SUNDWIGER Messingwerk

Brass (Copper-Zinc) **MB30**

Material Designation					
DIN-EN Symbol	CuZn30				
DIN-EN	CW505L				
UNS	C26000				
JIS	C2600				

Physical Properties					
Electrical conductivity soft	15.7	MS/m			
Thermal conductivity	124	W/(m∙K)			
Thermal expansion coefficient **	19.6	10-6/K			
Density	8.5	g/cm³			
Modulus of elasticity	115	GPa = kN/mm²			

Nominal Composition (mass content in %)

Cu	Balance
Sn	< 0.05
Zn	30
Ni	< 0.2
Fe	< 0.05
AI	< 0.02
Pb	< 0.005
Other	< 0.1

Typical Applications

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

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About The Alloy

MB30 is a brass having superior workability, drawability and good properties on plating. Among the Copper Zinc Alloys MB30 exhibits a high electrical and thermal conductivity as well an intermediate high modulus of elasticity at a moderate strength level.

The colour of MB30 is due to the increased Zn content already yellow. Applications are found in terminal connectors and for cups. MB30 is an 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.

* Reference v	alues at	room	temperat	ure
** Between 2	0 and 30	00 °C		

Mechanical Properties *)							
Temper condition		O30 R 270 H 55	H01 R 350 H 90	H02 R 410 H 120	H04 R 480 H 150	H06 R 540 H 170	H08 R 630 H 190
Tensile strength in N/mm ²	270 - 350	350 - 430	410 - 490	480 - 560	540 - 620	> 630	
0.2 % yield Strength in N/mm ²		< 160	> 240	> 370	> 440	> 520	> 610
Elongation A _{L50} %		> 45	> 30	> 15	> 12	> 8	> 2
Vickers hardness HV		55 - 90	90 - 125	120 - 150	150 - 180	170 - 200	> 190
Electrical conductivity in % IACS		27	27	26	26	25	25
Minimum radius of the bending mandrel for 90° bend and strip thickness s							
0.10 ≤ s ≤ 0.25 mm	transverse parallel	0 x s 0 x s	0 x s 0 x s	0 x s 0 x s	0 x s 0 x s	0.5 x s 1 x s	2 x s 5 x s
0.25 < s ≤ 0.50 mm	transverse parallel	0 x s 0 x s	0 x s 0 x s	0 x s 0 x s	0 x s 0.5 x s	1 x s 2 x s	2 x s 6 x s

*) Reference values

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Processing Instructions

Cold forming properties	very good
Machinability	satisfactory
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.

Your Local Contact Person	
Europe	

SUNDWIGER Messingwerk

Sundwiger Messingwerk GmbH

Hönnetalstraße 110 58675 Hemer Deutschland Tel. +49 2372 661-100 Fax +49 2372 661-48100 E-Mail: sales-sundwig@sundwiger-mw.com www.sundwiger-mw.com

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)

Asia

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Sundwiger Metal (Shenzhen) Co. Ltd.

5F, Block 25, Shatoujiao Free Trade Zone 518081 Shenzhen P.R. of China Tel. +86 755 2235 7466 Fax +86 755 25260974 E-Mail: sales@sundwiger-mw.com.cn www.sundwiger-mw.com

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