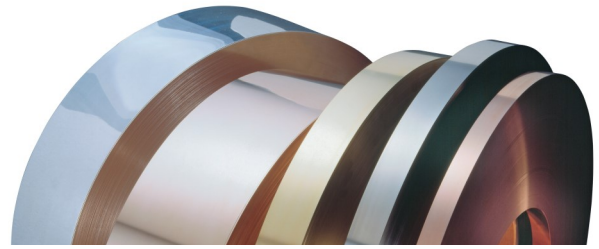


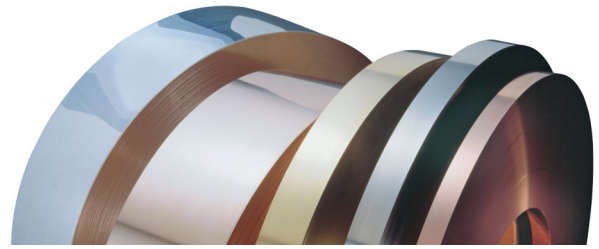
Nickel Silver NB17



Material Designation			Nominal Composition (mass content in %)		About The Alloy
DIN-EN Symbol	CuNi18Zn27		Cu	Balance	
DIN-EN	CW410J		Ni	18	
UNS	C77000		Zn	27	
JIS	C7701		Fe	< 0.2	
The Miller Company	C770		Mn	< 0.5	
Physical Properties			Pb	< 0.01	
Electrical conductivity soft	3	MS/m	Other	< 0.1	
Thermal conductivity	27	W/(m·K)	Typical Applications		
Thermal expansion coefficient **	17	10 ⁻⁶ /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 		
Density	8.8	g/cm ³			
Modulus of elasticity	135	GPa = kN/mm ²			
* Reference values at room temperature					
** Between 20 and 300 °C					

Mechanical Properties *)							
Temper condition		O R 390 H 90	H01 R 470 H 120	H02 R 540 H 170	H04 R 600 H 190	H06 R 700 H 220	H08 R 760 H 230
Tensile strength in N/mm ²		390 - 470	470 - 540	540 - 630	600 - 700	700 - 800	760 - 850
0.2 % yield Strength in N/mm ²		280	280	450	550	650	700
Elongation A _{LS0} %		> 33	> 11	> 5	> 2	> 1	-
Vickers hardness HV		90 - 120	135 - 180	170 - 200	190 - 220	220 - 250	230 - 260
Electrical conductivity in % IACS		5	4	4	4	4	4
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	0 x s	-
	parallel	0 x s	0 x s	0 x s	0 x s	1 x s	-
0.25 < s ≤ 1.0 mm	transverse	0 x s	0 x s	0 x s	0 x s	2 x s	-
	parallel	0 x s	0 x s	0 x s	1 x s	5 x s	-
*) Reference values							

Nickel Silver NB17



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

SUNDWIGER

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