CUMING MICROWAVE

C-RAM KR

RoHS Compliant

TECHNICAL BULLETIN 330-3

IRON FILLED EPOXY CASTING RESIN FOR RF LOADS

C-RAM KR is a series of two-part liquid casting resin kits which can be used to mold waveguide terminations, attenuators, loads, and other RF absorbing parts. When cured into a solid, these parts have the same properties as parts machined from bars or blocks of C-RAM RGD (see Technical Bulletin 330-1). C-RAM KR is available in the same range of iron loadings as C-RAM RGD. In general, best performance is obtained at lower frequencies with high iron loadings, whereas low loadings work best at higher frequencies. Generally C-RAM KR-117 and -124 are the preferred materials below 20 GHz.

TYPICAL PROPERTIES

Cured parts of C-RAM KR have essentially the same properties as the equivalent grade of C-RAM RGD. Please refer to Technical Bulletin 330-1.

Specific Gravity:

KR-124	4.5
KR-117	4.2
KR-116	3.7
KR-114	2.9
KR-112	2.1

METHOD OF APPLICATION

1. Prepare mold or cavity to be filled. Being an epoxy, C-RAM KR will adhere well to many mold surfaces; 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 containers thoroughly to disperse any settled filler. The high to medium loaded materials are quite viscous, it helps to warm the material to 150 ^{o}F prior to stirring.

3. Measure out the amounts of material required. Combine Parts A and B in equal quantities by either weight or volume. Mix the two parts together thoroughly, preferably using a power mixer. Again, keeping the mixture warm helps the homogeneity of the mix.

4. Best results are obtained by degassing the mixture under a vacuum. Pot life at 150 ^{0}F is between one and two hours. Pour the mixture into the mold, taking care to avoid trapping air.

5. Cure the material in an oven at 212 ^{0}F for 8 hours. Allow to cool gradually before removing from mold. For large castings cure at 175 ^{o}F for 10-12 hours followed by 200 ^{0}F for 4 hours.

C-RAM KR is 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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AVAILABILITY

C-RAM KR is available in two-part kits in the following sizes:

3 lb. pint (1.35 kg total weight)
6 lb. quart (2.7 kg total weight)
25 lb. gallon (11.3 kg total weight).

Shelf life is at least 12 months when stored in unopened containers. It may be necessary to power stir the contents as settling may occur.

Completed castings or machined parts are available as C-RAM RGD.