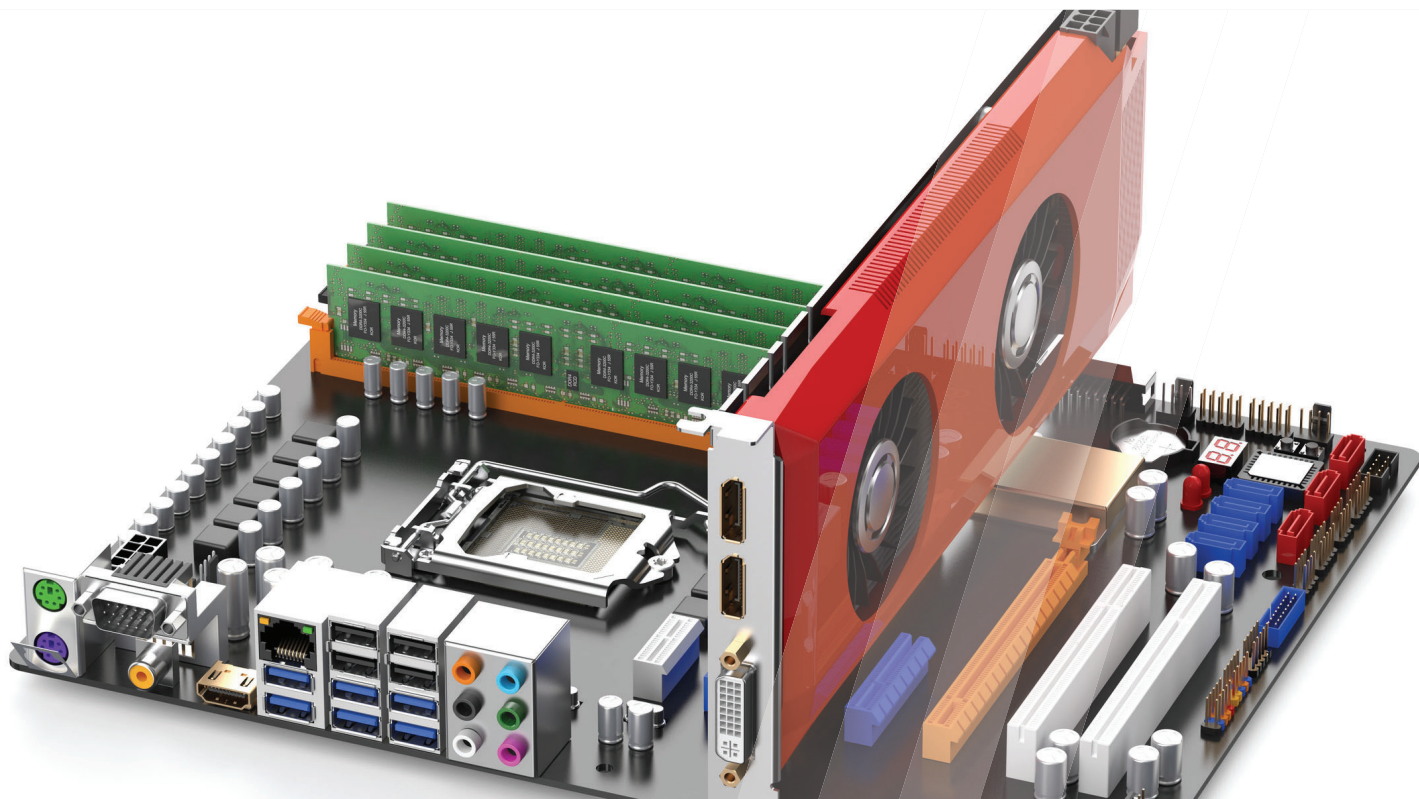




## TECHNICAL BULLETIN #3300 – INSULGEL 70CC FR NS WITH ICURE 11B SEMI-FLEXIBLE, LOW C.T.E., EPOXY COMPOUND, SUPERIOR THERMAL SHOCK RESISTANCE, UL 94 V-0

Revised: 02/2020

### PRODUCT DESCRIPTION

**INSULGEL 70 CC FR NS** is an epoxy compound which exhibits good thermal shock resistance by making use of special filler technology. It provides reduced shrinkage resulting in decreased stress and improved adhesion. In addition, a significant portion of the product is manufactured from environmentally sustainable raw materials.

