



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

Revised: 04/2021

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	
COLOUR, VISUAL	Dark Grey	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 @ 25°C, min.	30		-
GEL TIME : @ 25°C, min.	3-5		-
POT LIFE @ 25°C, min.	<5		-

PROPERTIES CURED

PHYSICAL		
HARDNESS, DUROMETER (Shore A)	60	ASTM D 2240
TENSILE STRENGTH, psi / MPa	500 / 3.4	ASTM D 412
TENSILE ELONGATION, %	135	ASTM D 412
TEAR STRENGTH, Die B lb/in / N/mm	18 / 3.15	ASTM D 624
COEFFICIENT OF THERMAL EXPANSION, °C	22x10 ⁻⁵	-
GLASS TRANSITION TEMPERATURE (T _g), °C	-52	-
THERMAL CONDUCTIVITY, W/mK	0.31	ASTM D 5470
USEFUL TEMPERATURE RANGE, °C	-55 to 204	-

ELECTRICAL

DIELECTRIC STRENGTH, volts/mil / V/m	550 / 2.17x10 ⁷	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	1.0 x 10 ¹⁵	ASTM D 257

USE INSTRUCTIONS

1. Premix **RTVS 27 FC** Part A & 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 & B.
3. Mix thoroughly, scraping both the bottom and the sides of mixing container.
4. Deair the mixture at 29 in.Hg (0.98 bar) for 3-4 minutes for void-free castings.
5. Pour into unit or mold.

CURE SCHEDULE

1 hour @ 25°C

STORAGE REQUIREMENTS

Certain materials may inhibit the cure of **RTVS 27 FC** when placed in contact with the mixed, uncured product. Materials such as amines and amine-cured epoxies, sulfur containing materials, and condensation (tin-cured) silicones, are products that may cause inhibition. Even surfaces that have been in contact with such materials may inhibit curing. If in doubt, a patch test should be done.

IMPORTANT:

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HEALTH CAUTION:

Refer to the SDS prior to use. The use of NIOSH or CE approved respiratory protection may be required. Avoid breathing possible fumes, mists and vapors which can cause severe respiratory damage. 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.



ITW PERFORMANCE POLYMERS www.itwperformancepolymers.com / www.itwpp.com

Americas : 130 Commerce Drive | Montgomeryville | PA 18936 | USA | T: 215-855-8450 | customerservice.na@itwpp.com

EMEA: Bay 150, Shannon Industrial Estate, Shannon, County Clare | Ireland | T: +353 61 771 500 | customerservice.shannon@itwpp.com