



SILICONES
UNLIMITED

SU 5007 RTV Silicone

Product Description

SU 5007 RTV SILICONE ADHESIVE SEALANT

is a non-slump paste-like, neutral curing one part material which has excellent resistance to extreme temperature, moisture, ozone, vibration, and weathering.

FEATURES

- One-part **non-corrosive** oxime cure silicone rubber sealant.
- Can be applied at temperatures from -35 F (-37 C) to 140 F (60 C).
- Will not crack or become brittle with age.
- Excellent adhesion to glass, most types of wood, metal ceramics, porcelain, silicone rubber, synthetic rubbers and many plastics.
- Excellent silicone for masonry products.
- Available colors: gray, clear, black, white, and bronze. Color matches available.

APPLICATIONS

- Sealant and adhesive for many automotive applications.
- Seal assemblies, conduits, electrical connectors, motors, control boxes, and housings.
- Sealing appliance parts.
- Adhere plastic liners to metal.
- An Aluminum and vinyl window frame sealant
- Seal expansion joints, capable of taking +/- 50% joint movements.
- Offers oil resistance for use in gear boxes, engines, pumps and flanges. NOT for use with gasoline.
- Bonding and sealing applications where oil and other oil based fluids are used.

APPLICABLE STANDARDS

- Su 5007 RTV Silicone Adhesive Sealant meets or exceeds the requirements of the following specifications:
- TT-S-001543A (COM-NBS) Class A-Federal Specifications for Silicone Building Sealants.
- TT-S-00230C (COM-NBS) Class A, Non-Sag-Federal Specifications for One-Component Silicone Sealants.

APPLICABLE STANDARDS CONTINUED

- ASTM C 920 Type S., Grade NS Class 25, Use NT, M, G, and A.
- GSA (C.I.D.) No. A-A-1556 Type S, Grade NS, Class 40, Use NT, M, G, and A.
- Canadian Specification CAN2-19.13-M82.

TYPICAL PROPERTIES

UNCURED

Curing Time @ 77F and 50% RH
(1/8-inch thickness) Hrs.....24
Flow, Sag or Slump (TT-S-001543).....Nil

CURED

Hardness (Shore A)....ASTM D-2240.....28
Tack Free Time @ 77 F and 50%
relative humidity, minutes.....20-30
Tensile Strength...psi...ASTM D-412.....150
Elongation..percent.....ASTM D-412.....500
Tear Strength (Die B)....
lbs/ inch....ASTM D-624.....30
UV Resistance....ASTM C-793.....Excellent
Temp. Range..... -80F (-62C) to 400F (205 C)

AS CURED-ELECTRICAL

Dielectric Strength, volts per mil..
ASTM D 149.....400
Volume Resistivity, ohm-cm....
ASTM D 257.....1.05 x 10¹⁵
Dielectric Constant at 77F (25C) ASTM D 150
100Hz.....3.64
100KHz.....3.50
Dissipation Factor at 77°F(25°C) ASTM D 150
100Hz 0.005
100Hz 0.0045

**Values given are not intended for preparing specific specifications.

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Directions for Use

SURFACE PREPARATIONS

SU 5007 RTV Silicone Adhesive Sealant will bond to many clean surfaces without the aid of a primer. A sample test evaluation should be made to determine the bond strength for each specific application. For difficult to bond substrates, use of a primer is recommended with this product. Primers must be applied according to manufacturer's printed instruction. Priming is not usually required on glass, coated glass, aluminum, most plastics, and steel.

All surfaces should be thoroughly cleaned with a suitable solvent such as naphtha, methyl ethyl ketone (MEK) or 1,1,1, trichloroethane to remove all foreign matter and contaminants such as oil, dust, grease, water, dirt, old sealants, and any protective coating. Detergent or soap and water cleaning treatments are not recommended. In all cases where solvents are used, solvents shall be applied with one clean cloth or lintless paper towel and the solvent wiped clean with a second cloth or towel before applying the adhesive sealant. Cleaning solvents should not be allowed to air dry or evaporate without wiping. Cleaning of all surfaces should be done on the same day in which the sealant is applied.

When solvents are used, proper safety precautions must be observed. All solvents must be considered toxic and must be used only in well ventilated areas. Exposure to high vapor concentration must be avoided. Where flammable solvents are used, storage, mixing, and use must be in areas away from heat, sparks, open flames, or other sources of ignition. Follow the solvent manufacturer's safety procedures when using solvents.

