

Our Momentive RTV 100 Series Silicone is a collection of a few different colours of silicone that all share the same outstanding properties and characteristics. These include RTV 102 (white), RTV 103 (black), RTV 108 (translucent) and RTV 109 (aluminium).

No matter the colour, all RTV 100 Series Silicones are one-component silicones that cure at room temperature. They have a pasty consistency which makes them ideal for jobs that require application to vertical or overhead surfaces or extremely accurate dosing.

RTV 100 Silicones work well with most types of surfaces including metal, stone, ceramic, glass and silicone rubber. Though they can be used to bond many plastics and some rubbers, care should be taken if using them with sensitive plastic surfaces as the acetic cure nature of these silicones may damage certain grades of plastic.

The different colours of RTV 100 Series Silicone all have good self-adhesion properties and temperature resistance. Once cured, they will withstand environments between -60°C and +205°C and won't become brittle at lower temperatures. They also exhibit excellent weatherability, ozone and chemical resistance and very good dielectric properties.

Momentive RTV 100 Silicone (formerly known as GE RTV 100 Silicone) is a high quality, professional-grade product that has been approved or recognised by a number of certifying bodies. These include the FDA 21 CFR 177.2600, USDA, NSF International Std. No. 51 and UL File No. 36952.



[View This Product](#)

**Colours of Momentive RTV 100 Series Silicone and Corresponding Grade Number**

Grade	Colour
RTV 102 Series	White
RTV 103 Series	Black
RTV 108 Series	Transparent
RTV 109 Series	Aluminium Grey

**Applications**

- General Purpose Bonding.
- Sealing Work.
- Making formed-in-place silicone gaskets.
- Sealing and bonding on vertical surfaces or overhead.
- Sealing windows and doors.
- Renovations and DIY work.
- Pump sealing.
- Making gearbox and automotive gaskets.
- Sealing and insulating appliances and electronics.

**Important**

The values listed here and the information presented should not be treated as a substitute for specific technical advice. We cannot warrant the products performance or suitability for particular applications.

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**Technical Details**

Consistency / Viscosity	Paste
Application Rate	400 grams / minute
Specific Gravity	1.05
Tack-Free Time	20 Minutes
Tensile Strength <sup>1</sup>	28 kg/cm <sup>2</sup>
Elongation	450%
Hardness	30 Shore A
Tear Strength	8 kg/cm
Shear Strength <sup>2</sup>	14 kg/cm <sup>2</sup>
Peel Strength	7 kg/cm
<b>Electrical Properties</b>	
Dielectric Strength	20 kv/mm
Dielectric Constant @ 60 Hz	2.8
Dissipation Factor @ 60 Hz	0.001
Volume Resistivity	3x10 <sup>15</sup> ohm-cm
<b>Thermal Properties<sup>3</sup></b>	
Brittle Point	-60°C
Maximum Continuous Operating Temperature	204°C
Maximum Short-Term Operating Temperature	260°C
<b>Additional Information<sup>3</sup></b>	
Linear Shrinkage	1%
Thermal Conductivity	0.0005 cal/sec/cm <sup>2</sup>

All values measured after 3 days cure at 25°C with 50% relative humidity.

(1) At 100% cohesive failure.

(2) At 100% cohesive failure using a 1" x 8" stainless steel screen at 180° pull angle.

(3) Information is provided for convenience only. These properties are not tested on a routine basis.

**Please Note**

These silicones were not designed for and should not be used for applications intended for permanent implantation into the human body. These silicones are not for use in delicate electrical and electronic applications in which the corrosion of copper, brass or other sensitive metals is undesirable.

**Specifications**

*FDA*

RTV 102, RTV 103, RTV 108 and RTV 109 sealants can be used in food contact applications where FDA regulations apply.

*USDA*

RTV 102, RTV 103, RTV 108 and RTV109 sealants may be used on equipment which may contact edible products in official establishments operating under the Federal meat and poultry products inspection program. See USDA letter of Authorization.

