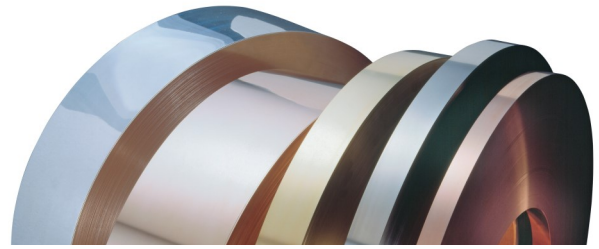


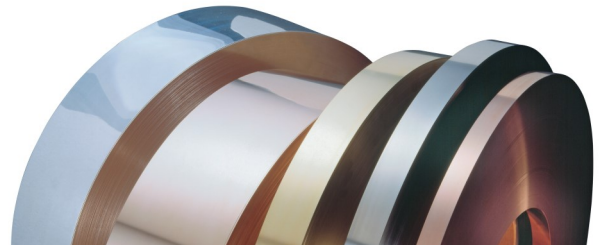
## Nickel Silver NB12



Material Designation			Nominal Composition (mass content in %)		About The Alloy
DIN-EN Symbol	CuNi12Zn2 4		Cu	Balance	
DIN-EN	CW403J		Ni	12	
UNS	C75700		Zn	24	
JIS	-		Fe	< 0.2	
The Miller Company	-		Mn	< 0.5	
			Pb	< 0.01	
Physical Properties			Other	< 0.2	<p><b>Typical Applications</b></p> <ul style="list-style-type: none"> <li>• Coins</li> <li>• Caps for quartz crystals</li> <li>• Electromagnetic shieldings</li> <li>• Deep drawing parts</li> <li>• Tableware</li> <li>• Security keys</li> <li>• Cutlery</li> <li>• Contact springs</li> <li>• Connector</li> <li>• Leaf springs for relays</li> <li>• Electric contacts</li> </ul>
Electrical conductivity soft	4	MS/m			
Thermal conductivity	33	W/(m·K)			
Thermal expansion coefficient **	17	10 <sup>-6</sup> /K			
Density	8.7	g/cm <sup>3</sup>			
Modulus of elasticity	125	GPa = kN/mm <sup>2</sup>			
* Reference values at room temperature ** Between 20 and 300 °C					

Mechanical Properties *)						
Temper condition		O R 350 H 80	H02 R 430 H 110	H03 R 490 H 140	H04 R 550 H 170	H06 R 620 H 190
Tensile strength in N/mm <sup>2</sup>		350 - 450	430 - 510	490 - 580	550 - 640	620 - 710
0.2 % yield Strength in N/mm <sup>2</sup>		200	230	400	480	580
Elongation A <sub>LS0</sub> %		> 35	> 8	> 7	> 3	-
Vickers hardness HV		80 - 110	110 - 150	150 - 180	170 - 200	190 - 220
Electrical conductivity in % IACS		7	7	6	6	6
Minimum radius of the bending mandrel for 90° bend and strip thickness s						
0.10 ≤ s ≤ 0.25 mm	transverse	0 x s	0 x s	0 x s	0 x s	1 x s
	parallel	0 x s	0 x s	0 x s	0 x s	2 x s
0.25 < s ≤ 1.0 mm	transverse	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	-
*) Reference values						

## Nickel Silver NB12



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

our Local Contact Person		
Europe	USA	Asia

## SUNDWIGER

Messingwerk



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Messingwerk

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