



RTV911X/100

Fast cure 2 part silicone adhesive

**Product Description**

RTV911X/100 silicone adhesive is a two component material providing fast cure and adhesion at moderate heat. The silicone adhesive provides fast, primerless bonding to many substrates at cure temperatures as low as 80°C. RTV911X/100 is available as a white or translucent thixotropic material.

**Key Performance Properties**

- Two component product – Convenient 1:1 mix ratio
- Very fast cure and bonding at temperatures as low as 80°C
- Primerless adhesion to many types of substrates
- No formation of cure by-products
- Non-corrosive to metals and sensitive substrates
- Excellent dielectric properties
- Outstanding performance over a wide temperature range

**Application**

- Bonding of glass, plastic and/or metal parts in large volume, high speed operations.
- Sealing of metal and plastic housings of electrical systems.

**Typical Product Data**

**Typical Uncured Properties:**

Uncured Properties		RTV911X/100 A	RTV911X/100 B
Colour mixed product		White	: RTV9112/100
		Translucent	: RTV9118/100
Viscosity	Pa.s	100	90
Mix ratio by weight	-	1:1	
Viscosity after mixing	Pa.s	120	
Pot life @ 23°C	Hrs	Minimum 3	

Typical Cured properties (10 mins 80°C)		
Mechanical properties		(mix ratio A:B = 1:1 by weight)
Density	g/cm <sup>3</sup>	1.1
Hardness	Shore A	30
Modulus @100 % elong.	MPa	0.55
Tensile Strength	MPa	5
Elongation	%	500
t 90 at 80 °C	Mins	1.5



**Typical Product Data**

<b>Electrical Properties</b>		
Dielectric strength	kV/mm	24
Dielectric constant @ 60 Hz	-	2.8
Dissipation factor @ 60 Hz	-	0.001
Volume resistivity	$\Omega \cdot \text{cm}$	$1.6 \cdot 10^{15}$

**Adhesion properties:**

Mix ratio of A: B = 1:1 by weight  
Cure conditions: 30 minutes at 80°C  
Type of test : Peel adhesion test

<b>Substrates</b>	<b>Cohesive failure</b>
Glass	100
Aluminium	100
Copper	100
Polycarbonate	100
Polyester	100
Epoxy	100
PBT	100
PVF film	100
PPE/PPO	100
PP*	0
PE*	0

\* Surface treatment like e.g. plasma or flame will activate the surface of the substrate and by that improve adhesion performance.

These data are given as an indication and are based upon tests performed in our laboratories. Due to the fact that substrates are often produced and final parts are processed in different ways it is the responsibility of the end user to validate the performance of this product in the actual application.

**Specifications**

Typical product data values should not be used as specifications. Assistance and specifications are available by contacting Momentive Performance Materials.

**Instructions for Use**

**Mixing**

Use of automatic equipment designed to meter, mix and dispense a 2 component silicone RTV is advised.

**Compatibility**

RTV911X/100 silicone adhesive will cure in contact with most clean, dry surfaces. However, certain materials, such as butyl and chlorinated rubber, sulfur-containing materials, amines, and certain metal soap cured RTV silicone rubber compounds can cause cure inhibition. Cure inhibition is characterized

by a gummy appearance of RTV911X/100 silicone adhesive at the interface between the adhesive and the substrate to be bonded. It is recommended that a sample patch test be performed with RTV911X/100 silicone adhesive to determine substrate compatibility.

#### **Surface Preparation**

The adhesive performance of any polymer system is highly dependent upon proper surface preparation. In order to maximize the adhesion of RTV911X/100 silicone adhesive and minimize the potential for cure inhibition, all parts should be as clean and dry as possible prior to the application of the adhesive.

#### **Bonding**

RTV911X/100 silicone adhesives offer outstanding adhesion characteristics to a wide variety of different substrates without the need of a primer.

For difficult-to-bond-to substrates, or where more aggressive chemical adhesion is desired, plasma, corona or flame treatment, may enhance the adhesion.

Where adhesion is required, surfaces should be thoroughly cleaned with a suitable solvent such as naphtha, methyl ethyl ketone (MEK), or isopropyl alcohol (IPA) to remove dirt, oil and grease. The surface should be wiped dry before the solvent evaporates to effectively remove the contaminants.

#### **Curing**

RTV911X/100 silicone adhesive requires short term exposure to moderate elevated temperatures in order to achieve full cure.

The actual cure time is affected by such things as cross-sectional thickness of the RTV silicone adhesive, heat capacity of the overall assembly and efficiency and type of oven used (i.e. convection, infrared).

#### **Handling and Safety**

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

#### **Availability**

RTV911X/100 is available in 40kg pail kits and 400 kg drum kits.



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