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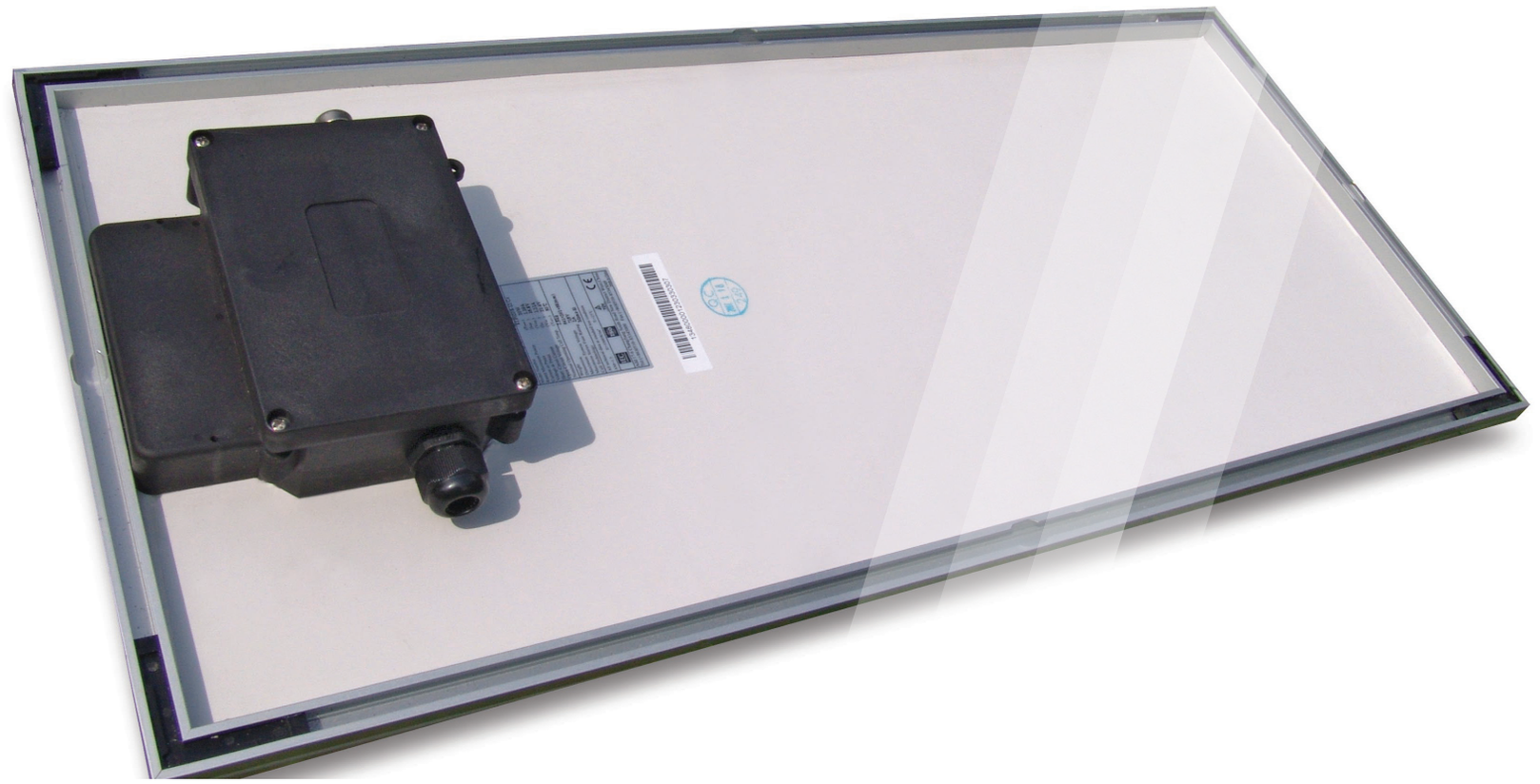

# TECHNICAL BULLETIN #3084 – RTVS 46
# LOW DENSITY RTV SILICONE COMPOUND

Revised: 05/2018

## PRODUCT DESCRIPTION

**RTVS 46** is a pourable RTV Silicone sealing/ potting compound which cures to a flexible syntactic foam. **RTVS 46** finds use in applications involving air-borne or “man-pack” equipment. **RTVS 46** is suggested for use in circuitry requiring low capacitance, low dielectric constant and low dissipation.

## PROPERTIES UNCURED

| | | |
|---|---|---|
| COLOR, VISUAL | White | - |
| VISCOSITY, cps mixed | 40,000 | ASTM D 1084 |
| SPECIFIC GRAVITY | 0.71 | - |
| MIX RATIO (by weight) | 100:5 | - |
| POT LIFE @ 25ºC, minutes | 2-3 | - |
| SHELF LIFE @ 25ºC, months | 6 | - |

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## PROPERTIES CURED

| PHYSICAL | | |
|---|---|---|
| HARDNESS, DUROMETER, Shore A | 30 | ASTM D 2240 |
| TENSILE STRENGTH, psi | 700 min. | ASTM D 412 |
| TENSILE ELONGATION, % | 120 min. | ASTM D 412 |
| WATER ABSORPTION, (24 hrs. @ 25ºC %) | 0.1 | - |
| COEFFICIENT OF THERMAL EXPANSION, ºC | $20x10^{-5}$ | - |
| THERMAL CONDUCTIVITY, BTU-ft/(ft²)(hr)(ºF) | 0.15 | - |
| THERMAL CONDUCTIVITY, BTU-in/(ft²)(hr)(ºF) | 1.8 | - |
| SERVICE TEMPERATURE, ºC | -50 to 204 | - |

## ELECTRICAL

| | | |
|---|---|---|
| DIELECTRIC STRENGTH, volts/mil | 250 | ASTM D 149 |
| DIELECTRIC CONSTANT, 1 KHz | 2.6 | ASTM D 150 |
| DISSIPATION FACTOR, 1 KHz | 0.004 | ASTM D 150 |
| VOLUME RESISTIVITY, ohm-cm | $1.0x10^{14}$ | ASTM D 257 |

## MIXING INSTRUCTIONS

1. Pre-mix **RTVS 46** in its original container to reincorporate any filler that may have separated.
2. Weigh out required amount of RTVS 46.
3. Measure the amount of Catalyst Part B required.
4. Mix thoroughly, scraping the sides and bottom of container.
5. Pour into cavity or mold.

## CURE SCHEDULE

Overnight at room temperature (24 hours at 25ºC).

**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.**

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