



Description

Insulcast® RTVS 27 is a low viscosity UL94 V0 Flame Retardant, general purpose, reversion resistant RTV Silicone. With the ability to cure rapidly at elevated temperatures, RTVS 27 combines the virtues of low temperature flexibility, excellent electrical properties, high temperature resistance, and easy removal for component replacement or repair.

Typical Uncured Properties	Part A	Part B
Color	Dark Gray	Buff (Neutral)
Mix Ratio by Volume	1	1
Mix Ratio by Weight	1	1
Component Density, g/ml	1.50	1.50
Component Viscosity, cP @25°C	3000	2800
Pot Life @25°C, hrs	1 - 1.5	
Shelf Life, Months @25°C	12	

Typical Cured Properties	
Tensile Strength, psi (MPa)	500 (3.5)
Tensile Elongation, %	135
Service Temperature, °C	-55 to 204
Thermal Conductivity (W/mK)	0.31
UL94 Performance	V0
Shore Hardness (A)	60

Typical Cure Schedule

Temperature	25°C (77°F)	60°C (140°F)	120°C (248°F)
Cure Time, hrs	24	4	0.25

Electrical Properties	
Dielectric Strength (V/mm)	500
Dielectric Constant (1 KHz)	3.0
Dissipation Factor (1 KHz)	0.004
Volume Resistivity (Ω*cm)	1.0 x 10 ¹⁵



Mixing Instructions

NOTE: Some light, but soft settling will occur which is readily redispersed. Premix Part A and Part B in original containers before removing any material

1. Measure equal portions (weight or volume) of Part A and Part B
2. Mix thoroughly, scraping both the bottom and the sides of the mixing container
3. Evacuate the mixture at 14.24 psi (29 in. Hg) for 3 to 4 minutes for void-free castings
4. Pour into desired unit or mold

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 Insulcast® RTVS 27 when placed in contact with 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 issues. If in doubt, a patch test should be performed.

**Safety & Handling**

ITW Performance Polymers (ITW PP) recommends users to follow all recommended safe practices for handling its products. Refer to the Safety Data Sheet (SDS) and label for health and safety information before using this product. Also refer to itwpp.com for additional information and other frequently asked questions.

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 goggles, protective garments, rubber gloves, protective cream is suggested. 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. Observe all safety precautions. It is important when using solvent-based materials or solvents to keep away from open flame or ignition sources.

Product Use

Industrial Use Only. Many factors beyond ITW PP control and uniquely within user's knowledge and control can affect the performance of this product in any particular application. Given the variety of factors that can affect use and performance, the end user is solely responsible for evaluating any ITW PP product and determining its suitability and fitness for a particular purpose, product design, production, final application, and end result.

Exclusion of Warranties

The Data stated here are typical values and offered in good faith. Given the variety of factors that can affect the use and performance of an ITW PP product, the end user is responsible for evaluating any ITW PP product and determining whether it is fit for purpose and suitable for user's design, production, and final application.

Unless an additional Warranty is expressly stated, ITW PP warrants that the ITW PP product meets the applicable ITW PP product specification at the time ITW PP Ships the product. As to the herein described materials and test results, there are no warranties which extend beyond the description on the face hereof. ITW PP MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANT ABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. IF THE ITW PP product does not conform to this warranty, then the sole and exclusive remedy is, at ITW PP's option, replacement of the ITW PP product or refund of the purchase price.

Limitation of Liability

Except where prohibited by law, ITW PP shall not otherwise be liable for loss of damages, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including negligence, warranty, or strict liability.



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