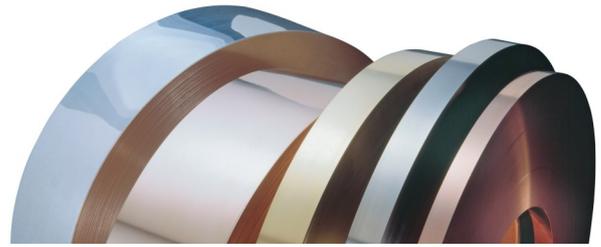


## Bronze (Copper-Tin) BB80

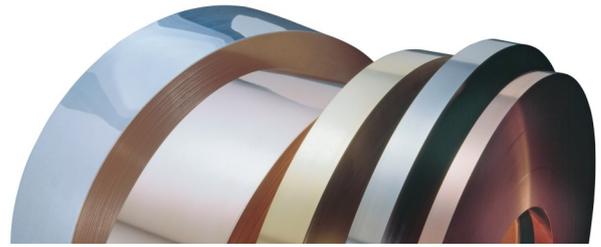


Material Designation		Nominal Composition (mass content in %)		About The Alloy
DIN-EN Symbol	CuSn8	Cu	Balance	
DIN-EN	CW453K	Sn	8	
UNS	C52100	Zn	< 0.2	
JIS	C5212	Ni	< 0.2	
The Miller Company	C521	Fe	< 0.1	
		Pb	< 0.005	
		p	0.03 - 0.35	
		Other	< 0.1	
Physical Properties		Typical Applications		
Electrical conductivity soft	7.5 MS/m	<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 conductivity	54 W/(m·K)			
Thermal expansion coefficient **	18 10 <sup>-6</sup> /K			
Density	8.8 g/cm <sup>3</sup>			
Modulus of elasticity	115 GPa = kN/mm <sup>2</sup>			
* Reference values at room temperature				
** Between 20 and 300 °C				

Mechanical Properties *)							
Temper condition		O R 370 H 90	H02 R 450 H 140	H03 R 540 H 170	H04 R 600 H 190	H06 R 660 H 210	H08 R 735 H 230
Tensile strength in N/mm <sup>2</sup>		370 - 450	450 - 550	540 - 630	600 - 690	660 - 750	735 - 830
0.2 % yield Strength in N/mm <sup>2</sup>		< 300	380	470	540	620	700
Elongation A <sub>L50</sub> %		> 50	> 22	> 15	> 8	> 6	> 2
Vickers hardness HV		90 - 120	140 - 175	170 - 200	190 - 220	210 - 240	230 - 260
Electrical conductivity in % IACS		13	12	12	12	12	12
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	0.5 x s	1 x s
	parallel	0 x s	0 x s	0 x s	1 x s	1.5 x s	4 x s
0.25 < s ≤ 1.0 mm	transverse	0 x s	0 x s	0 x s	1 x s	1 x s	-
	parallel	0 x s	0 x s	0.5 x s	2 x s	3 x s	-

\*) Reference values

## Bronze (Copper-Tin) BB80



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	USA	Asia

## SUNDWIGER

Messingwerk



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Messingwerk

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