

3M™ EMI Absorber AB7000HF Series (Halogen Free)

Product Description

3M™ EMI Absorber AB7000HF Series (Halogen Free)* consists of flexible soft metal flakes filler loaded polymer resin and acrylic pressure sensitive adhesive.

3M absorber AB7000HF series includes product numbers AB7003HF, AB7005HF, AB7010HF, AB7020HF, AB7030HF and AB7050HF, which are available in sheet form.

Features and Benefits

- High permeability magnetic film
- Acrylic pressure sensitive adhesive
- Supplied on a removable liner for easy handling and die-cutting

Applications

3M absorber AB7000HF series are an excellent choice for reducing EMI noise within electronic equipment, cable or circuit (including any portion covered by a shielded can) or reducing EMI susceptibility of any sensitive components (RFID or Hall device). They have been used to reduce conducted emissions from multi-conductor cables. 3M absorber AB7000HF series are particularly well suited for preventing EMI from internal sources around digital display devices such as mobile handhelds (MHH), digital still cameras (DSC), notebook computers, camcorders, hard disk drives (HDD), automotive electronics, cable harnesses, etc.

Attenuation and Power Loss

Many factors determine the true attenuation of an electromagnetic absorbing material, including shape and thickness, intimacy of substrate contact, smoothness of application surface, strength and frequency of the EMI signal, etc. However, using standard tests and fixtures, it is possible to determine a value for the signal attenuation.

3M absorber AB7000HF series' typical attenuation range is dependent on thickness.

***Halogen Free is defined as having maximum 900 ppm bromine, maximum 900 ppm chlorine, and/or maximum 1500 ppm total bromine and chlorine, per IEC 61249-2-21.**

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Typical Properties

Note: The following technical information, test methods and data should be considered representative or typical only and should not be used for specification purposes. The Technical Data Sheet (TDS) information is based on a limited set of test results and do not reflect the COA specification limits. Final product specifications and associated manufacturing facility testing methods used for the commercialized product are outlined in the products Certificate of Analysis (COA) that is provided upon request or with the products shipment.

Properties	Typical Value					
Type of Backing	Polymeric resin with magnetic metal flake filler					
Type of Adhesive	Acrylic non-conductive pressure sensitive adhesive (PSA)					
Product Number	AB7003HF	AB7005HF	AB7010HF	AB7020HF	AB7030HF	AB7050HF
Thickness Backing	0.03 mm	0.05 mm	0.10 mm	0.20 mm	0.30 mm	0.50 mm
Thickness (Adhesive)	0.01 mm	0.01 mm	0.03 mm	0.05 mm	0.05 mm	0.05 mm
Standard Packaging	210 mm x 297 mm					
Temperature Range	-25 ~ 85°C					
Surface Resistivity ¹	1 × 10 ⁶ Ω (min)					
Initial Permeability ²	110					
Typical Performance	Refer S ₁₁ attenuation and power loss chart					

¹Tested in accordance with ASTM test method.

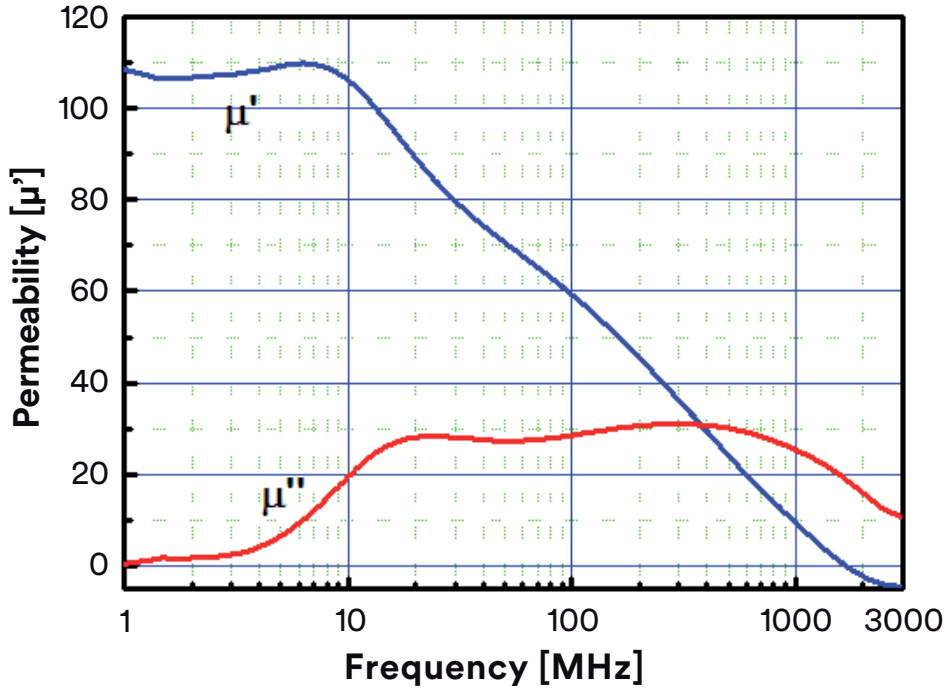
²This value measured at 1MHz 3M TM K RD-EMC-AB-02.

