

SILTRUST™ RTV534-LV Low Outgassing Adhesive

Product Description

SILTRUST RTV534-LV is a two-component, room temperature cure silicone adhesive that features rapid tack free time, primerless adhesion to many substrates, and extreme low temperature stability. This white RTV has a thick paste consistency making it an excellent candidate for horizontal, vertical and overhead applications with low sag. SILTRUST RTV534-LV meets ASTM E595 levels of low outgassing. RTV534-LV is supplied in easy to use side-by-side cartridges or pail kits for meter mixing.

Key Features and Typical Benefits

- Cures at room temperature, no heat required
- Primerless adhesion to many substrates
- Non-sag paste
- Easy dispensability in convenient 10:1 mix ratio by volume
- Low temperature stability, down to -115°C (-175°F)
- Provides ASTM E595 low outgassing characteristics in a high vacuum and high temperature environment

Typical Physical Properties

Uncured Properties	RTV534-LV (A)	RTV534-LV (B)
Appearance/Color	White	White
Consistency	Paste	Paste
Specific Gravity	1.39	1.10
Mix Ratio by Volume with Catalyst (Part A : Part B)	10:1	
Typical Cured Properties	Cured 7 days at 23°C (73°F) and 50% relative humidity unless otherwise noted	
Work Life, at 23°C (74°F) and 50% RH, hours	1.1	
Cured Specific Gravity	1.36	
Shore A Hardness	41	
Tensile Strength, psi (MPa)	295 (2.0)	
Tensile Elongation, %	185	
Lap Shear Strength ‡, psi (MPa)	146 (1.0)	
Coefficient of Thermal Expansion †, µm/m/°C	309	
Thermal Conductivity †, W/mK	0.34	
Outgassing-Total Mass Loss †, %	0.5	
Outgassing-Collected Volatile Condensable Materials †, %	0.04	

Typical properties are average data and are not to be used as or to develop product specifications.

†: Cured 7 days at 25°C (77°F) and 50% relative humidity

‡: Glass and alclad 2024-T4 Aluminum substrates

‡: when tested using ASTM E595 conditions

Mixing

RTV534-LV 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.

RTV534-LV 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 1-1.5 hours.

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 increasing vacuum levels, increasing up to 29 inches of mercury, if possible. 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.

Curing

RTV534-LV adhesive is designed have a work life of approximately 1 hour and to cure through in 24 hours at room temperature (77 °F/25 °C) and 50% relative humidity. This system is sensitive to changes in heat and humidity and therefore variations in cure speed may be seen if one or both variables are changed.

Compatibility

RTV534-LV 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 RTV534-LV adhesive, all parts should be as clean and dry as possible prior to the application of the silicone.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement, or recommendation to practice any invention covered by any patent without authority from the owner of the patent.

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 MPM 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 MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular application(s).

Contact Information

Email

commercial.services@momentive.com

Telephone

Americas	Latin America	EMEAI- Europe, Middle East, Africa & India	ASIA PACIFIC
+1 800 295 2392	Brazil	Europe	China
Toll free*	+55 11 4534 9650	+390510924300	800 820 0202
+704 805 6946	Direct Number	Direct number	Toll free
Direct Number			+86 21 3860 4892
			Direct number
*All American countries	Mexico	India, Middle East & Africa	Japan
	+52 55 2169 7670	+ 91 44 71212207	Email
	Direct Number	Direct number*	Sales-JP.Silicones@momentive.com

***All Middle Eastern countries, Africa, India, Pakistan, Bangladesh, Sri Lanka.**

Korea
+82 2 6201 4600
Direct number

South East Asia, Australia & New Zealand
+60 3 8309 8088
Direct number*

***South East Asia countries (Malaysia, Singapore, Thailand, Indonesia, Vietnam, Philippines, Cambodia, Myanmar / other countries located in Pacific region).**

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2750 Balltown Road,
Niskayuna
NY 12309 USA
momentive.com

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