



CASTABLE SILICONE RUBBER

Eccosorb CFS-8480 is a castable, magnetically loaded, silicone rubber material that exhibits high loss in the UHF and lower end of the microwave range. It is physically similar to Eccosorb CRS, but has quite different electrical properties making it much more useful in the UHF region and the lower microwave frequency range.

FEATURES AND BENEFITS

- 2-component castable
- Low frequency performance
- High temperature resistance

MARKETS

- Commercial Telecom
- Security and Defense
- Medical

SPECIFICATIONS

TYPICAL PROPERTIES	ECCOSORB CFS-8480
Frequency Range	800 MHz – 18 Ghz
Service Temperature °C (°F)	<275 (<527)
Density (g/cc)	2.8
Thermal Conductivity, (W/m-K)	0.73
Hardness, Shore A	65
Water Absorption, % 24 hours	<0.2
Dielectric Strength, (Kv/mm)	12
Volume Resistivity, ohm-cm	>10 ¹²
Mix Ratio by weight, A:B	1000:9

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

APPLICATIONS

- Eccosorb CFS-8480 can be poured or painted on surfaces.
- When applied, Eccosorb CFS-8480 can be used to reduce surface currents or lower the Q of cavities.
- Most notably used as a coating for magnetrons and klystrons to improve insulation resistance and stop voltage flashover.
- It has been cast into transmission line attenuators and terminators.
- It has been used in medical applications as a molded RF Absorber.
- It has also been used as a potting absorber to protect sensitive components connected to conductive strips.

AVAILABILITY

- Eccosorb CFS-8480 is supplied as a two-component system, consisting of a Part A(resin) and a Part B (catalyst).
- It does not ship as a dangerous good.
- As there might be regional differences, please contact your local supplier with regard to sizes and packaging.
- The material can also be supplied as a finished cast part by in-house molding techniques.
- Shelf life is approximately 6 months when stored unmixed in a well sealed container.

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INSTRUCTIONS FOR USE

- Mix the Eccosorb CFS-8480 Part A in the container in which it is received using a power stirrer. This is to insure complete uniformity from top to bottom of the container.
- Weigh out the desired amounts of Part A. To each 1000 parts by weight of Part A, add 9 parts of Part B.
- Mix thoroughly. Accurate weighing and blending are essential for proper and uniform cure.
- Pot life is about one hour after mixed.
- Pour into cavity to be filled. If adhesion is required, apply a thin coat of Primer to the substrate and let dry for 30 minutes.
- Cure for two hours at 90°C.
- Where actual design temperature is anticipated above 120°C, a post cure is recommended. Gradually raise cast parts to the design temperature over an 8 hour or longer period.

Typical Attenuation (dB/cm)

600 MHz	1.0
1.0 GHz	2.0
3.0 GHz	7.6
8.0 GHz	11.5
10.0 GHz	9.5