



## TECHNICAL BULLETIN #3010 – INSULCAST 125 LOW VISCOSITY EPOXY POTTING/CASTING COMPOUND

Revised: 11/2019

### PRODUCT DESCRIPTION

**INSULCAST 125** is a low viscosity, general purpose potting and casting compound. The low viscosity enables it to be used in potting densely packed modules, thereby insuring good flow and penetration around components. **INSULCAST 125** contains non-abrasive fillers and is suitable for automatic dispensing equipment.

### PROPERTIES UNCURED

	INSULCAST 125	INSULCURE 9	INSULCURE 11B	
COLOR, VISUAL	Black	Amber	Amber	-
VISCOSITY, @ 25°C, cps	7,500	55	700	-
SPECIFIC GRAVITY	1.55	0.97	0.95	ASTM D 1475
MIX RATIO (by weight)	100	:6-7	:9-10	-
MIXED VISCOSITY @ 25°C		3,000	2,500	-
POT LIFE (100 grams), 25°C, min		45	300	-
SHELF LIFE @ 25°C, months	12	12	12	-

**PROPERTIES CURED**

PHYSICAL	INSULCURE 9	INSULCURE 11B	
HARDNESS, DUROMETER (Shore D)	80	85	ASTM D 2240
TENSILE STRENGTH, psi	11,000	11,500	ASTM D 638
TENSILE ELONGATION, %	2.5	2.0	ASTM D 638
FLEXURAL STRENGTH, psi	14.500	15.000	ASTM D 790
COMPRESSIVE STRENGTH, psi	12.500	13.000	ASTM D 695
COEFFICIENT OF THERMAL EXPANSION	48x10 <sup>-6</sup>	48x10 <sup>-6</sup>	-
THERMAL CONDUCTIVITY, BTU-in / (ft <sup>2</sup> ) (hr) (°F)	4.5	4.3	-
HEAT DISTORTION POINT, °C	80	155	-
SERVICE TEMPERATURE, °C	-40 to +105	155	-

**ELECTRICAL**

DIELECTRIC STRENGTH, volts/mil	415	420	ASTM D 147
DIELECTRIC CONSTANT, 1 KHz	4.2	4.2	ASTM D 150
DISSIPATION FACTOR, 1 KHz	0.023	0.02	ASTM D 150
VOLUME RESISTIVITY, ohm-cm	5x10 <sup>14</sup>	9x10 <sup>14</sup>	ASTM D 257

**USE INSTRUCTIONS**  
**MIXING**

1. Stir **INSULCAST 125** thoroughly in its original container until uniform and any settled filler is completely reincorporated.
2. Weigh out required amount of **INSULCAST 125** and weigh in 6-7 parts **INSULCURE 9** per 100 parts of **INSULCAST 125**, or 9-10 parts **INSULCURE 11B** per 100 parts **INSULCAST 125**.
3. Mix thoroughly.
4. De-air (if necessary) at 29 in Hg. for 10 minutes.
5. Pour into mold, module or cavity.

**CURE SCHEDULE**
**INSULCURE 9** - 16 TO 24 HOURS @ 25°C.

**INSULCURE 11B** - 2 hours at 80°C plus 1 hr. at 150°C.

**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.**