



32 Mechanic Avenue Unit 211 • Woonsocket RI 02895
 Tel. 401-767-2269
 Fax 401-767-2255
 www.microsorbtech.com
 E-mail: engineer@microsorbtech.com

**Product
 Bulletin**

300-06

MICROSORB FGS
 THIN, FLEXIBLE, SILICONE BROADBAND
 ABSORBER

GENERAL DESCRIPTION

MICROSORB FGS is a thin, magnetically filled, silicone rubber sheet stock absorber. It is applied to metal and non-metallic surfaces to attenuate RF surface currents. It can be used to modify antenna patterns, lower the Q of a cavity, act as a transmission line attenuator, and modify the RF signature. It will perform well in the 900 MHz cellular frequencies and up to 12 GHz.

MICROSORB FGS is thin and elastomeric, allowing it to conform to curvatures on a substrate.

It is a soft material and is readily die-cut or cut with a razor. Being based on a silicone rubber, it will withstand wide temperature ranges, and survive outdoor exposure.

APPLICATION

The normal method of applying **MICROSORB FGS** to a substrate is with a silicone RTV adhesive. For best results, the substrate should be scuffed with sandpaper, wiped with alcohol to remove dust and grease, and with a silicone primer. The silicone adhesive can be brushed or rolled onto the substrate, and then the part is bonded to the substrate. An overnight cure is generally required, and a modest temperature cycle, such as a few hours at 150° F will strengthen the bond.

SPECIFICATIONS

Thermal Conductivity (BTU)(in)/(hr)(ft²)(°F) 6.0
 (cal)(cm)/(sec)(cm²)(°C) 0.002
 Water Absorption, % 24 Hours <0.1
 Dielectric Strength, v/mil (kv)/mm 250 (10)
 Volume Resistivity, ohm-cm > 10¹¹
 Service Temperature, °F (°C) -65 to +400
 (-50 to +200)
 Flammability non-flammable

PROPERTY	FGS-40	FGS-125
Frequency Range, GHz	4 – 10	2 – 12
Reflectivity, dB/cm	- 10	- 13
Weight, lb/ft ² (kg/m ²)	1.0 (4.9)	2.2 (10.7)
Density, lb/ft ² (kg/m ²)	318 (5.2)	200 (3.2)
Thickness, inches (mm)	0.040 (1.0)	0.125 (3.2)

SIZES

MICROSORB FGS standard sheet size is 12" x 12".

- Microsorb offers fabrication of material into shapes to specific drawing requirements. Contact Microsorb Technical Service for information.
- **MICROSORB Technologies** offers the addition of Pressure Sensitive Transfer Adhesive on the back surface, for ease of application.

Warranty: This information is, to the best of Microsorb Technologies knowledge, accurate as of the date indicated. This information relates only to the specific materials designated herein and is not intended for the application or use of the materials with any other materials or in any process. The information is intended as a general guide only and does not constitute a warranty or representation whatsoever and **MICROSORB TECHNOLOGIES HEREBY DISCLAIMS ALL EXPRESS AND IMPLIED WARRANTIES ARISING FROM THE USER'S RELIANCE ON OR USE OF THIS INFORMATION.**
 REV 2 041607