

MF-500 Urethane

Microwave Absorbing Coating



MF-500 Urethane broadband MagRAM coating is a coated carbonyl iron based paint in a proprietary urethane acrylic resin. It provides broadband RF absorption in a thin format. Its durable abrasion resistant finish is stable in hot and cold environments. The product can be applied with a brush or Sprayer. It has excellent UV Resistance.

A more moisture resistant MF-501 Marine Grade (using iron silicide instead of carbonyl iron) is available.

Also available are MF-510 Epoxy and MF-520 Silicone based formulations.

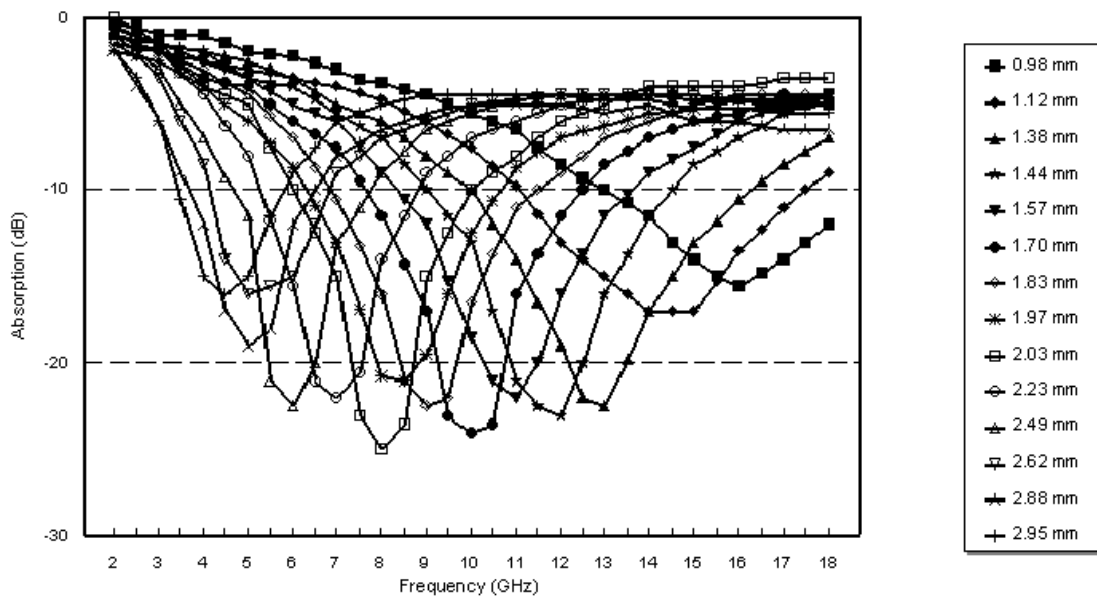
Applications:

- Minimization of RF crosstalk and RF interference (RFI) in analog and digital applications
- Extraneous reflection reduction of outdoor antenna motion equipment
- Reduction of RF noise & for RF signal suppression of surface & creeping waves
- Reduction of cavity resonance
- Minimization of RF coupling of antennas and microwave components
- Extraneous reflection reduction of RCS test facilities
- Equipment covering and concealment
- Low Observable

Mechanical Data:

Thickness:	2-8.0 mils per layer nominal (depending upon application technique)
Color:	Charcoal Grey
Dry Weight:	6.36 gm/mil for an area of 12"x 12" (30cm x 30 cm)
Resistance:	Fire, Abrasion, UV, Salt and Corrosion
Coverage:	Nominally 200 ft ² /gal (3.8L)
Isolation:	Nominally -12 dB per mil
VOC value:	102 g/l , or 5% by weight
Shelf life:	One year from date of manufacture (product is made to order)
Storage temp:	+5 to 40 deg C

MF-500 Urethane Absorption vs. Frequency



Notes:

- MF-500 Urethane is a resonant absorber
- The center frequency is a function of thickness after cure
- Typical performance yields a -10 dB bandwidth better than 40%

All MagRAM RF absorbers work best when used over an electrically conductive surface. This product can be applied directly to a metal surface, a conductive textile wallpaper product (such as our ME-2000) or an RF isolation coating (like our ME-505 Urethane solvent based, or ME-565 acrylic water based products).