

## Low Viscosity RTV Silicone Potting/Casting Compound

Technical Bulletin # 3090

### Product Description

**RTVS 27 NA** is a low viscosity, general purpose, reversion resistant RTV Silicone Compound. **RTVS 27 NA** finds use in commercial potting/casting applications. **RTVS 27 NA's** one-to-one ratio by weight or volume makes it ideal for dispensing equipment or hand mixing. With the ability to cure rapidly at elevated temperatures, **RTVS 27 NA** can be processed quickly in production situations.

### Properties Uncured

	<u>PART A</u>	<u>PART B</u>	
COLOR, VISUAL:	Dark Gray	Buff (Neutral)	
VISCOSITY, cps:	2,500	3,000	ASTM D 1084
SPECIFIC GRAVITY:	1.47	1.47	
MIX RATIO (by weight or volume):		1:1	
MIXED VISCOSITY, cps:		2,700	ASTM D 1084
POT LIFE @ 25°C, hours:		1 – 1.5	
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, %:	135	ASTM D 412
TEAR STRENGTH, Die B lb/in:	18	ASTM D 624
COEFFICIENT OF THERMAL EXPANSION, °C:	22.0 x 10 <sup>-5</sup>	
LINEAR SHRINKAGE, %	0.2	
THERMAL CONDUCTIVITY, BTU-in/(ft <sup>2</sup> )(hr)(°F):	2.5	
SERVICE TEMPERATURE, °C:	-55 to +204	

### Electrical

DIELECTRIC STRENGTH, volts/mil:	450	ASTM D 149
DIELECTRIC CONSTANT, 1 KHz:	3.15	ASTM D 150
DISSIPATION FACTOR, 1 KHz:	0.008	ASTM D 150
VOLUME RESISTIVITY, ohm-cm:	1.0 x 10 <sup>15</sup>	ASTM D 257

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## Mixing Instructions

1. Pre-mix **RTVS 27 NA** 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, scraping both the bottom and the sides of mixing container.
4. Where absolutely void-free castings are required, evacuate the mixed **RTVS 27 LV NA** at 29 in. Hg for 3-4 minutes.
5. Pour into unit or mold.

## Cure Schedule

Overnight at room temperature (12-16 hours at 25°C.), **OR**,  
15 minutes at 95°C.

## Special Notes

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

Date

02/2009

### 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.**