

ECCOSORB[®] CFS-8480

CASTABLE SILICONE RUBBER

Description :

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.

Typical frequency range 800MHz– 18GHz.

Application :

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 moulded RF absorber.

It has been used as a potting absorber to protect sensitive components connected to conductive strips.

Physical Properties :

| | CFS-8480 |
|----------------------------------|------------------|
| Colour | Dark brown |
| Density (g/cm ³) | 2.8 |
| Thermal Conductivity (W/m-K) | 0.73 |
| Dielectric Strength (Kv/mm) | 12 |
| Volume Resistivity (ohm-cm) | 10 ¹² |
| Water Absorption, % 24 hours | <0.2 |
| Mix Ratio by weight, A:B | 1000:9 |
| Hardness (Shore A) | 65 |
| Maximum service temperature (°C) | 275 |

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Electromagnetic Properties :

| Frequency | Typical Attenuation (dB/cm) |
|-----------|-----------------------------|
| 600MHz | 1.0 |
| 1.0 GHz | 2.0 |
| 3.0 GHz | 7.6 |
| 8.0 GHz | 11.5 |
| 10.0 GHz | 9.5 |

Availability :

Eccosorb CFS-8480 is supplied as a two-component kit consisting of a Part A (resin) and Part B (catalyst).

The material is available in 1kg and 4 kg kits.

The material can also be supplied as a finished cast part by in-house moulding techniques.

The shelf life is approximately one year when stored unmixed in a well sealed container.

It can be shipped as a non-dangerous good.

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 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.



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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