



TECHNICAL BULLETIN #3300 – INSULGEL 70CC FR NS WITH ICURE 11B Revised: 02/2020
SEMI-FLEXIBLE, LOW C.T.E., EPOXY COMPOUND, SUPERIOR THERMAL SHOCK RESISTANCE, UL 94 V-0

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	-

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 ⁻⁶	-
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 ¹⁵	ASTM 257
VOLUME RESISTIVITY, ohm-cm: @100°C	10 ¹³	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.