APPLICATION AND CURING

SU 5007 RTV Silicone Adhesive Sealant will skin over in approximately 30 minutes. All tooling should be completed within 20 minutes of application. Also, because of the cure process, thickness' over 1/4 inch should be avoided. If tape is used for masking, it should be removed within 10 minutes prior to the formation of the tack free skin.

High temperatures and high humidity will accelerate the cure process; low temperatures and low humidity will conversely slow the cure rate.

SURFACE LIMITATIONS

SU 5007 RTV Silicone Adhesive Sealant should not be applied to the following surfaces: materials that bleed oils, plasticizer, or solvents-materials such as impregnated wood, oil based caulks, green or partially vulcanized rubber gaskets or tapes. To surfaces in direct contact with food since this sealant has not been tested to determine its status under FDA regulations. For applications involving food contact, Silicones Unlimited SU 5005 RTV is recommended.

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SU 5007 RTV is not recommended for the following: 1) sealing horizontal joints where abrasion or physical abuse is encountered 2) for continuous immersion in water or in below-grade applications. 3) in totally confined or air free space 4) on surfaces that will be painted (apply after the painting is completed) 5) with wet tooling techniques using solvents, water or detergent/ soap solutions 6) or to surfaces with special protective coatings without prior consultation of Silicones Unlimited such as surfaces that include but are not limited to mirrors, reflective glass, or surfaces coated with Teflon, Polyethylene, or Polypropylene.

CLEAN UP AND REMOVAL

Before curing, solvent systems such as naphtha, methyl ethyl ketone (MEK) or 1, 1, 1, trichloroethane are most effective. Refer to solvent use warnings in the section on surface preparation.

After cure, selected chemical strippers which will remove the silicone rubber are available from other manufacturers. Specific product information may be obtained on request.

STORAGE AND SHELF LIFE

When stored in original unopened containers at or below 90 F (32C), SU 5007 RTV Silicone Adhesive Sealant has a shelf life of 6 months from date of shipment. Containers should always be kept sealed when not in use. After a container has been opened, a plug of cured material may form in the nozzle of tube tip during storage. When ready to reuse, unscrew nozzle and remove cured plug. Remaining sealant is ready to use.

CAUTION

KEEP OUT OF THE REACH OF CHILDREN. Vapors should not be inhaled for long periods of time or in high concentration. Work areas should be well ventilated. CONTACT OF UNCURED PRODUCT WITH EYES MUST BE AVOIDED AS THIS WOULD CAUSE SEVERE EYE IRRITATIONS. Contact lens wearers avoid handling contact lenses with contaminated hands. Do not handle lenses until all sealant has been cleansed from the fingertips, cuticles, and nails. Residual sealant may remain on fingers for several days and transfer to lenses and cause severe eye irritation. IN CASE OF EYE CONTACT, FLUSH IMMEDIATELY WITH WATER FOR 15 MINUTES. Get medical attention. IN CASE OF SKIN CONTACT, wipe off and flush with water. Prolonged contact with uncured sealant may cause skin irritation. Get medical attention if irritation occurs. May injure if swallowed. Remove uncured sealant from clothing by washing with soap and water. SU 5007 RTV is manufactured for industrial use only.

To safely use this product, read and abide by the current material safety data sheet.

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Limited Warranty

LIMITED WARRANTY

The information and data herein are believed to be accurate and reliable; however, it is the user's responsibility to determine suitability of use. Silicones Unlimited makes no warranties concerning the fitness or suitability of its product for a particular use or purpose. Silicones Unlimited warrants that the delivered product complies with the chemical and physical specifications designated by the Company and no other warranty is expressed or implied, whether with respect to recommendations, instructions or product. Silicones Unlimited liability shall not in any case exceed the purchase price of the product and upon the expiration of the warranty period specified herein, all such liability shall terminate. The warranty period expires 6 months from the date of shipment from silicones Unlimited. Silicones Unlimited will not be liable for incidental or consequential damages of any kind. Suggestions of uses should not be taken as inducements to infringe any patents.

Since Silicones Unlimited cannot know all of the uses to which its products may be put or the conditions of use, it makes no warranties concerning the fitness or suitability of its products for a particular use or purpose.

You should thoroughly test any proposed use of our products and independently conclude satisfactory performance in your application. Likewise, if the manner in which our products are used requires governmental approval or clearance, you must obtain it.