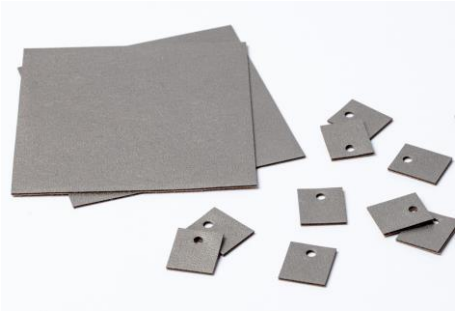
Eccosorb® RF-LW

Low Frequency, Lightweight, High Loss Microwave Absorber



HIGH-LOSS LOW FREQUENCY ELASTOMERIC ABSORBER

Eccosorb RF-LW is a flexible magnetically loaded electrically non-conductive elastomeric absorber sheet specifically targeting the frequency range of 800 MHz to 6 GHz. It offers exceptionally high attenuation under 6 GHz by utilizing innovative fillers with higher permeability and permittivity than industry standard magnetic fillers. The higher level of attenuation allows for weight and thickness savings, as less material is needed for the same level of EMI reduction compared to other materials.

Eccosorb RF-LW is suitable for harsh environment as the innovative fillers are inherently corrosion resistant. The material is impervious to moisture and can be subjected to high altitudes, with no adverse effects. The material has low outgassing properties for space applications. For custom applications, it can be provided in a variety of elastomeric bases for rugged environment suitability.

FEATURES AND BENEFITS

- Industry best sub 6 GHz attenuation
- Corrosion Resistant
- Low outgassing properties
- Weight and thickness reduction in application

MARKETS

- Military and Aerospace
- Telecom/Datacom
- Consumer (Bluetooth and WiFi)
- Security and Defense
- Automotive and Industrial Electronics

SPECIFICATIONS

TYPICAL PROPERTIES	ECCOSORB RF-LW
Frequency Range (GHz)	0.8 to 6 GHz
Max Service Temperature °C (°F)	170 (338)
Hardness (Shore A)	> 70
Volume Resistivity (ohm-cm)	2 x 10^8
Density (g/cc)	3.5
Tensile Strength (MPa)	>3.5
Dielectric Strength (volts/mil)	>20
Outgassing (%TML) (%CVCM)*	0.3/0.05

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

- When used as a cavity resonance absorber, Eccosorb RF-LW has proven to be very effective at dampening resonances due to the absorber's high permittivity and permeability as well as high loss values, which in turn reduce the overall VSWR.
- Eccosorb RF-LW is effective in the frequency ranges of Bluetooth, WiFi, and sub 6 GHz telecommunications
- It is designed for the suppression of surface currents in the sub 6 GHz frequencies
- It can be used for the suppression of creeping waves and reduction of cavity resonances.
- When applied to side or even rear surfaces of certain objects Eccosorb RF-LW will cause a significant reduction in "head on" reflectivity or backscattering.
- It is also useful in reducing RF coupling of antennas and microwave components.

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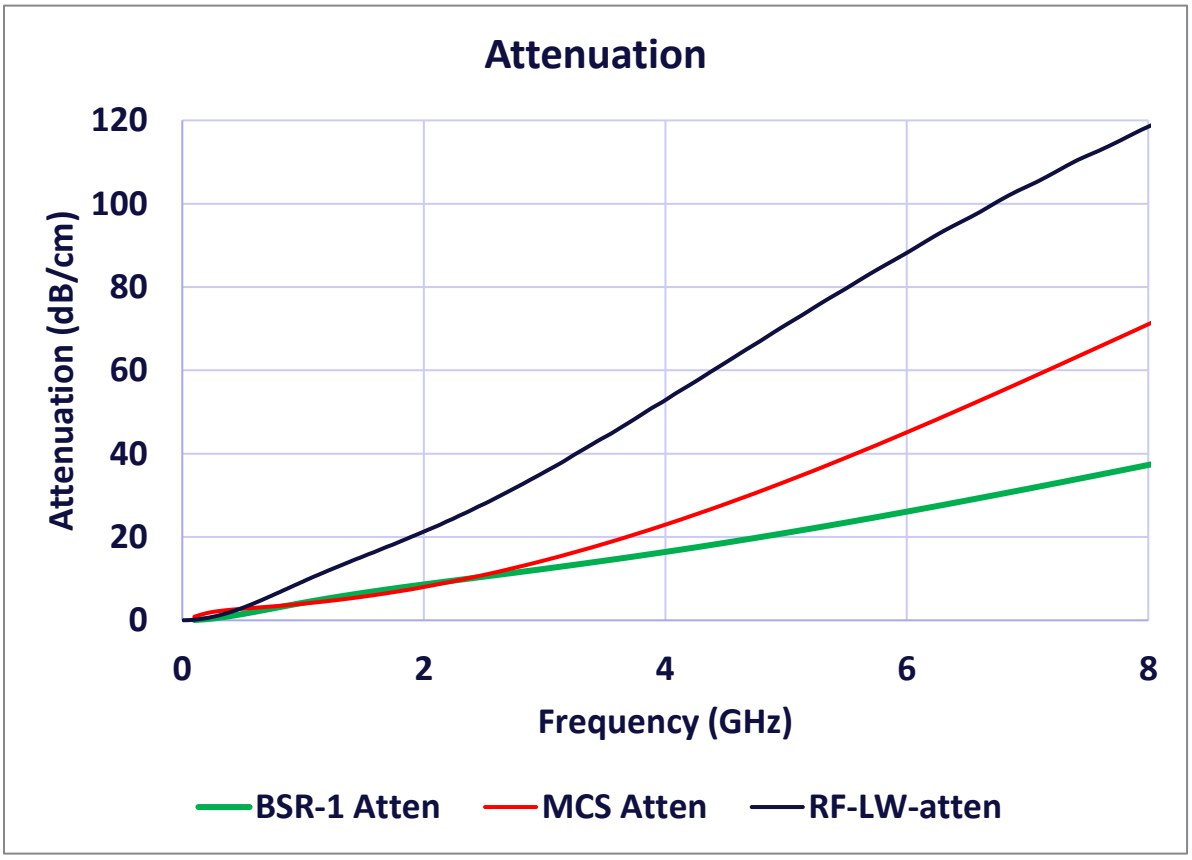
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AVAILABILITY

- Standard sheets are 305 x 305 mm (12” x 12”)
- Available thickness: 0.5 mm to 3.0 mm
- Available in customer specific configurations upon request

INSTRUCTIONS FOR USE

- Eccosorb RF-LW is designed to function directly in front of a metallic surface.
- The material can be bonded by use of an RTV silicone based adhesive in conjunction with a suitable primer.
- To obtain a strong bond, the metallic surface should first be thoroughly cleaned with a degreasing solvent, apply a thin coat of primer to the dried surface and apply a RTV silicone adhesive.



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