*NSF International Status*

NSF lists RTV 102, RTV 103, RTV 108 and RTV109 sealants under NSF International Standard No. 51 (Plastic Materials and Components for Use in Food Equipment), as satisfactory for use on food contact surfaces.

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### *UL Status*

RTV 102, RTV 103, RTV 108 and RTV109 silicone rubber adhesive sealants are recognized by Underwriters Laboratories, Inc., under their Component Recognition Program (UL File No. E-36952).

### Military Specification

MIL-A-46106

Group 1 – Type 1 – General Purpose Paste: RTV 102, RTV 103, RTV 108 and RTV109.

*Testing for referenced MIL Spec is performed in accordance with current Momentive Performance Materials quality test methods, laboratory conditions, and procedures, frequency and sampling, which are not necessarily identical with the methods, conditions, procedures, frequency and sampling stated or referenced in the listed specification. Any certification will be limited to listed properties and will not imply or state conformity to any other aspect of the referenced specification, including but not limited to marking, packaging, bar coding, testing, or sampling. Contact Momentive Performance Materials for a comparison review.*

### **Surface Preparation**

Surfaces must be clean, dry and free of dirt, grease, oil, rust and water. Do not use soap or detergent for this.

All RTV 100 Series Silicones (RTV 102, RTV 103, RTV 108 and RTV 109) will bond to many clean surfaces without the aid of primers. These surfaces typically include many metals, glass, ceramic, silicone rubber and some rigid plastics.

These adhesive sealant products will also produce fair bonds to organic rubber and to some flexible plastics not containing fugitive plasticizers (which migrate to the surface, impairing adhesion). An evaluation should be made to determine bond strength for each specific application. For difficult-to-bond substrates, use of a primer is suggested. Primers

### **Application Time and Cure Cycle**

Cut nozzle at 45° angle to desired bead width and apply to substrate with a caulking gun.

These silicones may be applied directly to clean or primed substrates. Where broad surfaces are to be mated, the sealant should be applied in a thin, less than 6mm (1/4 in.) diameter, bead or ribbon around the edge of the surface to be bonded.

Higher temperatures and humidity will accelerate the cure process low temperatures and low humidity will slow the cure rate. As the adhesive sealant cures, acetic acid vapours are released from the sealant surface. The odour of acetic acid will completely disappear when curing is completed.

A 3mm (1/8 in.) section of adhesive sealant will cure through in approximately 24 hours at 25°C (77°F) and 50% R.H. Since cure time increases with thickness, use of these adhesive sealants should be limited to section thicknesses of 6mm (1/4 in.) or less.

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In addition to the effects of temperature and relative humidity, development of maximum bond strength will depend on joint configuration, degree of confinement, sealant thickness and substrate porosity. Normally, sufficient bond strength will develop in 12 to 24 hours to permit handling of parts. Minimum stress should be applied to the bonded joint until full adhesive strength is developed. Eventually the adhesive strength of the bond will exceed the cohesive strength of the silicone rubber sealant itself. Always allow maximum cure time available for best results.

#### *Health and Safety*

This product will emit acetic acid while curing. Use only in well ventilated areas and avoid breathing in vapour. Avoid contact with skin, eyes and mouth. Please do consult the associated Safety Data Sheet before use for further information and instruction.

#### **Limitations**

Contractors Silicone is not recommended for use with concrete, marble, galvanised steel, lead surfaces or for fixing mirrors without the manufacturers approval. Do not use on submerged joints where porous substrates permit water to the bond interface. Do not use for aquarium manufacturing. This grade cannot be painted as paint will not adhere to it. If using with laminated glass or certain grades of rubber, care should be taken to ensure that bleeding of the plasticiser will not occur.

#### **Shelf Life**

Minimum shelf life is 12 months if stored in a cool dry place. Storage temperature should not exceed 25°C as this will limit the shelf life.

#### **Available Sizes and Colours**

Momentive RTV 100 Series Silicone is available from Swift Supplies Online in the following colours:

<b>Grade</b>	<b>Colour</b>
RTV 102 Series	White
RTV 103 Series	Black
RTV 108 Series	Transparent
RTV 109 Series	Aluminium Grey

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