

RTV530LV

Description

RTV530LV is a two-component, room temperature cure silicone adhesive that features fast tack free time, primerless adhesion to multiple substrates with extreme low temperature stability. This white material has a thick paste-consistency making it ideal for horizontal, vertical and overhead applications without sag. Every batch of RTV530LV meets or exceeds the stringent low outgassing requirements of the ASTM E-595 standard. RTV530LV is supplied in side-by-side cartridges or pail kits. Simply mix the base compound with the curing agent to form a tough, flexible silicone elastomeric rubber.

Key Features and Benefits

- Fast cure time at room temperature, no heat required
- Primerless adhesion to multiple substrates
- Rapid green strength build
- RTV530LV meets or exceeds ASTM E595 standard for low outgassing
- Non-sag paste
- Easy dispensability in convenient 10:1 mix ratio by volume
- Temperature ranges from -115°C (-175°F) up to 150°C (302°F)

Typical Physical Properties

Uncured Properties	NEW! RTV530A-LV	NEW! RTV530B-LV
Consistency	Paste	Paste
Color	White	White
Application Rate (g/min)	219	1080
Viscosity – RVF #7 @ 2rpm (cps)	820,000	-
Specific Gravity	1.39	1.20
TYPICAL CURED PROPERTIES		
Mix Ratio by volume	10:1	
Work Time @ 25°C (77°F), mins	10	
Cure Time @ 25°C (77°F), hours^	24	
Mechanical:		
Tensile Strength, kg/cm ² (lb/in ²)	347	
Elongation (%)	169	
Hardness, Shore A	49	
Tear Strength, kg/cm (lb/in)		
Shrinkage, %		
Electrical:		
Dielectric Strength, Kv/mm (v/mil) (1.9 mm thick)		

Dielectric Constant @ 1000 Hz	
Dissipation Factor @ 1000 Hz	
Volume Resistivity, ohm-cm	
Thermal:	
Useful Temperature Range, °C (°F)	115°C (-175°F) up to 150°C (302°F)
Coefficient of Expansion, cm/cm, °C (in/in, °F)	2.95 x 10 ⁻⁴ (1.64 x 10 ⁻⁴)
Thermal Conductivity, W/mK	0.4
Specific Heat, cal/gm, °C	

^ Full Cure is recommended for 7 days at 25C/50%RH

Processing Recommendations

Mixing

RTV530LV is supplied in pre-weighed side-by-side cartridges allowing immediate use of the product without the need of manual or mechanical mixing. Dispensing instructions should be properly followed to ensure optimal properties and cure times are achieved.

RTV530LV is also supplied in larger packaging sizes. For these options, select a mixing container 4 to 5 times larger than the volume of RTV silicone rubber compound to be used. Weigh out the RTV silicone rubber base compound and add the appropriate amount of curing agent. 10:1 ratio by volume will provide a work time or pot life of 0.5 hours and a cure time of 1 hour.

Using clean tools, thoroughly mix the RTV base compound and the curing agent, scraping the sides and bottom of the container carefully to produce a homogeneous mixture. When using power mixers, avoid excessive speeds which could entrap large amounts of air or cause overheating of the mixture, resulting in shorter pot life.

Deaeration

Air entrapped during mixing should be removed to eliminate voids in the cured product. Expose the mixed material to a vacuum of 29 inches of mercury minimum (absolute pressure of 25mm). The material will expand, crest, and recede to about the original level as the bubbles break. Degassing is usually complete about two minutes after frothing ceases. When using the RTV silicone rubber compound for potting, a deaeration step may be necessary after pouring to avoid capturing air in complex assemblies.

Compatibility

SnapSil RTV530LV A/B adhesive will cure in contact with most clean and dry surfaces. Compatibility tests should be performed on all materials in contact with the uncured silicone, including painted surfaces.

Surface Preparation

The adhesive performance of any polymer system is highly dependent upon proper surface preparation. In order to maximize the adhesion of the RTV530LV A/B adhesive, all parts should be as clean and dry as possible prior to the application of the silicone.

Adhesion Performance

RTV530LV A/B adhesive provides primerless adhesion to a wide variety of substrates. Lap shear testing with the following substrates reveals 100% cohesive failure.

Glass
Fiberglass
Formica
Cold Rolled Steel

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Stainless Steel
Galvanized Steel
Carbon Steel
Aluminum
2024-T3 Anodized and Alclad
2024-T4 Alclad
Mill Finish 3003
3003-H14 Bare
PVC
Cycloy† MC8100 resin
Lexan† 141 resin
Lexan EXL9330 resin
Noryl† HNA055 resin
Ultem† 1000 resin
Valox† 325 resin
Xenoy† 5220U resin

Xylex† X8300HP resin

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Patent Status

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Product Safety, Handling and Storage

Customers should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at www.momentive.com or, upon request, from any Momentive representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with Momentive products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

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