

## High-Loss, Thin, Elastomeric Microwave Absorber



### HIGH-LOSS ELASTOMERIC ABSORBER

Eccosorb BSR is a thin, flexible, high-loss, electrically non-conductive silicone absorber. It is designed for the frequency range from 6 GHz to mm wave. It has low outgassing properties and high temperature resistance.

### FEATURES AND BENEFITS

- High thermal stability
- Electrically non-conductive
- High magnetic loss

### MARKETS

- Commercial Telecom
- Security and Defense
- Automotive and Industrial Electronics

### SPECIFICATIONS

TYPICAL PROPERTIES	ECCOSORB BSR
Frequency Range (GHz)	≥ 6 GHz
Max Service Temperature °C (°F)	170 (338)
Fire Retardancy	UL94 V-0
Hardness (Shore A)	> 70
Elongation (%)	50
Tensile Strength (MPa)	5.0
Volume Resistivity (ohm-cm)	$2 \times 10^8$
Thermal Expansion per °C (°F)	$63 \times 10^{-6}$ ( $35 \times 10^{-6}$ )
Dielectric Strength (volts/mil)	>10
Outgassing (%TML) (%CVCM)*	0.47/0.28

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

\* Outgassing data per ASTM E595-07; criteria for acceptability is 1.00% TML and 0.10% CVCM.

### APPLICATIONS

- Eccosorb BSR is engineered to reduce or eliminate surface currents, cavity resonance, coupling, and generally dampen reflections. It will significantly improve the operation of microwave devices by lowering the Q of cavities.
- Eccosorb BSR is recommended for use in high reliability aerospace, military, and space applications, exhibiting excellent thermal cycling, shock and vibration absorption characteristics.
- Some other applications include power amplifiers, oscillators and down/up converters.

### AVAILABILITY

- Standard sheets are 305 x 305mm (12"x12").
- Standard thicknesses are 0.25mm (0.010"), 0.50mm (0.020"), 1.0mm (0.040"), 1.5mm (0.060") and 2.54mm (0.100").
- For most applications Eccosorb BSR can be supplied with a Pressure Sensitive Adhesive.
- Eccosorb BSR is available in other sizes, thicknesses and customer specified configurations upon request. This includes die cut and kiss cut parts to reduce installation labor by allowing quick assembly.

## INSTRUCTIONS FOR USE

- Eccosorb BSR is designed to function directly in front of a metallic surface.
- For applications where the service temperature exceeds 121°C (250°F), the material can be bonded to most substrates by using an RTV silicone based adhesive in conjunction with a suitable primer.
- Eccosorb BSR can be readily cut with a sharp knife and template. It is a very flexible material and conforms to contoured surfaces.

Typical Attenuation Eccosorb BSR

