Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!
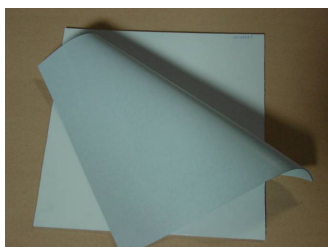

Contact us

CORROSION-RESISTANT RESONANT MICROWAVE ABSORBER

Eccosorb DSF is a thin, flexible, narrow band absorber that reflects -20 dB or less of normal incident microwave energy at the design frequency in the range of 3 to 22 GHz. Eccosorb DSF is a dielectrically loaded, silicone rubber sheet. Unlike typical iron-filled silicone absorbers, no oxidation is possible due to the chemical nature of the patented dielectric pigmentation system. The material is impervious to moisture and can be used outdoors.

FEATURES AND BENEFITS

- High power performance
- Narrow band performance
- Oxidation-resistant

MARKETS

- Commercial Telecom
- Security and Defense
- Automotive

SPECIFICATIONS

TYPICAL PROPERTIES	ECCOSORB DSF
Max Service Temperature °C (°F)	163 (325)
Water Absorption after 14 days	0.001 %
Hardness (Shore A)	80
Density Range (g/cm³)	1.9 - 2.2
Tensile Strength (MPa)	3.2 - 3.5
Elongation at break (%)	39 - 51
Tear Strength (N/mm)	1.1 - 2.2

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

APPLICATIONS

- Eccosorb DSF is ideally suited for applications requiring absorption at a specific frequency or in a narrow frequency band, including:
  -lining radar nacelles, particularly where high power is present
  -attaching to masts of ships, walls, etc. to reduce reflections and echoes to nearby antennas
  -attaching to vehicles to reduce overall radar signature.
- Eccosorb DSF is especially recommended for use in saline environment where oxidation may be considered a problem. The materials are impervious to salt water and can be used in marine applications.

AVAILABILITY

- Standard sheets are 305 x 305mm (12"x12").
- Thickness depends on resonant frequency desired.
- Grades are designated by their suffix corresponding to the resonant frequency desired.
- Other resonant frequencies can be supplied on special order.
- The material can also be supplied in customized shapes.

INSTRUCTIONS FOR USE

- Eccosorb DSF 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, clean the surface with a degreasing solvent, apply a thin coat of primer to the dried surface and apply an RTV silicone adhesive.
- Eccosorb DSF can be readily cut with a sharp knife and template.
  It is a very flexible material and will conform to mild curvatures

Typical Reflectivity Performance

Typical Performance
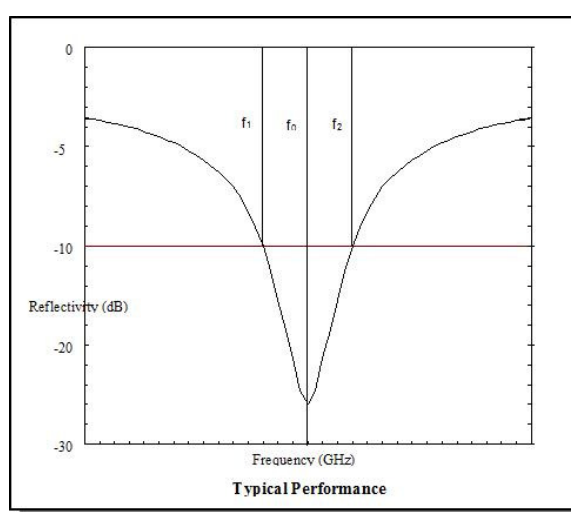
The performance of ECCOSORB® DSF is defined by reflectivity at a single frequency. A generalized performance curve is shown above. The design frequency f0, has a ±5% bandwidth, designated as f1 and f2.

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