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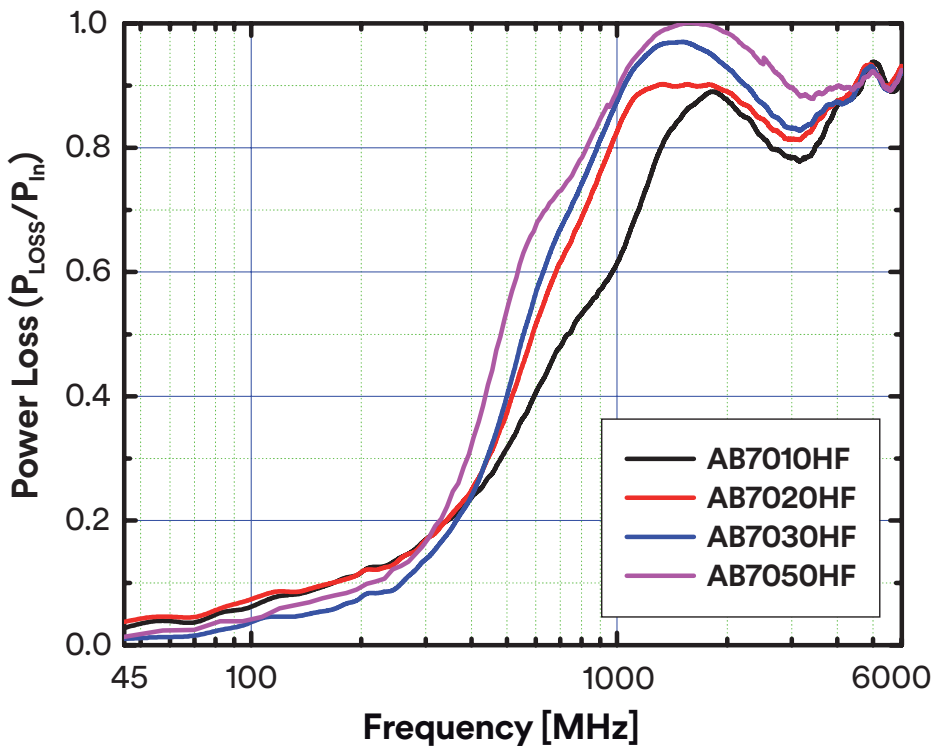
Typical Properties (continued)

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Permeability



Power Loss



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Certificate of Analysis (COA):

The 3M Certificate of Analysis (COA) for this product is established when the product becomes commercially available from 3M. The Technical Data Sheet (TDS) technical information, test methods and data should be considered representative or typical only and should not be used for specification purposes. The Technical Data Sheet (TDS) information is based on a limited set of test results and do not reflect the COA specification limits. Final product specifications and associated manufacturing facility testing methods used for the commercialized product are outlined in the products Certificate of Analysis (COA) that is provided upon request or with the products shipment.

The COA contains the 3M specifications and test methods for the products performance limits that the product will be supplied against. The 3M product is supplied to 3M COA test specifications and the COA test methods. Contact your local 3M Technical Service representative for the COA for this product.

Storage and Shelf Life

The shelf life of 3M™ EMI Absorber AB7000HF Series is 12 months from the shipment date from the manufacturing location when stored in original packaging at 21°C (70°F) and 50% relative humidity.

Regulatory: For regulatory information about this product, contact your 3M representative.

Technical Information: The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use: Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

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