



RTV102, RTV103, RTV106, RTV108, RTV109,
RTV112, RTV116 and RTV118

One-Component Acetoxy Adhesive Sealants

Product Description

RTV102, RTV103, RTV106, RTV108, RTV109, RTV112, RTV116 and RTV118 one-component, ready-to-use adhesive sealants are extremely versatile. They cure to a tough, durable, resilient silicone rubber on exposure to atmospheric moisture at room temperature. Acetic acid vapours are released from the sealant surface as a by-product of cure. RTV102, RTV103, RTV108 and RTV109 sealants are standard strength paste consistency products which can be applied to vertical and overhead surfaces where pourable/self-leveling sealants are not practical. RTV112 and RTV118 sealants are self-leveling products which are preferable to paste-consistency sealants when flow into small crevices and hard-to-reach places is desired. RTV106 sealant is paste-consistency sealant. RTV116 sealant is a self-leveling sealant. Both RTV106 and RTV116 sealants are standard strength high-temperature sealants. Since all these sealants utilize a moisture cure system, they must not be used in thicknesses of greater than 6mm. Where section depths exceed 6mm, Momentive performance materials one component, addition cure or two-component silicone rubber compounds are recommended.

Key Performance Properties

- Capability to cure at room temperature and ambient humidity
- Self adhesion properties
- Low temperature flexibility
- High temperature performance
- Excellent weatherability and ozone and chemical resistance
- Excellent electrical insulation properties

Applications

Product	Features	Potential Applications	UL	Food Contact
RTV102 White RTV103 Black RTV108 Translucent RTV109 Aluminium	General purpose pastes	General purpose bonding, sealing, formed-in-place gaskets. Can be applied to vertical or overhead surfaces.	File 36952	FDA 21 CFR 177.2600 USDA NSF International Std. No. 51
RTV106 Red	High temperature paste	Sealing heating elements, gasketing and other critical bonding and sealing applications where parts must perform at high temperatures. Can be applied to vertical or overhead surfaces.	File 36952	FDA 21 CFR177.2600 USDA NSF International Std. No. 51
RTV116 Red	High temperature	Thin section potting, filling small surface voids, self leveling protective coating, where high temperature performance is required.	File 36952	FDA 21 CFR 177.2600 USDA NSF International Std. No. 51
RTV112 White RTV118 Translucent	General purpose	Thin section potting, self leveling protective coatings. Will flow into small crevices and hard to reach places.	File 36952	FDA 21 CFR 177.2600 USDA NSF International Std. No. 51



These sealants were not designed for and should not be used for applications intended for permanent implantation into the human body.

These sealants are not for use in delicate electrical and electronic applications in which corrosion of copper, brass or other sensitive metals is undesirable.

Typical Product Data

Uncured Properties		RTV102 RTV103 RTV108 RTV109	RTV106	RTV116	RTV112 RTV118
Consistency		Paste	Paste	Self leveling	Self leveling
Viscosity	mPa·s	–	–	25 000	20 000
Application Rate	g/min	400	400	–	–
Density	g/cm ³	1.05	1.07	1.09	1.05
Tack-Free-Time	min.	20	20	30	20

Typical Product Data

Cured Properties		Cure time: 3 days at 25°C and 50% relative humidity			
		RTV102,RTV103 RTV108, RTV109	RTV106	RTV116	RTV112, RTV118
Mechanical:					
Tensile Strength	MPa	2.6	2.6	2.5	2.3
Elongation	%	400	400	350	325
Hardness	Shore A	30	30	20	25
Tear Strength	N/mm	8	7	–	–
Shear Strength ¹⁾	MPa	1.4	1.4	0.7	0.7
Peel Strength ²⁾	N/mm	7	7	3	3
Electrical:					
Dielectric Strength	kV/mm	20	20	16	16
Dielectric Constant @ 60 Hz		2.8	2.8	2.8	2.8
Dissipation Factor @ 60 Hz		0.001	0.001	0.001	0.001
Volume Resistivity	ohm.cm	3x10 ¹⁵	3x10 ¹⁴	2x10 ¹⁴	6x10 ¹⁴
Thermal:					
Useful temperature range	°C	-60 till +200	-60 till +260	-60 till +260	-60 till +200
Maximum Intermittent Operating Temp.	°C	260	315	315	260



Additional Information³⁾:					
Linear Shrinkage	%	1.0	1.0	1.0	1.0
Thermal Conductivity	W/m·K	0.21	0.21	0.21	0.21
Coefficient of Expansion	1/°K	27x10 ⁻⁵	27x10 ⁻⁵	27x10 ⁻⁵	27x10 ⁻⁵
At 100% cohesive failure At 100% cohesive failure using 2.5 x 20 cm. stainless steel screen at 180° pull angle. Information is provided for customer convenience only. These properties are not tested on a routine basis.					

Specification Typical product data values should not be used as specifications. Assistance and specifications are available by contacting Momentive performance materials Technical Service RTV1 and RTV2.

FDA STATUS

RTV102, RTV103, RTV106, RTV108, RTV109, RTV112, RTV116 and RTV118 sealants can be used in food contact applications where FDA regulations apply.

USDA STATUS

RTV102, RTV103, RTV106, RTV108, RTV109, RTV112, RTV116 and RTV118 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 International lists RTV102, RTV103, RTV106, RTV108, RTV109, RTV112, RTV116 and RTV118 sealants under NSF International Standard No. 51 (Plastic Materials and Components for Use in Food Equipment), as satisfactory for use on food contact surfaces.

UL STATUS

RTV102, RTV103, RTV106, RTV108, RTV109, RTV112, RTV116 and RTV118 silicone rubber adhesive sealants are recognized by Underwriters Laboratories, Inc., under their Component Recognition Program (UL File No. E-36952).

Specification Military
MII-A-46106

Group 1	Type I	General Purpose Paste RTV102, RTV103, RTV108, RTV109
	Type II	General Purpose Flowable RTV112, RTV118
Group III	Type I	High Temperature Paste RTV106
	Type II	High Temperature Flowable RTV116

Instructions for Use Surface Preparation

RTV102, RTV103, RTV106, RTV108, RTV109, RTV112, RTV116 and RTV118 sealants 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