Cold Rolled Strip

1. Description, standards & chemical

MUMETAL is nickel-iron soft magnetic alloy with very high permeability suitable for sensitive electronic equipment shieldings

International standards

ASTM A 753, DIN 17405, IEC 404, JIS C 2531

Chemical composition (%weight)

	Ni	Mo	Fe
Typical value	80	5	Bal

2. 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

3. Magnetic properties *

Conditions	Thickness (mm - ")	Saturation induction (G - T at 1 Oe ≈ 80 A/m)	Coercive force (Oe - A/m)	Permeability (at 5 mOe ≈ 0.4 A/m)
DC	1 - 0.04	7500 - 0.75	0.005 - 0.4	470000

** Typical values measured on rings sample th. 1mm / 0.04" after heat treatment at 1170°C / 2138°F in p ure & dry Hydrogen after proper cooling*

4. Mechanical properties *

Temper	Hardness (HV)	Grain size	Tensile strength (MPa - KSI)	Yield strength (MPa - KSI)	Elongation (%)
Soft	160	8	650 - 94	280 - 41	35
Hard	320	-	1050 - 152	1030 - 149	3

** Typical values for material to be tested in accordance with NF EN 10002, NF EN ISO 6507, NFA 04102*

5. Standard Delivery & dimensions available

Form *	Thickness (mm / ")	Width (mm / ")	Length (mm / ")	Temper
Coil - Sheet	0.10 to 3.5 / .004 to .138	10 to 640 / .4 to 25.2	500 to 3500 / 19.7 to 137.8	Soft / Hard

** Depending on thickness, width & temper*

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

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