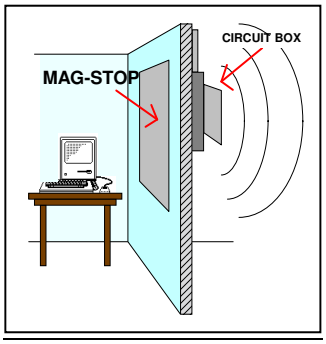
MAG-STOP PLATES

Flat surface magnetic field shielding



Now achieve excellent and affordable magnetic field shielding in difficult situations! Mag-Stop Plates are extra thick, high-efficiency magnetic alloy plates, specially designed to provide superior shielding for electric circuit boxes, side by side computer users, and any situation where you need a flat shielding material on a wall, floor, or ceiling. You can even lay multiple pieces side-by-side. Can be mounted with ordinary nails or screws, or sandwiched between the studs and dry-wall. Use ordinary metal primer before painting. In one application, we were able to achieve almost 95% attenuation of a 200 mG field! The 24" wide "stress annealed" plates offer good shielding and are also well-suited for forming into complicated shapes. The 30" wide "fully hydrogen annealed" plates offer the best shielding available and should not be soldered, welded or heated in any way. Because of size & weight, additional shipping charges apply.

Specifications: Specification: MIL N 14411c, composition 1

Temper: Stress Annealed Grain Size: 10 Hardness: HV 0.3 = 188

Chemical Analysis (%):

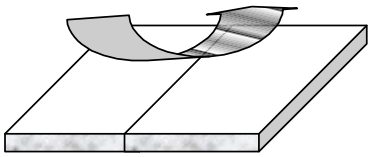
S:	.0006	Mn:	.502	P:	.0035	Ni:	80.00
C:	.0044	Si:	<.010	Mo:	5.0	Fe:	balance

Specific Gravity	= 8.74
Coeff. of Thermal Expansion	= 12.6 ºC (x 10^{-6})
Tensile Strength (x 10^3)	= 85 PSI
Thermal Conductivity	= .138 cal/sec/cm^2/cm/ºC at 20ºC
Electrical Resistivity	= 330 ohms/cir mil-foot or 55 microhm-centimeters

Coercive Force HC	= 0.007 Oersteds
Max. Permeability MUMAX	= 325000
Saturation Induction B (10 OE)	= 7500 Gauss
Induction at MUMAX	= 3000
Curie Temperature	= 850ºF or 454ºC

Annealing Instructions: 2050ºF for 4 hours in pure dry hydrogen atmosphere, followed by cooling at 400ºF per hour down to 1100ºF. Then cooling rate can be accelerated. Exposure to normal atmosphere can occur below 600ºF.

Cat. #	Size (width x length x thickness inches)	Type
277-0229	30 x 29 x .020	Hydrogen annealed
277-0259	30 x 59 x .020	Hydrogen annealed
277-0429	30 x 29 x .040	Hydrogen annealed
277-0459	30 x 59 x .040	Hydrogen annealed
277-0629	30 x 29 x .062	Hydrogen annealed
277-0659	30 x 59 x .062	Hydrogen annealed
277-0224	24 x 120 x .020	Stress Annealed
277-0424	24 x 120 x .040	Stress Annealed
277-0624	24 x 120 x .062	Stress Annealed



Application Note:
There are two effective ways to achieve continuity between multiple plates:

1] overlap 2" at the joints

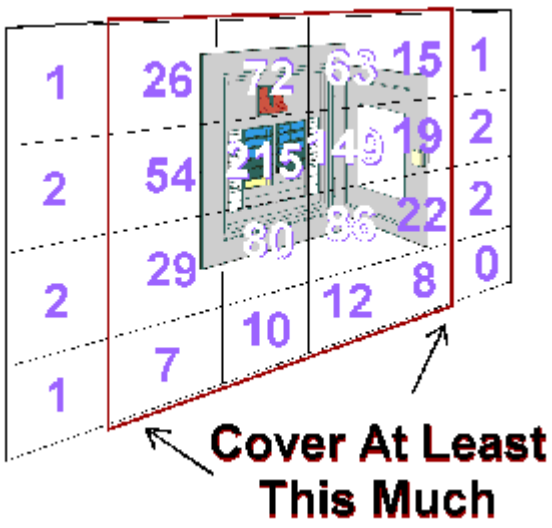
2] butt joints tightly and cover over the joints with .010" x 4" foil (see diagram above)

IMPORTANT NOTICE: While the special alloys in Magnetic Shielding Foil and Mag-Stop Plates 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. 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 these materials. If you are not sure how to use these materials, 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.

Distributed by
Less EMF Inc.
776B Watervliet Shaker Rd Latham NY 12110-2209 USA
+1 (518) 608-6479
www.lessemf.com

Application Note: *How Much Area Do I need to Cover?*

The amount of shielding that you will achieve depends on many factors, including the size and shape of the shield. When using a flat shield on a wall, floor, or ceiling to shield a source of field that is close to the shield (within 8 inches), plan to cover an area that extends at least to the 2 mG line.



Method:

1- Using your gaussmeter, slide along the surface of the wall to locate the hot spot to be shielded.

2- Now slide the gaussmeter to the right, to the left, up, and down to identify how far you must shield to get to the 2 mG line.

Make sure to check for additional sources of magnetic field (lights, wiring, appliances and so on), that may be located inside adjacent walls, floor, ceiling or within the same room.