# **ECCOSORB® MMI-U**

## THIN, BROADBAND, MILLIMETER WAVE ABSORBER

### **Description:**

Eccosorb MMI-U is a flexible absorber based on dielectric loss fillers. Due to the chemical nature of the dielectric pigmentation system, no oxidation is possible. As such, the product resists outdoor conditions very well.

The polyurethane matrix ensures effective

The polyurethane matrix ensures effective mechanical and bonding properties.

The product will withstand temperatures up to 120°C.



### Application:

Eccosorb MMI-U is used to line cavities in which antennas operate. The product is effective up to the millimeter frequency range and has as such been applied successfully in automotive applications for collision avoidance.

The material is effective in reducing specular reflections as well as suppressing cavity resonances and surface currents.

### **Physical Properties:**

Color	Light blue
Weight	2.2 kg / m²
Water absorption (25°C/24 hrs)	Impervious to water
Tensile strength (MPa)	2.2
Outdoor exposure	Excellent

### Availability:

Standard sheet size is 30 cm x 30 cm, thickness 1 mm. Customized shapes and thicknesses can be supplied, as well as sheets with self-adhesive backing (suffix –SA).

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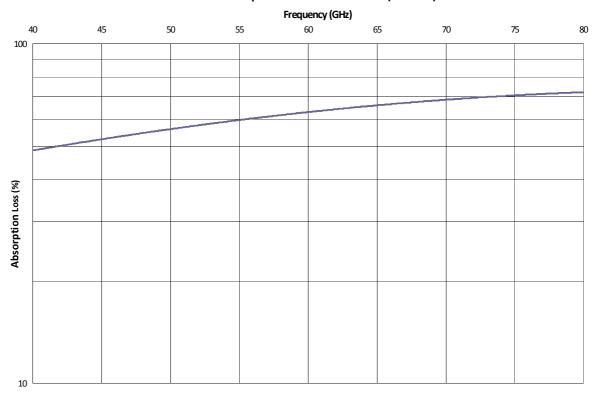
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### **Electromagnetic properties**

The figure below shows the absorption loss of a 0.75 thick Eccosorb MMI-U in the frequency range 40–80 GHz. Absorption loss refers to the percentage of incident energy which is dissipated in the absorber.

#### Absorption loss ECCOSOB MIMI-U (0.75 mm)



#### Instructions for use

Eccosorb MMI-U 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.

Epoxy and acrylic adhesives are recommended or use the self-adhesive version, Eccosorb MMI-U-SA. Eccosorb MMI-U can be readily cut with a sharp knife and template.



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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