



CU NI9 SN6

NICLAFOR 1000

CHEMICAL COMPOSITION :

Ni	15%
Sn	8%
Mn	0.05-0.30%
Pb	0.03% max
Zn	0.5% max
Fe	0.5% max
P	0.02% max
Cu	balance

ALLOY DENOMINATIONS :

MATERIAL N° EN :	-
WN/MATERIAL N° DIN :	-
ROBERT LAMINAGE :	560
EN :	-
DIN :	-
AFNOR :	-
UNS* :	C 72700

*Unified Numbering System (USA)

PHYSICAL PROPERTIES :

Density 20° C
 Melting point
 Modulus of elasticity, longitudinal
 Thermal Conductivity
 Electrical Conductivity
 Electrical resistivity
 Coefficient of linear expansion from 20 up to 300°C
 IACS (International Annealed Copper Standard)

8.90	Kg/dm ³		
968-1078	°C		
120	GPa		
53.6	W/M . K		
hardened ≥ 5.22	heat treated ≥ 7	M/Ω mm ²	
hardened ≤ 0.1916	heat treated ≤ 0.1428	Ω mm ² /M	
17.25 x 10 ⁻⁶	K ⁻¹		
hardened 9	heat treated 12	%	

WORKABILITY :

Hotworking
 Coldworking
 Machining
 Diamond cutting
 Polishing
 Soldering, brazing
 Plating
 Mill hardened as delivered
 Age hardened by customer
 Shape stability after hardening

Unsuitable
 Very good
 Good
 Very good
 Very good
 Very good
 Very good
 250°C-350°C/ 24h
 350°C-380°C/ 2h-4h
 Very good

MAIN APPLICATIONS :

Electrical contacts, switches, spring, sliding contacts
 Current leads
 Heat exchange, seaming,
 Clock and watchmaking components, cogs, date disc, dial, index, hands, etc.
 Membranes, pens clips, jewelry

CONDITIONING :

- a) In coils
- b) Cut to length, from 0.5 up to 3 m

AVAILABLE SIZES :

Widths	from 2 up to 350mm
Thickness	from 0.01 up to 3.4mm

QUALITY OF EDGES :

Slit edges

TOLERANCES :

Depending on product

**MECHANICAL PROPERTIES :****NICLAFOR 1000****QUENCHED COLDROLLED STRIP**

TEMPER	Vickers HARDNESS		Rm (MPa)		Rp 0.2 (MPa)	ELONGATION	
	min	max	min	max		0.10 up to 2.5 mm A50 % min	above 2.5 mm
TB*	90	125	420	500	≥ 200	≥ 30	
TD1	140	180	460	560	≥ 300	≥ 15	
TD2	160	200	540	640	≥ 400	≥ 10	
TD3	200	240	620	720	≥ 550	≥ 3	
TD4	220	260	700	820	≥ 600	~1	
TDX	≤ 320		≥ 780		≥ 650	~1	

* hardened

QUENCHED COLDROLLED HEAT TREATMENT STRIP

TEMPER	Vickers HARDNESS		Rm (MPa)		Rp 0.2 (MPa)	ELONGATION	
	min	max	min	max		0.10 up to 2.5 mm A50 % min	above 2.5 mm
TF*	230	270	740	860	≥ 510	≥ 10	
TH1	270	310	850	950	≥ 650	≥ 8	
TH2	290	320	880	980	≥ 720	≥ 8	
TH3	310	340	950	1050	≥ 800	≥ 4	
TH4	320	360	1000	1100	≥ 900	~3	
THX	≤ 390		≥ 1050		≥ 950	~1	

*heat treated