

ROOM TEMPERATURE CURING VERSIONS OF IRON LOADED EPOXIES

APPLICATION NOTE 300-11

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

While the mechanical properties are not the same as the elevated temperature cure versions, 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

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.

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.

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

	Part A	Part B
C-RAM 369-RT	100	3.5
C-RAM KR-124-RT	100	1.5
C-RAM KR-190-RT	100	1.4
C-RAM KR-114-RT	100	4.3

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.

Compliant

TYPICAL PROPERTIES

All 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 (194 °F).

AVAILABILITY

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

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