

# MAGNETIC SHIELDING

## MUMETAL® WIRE

*Unique Shape for Unique Shielding Applications*

Do you have an application requiring Mumetal® in un-insulated wire format? We have it in two different diameters! Stress annealed Mumetal® alloy in 1 pound spools. Wind it, weave it, braid it. Create toroids, coils, chains or simply experiment with its unique properties! Be the first to create a truly magnetic shielded garment! .005" wire yields approximately 13400 ft per pound; .025" wire yields approximately 530 ft per pound. Spools in stock may vary from less than 1 lb to 5 lbs each. Mumetal® is a registered trademark of Magnetic Shielding Corp.



**Mumetal® Wire .005" diam. (Cat. #D275-5) ..... \$75.00/ lb**  
**Mumetal® Wire .025" diam. (Cat. #D275-25) ..... \$75.00/ lb**



## METGLAS® MAGNETIC SHIELDING FILM

*"Paper Thin & Highly Effective"*

Space-age technology has produced this unique ultra-high permeability magnetic shielding alloy. Unlike conventional shielding alloys which are nickel/iron based and depend on bulk for effectiveness, MetGlas is a cobalt based alloy which is only 0.00065" thick (that's 16 microns, a red blood cell is 8 microns across)! Thinner means less material is needed. Less material means less weight and *lower cost*. Easy to handle, too. Cut it with a scissors, shape it with your fingers, tape it in place. Flexible and tough, with moderate corrosion resistance, it can be used indoors or out. Hard to kink, it can be flexed without losing its shielding properties.

Wrap wiring, pipes, switches, or electromagnets. We were able to achieve over 95% reduction of fields from a lamp cord by wrapping it in a single layer of this material! Make shields for your shavers, electric toothbrushes, hair dryers, alarm clocks or lighting ballasts. Even lay it flat (in our experiments, we saw nearly 90% field reduction when a 4" x 4" MetGlas shield was placed flat against an energized lamp cord). **Note:** This material tends to saturate easily and is not recommended for shielding strong magnetic fields. Formula 2714AZ, fully annealed. Supplied as a ribbon, 1" wide, in any length you need. Each pound is about 500 ln ft. **SORRY, THIS ITEM IS NOT AVAILABLE FOR EXPORT.**

**MetGlas (Cat. #D278) ..... \$2.50/linear ft**  
**MetGlas by the pound (Cat. #D278-P) ..... \$599.00/ 1-lb spool**  
**MetGlas approx. 11 Kg spool: (Cat. #D278-spool) ..... \$2400.00 / 11 Kg spool**

## METGLAS® GENERAL PROPERTIES & CHARACTERISTICS

ELECTROMAGNETIC		PHYSICAL	
Saturation Induction (Tesla)	0.57	Density (g/cc)	7.59
Maximum DC Permeability ( $\mu$ ):	$10^9$	Vicker's Hardness (50g load)	960
Saturation Magnetostriction (ppm)	$<<1$	Tensile Strength (MN/m <sup>2</sup> )	1,000-1,700
Electrical Resistivity ( $\mu\Omega$ -cm)	142	Elastic Modulus (GN/m <sup>2</sup> )	100-110
Curie Temperature (°C)	225	Thermal Expansion (ppm/°C)	12.7
		Continuous Service Temp. (°C)	90

### IMPORTANT NOTICE:

**Magnetic Shielding  
is both Art and Science**

While the special alloys in Magnetic Shielding Foil, Mag-Stop Plates, MetGlas and other magnetic shielding materials exhibit high magnetic permeability, there are many factors which affect the amount of magnetic shielding you will achieve by using these materials. 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.

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