



CUMING MICROWAVE

ROOM TEMPERATURE CURING VERSIONS OF IRON LOADED EPOXIES

RoHS
Compliant

APPLICATION NOTE 300-11

Three C-RAM magnetically filled epoxy resins are available in room temperature curing versions. These include C-RAM 369, C-RAM KFE, and the various grades of C-RAM KR.

While the mechanical properties are not the same as the elevated temperature cure versions, and the upper use temperature is limited to 90 °C, the room temperature cure gives greater utility in many applications.

The dielectric and magnetic properties of the room temperature cure versions are essentially the same as their higher curing analogues.

METHOD OF APPLICATION

1. As epoxy based materials, these products will adhere well to many plastic and metal surfaces. Surfaces should be cleaned and grease-free; primers may be used to enhance adhesion. If release is desired from a surface, it should be coated with wax or a silicone grease.

2. Kits are supplied as Part A (epoxy resin plus filler) and Part B (room temperature hardener—no filler). Stir the contents of Part A before using to redisperse any settled filler.

3. Weigh out and mix the two parts in the weight ratios as given in the table below. Mix thoroughly, preferable using a power mixer.

	<u>Part A</u>	<u>Part B</u>
C-RAM 369-RT	100	3
C-RAM KFE-RT	100	3
C-RAM KR-xxx-RT	100	2.5

4. Best results are obtained by degassing the mixture under a vacuum. Pot life is about 30 minutes; a full cure is obtained in 1-2 hours at room temperature, depending upon the ambient conditions, and the size of the part being cured.

TYPICAL PROPERTIES

All three materials will have the same permittivity and permeability as the corresponding elevated temperature cure system.

Mechanical properties are roughly similar, but the room temperature version will generally not be as strong.

Upper use temperature with the room temperature curing versions is limited to 90 °C (195 °F).

AVAILABILITY

All three materials are available in the same 3 lb. pint, 6 lb. quart, and 25 lb. gallon kits as the respective elevated temperature cure materials.

They are supplied in a two part kit, Part A consisting of the filled epoxy resin, and Part B consisting of the unfilled curing agent.

Specify the material using a “-RT” suffix to the product name, e.g., C-RAM KR-124-RT Pint, or C-RAM KFE-RT Quart.

11/03/11 page 1 of 2

The information in this technical bulletin, although believed to be accurate, is not to be taken as a warranty for which Cuming Microwave assumes legal responsibility, nor as permission or recommendation to practice any patented invention without license. It is offered for verification by the customer, who must make the final judgment of suitability for any application.

11/03/11 page 2 of 2