

RTV566

Description

RTV566 silicone rubber compound is a two-part product processed and tested for applications where low outgassing is required. RTV566A base compound is supplied ready to use with RTV566B curing agent.

Key Features and Benefits

- Provides low outgassing characteristics in a high vacuum environment
- Room temperature cure
- Excellent release properties
- Excellent adhesion capability with primer
- Retains elastomeric properties from -115°C (-175°F) up to 260°C (500°F) continuously and up to 316°C (600°F) for short periods of time

Typical Physical Properties

TYPICAL UNCURED PROPERTIES

	RTV566A	RTV566B
Color	Red	Yellow Brown
Viscosity, cps	42,700	N/A
Specific Gravity	1.49	1.15

TYPICAL CATALYZED PROPERTIES

(Mixture by weight of 100 parts RTV566A and 0.1 part RTV566B)

	RTV566
Application Rate, gm/min (45 minutes after mixing) (0.125 in. orifice @ 90 psi)	180
Work Life, Hrs.	1.5
Tack Free Time, Hrs.	2.2

TYPICAL CURED PROPERTIES
(Cured 7 days @ 25°C (77°F) and 50% R.H.)

	RTV566
Hardness, Shore A Durometer	61
Tensile Strength, kg/cm ² (psi)	56 (800)
Elongation, %	120
Lap Shear Strength, kg/cm ² (psi) (on primed Al)	33 (465)
Volatile Condensable Material %*	0.02
Total Weight Loss %*	0.14

* ASTM E595 Standard Test Method.

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.

Processing Recommendations

Mixing

Select a mixing container 4 to 5 times larger than the volume of RTV silicone rubber compound to be used. Weigh out the RTV566A base compound and add the appropriate amount of RTV566B curing agent. The most commonly used amount of curing agent is 0.1% by weight (0.087 ml curing agent per 100 gm base compound). When measuring and dispensing small amounts of curing agent, the use of a microsyringe is recommended for accuracy.

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 25 mm (29 inches) of mercury minimum. 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 RTV566 for potting, deaeration may be necessary after pouring to avoid capturing air in complex assemblies.

Curing

RTV566 silicone rubber compound, when properly mixed, will cure sufficiently in 24 hours at 25°C (77°F) and 50% relative humidity to allow gentle handling. For best results, especially with regard to outgassing and adhesion, cure for seven days at 25°C (77°F) and 50% relative humidity.

If this RTV silicone rubber compound is to be used at temperatures over 150°C

(302°F), the cured product should be properly conditioned prior to service. Following full room temperature cure, a typical conditioning program would be eight hours at 100°C (212°F) and an additional eight hours at each 28°C (80°F) interval to the desired service temperature. Longer times at each temperature will be required for larger parts or very deep sections.

Bonding

If adhesion is an important application requirement, RTV566 silicone rubber compound requires a primer to bond to non-silicone surfaces. Thoroughly clean the substrate with a non-oily solvent such as naphtha or methyl ethyl ketone (MEK) and let dry. Then apply a uniform thin film of Momentive Performance Materials SS4155 silicone primer and allow the primer to air dry for one hour or more (a uniform chalky white haze should be visible). Finally, apply freshly catalyzed RTV silicone rubber to the primed surface and cure as recommended above. For more details on priming and adhesion, refer to Momentive Performance Materials datasheet on RTV primers.

Limitations

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

Contact Information

For product prices, availability, or order placement, contact our customer service at [Momentive.com/CustomerService/](https://www.momentive.com/CustomerService/)

For literature and technical assistance, visit our website at: www.momentive.com

DISCLAIMER:

THE MATERIALS, PRODUCTS AND SERVICES OF MOMENTIVE PERFORMANCE MATERIALS INC. AND ITS SUBSIDIARIES AND AFFILIATES (COLLECTIVELY “SUPPLIER”), ARE SOLD SUBJECT TO SUPPLIER’S STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR

OTHER SALES AGREEMENT, PRINTED ON THE BACK OF ORDER ACKNOWLEDGMENTS AND INVOICES, AND AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SUPPLIER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING ITS PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS OR ADVICE. EXCEPT AS PROVIDED IN SUPPLIER'S STANDARD CONDITIONS OF SALE, SUPPLIER AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS OR SERVICES DESCRIBED HEREIN. Each user bears full responsibility for making its own determination as to the suitability of Supplier's materials, services, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating Supplier's products, materials, or services will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of Supplier's standard Conditions of Sale or this Disclaimer, unless any such modification is specifically agreed to in a writing signed by Supplier. No statement contained herein concerning a possible or suggested use of any material, product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Supplier covering such use or design, or as a recommendation for the use of such material, product, service or design in the infringement of any patent or other intellectual property right.

Momentive and the Momentive logo are trademarks of Momentive Performance Materials Inc.