



**TECHNICAL BULLETIN #3122 – INSULCAST RTVS 27 FC
LOW VISCOSITY RTV SILICONE POTTING/CASTING COMPOUND**

Revised: 05/2018

PRODUCT DESCRIPTION

INSULCAST RTVS 27 FC is a low viscosity UL 94V-0 Flame Retardant, general purpose, reversion resistant RTV Silicone. With the ability to cure rapidly at room temperature, **RTVS 27 FC** combines the virtues of low temperature flexibility, excellent electrical properties, high temperature resistance and easy removal for component replacement or repair.

PROPERTIES UNCURED

| | PART A | PART B | |
|---------------------------------|---------------|----------------|-------------|
| COLOR, VISUAL | Dark Gray | Buff (Neutral) | - |
| VISCOSITY @ 25°C, cps | 3,000 | 2,800 | ASTM D 1084 |
| SPECIFIC GRAVITY | 1.50 | 1.50 | - |
| MIX RATIO (by weight or volume) | 1:1 | | - |
| MIXED VISCOSITY, cps | 2,900 | | ASTM D 1084 |
| SHELF LIFE @ 25°C, months | 12 | | - |
| TACK FREE TIME @ 25C | 30 | | - |
| GEL TIME : @ 25°C, mins | 4 +/- 1 | | - |
| POT LIFE @ 25°C, mins | <5 | | - |

PROPERTIES CURED

| PHYSICAL | | |
|--|-----------------------|-------------|
| HARDNESS, DUROMETER (Shore A) | 60 | ASTM D 2240 |
| TENSILE STRENGTH, psi | 500 | ASTM D 412 |
| TENSILE ELONGATION, % | 135 | ASTM D 412 |
| TEAR STRENGTH, Die B lb/in | 18 | ASTM D 624 |
| COEFFICIENT OF THERMAL EXPANSION, °C | 22.0x10 ⁻⁵ | - |
| GLASS TRANSITION TEMPERATURE (T _g), °C | -52 | - |
| THERMAL CONDUCTIVITY, W/m °K | 0.31 | ASTM D 5470 |
| USEFUL TEMPERATURE RANGE, °C | -55 to +204 | - |

ELECTRICAL

| | | |
|--------------------------------|----------------------|------------|
| DIELECTRIC STRENGTH, volts/mil | 550 | ASTM D 149 |
| DIELECTRIC CONSTANT, 1 KHz | 3.0 | ASTM D 150 |
| DISSIPATION FACTOR, 1 KHz | 0.004 | ASTM D 150 |
| VOLUME RESISTIVITY, ohm-cm | 1.0x10 ¹⁵ | ASTM D 257 |

USE INSTRUCTIONS

1. Premix **RTVS 27 FC** Part A and Part B in original containers before withdrawing any material. Some light, but soft settling will occur which readily re-disperses.
2. Measure equal portions, either weight or volume, of Part A and Part B.
3. Mix thoroughly, scraping both the bottom and the sides of mixing container.
4. Evacuate the mixture at 29 in. Hg for 3-4 minutes for void-free castings.
5. Pour into unit or mold.

CURE SCHEDULE

1 hour @ 25C

STORAGE REQUIREMENTS

Certain materials may inhibit the cure of **RTVS 27 FC** 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.

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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.



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