



# CUMING MICROWAVE

## C-RAM CA

RoHS  
Compliant

### TECHNICAL BULLETIN 330-7

#### CASTING RESIN FOR LIGHTWEIGHT ABSORBERS AND LOADS

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C-RAM CA is a series of lightweight, two-part liquid casting resin kits with lossy dielectric loading. It can be used to cast radar absorber parts, loads, attenuators and terminations.

When cured into a solid, these parts perform in the same way as parts machined from C-RAM HF-358 (see Technical Bulletin 358). C-RAM CA is available in two loadings CA-10 (insertion loss of 10dB/in) and CA-30 (insertion loss of 30dB/in). Other loss values can be supplied on request.

#### TYPICAL CURED PROPERTIES

Service Temperature: -70 to +275 °F  
Specific Gravity: 0.7  
Tensile Strength, psi: 3000  
Shear Strength, psi: 3000  
Izod Impact, ft-lb./in: 0.15  
Therm. Conductivity: .08 BTU-in/hr-ft<sup>2</sup>-°F  
Coeff. of Lin. Expansion:  $10 \times 10^{-6}$  /°F  
Resistivity:  $10^4$  ohm-cm  
Insertion loss at 8.6GHz:  
CA-10 10 dB/inch  
CA-30 30 dB/inch

#### INSTRUCTIONS FOR USE

1. Prepare mold or cavity to be filled. C-RAM CA will adhere well to almost any substrate; therefore, if adhesion is not desired, mold surfaces must be coated with a release agent such as wax or silicone grease.
2. Kits are supplied as Part A (epoxy resin plus filler) and Part B (hardener plus filler). Stir the contents of both shipping containers thoroughly to disperse any separated filler. It helps to warm the material to 100°F prior to stirring.
3. Measure out the amounts of material required. Combine 70 wt% Part A with 30 wt% Part B. Mix the two parts together thoroughly, preferably using a power mixer. Again, keeping the mixture warm helps.
3. Best results are obtained by degassing the mixture under a vacuum. Pot life at 100°F is approximately 1/2 hour. Pour the mixture into the mold, taking care to avoid trapping air.

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4. Cure the material in an oven at 175°F for 40 minutes followed by 200°F for 20 minutes. For large castings or to achieve minimal shrinkage, cure at room temperature (70°F) overnight followed by a post cure at maximum usage temperature.

C-RAM materials are safe to use, provided care is taken to protect eyes and avoid excessive skin contact and breathing of vapors. Consult the Materials Safety Data Sheet for details.

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