

# ECCOSORB® FGM-U-125

THIN, FLEXIBLE, BROADBAND, MICROWAVE ABSORBER

## Description:

Eccosorb FGM-U-125 is thin, flexible, broadband urethane absorber. It is effective in reducing specular reflections as well as surface currents in cavity resonance applications. The main advantages of the polyurethane version are its ease of bonding to various substrates and the availability of a self-adhesive version. Further they offer high mechanical strength and excellent abrasion resistance. Will withstand temperatures from -40°C to 120°C.

## Application:

ECCOSORB FGM-U-125 is used to line cavities in which antennas operate. It may be applied to surfaces to improve radar performance, reduce radar cross section or backscattering. ECCOSORB FGM-U-125 is effective in reducing specular reflections as well as surface currents due to the high magnetic loss properties.

When bonded to a metal surface Eccosorb FGM-U-125 will significantly reduce the reflectivity of metal objects or structures due to the flow of microwave currents on that surface. It can be applied to antenna elements, microwave dishes, the inner or outer surfaces of waveguides for isolation, attenuation or modification of radiating patterns.

Applications include power amplifiers, oscillators, down/up converters and LNB's. It is also utilized to modify antenna patterns, cover antenna feed supports, line antenna caps to reduce reflections and improve the isolation of sensitive RF devices.

## Physical Properties:

Colour	brown
Dimensions ( mm )	305 x 305
Nominal thickness (mm)	3.3
Weight (kg/m <sup>2</sup> )	10.6
Hardness (Shore A)	91

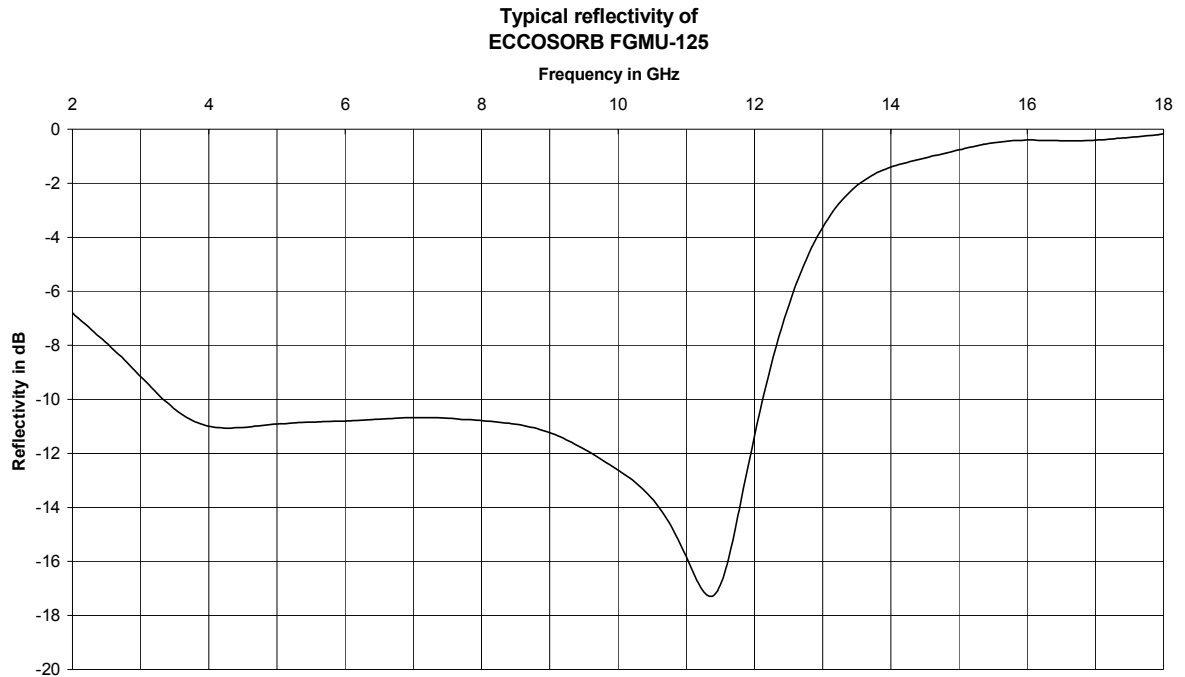
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## Electromagnetic Properties:



## Availability:

ECCOSORB FGM-U-125 is available in sheets of 305 mm x 305 mm, with a nominal thickness of 3.3mm. The product is also available in other sizes, customer specified configurations and thicknesses upon request.

## Instructions for use:

Eccosorb FGM-U-125 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 it is a homogeneous material, there is no distinction between its front and back face.

To obtain a strong bond of the absorber to the object, the metallic surface should be first thoroughly cleaned with a degreasing solvent.

Epoxy and acrylic adhesives are recommended or use the self-adhesive version.

Recommended is to use the self-adhesive version on smaller parts only as the weight of a full sheet will not be supported by the self-adhesive tape.

ECCOSORB FGM-U-125 can be readily cut with a sharp knife and template.

It is a flexible material and will conform to mild curvatures.



**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.

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