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Bluesil™ RTV 3621 QC A&B

October 2017

Addition Cure Silicone Elastomer

Description

Bluesil ™ RTV 3621 QC A/B is a two component silicone elastomer that cures at room temperature by polyaddition reaction, at 1:1 ratio. It is designed to be used for molding in a variety of applications that require a faster cure, particularly 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
- Quick cure
- Excellent reproduction of details
- Excellent mechanical properties
- Low linear shrinkage
- High resistance to inorganic chemicals and ultraviolet rays

Typical Properties

As supplied	Test Method CTM	Unit	Bluesil ™ RTV 3621 QC A		Bluesil ™ RTV 3621 QC B
• ***Appearance***	TP 038		Low viscosity liquid		Low viscosity liquid
• ***Color***	TP 038		Translucent		Translucent
• ***Viscosity***		Cps	6,000		6,000
• ***Specific Gravity***	TP 013		1.1		1.1
• ***Mix Ratio***				1:1	
• ***PotLife, 23℃***	NM 128	Minutes		3	

Cured	Test Method ASTM	Unit	Value
• ***Hardness***[(1)]	D 2240	Shore A	20
• ***Tensile strength***	D 412	psi (N/mm²)	580 (4)
• ***Elongation***	D 412	%	500
• ***Tear Strength***	D 624, Die B	ppi (N/mm)	86 (15)

(1) 6mm thick disk

*Please note: The typical properties listed in this bulletin are not indended for use in preparing specifications for any particular application of **Bluesil™** silicone matierals. Please contact our Technical Service Department for assistance in writing specifications.*

Processing

1. Mixing the two components

The components A and B are mixed by weight 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. *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

For shelf life, please refer to the expiry date (to be used before « month-year ») marked clearly on the packaging.

Safety

Please consult the Safety Data Sheet for **Bluesil ™ RTV 3621 QC A/B .**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 QC A/B is available in multiple packages. Please consult with our team.

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