

## C-RAM™ KFS

### Lossy magnetic UHF silicone casting resin

#### Description

C-RAM™ KFS is a casting silicone for radar absorbers and loads, primarily for UHF and lower microwave bands.

C-RAM™ KFS is a two-part liquid RTV silicone casting resin system. When cured, it converts to a flexible high temperature silicone rubber.

C-RAM™ KFS will adhere to itself and to most other silicones. It will release well from most other substrates unless an adhesion primer is used.

C-RAM™ KFS is used to mold loads and intricately contoured parts used for attenuation of signals and suppression of standing waves and RF noise, or to provide a lossy RF gasket. Pre-molded sheets of KFS are available as C-RAM™ FDSS.

#### Typical cured properties

Specific gravity:	3.9
Thermal expansion:	35 x 10 <sup>-6</sup> /°F
Thermal conductivity, BTU-in/hr-ft <sup>2</sup> -°F:	4.0
Service temperature range:	-80 to +400°F
Water absorption:	<0.1%
Dielectric strength, volts/mil:	>100
Attenuation:	
1 GHz	15 dB/cm
3 GHz	24 dB/cm
8 GHz	50 dB/cm

#### Mixing and use

Prepare mold or cavity to be filled. C-RAM™ KFS will adhere to most other silicones and release well from most other substrates. If adhesion is desired, use a thin coat of primer. In molding operations where excellent release is required, a wax mold release will be beneficial.

Kits are supplied as Part A (silicone resin plus filler) and Part B (curing agent). Stir the contents of Part A, preferably using a power mixer, to disperse any settled filler.

Measure out the material required, combine parts A and B in the portions listed below.

Mix the two parts thoroughly preferably using a power mixer. Pot life is approximately 1 hour.

Part A (parts by weight): 100  
Part B (parts by weight): 1.4

Best results are obtained by vacuum deairing the mixture. Pour the material into the prepared mold or cavity, taking care not to trap any air.

Cure the material at room temperature overnight, or at 175°F for three hours. At usage temperatures above 250°F a post cure at or above the usage temperature for approximately eight hours is recommended.

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