



TECHNICAL BULLETIN #3073 – RTVS 11 GENERAL PURPOSE TWO-PART RTV SILICONE COMPOUND

Revised: 11/2019

PRODUCT DESCRIPTION

RTVS 11 is a low viscosity, multi-purpose compound, designed for use as a potting, encapsulating, sealing and mold making material. Due to its excellent electrical properties, the **RTVS 11** is used extensively as a high voltage potting compound, as well as an encapsulating compound for delicate circuitry. The **RTVS 11** can be used with various curing agents, thus varying pot life, cure time, mix ratios and cure conditions. (See RTVS Catalyst Selector Guide).

PROPERTIES

COLOR	White	
VISCOSITY, cps	12,000	ASTM D 1084
SPECIFIC GRAVITY	1,18	
MIX RATIO	0.1 to 0.5% by weight/CAT 2	
POT LIFE @ 25°C, mins	15 min. to 2 hrs (varies with % of CAT-2)	
SHELF LIFE @ 25°C, months	6	

PROPERTIES CURED

PHYSICAL		
HARDNESS, DUROMETER, Shore A	45	ASTM D 2240
TENSILE STRENGTH, psi	500	ASTM D 412
TENSILE ELONGATION, %	150	ASTM D 412
TEAR STRENGTH, Die B lb/in	20	ASTM D 624
SHRINKAGE, %	0.2-0.5	
COEFFICIENT OF THERMAL EXPANSION	25x10 ⁻⁵	
THERMAL CONDUCTIVITY, BTU-ft/(ft ²)(hr)(°F)	0.18	
THERMAL CONDUCTIVITY, BTU-in/(ft ²)(hr)(°F)	2.16	
SERVICE 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	0.02	ASTM D 150
VOLUME RESISTIVITY, ohm-cm	9x10 ¹⁴	ASTM D 257

MIXING INSTRUCTIONS

1. Weigh out the required amount of RTVS 11.
2. Measure the required amount of catalyst.
See RTVS Catalyst Selector Guide.
3. Mix thoroughly, scraping both the bottom and sides of the mixing container.
4. Evacuate mixture @ 29 in Hg for 3-4 minutes to insure a void-free casting.

CURE SCHEDULE USING 0.3% CAT 2 (DBT)

Overnight at room temperature (24 hours at 25°C).
Faster tack-free surfaces achieved using varied catalysts.

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.