x s	0.5 x s
	parallel	0 x s	1.5 x s

\*) Reference values

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### Processing Instructions

Cold forming properties	very good
Machinability	sufficient
Electroplating properties	very good
Hot-dip tinning properties	very good
Soldering	very good
Resistance welding	good
Gas shielded arc welding	good
Laser welding	very good

### Available Versions

Coils with standard outer diameters of 1200 mm
Strips in reel form with coil weight of up to 1500 kg
Multipancake up to 2.5 t
Hot-dip tinned strips
Profiled strips
Electroplated strips (tin, nickel)

### Available Dimensions

Bright pre-rolled strips 1 to 2.5 mm
Precision strip thickness from 0.05 to 1.2 mm
Strip width from 3.0 to 600 mm, but at least 10 times of the strip thickness
Other widths available on request

### Your Local Contact Person

Europe

Asia



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