### PROPERTIES UNCURED

|                                | PART A    | PART B |            |
|--------------------------------|-----------|--------|------------|
| COLOR, VISUAL                  | Black     | Amber  | -          |
| VISCOSITY @ 25°C, cps          | 16,000    | 200    | ASTM D2393 |
| SPECIFIC GRAVITY               | 1.61      | 0.95   | -          |
| MIX RATIO (by wt.)             | 100:5.5-6 |        | -          |
| MIXED VISCOSITY, cps           | 3,500     |        | -          |
| POT LIFE (100 gr) @ 25°C, mins | 120       |        | -          |
| GEL TIME (100 gr) @ 25°C, mins | 330       |        | -          |
| SHELF LIFE @ 25°C, months      | 12        | 12     | -          |



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**PROPERTIES CURED**

| PHYSICAL                             |                     |            |
|--------------------------------------|---------------------|------------|
| HARDNESS, DUROMETER (Shore D)        | 80 +/- 5            | ASTM D2240 |
| TENSILE STRENGTH, psi                | 2,300               | ASTM D638  |
| TENSILE ELONGATION, %                | 30                  | ASTM D638  |
| COEFFICIENT OF THERMAL EXPANSION, °C | 76x10 <sup>-6</sup> | -          |
| THERMAL CONDUCTIVITY, W/m °K         | 0.55                | -          |
| SERVICE TEMPERATURE, °C:             | -55 to 155          | -          |
| GLASS TRANSITION TEMPERATURE, °C     | 10 - 15             | -          |

**ELECTRICAL**

|                                    |                      |           |
|------------------------------------|----------------------|-----------|
| DIELECTRIC STRENGTH, volts/mil     | 425                  | ASTM D149 |
| DIELECTRIC CONSTANT, 1 KHz         | 4.5                  | ASTM D150 |
| DISSIPATION FACTOR, 1 KHz          | 0.38                 | ASTM D150 |
| VOLUME RESISTIVITY, ohm-cm: @25°C  | 7 x 10 <sup>15</sup> | ASTM 257  |
| VOLUME RESISTIVITY, ohm-cm: @100°C | 10 <sup>13</sup>     | ASTM 257  |

**USE INSTRUCTIONS**

1. Premix **INSULGEL 70 CC FR NS** base in original container being certain to re-incorporate any fillers that may have settled during shipment or storage. Due to the nature of the fillers, settling may be difficult to re-mix without the use of mechanical agitation or drum rollers.
2. Weigh out amount of **INSULGEL 70 CC FR NS** required.
3. Weigh out appropriate amount of Insulcure 11B curing agent.
4. Mix both materials thoroughly, being certain to carefully scrape sides and bottom of container to insure homogenous mix.
5. For absolutely void-free casting, evacuate for 5-10 minutes @29" Hg.

**CURE SCHEDULE (100gr.)\***

3 hours @100 deg C.

Post cure for 1 hour @150 deg C.

\*For large masses additional cure time may be required to achieve full hardness.

**STORAGE REQUIREMENTS**

**This product will settle upon shipment or storage.**

**The product should be re-mixed well prior to use.**

**Store material in a cool dry place.**

**IMPORTANT:**

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**HEALTH CAUTION:**

Avoid breathing possible fumes, mists and vapors which can cause severe respiratory damage. Use of NIOSH approved breathing apparatus is required for more than minimal exposure. Always work in areas with adequate ventilation to allow dissipation of polyamine and other chemical fumes, and where applicable, solvent fumes. Use of goggles, protective garments, rubber gloves, protective cream is required. If material gets into eyes, flush thoroughly with clean water for twenty (20) minutes; then seek medical treatment. Avoid skin contact. Material can cause contact dermatitis. Always wash exposed areas immediately, using warm water and soap, followed by rinsing with clean water. Observe all safety precautions. It is important when using solvent based materials or solvents to keep away from open flame or ignition source.

**PLEASE REFER TO MATERIAL SAFETY DATA SHEET FOR FURTHER FIRST AID INFORMATION. FOR CHEMICAL EMERGENCY, CALL CHEMTREC (DAY OR NIGHT) 800 424-9300.**



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