

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)	2×10^8
Thermal Expansion per °C (°F)	63×10^{-6} (35×10^{-6})
Dielectric Strength (volts/mil)	>10
Outgassing (%TML) (%CVCN)*	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% CVCN.

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

