

ECCOSORB® GDS

BROADBAND, HIGH-LOSS, MICROWAVE ABSORBER

Description:

Eccosorb GDS is a thin, flexible, high-loss, magnetically loaded, electrically non-conductive, broadband silicone absorber. It is designed for the frequency range from 6 GHz to 35 GHz.

The material is impervious to moisture and can be subjected to outdoor environments and high altitudes, including space, with no adverse effects.

Being a silicone based absorber it has low out-gassing properties for space applications.

Application:

When placed within a cavity Eccosorb GDS has proven to be very effective at dampening resonances due to the absorbers high permittivity and permeability.

When bonded to a metal surface Eccosorb GDS will significantly reduce the reflectivity of metal objects or structures due to the flow of microwave currents on that surface.

It can be applied to antenna elements, microwave dishes, the inner or outer surfaces of waveguides for isolation, attenuation or modification of radiating patterns.

When applied to side or even rear surfaces of certain objects Eccosorb GDS will cause a significant reduction in "head on" reflectivity or backscattering.

Although not intended as a specular absorber, it will reduce metal plate reflectivity by a few dB.

Physical Properties:

Colour	grey
Dimensions (mm)	305 x 305
Nominal thickness (mm)	0.76
Weight (kg/m ²)	2.9
Specific gravity (g/cm ³)	3.6
Volume Resistivity (Ohm-cm)	>10 ¹¹
Fire retardancy	UL-94 V1
%TML	0.2
%CVCM	0.08
Hardness (Shore A)	>70
Service Temp (°C)	cryogenic to 177

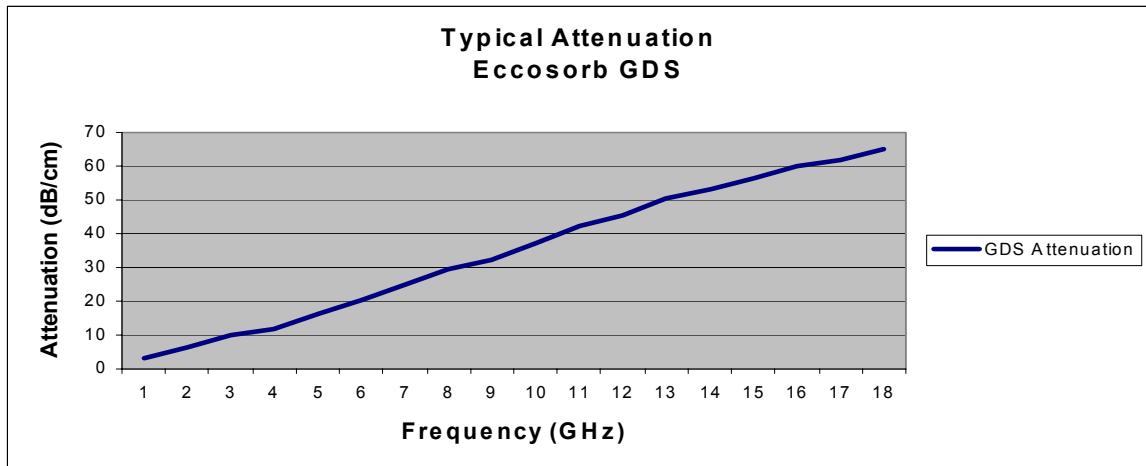
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Electromagnetic Properties:



Availability:

Eccosorb GDS is available in square sheets of 305X305X0.76mm.

On special order other sizes, thicknesses and customer specified configurations can be supplied.

Instructions for use:

Eccosorb GDS 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.

As it is a homogeneous material, there is no distinction between its front and back face.

To obtain a strong bond of the absorber to the object, the metallic surface should be first thoroughly cleaned with a degreasing solvent.

The material can be bonded by use of an RTV silicone based adhesive in conjunction with a suitable primer.

ECCOSORB GDS can be readily cut with a sharp knife and template.

It is a very flexible material and will conform to mild curvatures.



Safety Considerations: It is recommended to consult the EMERSON & CUMING MICROWAVE PRODUCTS product literature, including material safety data sheets, prior to use EMERSON & CUMING MICROWAVE PRODUCTS products. These may be obtained from your local sales office.

WARRANTY: Values shown are based on testing of laboratory test specimens and represent data that falls within the normal range of properties of the material. These values are not intended for use in establishing maximum, minimum or ranges of values for specification purposes. Any determination of the suitability of the material or any use contemplated by the user and the manner of such use is the sole responsibility of the user who must assure that the material as subsequently processed meets the needs of this particular product or use. We hope the information given here will be helpful. It is based on data and knowledge considered to be true and accurate and is offered for the user's consideration, investigation and verification but we do not warrant the results to be obtained. Please read all statements, recommendations or suggestions in conjunction with our conditions of sale INCLUDING THOSE LIMITING WARRANTIES AND REMEDIES which apply to all goods supplied by us. We assume no responsibility for the use of these statements, recommendations or suggestions nor do we intend them as a recommendation for any use which would infringe any patent or copyright.

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