

RTV 8001

2 Part RTV, High Tear, Low Viscosity

Product Description

RTV 8001 is a liquid two-component, addition cure, translucent silicone rubber with a convenient mix ratio of 9:1.

Key Performance Properties

- Low Viscosity – very good flow, easily pourable
- High Tear
- Translucent - easy to colour

Applications

Can be used for mould making as well as for moulding parts requiring high tear strength like orthopaedic parts.

Typical Product Data

Uncured Properties		RTV 8001 BASE	RTV 8001 CAT
Colour		translucent	translucent
Viscosity @ 20°C Haake-Viscosity	mPa·s	23 000	1000
Mix Ratio		9	1
Mix-Viscosity @ 20°C Haake-Viscosity	mPa·s	16 000	
Pot life	minutes	60 minimum	

Cured Properties @24h / RT		RTV 8001
Density @25°C	g/cm ³	1,09
Hardness	Shore A	30
Tensile Strength	MPa	5.7
Modulus 100% Elongation	MPa	0.6
Elongation	%	570
Tear Strength	N/mm	30

Specifications

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

Instructions for Use

Cure Compatibility and Model Preparation

Although RTV8001 is designed to be compatible over many woods, plastics, plaster compositions and other materials used as master patterns, cure inhibition of the RTV8001 is possible.

Wood containing high amounts of resins and tars, sulphur containing clays, organic adhesives or certain finishes on a pattern can cause interference of the moulding compound curing. This condition is characterized by a gummy appearance of the moulding compounds at the interface of the silicone rubber and the substrate.

In all instances, it is recommended that a sample patch test be performed with RTV8001 to determine whether a barrier coating or other inhibition preventing measures are necessary before pouring the mould.

Coating of the master with a model sealer is recommended to help minimize cure inhibition where a patch test has indicated that the model substrate could interfere with the cure of the RTV8001.

SS4171 model sealer can be easily applied in a uniform film by wiping, dipping and brushing

Mixing

High temperatures (above 38C) in the mould making area should be avoided to prevent premature expiration of the working time. Surfaces and mixing containers should be clean and dry before use. Mixing of the BASE and Cat component can be done by hand or machine. When hand mixing, use a clean, flat bladed spatula or paint stirrer. Material clinging to sides and bottom of the container should be folded into main contents twice during the mixing cycle.

Using a power mixer, avoid high mixer speeds for prolonged periods, which could cause heating of the material resulting in shorter pour time.

Automatic dispensing machines designed to meter (weigh), mix, deaerate and dispense silicone mould making grades will reduce the necessary preparation steps and are recommended for use where volume is sufficient to justify costs.

Deaeration

Air entrapped during the mixing cycle must be removed to eliminate voids in the cured compound. Using a vacuum of 20mm mercury, the material will expand to 3-4 times it's original volume, crest and recede approximately to the initial level.

Cure Time Cycle

Curing of the RTV8001 silicone rubber compound begins immediately after the BASE and CAT compound are blended. The mixed material will vulcanise at room temperature by an addition reaction. Moulds of unlimited thickness will cure in maximum 16 hours. The cure rate will be influenced by temperature. Low temperatures will prolong the work life and cure time; high temperatures will shorten the work life and cure time.

Handling and Safety

Material Safety Data Sheets are available upon request from Momentive performance materials Silicones. Similar information for solvents and other chemicals used with Momentive performance materials Products should be obtained from your suppliers. When solvents are used, proper safety precautions must be observed.

Storage and Warranty Period

The shelf life will be indicated by the 'use before date' on the associated documents with a minimum of 4 months when stored in the original unopened containers at temperatures of 25°C or below.

Availability

RTV8001 is available as a 20 kg kit.



PRINCIPAL LOCATIONS – Regional Information

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CUSTOMER SERVICE CENTERS

North America	Charleston, WV 25314, USA E cs-na.silicones@momentive.com		
	• Specialty Fluids	T 800.523.5862	F 304.746.1654
	• UA, Silanes, Resins, and Specialties	T 800.334.4674	F 304.746.1623
	• RTV Products-Elastomers	T 800.332.3390	F 304.746.1623
	• Sealants and Adhesives & Construction	T 877.943.7325	F 304.746.1654
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