

HIGH LOSS THIN FLEXIBLE BROADBAND ABSORBER

Eccosorb FGM-U is thin 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 advantage of the polyurethane version is its ease of bonding to various substrates. Eccosorb FGM-U offers high mechanical strength and excellent abrasion resistance.

FEATURES AND BENEFITS

- High mechanical strength
- Excellent abrasion resistance

MARKETS

- Commercial Telecom
- Security and Defense
- General Electronics

SPECIFICATIONS

TYPICAL PROPERTIES	ECCOSORB FGM-U
Frequency Range (GHz)	> 6 GHz
Temperature Resistance °C (°F)	-40 to 120 (-40 to 248)
Hardness (Shore A)	90

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

APPLICATIONS

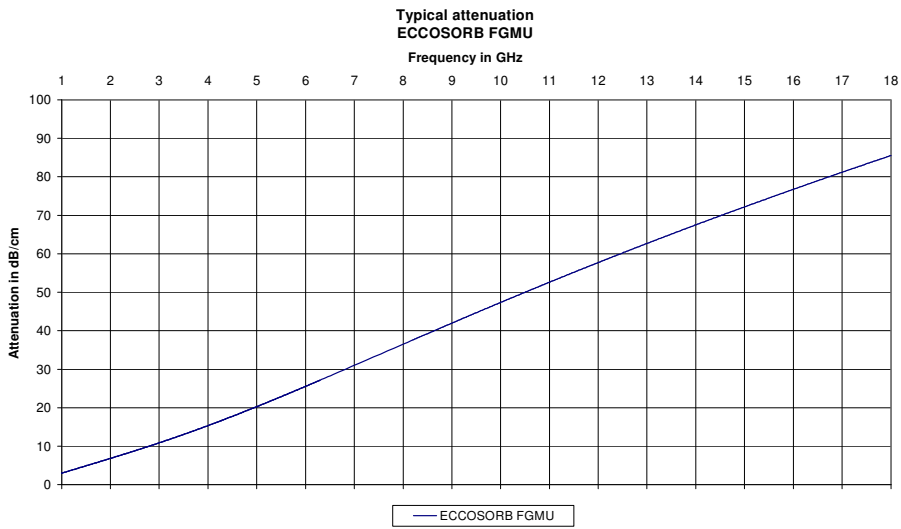
- Eccosorb FGM-U is used to line cavities in which antennas operate. It may be applied to surfaces to improve radar performance, reduce radar cross section or backscattering.
- Eccosorb FGM-U is effective in reducing specular reflections as well as surface currents due to the high magnetic loss properties.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

AVAILABILITY

- Standard sheets are 305 x 305mm (12"x12").
- 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'.
- 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.
- Epoxy and acrylic adhesives are recommended or use the self-adhesive version.
- To obtain a strong bond of the absorber to the object, the metallic surface should first be thoroughly cleaned with a degreasing solvent.
- Eccosorb FGM-U can be readily cut with a sharp knife and template. It is a very flexible material and conforms to contoured surfaces.



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