

Technical Bulletin # 3053

Product Description

INSULCAST 3259D is a low viscosity, highly filled epoxy formulation which, in addition to having excellent electrical properties, has excellent thermal conductivity with low thermal expansion. It can be cured at room temperature or at elevated temperatures to give cured properties that meet AIEE Class B requirements.

Properties Uncured

	Part A	Part B	
COLOR, VISUAL:	Black	Amber	
VISCOSITY @ 25°C, cps:	200000	100	ASTM D 2393
SPECIFIC GRAVITY:	1.9	1.2	
MIX RATIO (by wt.):		100:30	
MIXED VISCOSITY, cps:		5000	
POT LIFE (100g.) @ 25°C, hrs:		1-2	
SHELF LIFE @ 25°C, months:		12	

Properties Cured

PHYSICAL

HARDNESS, DUROMETER (Shore D):	90	ASTM D 2240
TENSILE STRENGTH, psi:	8,000	ASTM D 638
TENSILE ELONGATION, %:	1.0	ASTM D 638
COMPRESSIVE STRENGTH, psi:	16,000	ASTM D 790
FLEXURAL STRENGTH, psi:	12,500	ASTM D 790
COEFFICIENT OF THERMAL EXPANSION, °C:	30×10^{-6}	
THERMAL CONDUCTIVITY, BTU-ft/(ft ²)(hr)(°F):	7.2	
THERMAL CONDUCTIVITY, W/m °K:	1.03	
HEAT DISTORTION POINT, °C:	150	
SERVICE TEMPERATURE, °C:	155	

Electrical

DIELECTRIC STRENGTH, volts/mil:	475	ASTM D 149
DIELECTRIC CONSTANT, 1 KHz:	6.5	ASTM D 150
DISSIPATION FACTOR, 1 KHz:	0.02	ASTM D 150
VOLUME RESISTIVITY, ohm-cm:	5×10^{16}	ASTM D 257

Use Instructions

1. Warm **INSULCAST 3259D** to 40°-55°C and stir contents thoroughly, before removing any material.
2. Weigh out the required amount of **INSULCAST 3259D**. Weigh out required amount of curing agent (see mix ratio).
3. Mix thoroughly, being certain to scrape sides and bottom of container.
4. De-air at 29 in. Hg for 10-15 minutes.
5. Pour into mold or cavity.

Cure Schedule

Schedule

2 hours at 100°C plus 2 hours at 125°C.

Date 02/2009

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.

Formerly Norcast 3259D