

Cold Rolled Strip



Description, standards & chemical

Imphy 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 feedthroughs, reed relays.

International standards

ASTM F30 - UNS N14052 - 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 ³)	Resistivity at 20°C (μohm.cm)	Melting T° (°C)	Curie T° (°C)	Specific heat (J/g °C)	Thermal conductivity at 20° (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)

Temper	Hardness Hv	Ultimate strength (MPa)	Yield strength (MPa)	Elongation %	Young modulus KN/mm ²
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.

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