Eccosorb® BSR-U

High-Loss, Thin, Elastomeric Microwave Absorber



HIGH-LOSS ELASTOMERIC ABSORBER

Eccosorb BSR-U is a thin, flexible, high-loss, electrically non-conductive urethane absorber. It is designed for the frequency range from 6 GHz to mm wave. 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.

FEATURES AND BENEFITS

- High mechanical strength
- Excellent abrasion resistance
- Silicone free

MARKETS

- Commercial Telecom
- Automotive and Industrial Electronics

SPECIFICATIONS

TYPICAL PROPERTIES	ECCOSORB BSR-U
Frequency Range	≥ 6 Ghz
Service Temperature °C (°F)	-40 to 120 (-40 to 248)
Hardness Shore A	80
Elongation %	50
Tensile Strength MPa	3.5

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

APPLICATIONS

- Eccosorb BSR-U is effective in reducing surface currents, cavity resonances, coupling and to some extent specular reflections due to the absorber's high permittivity and permeability as well as high loss values.
- It will significantly improve the operation of microwave devices by lowering the Q of cavities.
- Eccosorb BSR-U will reduce the reflections from metal structures through the absorption of surface currents.
- Applications include power amplifiers, oscillators and down/up converters.

AVAILABILITY

- Standard sheets are 305 mm x 305 mm (12"x12").
- Standard thicknesses are 0.25mm (.010"), 0.50mm (.020"), 1.0mm(.040"), 1.5mm (.060") and 2.54mm (.100").
- It can be supplied with a pressure sensitive adhesive designated as Eccosorb BSR -U-xx-SA , where the –SA suffix stands for Self-Adhesive .
- 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 labor by allowing quick assembly.

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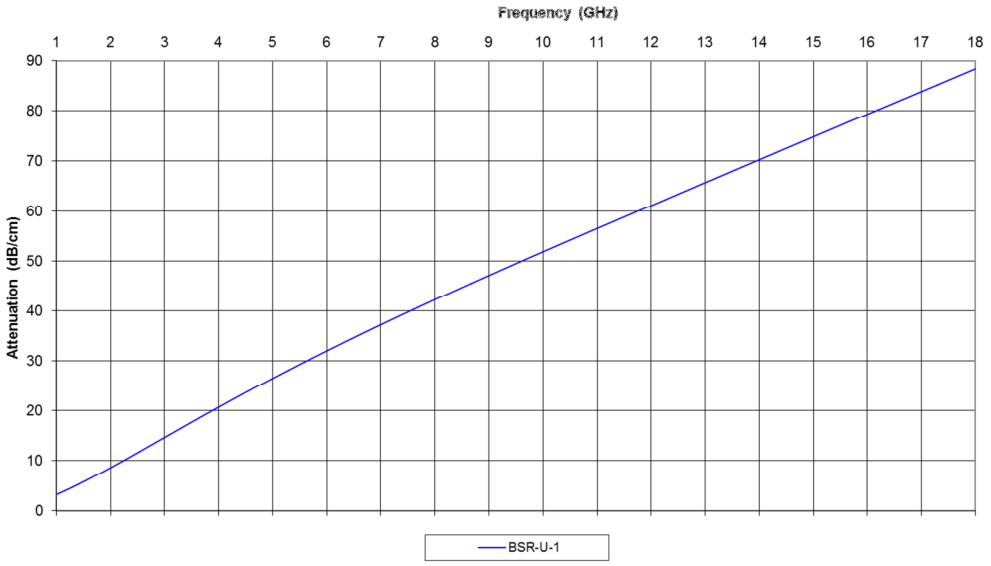
INSTRUCTIONS FOR USE

- Eccosorb BSR-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.
- To obtain a strong bond of the absorber to the object, the metallic surface should be first thoroughly cleaned with a degreasing solvent.
- Epoxy and acrylic adhesives are recommended or use the self-adhesive version.
- Eccosorb BSR-U can be readily cut with a sharp knife and template. It is a very flexible material and will conform to contoured surfaces.

Typical Attenuation Eccosorb BSR-U



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