Cold Rolled Strip

Description, standards & chemical

PERMIMPHY T is nickel-iron soft magnetic alloy with very high permeability and high purity suitable for earth leakage circuit breaker, current sensors …

International standards

ASTM A 753, DIN 17445, IEC 404, JIS C 2531

Chemical composition (% weight)

	Ni	Mo	Fe
Typical value	80	5	Bal

Physical properties

Density (g/cm³)	Melting T° (°C - °F)	Curie T° (°C - °F)	Thermal expansion (10^{-6}.°K^{-1})	Resistivity (µΩcm)	Thermal conduction (W/°Km)	Specific heat (J.Kg^{-1}.°K^{-1})
8.7	1450 - 2642	420 - 788	12	60	19	460

Magnetic properties*

Conditions	Thickness (mm - ")	Permeability (at 5 mOe ≈ 0.4 A/m)	Maximum permeability
AC 50Hz	0.070 - 0.00276	315000	430000

** Typical values measured on wound cores 30 x 20 x 20 x th. 0.07mm / 0.000276" after heat treatment at 1170°C / 2138°F in pure & dry Hydrogen after proper cooling plus baking at optimum temperature*

Mechanical properties*

Temper	Hardness (HV)	Grain size	Tensile strength (MPa - KSI)	Yield strength (MPa - KSI)	Elongation (%)	Young's modulus (MPa - KSI)
Hard	320	-	-	-	-	-

** Typical values for material to be tested in accordance with NF EN ISO 6507-1, NF EN ISO 643, NF EN ISO 6892-1 (Méthode B),*

Standard Delivery & dimensions available

Form	Thickness (mm / ") *	Width (mm / ")	Temper
Coil	0.05 to 0.35 / .00197 to .0138	10 to 300 / .394 to 11.81	Hard

** 0.07mm / 0.00275" thickness is commonly produced*

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