

## Cold Rolled Strip



N52 is an iron-nickel controlled expansion alloy suitable to soft glass sealing, with optimal chemical composition to obtain hermetic seals. Typical applications are hermetic feedtroughs, reed relays.

### International standards

ASTM F30 - DIN 17745 - W 2.4478 - A54-301

### Chemical composition %weight

	Ni	Fe
Typical value	52	Bal

### Standard Delivery & dimensions available

Form	Thickness	Width	Length	Temper
Strip - Sheet	0.10 to 3.50 mm	10 to 640 mm	500 to 3500 mm	Annealed / Hard

### Physical properties

Density (g/cm <sup>3</sup> )	Resistivity at 20°C (μohm.cm)	Melting T° (°C)	Curie T° (°C)	Specific heat (J/g °C)	Thermal conductivity at 20°C (W/m/°C)
8.20	44	1425	500	0.50	16.7
		30 to 450°C	30 to 550°C		
Average linear CTE (10-6/°C)		9.7 to 10.2	10.0 to 10.5		

### Mechanical properties (Typical values)

	Hardness Hv	Ultimate strength (MPa)	Yield strength (MPa)	Elongation %	Young modulus KN/mm <sup>2</sup>
Annealed	140	540	270	30	165
Hard	220	740	710	5	

The data enclosed in this document are only given as indicative values and correspond to our standard product. Different specific requirements are subject to discussion and formal approval by Aperam Alloys Imphy. For further information or special request, please contact us.

### Aperam Alloys Imphy

B.P. 1  
Avenue Jean Jaurès  
F- 58160 Imphy

Tel + 33 3 86 21 30 00  
Fax + 33 3 86 21 31 00  
nickel.alloys@aperam.com  
www.aperam.com/alloys-imphy