3M™ EMI Shielding Absorber AB6000HF Series (Halogen Free)

Product Description

3M™ EMI Shielding Absorber AB6000HF Series (Halogen Free)* consists of insulation layer, shielding layer, absorbing layer and non-conductive or conductive pressure sensitive adhesive.

3M absorber AB6000HF series is available in standard size and custom widths and lengths. Standard size is each 300mm width x 200m length and 100m length in roll.

Features and Benefits

- Insulation layer
- EMI Shielding / Absorption layer
- Pressure sensitive adhesive (PSA) layer
- Supplied on a removable release liner for easy handling and die-cutting
- Halogen Free guaranteed

Applications

3M absorber AB6000HF series is typically used for applications requiring either electromagnetic shielding performance and absorption function.

3M absorber AB6000HF series is useful for electrical devices for broadband radio frequency range (mobile phone, PDA, PC, BS/CS tuner, LAN, medical and military devices).

Common applications include attenuation of conduction and radiation noise suppress and filtering (FPCB and chips on circuit, high speed microprocessor) and resonant peak of enclosed cavities (EMI/ESD), and electric / electronic / RF components (IC/LSI, PCB, FPC, cable, oscillators, RF modules), mechanical bodies (metal can, frame, body, enclosure).

Sheilding Effectiveness

Many factors determine the true attenuation of electromagnetic shielding and absorbing material, including type and thickness of polymer, adhesive type, 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 attenuation.

*** 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.**

3M™ EMI Shielding Absorber AB6000HF Series (Halogen Free) Typical Properties

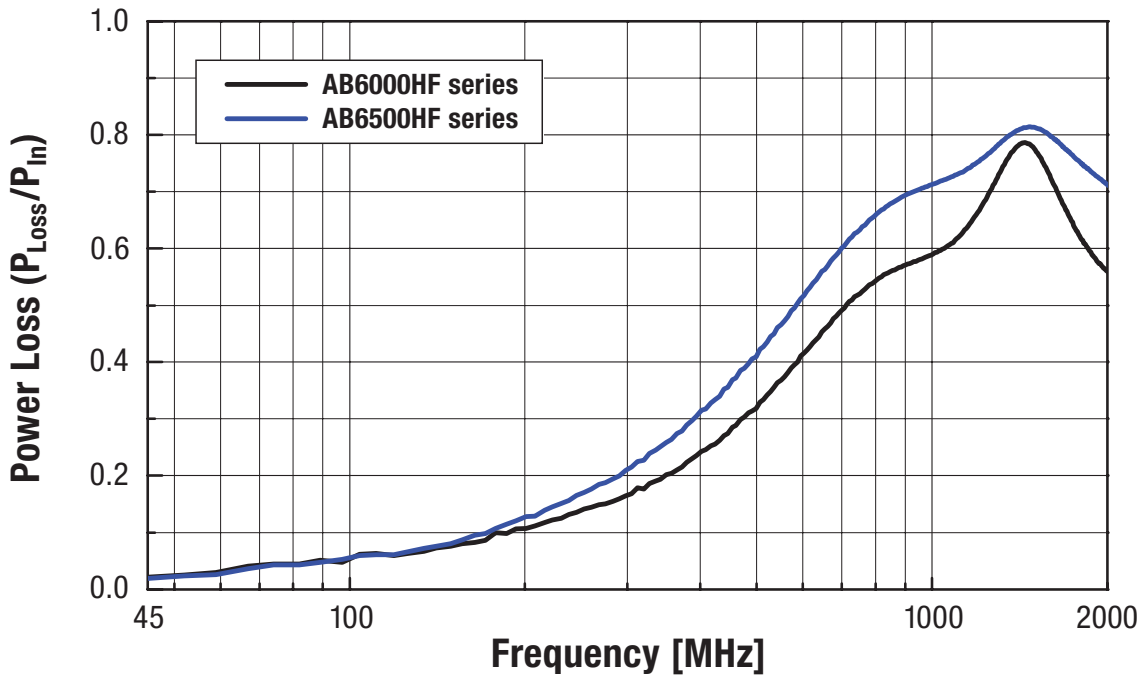
Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Properties	Typical Value		
Type of Backing	EMI Metal shielding layer and Absorption layer		
Type of Adhesive	Acrylic pressure sensitive adhesive		
Products	Total Thickness	Absorber Thickness	Adhesive Electrical Property
- AB6005HF	0.105 ± .015mm	0.050 ± .005mm	Non-conductive
- AB6005SHF	0.105 ± .015mm	0.050 ± .005mm	Non-conductive
- AB6005GHF	0.105 ± .015mm	0.050 ± .005mm	Conductive
- AB6005EHF	0.09 ± .015mm	0.050 ± .005mm	Non-conductive
- AB6507SHF	0.125 ± .020mm	0.070 ± .007mm	Non-conductive
Frequency Range	10MHz – 18GHz		
Operating Temperature	-30 ~ +105°C		
Shielding Effectivenss[1]	min. 40dB (30MHz ~ 1GHz)		
Adhesion Strength[2]	500 gf/25mm (8.8 oz/in)		

[1] Test method: ASTM D 4935.

