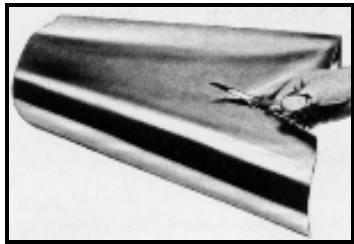


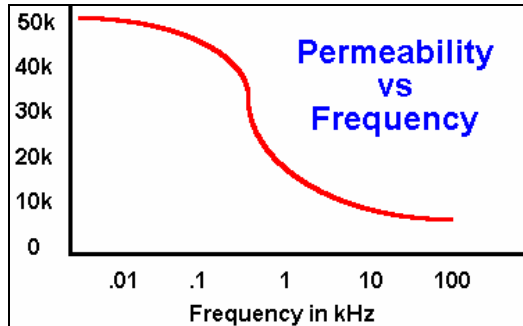
MAGNETIC SHIELDING FOIL



*"Best Material Available for Shielding
DC, ELF & VLF Magnetic Fields"*

Used for years in industry to shield delicate electronic components from EMFs, this 80% nickel alloy magnetic shielding foil is now available at

affordable prices for home and office use. The thinner (0.004" thick) material is easy to trim with scissors and shape by hand. Thicker material offers better shielding performance but requires snips to cut. Can be formed into magnetic barriers on cellular phones, microwave ovens, doorbell transformers, VDTs, buried wiring, and more. With snug fitting shapes, get as much as 75% attenuation of the magnetic field with one thickness. Use multiple layers for even greater reduction. Foil is .004" or .010" in thickness and 15" wide and can be ordered in any length. (We recommend the use of a gaussmeter to determine the proper shape and positioning of the shielding, and to confirm that the fields have been adequately reduced.) ASTM A753 Type 4.



CAUTION: Foil has sharp edges!

Attenuation is the ratio of the magnetic field strength on one side of the foil compared to the field strength on the other side.

You can estimate the amount of magnetic field reduction (Attenuation) produced by a cylinder of .004" Shielding Foil of a given Diameter (D, in inches) if you know the Permeability (P), with this formula:

$$\text{Attenuation} = 0.004 \times P/D$$

For example:

You would expect an 8:1 reduction (88%) from a 10" cylinder in a 1 kHz field where permeability is about 20000 (see graph above):

$$\text{Attenuation Ratio} = .004 \times 20000/10 = 8$$

IMPORTANT NOTICE:

While the special alloy in Magnetic Shielding Foil exhibits high magnetic permeability, there are many factors which affect the amount of magnetic shielding you will achieve by using this material. The list of such factors includes: size of the source of the magnetic field, size and shape of the shielded area, seams in the shielding material, frequency of the magnetic field, distance from shield to source, orientation of shield to the source, thickness and heat treatment of shielding material, etc.

Because we have no control over many of these factors, *we cannot and do not guarantee any specific shielding performance* for a specific application of this material. If you are not sure how to use this material, you may call us for suggestions or we may even be able to locate the name of an experienced shielding designer/installer in your area who can assist in designing your shield.

Mechanical Specifications:

Specific Gravity:	8.74
Coefficient of Expansion:	12.6 x 10 ⁶ per °C
Tensile Strength:	64 x 10 ³ PSI
Yield Strength:	18.5 x 10 ³ PSI
Mod. of Elasticity:	25 x 10 ⁶ PSI
Hardness (Rockwell B):	50 Ref.
Melting Point:	1454°C
Thermal Conductivity (at 20°C):	0.138 cal/sec/cm ² /cm/°C
Minimum Operating Temp:	4°K
Curie Temp:	400°C

Electromagnetic Specifications:

Electrical Resistivity:	330 ohms/cir mil-foot
Saturation Induction:	7600 Gauss
Initial Permeability:	30,000
Permeability at 40 B:	75,000
Permeability at 200 B:	135,000
Maximum Permeability:	444,000
Induction at m max.:	3000
Coercive Force:	.005 Hc, Oersteds

Meets ASTM A753 Type 4
Annealed temper