

# ECCOSORB® FGM-U

HIGH LOSS, THIN, FLEXIBLE, BROADBAND, MICROWAVE ABSORBER

## Description:

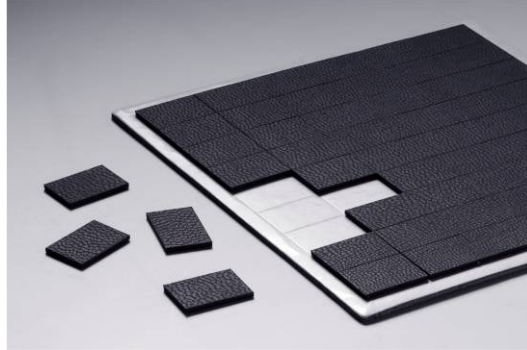
Eccosorb FGM-U is thin, flexible, broadband urethane absorber. It is effective in reducing specular reflections as well as surface currents in cavity resonance applications in the GHz to mm wave frequency range.

It is available in a wide range of thicknesses to suit an extremely broad range of applications including very small microwave cavities typically seen in higher frequencies.

The main advantages of the polyurethane version are its ease of bonding to various substrates and the availability of a self-adhesive version, which will allow for quick assembly.

Further they offer high mechanical strength and excellent abrasion resistance.

Will withstand temperatures from -40°C to 120°C.



## Application:

Eccosorb FGM-U 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 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 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	grey
Dimensions ( mm )	305 x 305
Thickness range (mm)	0.25 to 2.0
Hardness (Shore A)	90



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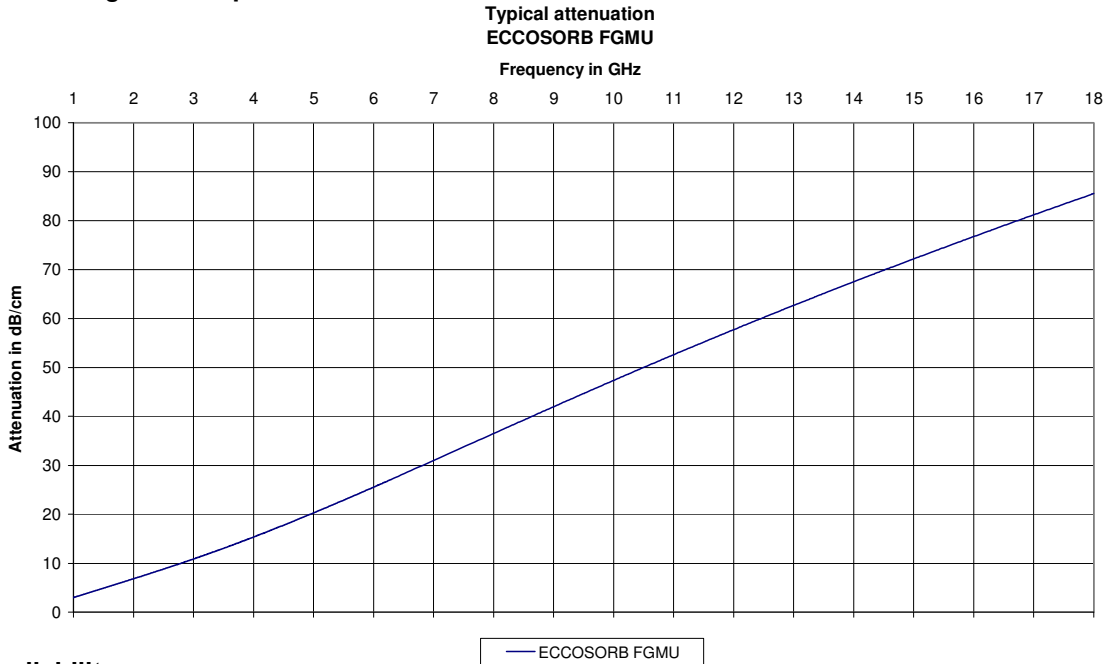
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## Electromagnetic Properties :



## Availability:

Eccosorb FGM-U is available in sheets of 305 mm x 305 mm.

Standard thicknesses are 0.25mm, 0.50mm, 1.0mm, 1.5mm and 2mm, respectively designated as Eccosorb FGM-U-10, FGM-U-20, FGM-U-40, FGM-U-60 and FGM-U-80.

It can be supplied with a pressure sensitive adhesive designated as Eccosorb FGM-U-xx-SA, where the –SA suffix stands for **Self-Adhesive**.

The products are also available in other sizes, thicknesses and customer specified configurations upon request. This includes die cut and kiss cut parts to reduce installation labour by allowing quick assembly.

## Instructions for use:

Eccosorb FGM-U 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.

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

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



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**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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2011/04 - V01/2  
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