

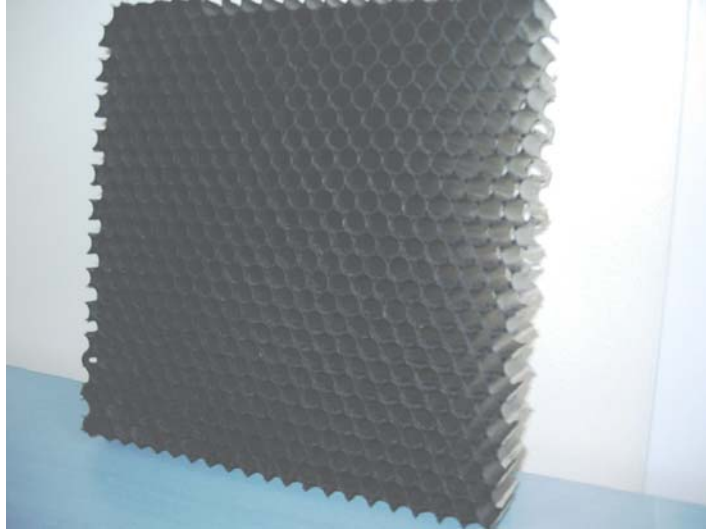
ECCOSORB® HC

FLAT SHEET, HONEYCOMB BROADBAND MICROWAVE ABSORBER

Description :

ECCOSORB HC is a series of lightweight flat-sheet broadband microwave absorbers which are characterised by high mechanical strength and power handling capability.

The base material is a non-conductive honeycomb structure which is coated to produce the microwave absorbing characteristics. The finished product has a tapered carbon loading, so that the front surface having the lightest loading should face the incident electromagnetic waves for proper anechoic performance.



Application :

Possible uses include: moderate performance anechoic chambers, isolation of adjacent antennas and array elements, antenna shrouds for low side-lobe reflector antennas, loads for cavity-backed antennas, absorbing walls and boxes. Because of its honeycomb structure, ECCOSORB HC is extremely useful to be integrated into multifunctional sandwich structures that need to be radar absorbing.

Physical Properties :

	HC-0.5	HC-1
Density (kg/m ³)	80	80
Thickness (mm)	12.7	25.4
Cell size dia (mm)	6	6
Service Temperature (°C)	110	110

Emerson & Cuming Microwave Products N.V.
Nijverheidsstraat 7A – B-2260 Westerlo – Belgium
Tel: +32 14 56 25 00 – Fax +32 14 56 25 01
sales@eu.eccosorb.com - www.eccosorb.com



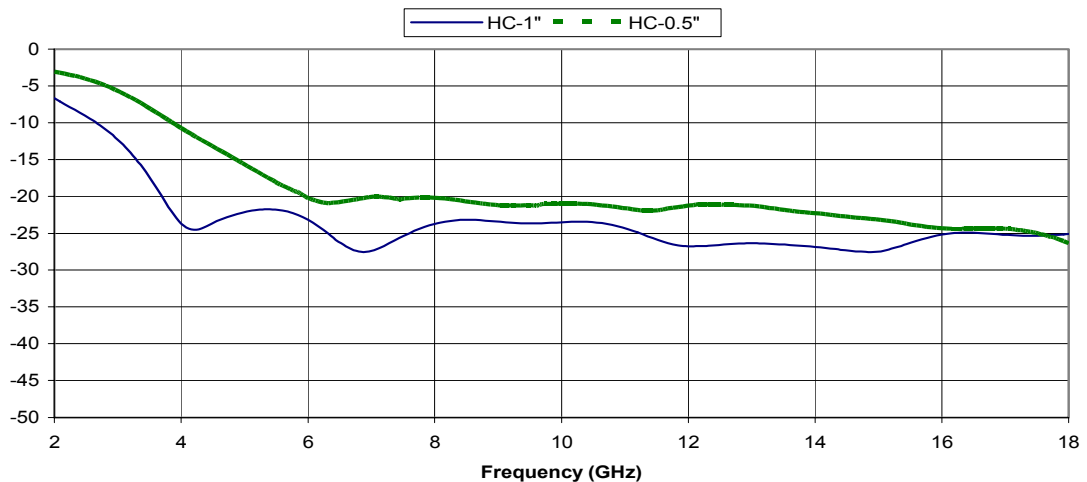
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Electromagnetic Properties :

	HC-0.5	HC-1
Typical Reflectivity (> 8 GHz)	-15dB	-20dB

Typical Reflectivity of ECCOSORB HC (Cell size 1/4")



Availability :

ECCOSORB HC is presently available in two standard thicknesses: 12.7 mm and 25.4 mm with a circular cell type of 6mm diameter. Standard sheet dimensions are 305 mm x 305 mm. It can be fabricated into special shapes but has a low flexibility.

The top surface is marked with a white spot.

The base material of standard Eccosorb HC is a polycarbonate honeycomb, other types such as rigid hexagonal-cell and flexible rectangular-cell paper honeycombs can be supplied.

For special applications the product can also be supplied in a range of non-standard thicknesses (max 30.5cm) and they can be tuned to specified frequency bands.

Instructions for use :

ECCOSORB HC 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 FRONT surface is marked with a white dot and should face the incident electromagnetic waves for proper anechoic performance.



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.
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 2007/10 - V01/1

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