



## TECHNICAL BULLETIN #3014 – INSULCAST 136 GENERAL PURPOSE EPOXY CASTING COMPOUND

Revised: 11/2019

### PRODUCT DESCRIPTION

**INSULCAST 136** is an easy to use epoxy casting/potting compound exhibiting excellent adhesion to metals, ceramics and most plastics. When properly cured with **INSULCURE 11B**, **INSULCAST 136** will conform to the requirements of MIL-I-16923, Types B, C & D, and will not support fungus growth.

### PROPERTIES UNCURED

	INSULCAST 136	INSULCURE 9	INSULCURE 11B	
COLOR, VISUAL	Black	Amber	Amber	-
VISCOSITY, cps	80,000	55	700	ASTM D 2393
SPECIFIC GRAVITY	1.59	0.97	0.95	-
MIX RATIO (by wt.)	100	:6-7	:9-10	-
MIXED VISCOSITY, cps		30,000	25,000	ASTM D 2393
POT LIFE, 25°C, min		45	300	-
SHELF LIFE, months	12	12	12	-

**PROPERTIES CURED**

PHYSICAL	INSULCURE 9	INSULCURE 11B	
HARDNESS, DUROMETER (Shore D)	87	89	ASTM D 2240
TENSILE STRENGTH, psi	10,000	10,200	ASTM D 638
TENSILE ELONGATION, %	2-4	2-4	ASTM D 638
COMPRESSIVE STRENGTH, psi	15,000	15,500	ASTM D 695
FLEXURAL STRENGTH, psi	15,500	17,000	ASTM D 790
COEFFICIENT OF THERMAL EXPANSION, °C	40x10 <sup>-6</sup>	40x10 <sup>-6</sup>	-
SHRINKAGE ON CURE, in/in	0.002	0.002	-
THERMAL CONDUCTIVITY, BTU-in/(ft <sup>2</sup> )(hr)(°F)	5	5	-
HEAT DISTORTION POINT, °C	80	155	-
SERVICE TEMPERATURE, °C	-40 to +105	155	-

**ELECTRICAL**

DIELECTRIC STRENGTH, volts/mil	440	440	ASTM D 149
DIELECTRIC CONSTANT, 1 KHz	4.8	4.8	ASTM D 150
DISSIPATION FACTOR, 1 KHz	0.02	0.02	ASTM D 150
VOLUME RESISTIVITY, ohm/cm	5.0x10 <sup>16</sup>	5.0x10 <sup>16</sup>	ASTM D 150

**USE INSTRUCTIONS**

1. Premix **INSULCAST 136** in the original container prior to use to reincorporate any settled filler.
2. Weigh out the required amount of **INSULCAST 136**.
3. Measure out the appropriate amount of curing agent:
4. Mix thoroughly, scraping both sides and bottom of container.
5. Evacuate mixture at 29 in. Hg for 5-10 minutes.
6. Pour into cavity or mold.

**CURING AGENT RATIO CHART**

<b>INSULCURE 9</b>	6-7:100 PARTS
<b>INSULCURE 11B</b>	9-10:100 PARTS

**CURE SCHEDULE**

<b>INSULCURE 9:</b>	16 to 24 hours at room temperature (25°C) or, 1 hour at 65°C
<b>INSULCURE 11B:</b>	2 hours at 100°C
<b>POST CURE:</b>	1 hour 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.**