



**TECHNICAL BULLETIN #3128 – INSULGEL 50 FC BLACK  
ROOM TEMPERATURE CURING SOFT EPOXY GEL**

Revised: 05/2018

**PRODUCT DESCRIPTION**

**INSULGEL 50 FC Black** is a room temperature curing epoxy gel. It is low in viscosity and does not normally require vacuum de-gassing to assure bubble-free castings.

**PROPERTIES UNCURED**

	PART A	PART B	
COLOR, VISUAL	Black	Amber	-
VISCOSITY, cps	550	300	ASTM D 2393
SPECIFIC GRAVITY	1.05	0.95	-
MIX RATIO, by weight	100:25		-
MIXED VISCOSITY, cps	500		ASTM D 2393
POT LIFE @ 25°C, minutes	10		-
SHELF LIFE @ 25°C, months	12		-

## PROPERTIES CURED

PHYSICAL		
HARDNESS, DUROMETER (Shore A)	50	ASTM D 2240
TENSILE STRENGTH, psi	600	ASTM D 638
TENSILE ELONGATION, %	150	ASTM D 638
COEFFICIENT OF THERMAL EXPANSION, °C	45x10 <sup>-6</sup>	-
THERMAL CONDUCTIVITY, BTU-in/(ft <sup>2</sup> )(hr)(°F):	1.6	-
SERVICE TEMPERATURE, °C:	105	-

## ELECTRICAL

DIELECTRIC STRENGTH, volts/mil	425	ASTM D 149
DIELECTRIC CONSTANT, 1 KHz	3.5	ASTM D 150
DISSIPATION FACTOR, 1 KHz	0.02	ASTM D 150
VOLUME RESISTIVITY, ohm-cm	1x10 <sup>14</sup>	ASTM D 257

## MIXING INSTRUCTIONS

1. Stir both Parts A and B prior to use.
2. Weigh out desired amount of Part A. Weigh into it 25 parts of Part B per 100 parts of Part A. Stir thoroughly, being sure to scrape the sides and bottom of the container.
3. Pour into mold or cavity.

## CURE SCHEDULE

Initial Gel 15-25 mins at room temperature. Shorter turnover times are possible at slightly elevated temperature, with some loss in pot life.  
Full cure @ 25°C - 24 hours.

## 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.**