

## ECCOSORB® FGM

Thin, Flexible, Impervious, Broadband Absorbers

### Material Characteristics

- Thin, flexible, broadband, magnetically loaded, silicone absorber sheets
- Flame resistant and impervious to moisture
- Does not support fungal growth per MIL-STD-810E
- Low out-gassing properties for space applications
- Can be subjected to high altitudes, including space with no adverse effects
- Can be readily cut with a sharp knife
- Conforms to contoured surfaces and can be bonded to metallic or non-metallic structures

### Applications

- ECCOSORB® FGM 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 is effective even at high power in reducing specular reflections and surface currents

### Availability

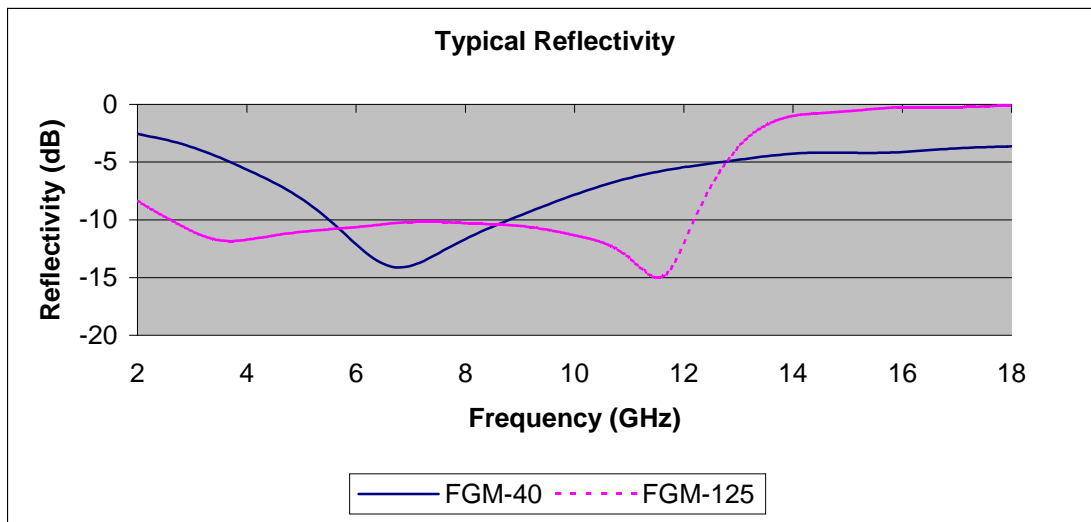
- Standard sheets are 12" x 12" (30.5cm x 30.5cm)
- On request ECCOSORB® FGM can be supplied with a Pressure Sensitive Adhesive (PSA) designated ECCOSORB® FGM-XX/SS6M
- ECCOSORB® FGM is available in other sizes and customer specified configurations

### Typical Properties

	FGM-40	FGM-125
Frequency Range (GHz)	4-10	2-12
Average Reflectivity (dB)	-10	-12
Service Temperature, °F (°C)	425 (218)	
Short Time Service Temp., °F (°C)	500 (260)	
Weight, lb/ft <sup>2</sup> (kg/m <sup>2</sup> )	1.0 (4.9)	2.2 (10.7)
Density, lb/ft <sup>3</sup> (g/cm <sup>3</sup> )	318 (5.2)	200 (3.2)
%TML (with SS6M)	0.16 (0.20)	0.31 (0.23)
%CVCM (with SS6M)	0.06 (0.03)	0.10 (0.06)

### Instructions for Use

- To obtain low reflectivity, the absorbers must be mounted on a metal surface
- To bond ECCOSORB® FGM without a PSA, use STYCAST® 4952. Primer S-11 should also be used prior to the adhesives application
- To ensure a strong bond, the metallic surface should be thoroughly cleaned with a solvent to remove any oil, grease, or dusts
- Apply a thin coat of Primer S-11 to the metal and allow to dry. Coverage is 147 ft<sup>2</sup>/lb per 1 mil thickness
- Apply a thin coat of STYCAST® 4952 two-part RTV silicone over the primer.
- Firmly press ECCOSORB® FGM into place and hold until cure is complete



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