

ECCOSORB[®] HR

LIGHTWEIGHT, OPEN-CELL, BROADBAND MICROWAVE ABSORBER

Description :

Eccosorb HR is a lightweight, flexible, broadband absorber based on a reticulated (open-cell) polyurethane foam material impregnated with carbon black dispersions with controlled conductivity. Automated impregnation methods are used in order to obtain a gradient loading of the absorber. The material is electrically conductive and operates in the 5 - 70 GHz frequency range. As the material is graded, the back surface of the absorber is marked and this side should be bonded to the surface to be protected.

Eccosorb HR is compliant with MIL-STD-810D.



Application :

The typical application for the Eccosorb HR is the lining of antenna shrouds for low side-lobe reflector antennas. Other applications are the masking of reflecting structures (i.e. masts in anechoic chambers), the suppression of interferences and decoupling of adjacent antennas and array elements.

Physical Properties :

	HR
Colour	black
Density (kg/m ³)	45
Tensile Strength (kPa)	70
Elongation (%)	170
Max. Service Temperature (°C)	90

Emerson & Cuming Microwave Products N.V.
 Bell Telephonaan 2B – B-2440 Geel – Belgium
 Tel: +32 14 56 25 00 – Fax +32 14 56 25 01
 Geel.Sales@lairdtech.com - www.eccosorb.eu



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Electromagnetic Properties :

	HR-10	HR-15	HR-25
Frequency Range (GHz)	> 18	> 8	> 5
Maximum reflectivity (dB)	-20		

Availability :

Standard sheets are 610 x 610 mm.

The material is available in three standard thicknesses:

Eccosorb HR-10 : nominal thickness 10 mm

Eccosorb HR-15 : nominal thickness 15 mm

Eccosorb HR-25 : nominal thickness 25 mm

Other sizes and customer specified configurations can be delivered upon request.

Instructions for use :

Eccosorb HR is designed to function directly in front of a metallic surface. If this is not the case, a metallic foil should first be bonded to the object.

As this is a gradient loaded absorber the back surface marked 'BACK' should be bonded to the metal surface for optimal performance.

If a metal surface is not available, the products can be supplied with an aluminum foil backing (ML) designated as HR-XX-ML.

The recommended adhesive for Eccosorb HR is Eccostock Adhesive 13111.



Safety Considerations : It is recommended to consult the EMERSON & CUMING MICROWAVE PRODUCTS product literature, including material safety data sheets, prior to use EMERSON & CUMING MICROWAVE PRODUCTS products. These may be obtained from your local sales office.

WARRANTY : Values shown are based on testing of laboratory test specimens and represent data that falls within the normal range of properties of the material. These values are not intended for use in establishing maximum, minimum or ranges of values for specification purposes. Any determination of the suitability of the material or any use contemplated by the user and the manner of such use is the sole responsibility of the user who must assure that the material as subsequently processed meets the needs of this particular product or use. We hope the information given here will be helpful. It is based on data and knowledge considered to be true and accurate and is offered for the user's consideration, investigation and verification but we do not warrant the results to be obtained. Please read all statements, recommendations or suggestions in conjunction with our conditions of sale INCLUDING THOSE LIMITING WARRANTIES AND REMEDIES which apply to all goods supplied by us. We assume no responsibility for the use of these statements, recommendations or suggestions nor do we intend them as a recommendation for any use which would infringe any patent or copyright.

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