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## 125-31C

### SYRINGE DISPENSABLE, THERMALLY CONDUCTIVE, EPOXY ADHESIVE

**DESCRIPTION:** 125-31C is a syringe dispensable, 100 % solids, thermally conductive, electrically insulating, pre-catalyzed epoxy adhesive. This system features excellent thermal stability, outstanding chemical resistance and excellent high temperature properties. Unlike conventional thermally conductive epoxy adhesives, 125-31C is flexible and is able to absorb stress when bonding mismatched CTE substrates. Applications include die attachment, printed circuit board fabrication, advanced material composites, LED attachment and heat sink bonding. This is an electrically insulating, thermally conductive version of 124-08C.

#### **PROPERTIES:**

Viscosity (cps)	70,000
Filler	Aluminum Nitride
Percent Filler, cured	>65
Volume Resistivity, max. ( $\Omega$ -cm)	$1 \times 10^{16}$
Dielectric Constant (1KHz)	4.1
Dielectric Constant (1MHz)	3.9
Dissipation Factor (1KHz)	0.027
Dissipation Factor (1MHz)	0.038
Useful Temperature Range ( $^{\circ}$ C)	-55 to +230
Thermal Stability ( $^{\circ}$ C)	Good to 325
Lap Shear Strength (psi)	1800
Glass Transition Temperature, Tg ( $^{\circ}$ C)	120
Coefficient. Of Thermal Expansion, above Tg (in./in./ $^{\circ}$ C)	$44 \times 10^{-6}$
Thermal Conductivity (W/mK)	5.5

**SUGGESTED HANDLING AND CURING INSTRUCTIONS:** Material is ready to use as received. If frozen remove product from freezer and allow material to warm to room temperature before opening container. Best results are obtained when the product is cured at one of the following schedules:

90 mins @ 80 $^{\circ}$ C or  
15 mins @ 120 $^{\circ}$ C or  
5 mins @ 150 $^{\circ}$ C or  
45 secs @ 175 $^{\circ}$ C

**STORAGE:** Shelf life: < 4 days at 25 $^{\circ}$ C; or 6 months at -40 $^{\circ}$ C.

**SAFETY & HANDLING:** Use with adequate ventilation. Keep away from sparks and open flames. Avoid prolonged contact with skin and breathing of vapors. Wash with soap and water to remove from skin.

All technical information is based on data obtained by CMI personnel and is believed to be reliable. No warranty is either expressed or implied with respect to results or possible infringements on patents.

REVISION DATE: 3/3/11 REVISION: A