

INSULCAST LN 1-55 EPOXY

Crack Resistant Epoxy Potting and Encapsulation Compounds



ITW INSULCAST LN 1-55 is a highly crack resistant epoxy compound specifically designed for large transformer potting applications. It displays excellent electrical properties over a wide range of temperatures. INSULCAST LN 1-55 makes use of the latest polymer and filler technology.



Key Product Benefits LN 1-55

- Highly Crack Resistant
- Large Volume Single Pour Capability
- Very Low CTE
- Wide Temp Range (-55°C to 155°C)
- Meets UL 94V-0 Requirements

For samples, technical advice or a distributor near you call:
800.645.7546 or 215.855.8450. www.insulcast.com

INSULCAST[®]
ENCAPSULANTS, POTTING MATERIALS & SILICONE GREASES

Epoxy Transformer Potting Compound

Technical Bulletin # 3106

Product Description

INSULCAST LN 1-55 is a non-cracking epoxy compound that was specifically designed for large transformer potting applications. It displays excellent electrical properties over a wide range of temperatures. **INSULCAST LN 1-55** makes use of the latest polymer and filler technology.

Properties Uncured

	Part A	Part B	
COLOR, VISUAL:	Black	Neutral	
VISCOSITY @ 25°C, cps:	60,000	20,000	ASTM D 2393
VISCOSITY @ 60°C, cps:	10,000	7,000	ASTM D 2393
SPECIFIC GRAVITY:	1.51	1.57	
MIX RATIO (by wt.):	0.64:1		
MIXED VISCOSITY, cps: @ 60°C	10,000		ASTM D 2393
SHELF LIFE @ 25°C, months:	12		
POT LIFE @ 25°C, hours	4-6		

Properties Cured

PHYSICAL		
HARDNESS, DUROMETER (Shore D):	80	ASTM D 2240
COEFFICIENT OF THERMAL EXPANSION, °C:	28 x 10 ⁻⁶	
THERMAL CONDUCTIVITY, BTU-in/(ft ²)(hr)(°F):	4.5	
THERMAL CONDUCTIVITY, W/m °K:	0.648	
GLASS TRANSITION TEMPERATURE (T _g), °C	75 +/- 3	
SERVICE TEMPERATURE, °C:	-55 to +155	
FLAMMABILITY UL 94V0	Passes	

Electrical

DIELECTRIC STRENGTH, volts/mil:	400	ASTM D 149
DIELECTRIC CONSTANT, 1 KHz:	3.0	ASTM D 150
DISSIPATION FACTOR, 1 KHz:	0.01	ASTM D 150
VOLUME RESISTIVITY, ohm-cm:	6 x 10 ¹⁵	ASTM D 257

Use Instructions

1. Pre-heat both components to approximately 60°C, to lower viscosity for ease of mixing.
2. Pre-mix both components in their original containers to insure consistency.
3. Measure out (by weight) 0.64 parts of Insulcast LN 1-55 Part A for every 1 part of Insulcast LN 1-55 Part B.
4. Mix thoroughly, scraping the sides and bottom of container.
5. Evacuate @ 29 in. Hg for void-free casting.
6. Pour into unit or cavity.

Cure Schedule

8 hours @ 60C followed by 2 hours @ 110C

Storage Requirements

This product may settle upon shipment or storage. The product should be re-mixed well prior to use. Store material in a cool dry place.

Date 04/2010

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.