



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

Revised: 11/2019

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 the **RTVS 27 HTC** ideal for potting dense component packages requiring heat dissipation.

PROPERTIES UNCURED

	Part A	Part B	
COLOR, VISUAL	Gray	Neutral	-
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, hours	1		-
SHELF LIFE @ 25°C, months	6		-

PROPERTIES CURED

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

ELECTRICAL

DIELECTRIC STRENGTH, volts/mil	500	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 and 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 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

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

IMPORTANT:

The following supersedes any provision in your company's forms, letters and papers. ITW PERFORMANCE POLYMERS makes NO WARRANTY, WHETHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE FOR THIS PRODUCT. No statements or recommendations contained in the product literature are to be construed as inducements to infringe any relevant patent, now or thereafter in existence. UNDER NO CIRCUMSTANCES SHALL ITW PERFORMANCE POLYMERS BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES FROM ALLEGED NEGLIGENCE, BREACH OF WARRANTY, STRICT LIABILITY OR ANY OTHER THEORY, ARISING OUT OF THE USE OR HANDLING OF THIS PRODUCT. The sole liability of ITW PERFORMANCE POLYMERS for any claims arising out of the manufacture, use or sale of its products shall be to refund the buyer's purchase price, provided such products have been demonstrated in ITW PERFORMANCE POLYMERS sole opinion, to justify such refund.

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.