



TECHNICAL BULLETIN #3078 – RTVS 27 HTC LOW VISCOSITY THERMALLY CONDUCTIVE POTTING COMPOUND

Revised: 04/2021

PRODUCT DESCRIPTION

RTVS 27 HTC is a low viscosity, UL94V-0 certified, reversion resistant silicone compound. The combination of low viscosity and high thermal conductivity makes **RTVS 27 HTC** ideal for potting dense component packages requiring heat dissipation.

PROPERTIES UNCURED

	Part A	Part B	
COLOUR, VISUAL	Dark Grey	White	-
VISCOSITY, cPs	8,000	3,300	ASTM D 1084
SPECIFIC GRAVITY	1.98	1.96	-
MIX RATIO (by weight or volume)	1:1		-
MIXED VISCOSITY, cPs	6,000		ASTM D 1084
POT LIFE @ 25°C, hrs.	1		-
SHELF LIFE @ 25°C, months	12		-

PROPERTIES CURED

PHYSICAL		
HARDNESS, DUROMETER, Shore A	60	ASTM D 2240
TENSILE STRENGTH, psi / MPa	500 / 3.4	ASTM D 412
TENSILE ELONGATION, %	60	ASTM D 412
COEFFICIENT OF THERMAL EXPANSION, m/mK	17.0x10 ⁻⁵	-
THERMAL CONDUCTIVITY, W/mK	1.0	-
FLAMMABILITY UL94V-0	Pass	-
SERVICE TEMPERATURE, °C	-55 to 232	-

ELECTRICAL

DIELECTRIC STRENGTH, volts/mil / V/m	500 / 1.97x10 ⁷	ASTM D 149
DIELECTRIC CONSTANT, 1 kHz	4.0	ASTM D 150
DISSIPATION FACTOR, 1 kHz	0.0075	ASTM D 150
VOLUME RESISTIVITY, ohm-cm	1x10 ¹⁵	ASTM D 257

MIXING INSTRUCTIONS

1. Premix **RTVS 27 HTC** Part A & Part B in original containers before withdrawing any material. Some light, but soft settling will occur which readily redisperses.
2. Measure equal portions either weight or volume of Part A & Part B.
3. Mix thoroughly scraping both the bottom and the sides of mixing container.
4. Evacuate 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

Overnight at room temperature (24 hours at 25 °C);
 or 2 hours at 60°C;
 or 30 min. at 95°C;
 or 15 min. at 120°C

STORAGE REQUIREMENTS

Store at room temperature. 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 27 HTC** 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