

Low Viscosity, High Thermal Conductivity, Potting Compound

Technical Bulletin # 3092

Product Description

INSULCAST RTVS 3-95-1 is a low viscosity, thermally conductive RTV silicone compound, UL recognized under file E86165 for flame class 94V-0.

Properties Uncured

	Part A	Part B	
COLOR, VISUAL:	Red	Clear	
VISCOSITY @ 25°C, cps:	15000	1000	ASTM D 2393
SPECIFIC GRAVITY:	2.35	0.96	
MIX RATIO (by wt.):		100:5	
MIXED VISCOSITY, cps:		10000	ASTM D 2393
SHELF LIFE @ 25°C, months:		6	
POT LIFE (100 gr.) @ 25°C, hours:		1.5	

Properties Cured

PHYSICAL

HARDNESS, DUROMETER (Shore A):	65	ASTM D 2240
TENSILE STRENGTH, psi:	475	ASTM D 412
TENSILE ELONGATION, %:	45	ASTM D 412
TEAR STRENGTH, Die B lb/in :	15	ASTM D 624
COEFFICIENT OF THERMAL EXPANSION, °C:	18.0 x 10 ⁻⁵	
THERMAL CONDUCTIVITY, BTU-in/(ft ²)(hr)(°F):	10.0	
THERMAL CONDUCTIVITY, W/m °K:	1.44	
SERVICE TEMPERATURE, °C:	-55 to 260	

Electrical

DIELECTRIC STRENGTH, volts/mil:	500	ASTM D 149
DIELECTRIC CONSTANT, 1 KHz:	5.0	ASTM D 150
DISSIPATION FACTOR, 1 KHz:	0.005	ASTM D 150
VOLUME RESISTIVITY, ohm-cm:	5 x 10 ¹⁴	ASTM D 257

Use Instructions

1. Pre-mix Part A in original container before withdrawing any material.
2. Measure 5 parts of Part B for each 100 parts of Part A.
3. Mix thoroughly, scraping both the bottom and the sides of mixing container.
4. To ensure void-free castings, evacuate at 29" Hg for 3-4 minutes.
5. Pour into unit or mold

Cure Schedule

Overnight at room temperature (24 hours) @25°C,
OR 4 hours at 50°C,
OR 1 hour at 90°C,
OR 15 minutes at 125°C.

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.

Special Notes

Certain materials may inhibit the cure of **RTVS 3-95-1** when placed in contact with the mixed, uncured rubber. Materials such as amines and amine cured epoxies, sulfur containing materials and condensation (tin cured) silicones, are some which may cause inhibition. Even surfaces which have been in contact with such materials may cause it. If in doubt, a patch test should be done.

Date 02/2009

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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.