



TECHNICAL BULLETIN #3080 – RTVS 27 LV LOW VISCOSITY, RTV POTTING/CASTING COMPOUND

Revised: 11/2019

PRODUCT DESCRIPTION

RTVS 27 LV is a low viscosity, general purpose, reversion resistant RTV Silicone Compound and finds use in commercial potting/casting applications. **RTVS 27 LV** one-to-one ratio by weight or volume makes it ideal for dispensing equipment or unskilled labor. With the ability to cure rapidly at elevated temperatures, **RTVS 27 LV** can be processed quickly in production situations, and meets the requirements of UL 94V-0.

PROPERTIES UNCURED

| | Part A | Part B | |
|---------------------------------|--------|--------|-------------|
| COLOR, VISUAL | Black | Buff | - |
| VISCOSITY, cps | 1,200 | 1,200 | ASTM D 1084 |
| SPECIFIC GRAVITY | 1.47 | 1.47 | - |
| MIX RATIO (by weight or volume) | 1:1 | | - |
| MIXED VISCOSITY, cps | 1,200 | | ASTM D 1084 |
| POT LIFE @ 25°C, hours | 2 | | - |
| SHELF LIFE @ 25°C, months | 12 | | - |

PROPERTIES CURE

| PHYSICAL | | |
|---|---------------------|-------------|
| HARDNESS, DUROMETER, Shore A | 60 | ASTM D 2240 |
| TENSILE STRENGTH, psi | 500 | ASTM D 412 |
| TENSILE ELONGATION, % | 100 | ASTM D 412 |
| TEAR STRENGTH, Die B lb/in | 15 | ASTM D 624 |
| COEFFICIENT OF THERMAL EXPANSION, °C | 22x10 ⁻⁵ | - |
| LINEAR SHRINKAGE, % | 0.2 | - |
| THERMAL CONDUCTIVITY, BTU-ft/(ft ²)(hr)(°F) | 0.18 | - |
| THERMAL CONDUCTIVITY, BTU-in/(ft ²)(hr)(°F) | 2.16 | - |
| USEFUL TEMPERATURE RANGE, °C | -55 to +204 | - |

ELECTRICAL

| | | |
|--------------------------------|----------------------|------------|
| DIELECTRIC STRENGTH, volts/mil | 500 | ASTM D 149 |
| DIELECTRIC CONSTANT, 1 KHz | 3.4 | ASTM D 150 |
| DISSIPATION FACTOR, 1 KHz | 0.004 | ASTM D 150 |
| VOLUME RESISTIVITY, ohm-cm | 3.0x10 ¹⁴ | ASTM D 257 |

MIXING INSTRUCTIONS

1. Pre-mix **RTVS 27 LV** Parts A and B in original containers before withdrawing any material. Some light but soft settling may occur, which readily re-disperses.
2. Measure equal portions of Parts A and B (by weight or volume).
3. Mix thoroughly.
4. Where absolutely void-free castings are required, evacuate the mixed **RTVS 27 LV** at 29 in. Hg for 3-4 minutes.
5. Pour into unit or mold.

CURE SCHEDULE

Overnight at room temperature (24 hours at 25°C.) **OR**, one (1) hour at 60°C., **OR** 15 minutes at 95°C.

SPECIAL NOTES

Certain materials may inhibit the cure of **RTVS 27 LV** 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:

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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.