

Material Designation			Nominal Composition (mass content in %)		About The Alloy
DIN-EN Symbol	(CuSn10)		Cu	Balance	The Ecobronze BB95 is an advanced 10 % tin bronze alloy to cope with the requirements of miniaturisation. BB95 is distinguished by a very good combination of strength and electrical conductivity. It is used for connectors and current-carrying springs in contacts.
DIN-EN	-		Sn	10	
UNS	C52400		Zn	< 0,2	
JIS	-		Ni	< 0,2	
Physical Properties			Fe	< 0,1	
			Pb	< 0,005	
			P	0,03 - 0,35	
			Other	< 0,1	
			Typical Applications		
Electrical conductivity soft	6	MS/m	<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		Among the 4 to 10 % tin bronze alloys BB95 exhibits the lowest electrical conductivity; but the highest reachable strength is significantly higher than for BB40, BB50, BB60 and BB80. By means of an additional tempering after the cold forming process the bendability can be further improved.
Thermal conductivity	50	W/(m·K)			
Thermal expansion coefficient **	18,4	10-6/K			
Density	8,8	g/cm³			
Modulus of elasticity	110	GPa = kN/mm²			
* Reference values at room temperature ** Between 20 and 300 °C					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		H04 R 650 H 200	H06 R 750 H 230	H08 R 850 H 240	H10 R 950 H 270	H12 R 1000 H 290
Tensile strength in N/mm ²		650 - 750	750 - 850	850 - 950	950 - 1050	> 1000
0.2 % yield Strength in N/mm ²		> 580	> 650	> 780	> 900	> 950
Elongation A _{L50} %		> 11	> 9	> 5	> 1	-
Vickers hardness HV		200 - 240	230 - 270	250 - 290	270 - 310	> 290
Electrical conductivity in % IACS		10	10	10	10	10
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	1 x s	-	-
	parallel	0 x s	1.5 x s	2.5 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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