

LIGHTWEIGHT BROADBAND FOAM ABSORBER

Eccosorb HC is a series of lightweight flat-sheet broadband microwave absorbers which are characterized 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.

FEATURES AND BENEFITS

- High mechanical strength
- High power handling

MARKETS

- Commercial Telecom
- Security and Defense

SPECIFICATIONS

TYPICAL PROPERTIES	ECCOSORB HC
Frequency Range (GHz)	≥ 8 GHz
Max. Service Temperature °C (°F)	110 (230)
Density kg/m ³	80

Data for design engineer guidance only. Observed performance varies in application. Engineers are reminded to test the material in application.

APPLICATIONS

- 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.

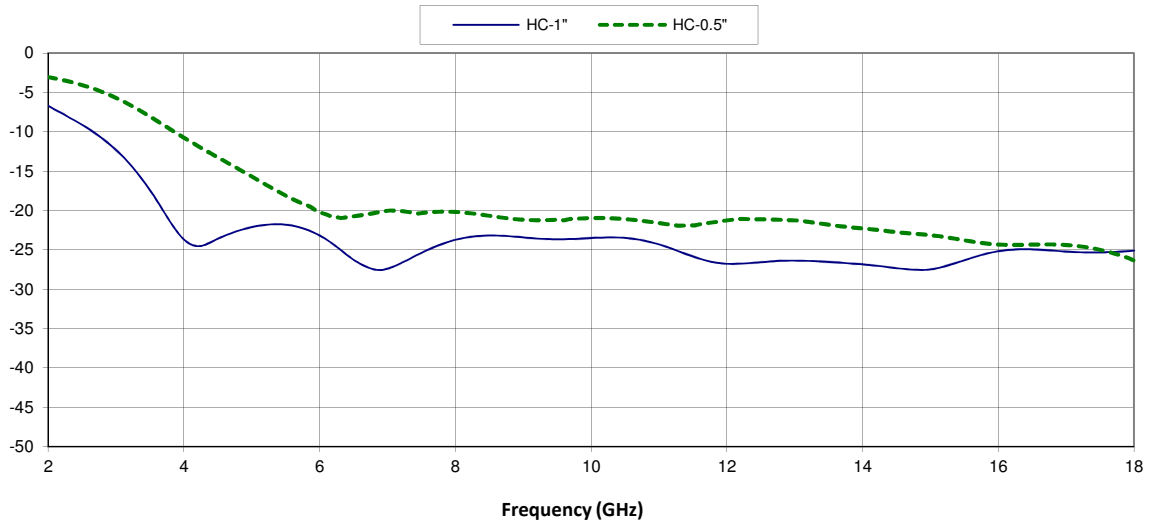
AVAILABILITY

- Standard sheet dimensions are 305 mm x 305 mm.
- Available in two standard thicknesses: 12.7 mm and 25.4 mm with a circular cell type of 6mm diameter.
- 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.

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



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