Mu Metal Stock Range

Mu Metal Sheet & Foil

Typical Applications

- High performance magnetic cores such as toroids and stacked laminations
- Magnetic shielding to protect sensitive components from extraneous magnetic fields
- Magnetic sensors
- Current sensors
- Any application requiring high permeability magnetic material, with a low coercive field and low losses, in the range from low frequency up to 1MHz
- Vacuum chamber vessels and liners

Chemical Composition (in weight %)

Nickel (Ni)	Molybdenum (Mo)	Silicon (Si)	Manganese (Mn)	Carbon (C)	Iron (Fe)
80-81	4.5-6	0.05-0.4	0-0.5	0.01	Balance

	Mu Metal Sheets	
*Thickness (mm)	Width (mm)	Maximum Length (mm)
0.35	610	2000
0.5	610	2000
0.64	610	2000
0.8	610	2000
0.8	762	3000
1.0	610	2000
1.2	610	2000
1.5	610	2000
1.5	762	3000
2.0	610	2000
2.5	610	2000
3.0	1000	2000
5.0	1000	1500

	Mu Metal Foils	
*Thickness (mm)	Widths (mm)	***Maximum Length (mm)
0.05	9.5, 26, 101	-
0.10	200	-
0.127	180	-
**0.20	15, 125, 200, 300	-
0.20	220	-
**0.35	36	-
0.38	19	-

* Thickness Tolerance +/- 5%

** Magnesium Methylate coated

*** Please specify length required

Physical Properties

Density (g/cm^3)	Resistivity ($\mu\Omega$ cm)	Melting T^o (^oC)	Thermal expansion ($10^{-6}/^oC^{-1}$)	Thermal conductivity ($W/m/^oC$)	Specific heat ($J/kg/^oC$)	Curie T^o (^oC)
8.7	60	1440	12	19	460	420

Typical Mechanical Properties

	Temper	Hardness (HV)	Grain Size	Tensile Strength (MPa)	Elongation (%)
Full Anneal	Soft	120	0 - 3	530	45
Stress Anneal	Soft	160	8	700	35
No Anneal	Hard	325	-	1000	3

Typical Magnetic Properties (DC) after Final Anneal

Saturation Induction	Coercive Force	Maximum Permeability
B(10 Oe)≥ 7500 Gauss	Hc ≤ 0,007 Oersted	μmaxdc ≥ 400 000

Note

Other gauges may be available at time of enquiry, please call our sales team to check availability

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