

Bluesil™ RTV 3621 A&B

November 2017

Addition Cure Silicone Elastomer

Description **Bluesil™ RTV 3621 A&B** is a two component silicone elastomer that cures at room temperature by polyaddition reaction, at a 1:1 ratio. It is designed to be used for molding in a variety of applications and particularly for those requiring realistic skin feel.

- Applications**
- Molding life like parts
 - Animatronics; special effect skins
 - Props for the film industry
 - Theme park props and reproduction molds

- Features**
- Easy to use viscosity
 - Translucent – can be pigmented
 - Excellent reproduction of details
 - Excellent mechanical properties
 - Low linear shrinkage
 - High resistance to inorganic chemicals and ultraviolet rays

Typical Properties

As Supplied	Test Method	Unit	BLUESIL™ RTV 3621 A	BLUESIL™ RTV 3621 B
CTM				
• <i>Appearance</i>	TP 038		Low Viscosity Liquid	Low Viscosity Liquid
• <i>Color</i>	TP 038		Translucent	Transparent
• <i>Viscosity</i>		Cps	6,000	6,000
• <i>Specific Gravity</i>	TP 013		1.1	1.1
• <i>Mix Ratio</i>				1:1
• <i>Pot Life, 23°C</i>	NM 128	minutes		60
• <i>Cured</i>	Test Method	Unit	Value	
ASTM				
• <i>Hardness¹</i>	D 2240	Shore A	20	
• <i>Tensile Strength</i>	D 412	psi (N/mm ²)	580 (4)	
• <i>Elongation</i>	D 412	%	500	
• <i>Tear Strength</i>	D 624, Die B	ppi (N/mm)	86 (15)	

¹ 6mm thick disk
Please note: The typical properties listed in this bulletin are not intended for use in preparing specifications for any particular application of BLUESIL™ silicone materials. Please contact our Technical Service Department for assistance in writing specifications.

Instructions for use

1. Mixing the two components

The components A and B are mixed by weight in the above indicated ratio. The mixing can be carried out either by hand or using a low-speed electric or pneumatic mixer to minimize the introduction of air and to avoid any temperature increase. It is also possible to use a special mixing and dispensing machine for the two silicone components. Further information is available upon request.

2. Degassing

The mixture should be degassed preferably at 30 to 50 mbar to eliminate any entrapped air. If a dispensing machine is used, the two components are degassed separately prior to mixing. The silicone mixture expands to 3 to 4 times of its initial volume and bubbles rise to the surface. The bubbles progressively disappear and the mixture returns to its initial volume after 5 to 10 minutes. Wait a few minutes to complete the degassing and then flash the vacuum. The silicone is ready for pouring, either by gravity or under low pressure.

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Instructions for use cont.

Note: Flashing the vacuum once or twice accelerates the degassing. It is recommended to use a container with a high diameter / height ratio.

3. Polymerization

The system polymerizes at 23 °C. The curing may be slowed down by lowering the temperature and accelerated by adding heat.

4. Inhibition

Contact with certain materials can inhibit the crosslinking. See list below:

- Natural rubbers vulcanized with sulphur,
- RTV 2 silicone elastomers catalyzed with metal salts, e.g. tin-compounds,
- PVC stabilized with tin salts and additives,
- Epoxy resins catalyzed with amines,
- Certain organic solvents, e.g. ketones, alcohols, ether etc.

In case of doubts, it is recommended to test the substrate by applying a small quantity of the mixed silicone on a restricted area.

Ancillary Products

Bluesil™ PT Accelerator – to increase cure speed
 Bluesil™ Cure Rate Retarder – to slow cure speed
 Bluesil™ Thixo Additive 22646 – to increase viscosity and impart a non-flowing consistency
 Bluesil™ SP FX Deadener 10 – to impart a “flesh-like” feel by lowering silicone resilience

Storage and shelf life

Bluesil™ RTV 3621 A/B when stored in its original unopened packaging, at a temperature of 24°C (77°F), may be stored for 6 months from the date of manufacture. Beyond this date, Elkem Silicones no longer guarantees that the product meets the sales specifications.

Safety





Please read the container labels for Bluesil™ RTV 3621 A/B or consult the Safety Data Sheet (SDS) before handling for safe use, physical and health hazard information. The SDS is not included with the product packaging, but can be obtained by contacting Elkem Silicones at 866-474-6342 or consult your Elkem Silicones representative.

The curing agent (Part B) for this material can generate a flammable gas upon contact with acidic, basic, or oxidizing materials. Precautions to avoid contact of this curing agent with these materials should be exercised.

Packaging

Bluesil™ RTV 3621 A/B is available in kits of 36 kg or 400 kg.

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 EUROPE	 NORTH AMERICA	 LATIN AMERICA	 ASIA PACIFIC
Elkem Silicones France 21 Avenue Georges Pompidou F69486 Lyon Cedex 03 FRANCE Tel. (33) 4 72 13 19 00 Fax (33) 4 72 13 19 88	Elkem Silicones USA Two Tower Center Boulevard Suite 1601 East Brunswick, NJ 08816-1100 United States Tel. (1) 732 227 2060 Fax (1) 732 249 7000	Elkem Silicones Brazil Ltda. Av. Maria Coelho Aguiar, 215 Bloco G - 1º Andar 05804-902 - São Paulo - SP - Brazil Tel. (55) 11 3747 7887 Fax (55) 11 3741 7718	Elkem Silicones Hong Kong Trading Co. Ltd. Unit C, 18/F Manulife Tower 169 Electric Road North Point-Hong Kong Tel. (852) 3106 8200 Fax (852) 2979 0241

Warning to the users

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