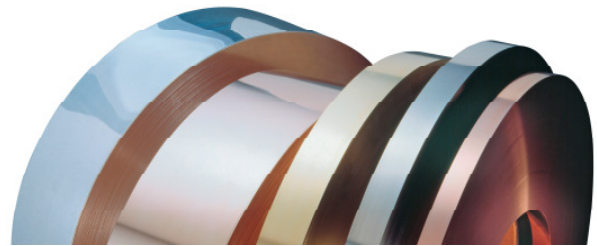


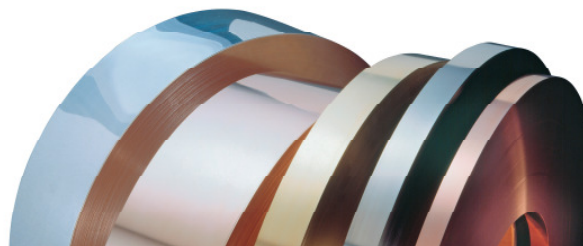
Nickel Silver NB10



Material Designation			Nominal Composition (mass content in %)		About The Alloy
DIN-EN Symbol	CuNi10Zn27		Cu	Balance	
DIN-EN	CW401J		Ni	10	
UNS	C74500		Zn	27	
JIS	C7451		Fe	< 0.2	
The Miller Company	-		Mn	< 0.5	
Physical Properties			Pb	< 0.01	
			Other	< 0.2	
Electrical conductivity soft	5	MS/m	Typical Applications		
Thermal conductivity	45	W/(m·K)	<ul style="list-style-type: none"> • Coins • Caps for quartz crystals • Electromagnetic shieldings • Deep drawing parts • Tableware • Security keys • Cutlery • Contact springs • Connector • Leaf springs for relays • Electric contacts 		
Thermal expansion coefficient **	16	10 ⁻⁶ /K			
Density	8.7	g/cm ³			
Modulus of elasticity	121	GPa = kN/mm ²			
* 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 ²		350 - 450	430 - 510	490 - 580	550 - 640	620 - 710
0.2 % yield Strength in N/mm ²		200	230	400	480	580
Elongation A _{L50} %		> 35	> 8	> 7	> 3	-
Vickers hardness HV		80 - 110	110 - 150	150 - 180	170 - 200	190 - 220
Electrical conductivity in % IACS		9	9	8	8	8
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 NB10



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)

Your Local Contact Person		
Europe	USA	Asia

DIEHL
Metal Applications

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<p>Sundwiger Messingwerk GmbH & Co. KG</p> <p>Hönnetalstraße 110 58675 Hemer Germany Phone +49 2372 661-100 Fax +49 2372 661-260 E-Mail: michael.koehler@diehl.com</p> <p>www.diehl.com/metall</p>	<p>The Miller Company</p> <p>275 Pratt Street CT 06450 Meriden USA Phone +1 203 63969-02 Fax +1 203 63969-24 E-Mail: sales@themillerco.com</p> <p>www.diehl.com/metall</p>	<p>Diehl Metall (Shenzhen) Co. Ltd.</p> <p>Block 25 Shatoujiao Free Trade Zone 518081 Shenzhen - P.R. China Phone +86 755 25261454-0 Fax +86 755 25260974 E-Mail: info@diehlmetall.com.cn</p> <p>www.diehl.com/metall</p>
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