

# ECCOSORB<sup>®</sup> CR

TWO PART CASTABLE LOAD ABSORBER SERIES

## Description:

Eccosorb CR is a series of castable resins which can be used to mould waveguide terminations, attenuators, loads and other custom parts to finished size. When fully cured, these materials will duplicate the physical and electrical properties of the corresponding material in the Eccosorb MF series. For example Eccosorb CR-117 is the equivalent to Eccosorb MF-117. Due to their low out-gassing properties, these materials may be suitable for space applications.



## Application:

Eccosorb CR can be used to mould waveguide terminations, attenuators, and loads to size. It can also be used to precisely pot small amount of absorber in or around areas of RF leakage.

## Physical Properties:

Colour	grey
Density (g/cm <sup>3</sup> )	1.6 to 4.6
Thermal Expansion Coefficient (°C)	30 x 10 <sup>-6</sup>
Izod Impact, (ergs/cm)	1.6 x 10 <sup>6</sup>
Water Absorption, %, 7 days immersion	0.1
Flexural Strength, kg/cm <sup>2</sup>	1050
% TML	0.08 - 0.51
% CVCM	0.001 - 0.01
Maximum service temperature (°C)	180

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**Laird**<sup>™</sup>

**Availability:**

Eccosorb CR is available in 2 standard versions: Eccosorb CR-117 and CR-124.

Lower grades e.g. Eccosorb CR-110, CR-112, CR-114 and CR-116 are available as non-standard grades, upon request.

Eccosorb CR is supplied as a two part system consisting of a Part A (resin) and Part B (catalyst). The products ship as a hazardous material: transport classification for Part A: UN1139 Class 3 CC F1 PG II HIN 33, for Part B: UN3082 Class 9 CC M6 PG III HIN 90

Shelf life is approximately one year when stored unmixed in a well sealed container at temperatures no higher than 25°C.

**Instructions for use:**

Prepare mould by applying a thin coat of mould release wax.

Mix Part A in its shipping container to a uniform consistency before removing any material.

Weigh out the desired amounts of both Part A and Part B in accordance with the proportions by weight indicated below. Heat Part A to about 65 °C. This will reduce the viscosity substantially and improve pour ability. Thoroughly blend Part A and Part B. Remove entrapped air, if necessary, by vacuum de-airing.

Pour into mould (pot life at 65°C is about 30 minutes) and cure per the below schedule.

The mould is also preferably preheated to about 65 °C.

Clean up can be done with a solvent such as MEK.

Mix ratios are given in the table below:

Series	Part A	Part B
CR-110	100	16.5
CR-112	100	11.3
CR-114	100	6.5
CR-116	100	4.3
CR-117	100	3.2
CR-124	100	2.6

Cure temperatures and schedule:

Temperature	Cure Time
75 °C	12 hours
90 °C	4 hours
120 °C	2 hours



**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.

**WARRANTY:** Values shown are based on testing of laboratory test specimens and represent data that falls within the normal range of properties of the material. These values are not intended for use in establishing maximum, minimum or ranges of values for specification purposes. Any determination of the suitability of the material or any use contemplated by the user and the manner of such use is the sole responsibility of the user who must assure that the material as subsequently processed meets the needs of this particular product or use. We hope the information given here will be helpful. It is based on data and knowledge considered to be true and accurate and is offered for the user's consideration, investigation and verification but we do not warrant the results to be obtained. Please read all statements, recommendations or suggestions in conjunction with our conditions of sale INCLUDING THOSE LIMITING WARRANTIES AND REMEDIES which apply to all goods supplied by us. We assume no responsibility for the use of these statements, recommendations or suggestions nor do we intend them as a recommendation for any use which would infringe any patent or copyright.

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