

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 and above.

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



**ELECTRONIC
SERVICE GmbH**

Hohe Straße 3 | 61231 Bad Nauheim
T +49 (0)6032 9636-0 | F +49 (0)6032 9636-49
info@electronic-service.de | www.electronic-service.de

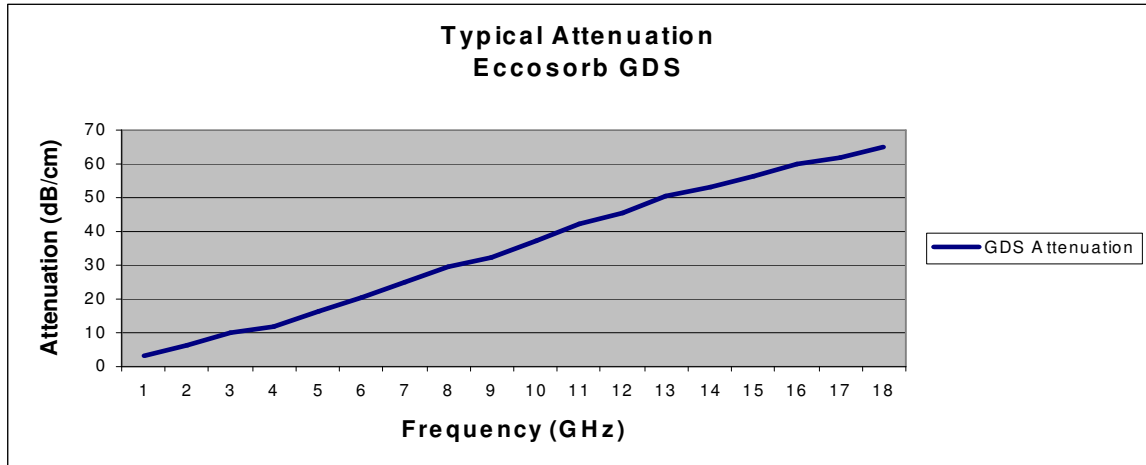
Emerson & Cuming Microwave Products N.V.
Bell Telephonaan 2B – B-2440 Geel – Belgium
Tel: +32 14 56 25 00 – Fax +32 14 56 25 01
sales@eu.eccosorb.com - www.eccosorb.eu



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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.



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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.

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