[2] Test method: ASTM D 1000.

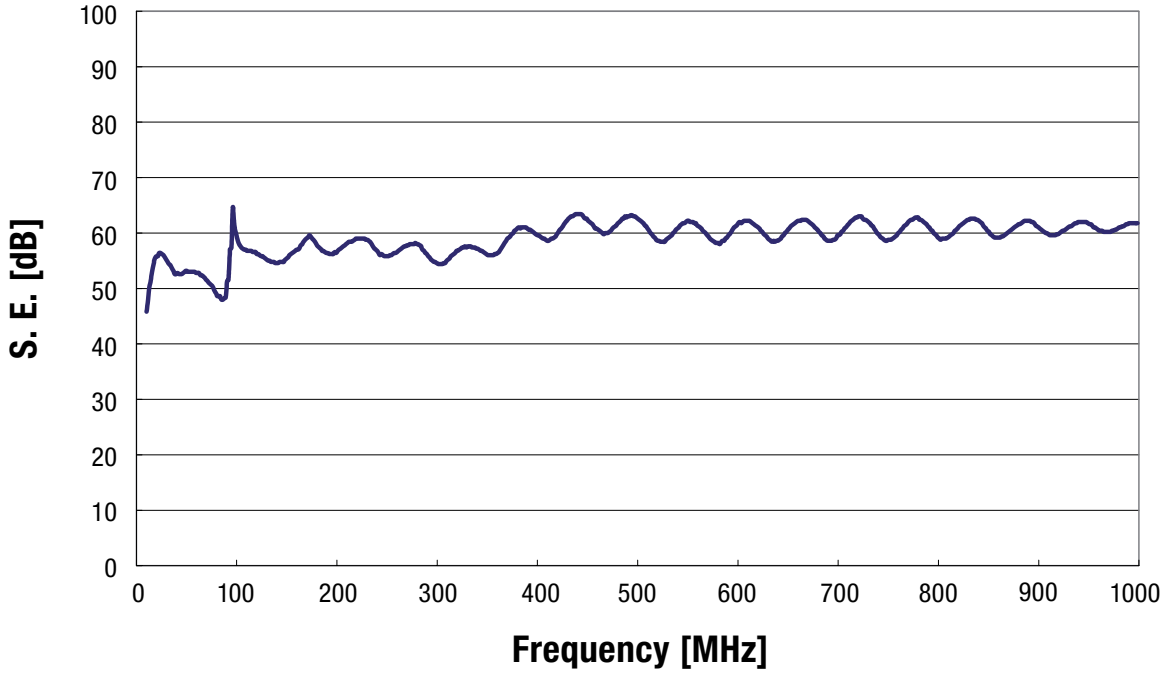
- **Power Loss Property on Micro-strip Line (50Ω)**



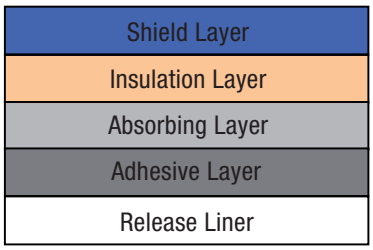
3M™ EMI Shielding Absorber AB6000HF Series (Halogen Free) Typical Properties (continued)

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

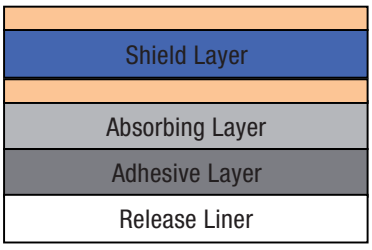
- **Shielding Effectiveness (SE)**



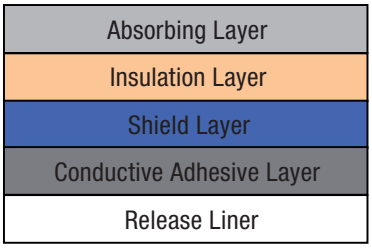
- **Cross-sectional view of the 3M™ EMI Shielding Absorber AB6000HF Series (Halogen Free)**



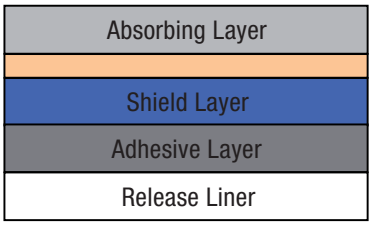
AB6000HF



AB6000SHF



AB6000GHF



AB6000EHF

Storage and Shelf Life

The shelf life of 3M™ EMI Absorber AB6000HF 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.

Safety Data Sheet

Please consult Safety Data Sheet prior to use.

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.

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