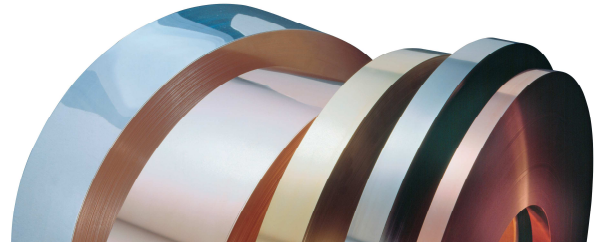


Bronze (Copper-Tin) BB60

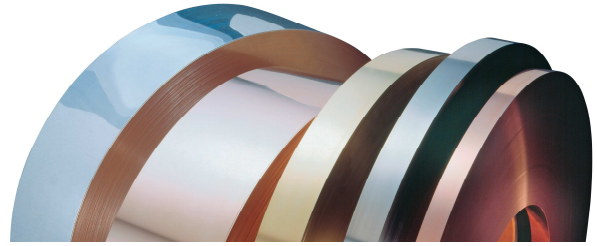


Material Designation			Nominal Composition (mass content in %)		About The Alloy
DIN-EN Symbol	CuSn6		Cu	Balance	
DIN-EN	CW452K		Sn	6	
UNS	C51900		Zn	< 0.2	
JIS	C5191		Ni	< 0.2	
Physical Properties			Fe	< 0.1	
			Pb	< 0.005	
Electrical conductivity soft	8.1	MS/m	P	0.03 - 0.35	
Thermal conductivity	66	W/(m·K)	Other	< 0.1	
Thermal expansion coefficient **	18	10-6/K	Typical Applications		
Density	8.8	g/cm ³	<ul style="list-style-type: none"> • Connectors for electrical engineering, electronics and automotive technology • Stamped-bent parts • Contact springs • Leaf springs for relays • Slide bearings • Slide bars 		
Modulus of elasticity	115	GPa = kN/mm ²			
* Reference values at room temperature					
** Between 20 and 300 °C					

Mechanical Properties *)							
Temper condition		O R 350 H 80	H02 R 420 H 125	H03 R 500 H 160	H04 R 580 H 180	H06 R 640 H 200	H08 R 720 H 220
Tensile strength in N/mm ²		350 - 420	420 - 520	500 - 590	580 - 660	640 - 730	720 - 800
0.2 % yield Strength in N/mm ²		< 300	370	450	530	600	690
Elongation A _{LS0} %		> 50	> 20	> 12	> 7	> 4	> 2
Vickers hardness HV		80 - 110	125 - 165	160 - 190	180 - 210	200 - 230	220 - 250
Electrical conductivity in % IACS		14	13	13	13	13	13
Minimum radius of the bending mandrel for 90° bend and strip thickness s, tempered quality							
0.10 ≤ s ≤ 0.25 mm	transverse	0 x s	0 x s	0 x s	0 x s	0 x s	0 x s
	parallel	0 x s	0 x s	0 x s	1 x s	2 x s	2 x s
0.25 ≤ s ≤ 1.0 mm	transverse	0 x s	0 x s	0 x s	0 x s	1 x s	-
	parallel	0 x s	0 x s	1 x s	2 x s	3 x s	-

*) Reference values

Bronze (Copper-Tin)
BB60



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 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.

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)

Your Local Contact Person	
Europe	Asia
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We reserve the right to make alterations especially where necessitated by technical developments or changes in availability. Please ask for the latest edition of this material data sheet.