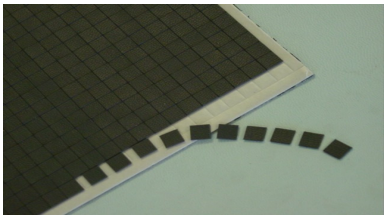
Eccosorb® SF-U

Dünner, flexibler, resonanter Mikrowellenabsorber



DÜNNER, FLEXIBLER, RESONANTER ABSORBER

Ecosorb SF-U ist eine schmalbandige, magnetisch geladene Absorberplatte für Freiraumanwendungen. Diese Polyurethankautschukplatten sind so gestaltet, dass sie mit flachen oder gekrümmten metallischen Oberflächen verbunden werden können, um die Reflektivität in einem schmalen Frequenzband zu reduzieren. Eccosorb SF-U reflektiert -20 dB oder weniger der normalerweise einfallenden Mikrowellenenergie bei einer Frequenz im Bereich von 1 bis 26 GHz.

EIGENSCHAFTEN UND VORTEILE

- Hohe mechanische Festigkeit
- Leicht anzubringen
- Ausgezeichnete Abriebfestigkeit
- Silikonfrei

MÄRKTE

- Kommerzielle Telekommunikationsanwendungen
- Sicherheit und Verteidigung
- Automotive

SPECIFICATIONS

TYPICAL PROPERTIES	ECCOSORB SF-U
Max service temperature °C (°F)	120 (325)
Hardness (Shore A)	80
Surface Density Range	3 to 21.5
Density Range g/cm³	2.6 – 4.7
Tensile Strength MPa	2. – 5.5
Elongation at break %	60 – 225
Tear Strength N/mm	3.0 to 15

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

APPLICATIONS

- Lining radar nacelles and the exterior of airframes particularly where high power is present.
- Lining of cavity backed and shrouded telecommunication antennas where narrowband performance is required.
- Lining metal surfaces of vehicles to reduce overall radar signature.
- Attaching to masts of ships, walls, etc to reduce reflections and echoes from nearby antennas.
- Lining magnetron housings to prevent detuning.
- Fabricating into tapered shapes for impedance matching in waveguide or microstrip applications.
- Lining metal surfaces to attenuate surface currents, suppressing reflections inside microwave modules, and dampening cavity resonances in microwave modules.
- For module interference, cavity resonance and surface current problems, ECCOSORB® GDS-U, ECCOSORB® MCS-U and ECCOSORB® BSR-U are recommended due to their high magnetic loss properties, broadband performance, as well as the availability of a wider range of thicknesses (0.010” to 0.100”)

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AVAILABILITY

- Standard sheets are 305 x 305mm (12”x12”)
- Thickness varies depending on resonant frequency desired.
- Other resonant frequencies can be supplied on special order.
- The material can also be supplied in customized shapes.
- It can be supplied with a pressure sensitive adhesive (PSA).

INSTRUCTIONS FOR USE

- Eccosorb SF-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.
- 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 a RTV silicone adhesive.
- Eccosorb SF-U can be readily cut with a sharp knife and template. It is a very flexible material and will conform to mild curvatures.