



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 ⁻⁶	-
THERMAL CONDUCTIVITY, BTU-in/(ft ²)(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 ¹⁴	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:

The following supersedes any provision in your company's forms, letters and papers. ITW PERFORMANCE POLYMERS makes NO WARRANTY, WHETHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE FOR THIS PRODUCT. No statements or recommendations contained in the product literature are to be construed as inducements to infringe any relevant patent, now or thereafter in existence. UNDER NO CIRCUMSTANCES SHALL ITW PERFORMANCE POLYMERS BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES FROM ALLEGED NEGLIGENCE, BREACH OF WARRANTY, STRICT LIABILITY OR ANY OTHER THEORY, ARISING OUT OF THE USE OR HANDLING OF THIS PRODUCT. The sole liability of ITW PERFORMANCE POLYMERS for any claims arising out of the manufacture, use or sale of its products shall be to refund the buyer's purchase price, provided such products have been demonstrated in ITW PERFORMANCE POLYMERS sole opinion, to justify such refund.

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.