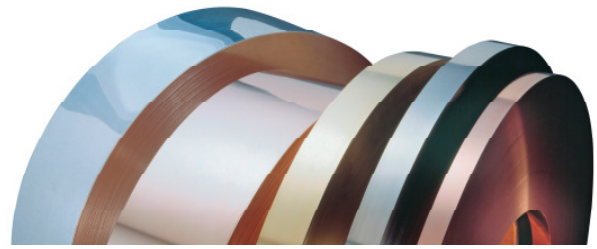


Brass (Copper-Zinc) MB10



Material Designation	
DIN-EN Symbol	CuZn10
DIN-EN	CW501L
UNS	C22000
JIS	C2200
The Miller Company	C220

Nominal Composition (mass content in %)	
Cu	Balance
Sn	< 0.05
Zn	10
Ni	< 0.2
Fe	< 0.05
Al	< 0.02
Pb	< 0.005
Other	< 0.1

About The Alloy

MB10 is a red brass having fine gloss, good workability, drawability and corrosion resistance. Among the Copper Zinc Alloys MB10 exhibits a very high electrical and thermal conductivity as well as a high modulus of elasticity.

The colour of MB10 is due to the increased Zn content less red in colour. Applications are found in buildings, personal accessories, cosmetic cases and in the jewellery industry.

MB10 is a single phase Copper alloy and available in a temper condition which allows extraordinary good cold forming and deep drawing with almost no earring.

The alloy is registered with the U.S. EPA as Antimicrobial and with respect to Pb and Cd meets the OEKO-TEX Standard 100.

Physical Properties		
Electrical conductivity soft	25.5	MS/m
Thermal conductivity	185	W/(m·K)
Thermal expansion coefficient **	18.4	10 ⁻⁶ /K
Density	8.8	g/cm ³
Modulus of elasticity	125	GPa = kN/mm ²

Typical Applications

- Jewellery
- Metal ware
- Transistor carriers
- Deep drawing parts
- Stamped-bent parts
- Connectors

* Reference values at room temperature

** Between 20 and 300 °C

Mechanical Properties *)

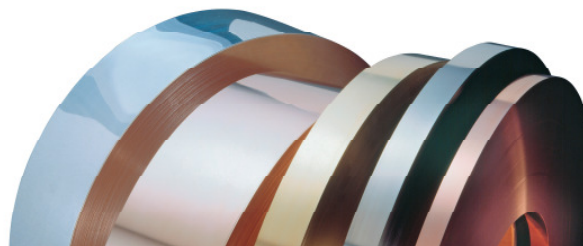
Temper condition	O30 R 230 H 50	H01 R 280 H 80	H02 R 350 H 110	H04 R 420 H 125	H06 R 440 H 150	H08 R 480 H 160
Tensile strength in N/mm ²	230 - 290	280 - 360	350 - 420	420 - 490	440 - 500	> 480
0.2 % yield Strength in N/mm ²	< 140	> 200	> 290	> 380	> 410	> 460
Elongation A _{L50} %	> 40	> 28	> 8	> 5	> 2	> 1
Vickers hardness HV	50 - 80	80 - 110	110 - 135	125 - 150	150 - 170	> 160
Electrical conductivity in % IACS	42	42	41	41	40	40

Minimum radius of the bending mandrel for 90° bend and strip thickness s

Strip thickness s	Orientation	O30	H01	H02	H04	H06	H08
0.10 ≤ s ≤ 0.25 mm	transverse	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	0 x s	1 x s	-
0.25 < s ≤ 0.50 mm	transverse	0 x s	0 x s	0 x s	0 x s	0 x s	-
	parallel	0 x s	0 x s	0.5 x s	1 x s	3 x s	-

*) Reference values

Brass (Copper-Zinc) MB10



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

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

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Metal Applications



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