

ECCOSORB[®] MCS

Thin, Flexible, Broadband Absorbers

Material Characteristics

- Thin, flexible, high-loss, magnetically loaded, electrically non-conductive silicone rubber sheet
- Frequency range from 800 MHz to 18 GHz
- Service Temperature is 350 °F (177°C) continuous with short term exposures to higher temperatures
- Impervious to moisture and can be subjected to outdoor environments and high altitudes, including space, with no adverse effects
- Low out-gassing properties for space applications
- Can be cut and fitted to compound curves

Typical Properties

Attenuation, dB/cm	6.0 - 63.0
Volume Resistivity	2×10^8 ohm-cm
Relative Impedance	0.66 - 0.23
Dielectric Strength, volts/mil	>20
Nominal Thickness, inches (mm)	.040 (1.0)
Nominal Weight, lb/ft ² (kg/m ²)	0.95 (4.6)
Hardness, Shore A	>80
Tensile Strength, psi	>500
Elongation, %	>20
Thermal Conductivity, (cal)(cm)/(sec)(cm ²)(°C) (BTU)(in)/(hr)(ft ²)(°F)	0.0028 8.5
Fire Retardancy	UL-94 V1
%TML (with SS-6M)	0.3 (0.23)
%CVCM (with SS-6M)	0.05 (0.05)
Estimated weight with SS-6M	0.9 Lbs. per sheet

Applications

- ECCOSORB[®] MCS is designed for the suppression of surface currents over a wide range of frequencies
- Useful for the suppression of creeping waves and reduction of cavity resonances in microwave modules.
- ECCOSORB[®] MCS is also useful in reducing RF coupling of antennas and microwave components

Availability

- ECCOSORB[®] MCS is available in sheets 0.040" x 12" x 12" (0.101cm x 30.5cm x 30.5cm)
- Upon special request, ECCOSORB[®] MCS can be supplied in sheets up to 36" (914.4mm) in length
- It can be supplied with a [Pressure Sensitive Adhesive \(PSA\)](#). Product designation denoting ECCOSORB[®] MCS with a PSA is ECCOSORB[®] MCS/SS-6M
- ECCOSORB[®] MCS is available in other sizes and customer specified configurations and thicknesses upon request

Instructions for Use

- ECCOSORB[®] MCS can be bonded to itself to make thicker sheets or to other substrates with either the factory installed PSA (SS-6M), or ECCOSIL[®] 4952 along with Primer S-11

