



BLUESIL™ RTV 3460 A&B

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Description The **BLUESIL RTV 3460 A&B** – is a two component silicone elastomer which cures at room temperature by a polyaddition reaction (10:1 ratio). It is designed as a high durometer rubber offering high mechanical strength and a long mold life.

Examples of applications This product is specifically formulated for use with casting materials and urethane foams for architectural, prototyping and furniture molding applications. **BLUESIL RTV 3460 A&B** is also used in high pressure applications (PU Foam, RIM).

- Advantages**
- Outstanding mechanical resistance at high durometer.
 - Resistance to common casting resins.
 - Low density.
 - Excellent details reproduction.
 - Once cured according to the conditions given in this technical data sheet, the chemical composition of **BLUESIL RTV 3460 A&B** conforms 21 CFR 177.2600 (USA FDA).

For regulated applications, please contact Bluestar to ensure compliance and obtain the relevant statement.

Characteristics 1. Characteristics of the non cured product

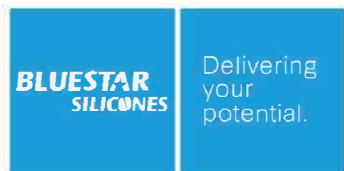
| <i>Properties</i> | BLUESIL RTV 3460 A | BLUESIL RTV 3460 B |
|--|---------------------------|---------------------------|
| Aspect | viscous fluid | viscous fluid |
| Viscosity (At 23°C, mPa.s, ISO 3219, approx.) | 95 000 | 5 000 |
| Colour | beige | black |

2. Polymerization

BLUESIL RTV 3460 A (Pt catalyst) 100 parts
BLUESIL RTV 3460 B 10 parts

| <i>Properties</i> | BLUESIL RTV 3460 A&B |
|--|---------------------------------|
| Colour | grey |
| Pot life (At 23°C, minutes) | 210 |
| Mixed viscosity (At 23°C, mPa.s, ISO 3219, approx.) | 65 000 |
| Demolding Time (At 23°C, hours) | 16 |

Remark: Higher temperatures reduce pot life, lower temperatures prolong pot life. If curing is accelerated by heat the properties of **BLUESIL RTV A&B** are not modified. However dimensional changes do occur during post curing of which must be taken into account.



**Characteristics (cont') 3. Characteristics of the cross linked product**

Measured after curing 60 minutes at 175°C

| <i>Properties</i> | BLUESIL RTV 3460 A & B |
|--|-----------------------------------|
| Hardness (<i>Shore A, approx.</i>) | 58 |
| Tensile strength at break (<i>MPa, approx.</i>) | 6.0 |
| Elongation at break (<i>%, approx.</i>) | 230 |
| Tear strength (<i>KN/m, approx.</i>) | 25 |
| Linear shrinkage (<i>%</i>) | < 0.1 |
| Density (<i>g/ml, approx.</i>) | 1.20 |

Processing**Remix each of the two components (parts A and B) every time before using.****1. Mixing of the two components**Add 100 parts of **BLUESIL RTV 3460 A** to 10 parts of **BLUESIL RTV 3460 B**.

The two components may be intimately mixed either by hand or using a low-speed electric or pneumatic mixer to minimize the introduction of air into the mixture.

2. DegassingAfter mixing **BLUESIL RTV 3460 A&B**, it is recommended to eliminate entrapped air. If the processing is done with the help of a mixing machine both parts are degassed before mixing.The **BLUESIL RTV 3460 A&B** is degassed under a vacuum of 30 to 50 mbar. Under vacuum, the product expands 3 at 4 times its initial volume and forms bubbles on its surface. These bubbles will disappear gradually and the mixture will sink back down to its initial volume within 5 minutes. Release the vacuum and repeat the operation a few minutes later.**Remark:** release the vacuum several times improves the degassing. For easier degassing only fill a recipient to 1/3 of its height.**3. Cross linking**

The best curing conditions are at 23°C. The use of products at higher temperatures will reduce the pot life and increase the setting rate. As opposed to this, lower temperatures will increase the pot life and decrease the setting time. It is recommended not to use the product at temperatures below 20°C; under these conditions, the final product performance levels will be difficult to achieve.

At 23°C, the moulds can be demoulded after 16 hours. In order to achieve the best possible performance levels from the moulds; it is preferable to wait for 24 hours before using them.

Room temperature curing assures the lowest possible shrinkage, if accelerated cure is desired, mild heat should be preferred. To minimize shrinkage cure the elastomer at maximum temperature of 60°C for 3-4 hours, higher temperatures will cause higher shrinkage.

Conversely at lower temperature polymerization is much slower, at 20°C 36 hours may be necessary to complete cross-linking.

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| | |
|-------------------------------|--|
| Processing (cont') | <p>Be aware that contact with certain materials can inhibit the curing of this RTV:</p> <ul style="list-style-type: none"> – Natural rubbers vulcanized with sulphur – Polycondensation RTV catalysed with metal salts – PVC stabilizing agents – Amine cured epoxies – Sulphur containing clays. <p>If doubts exist it's recommendable to run a quick test with a small quantity of material in order to assess compatibility. Take duly note that cross contamination due to not well cleaned tools or devices is frequently the main cause of inhibition. The best way is to use only dedicated gear when processing polyaddition RTVs.</p> |
| Packaging | <p>BLUESIL RTV 3460 A&B is delivered in 200 Kg drum and 20 Kg drums for part A with the corresponding 20 Kg and 2 Kg drums for Part B.</p> |
| Storage and shelf life | <p>When stored in its original packaging at a temperature of between -5°C and $+30^{\circ}\text{C}$, BLUESIL RTV 3460 A&B may be stored for up to 12 months from its date of manufacture.</p> <p>Comply with the storage instructions and expiry date marked on the packaging.</p> <p>Beyond this date, Bluestar Silicones no longer guarantees that the product meets the sales specifications.</p> |
| Regulation | <p>The ingredients used to formulate this product are compliant with 21 CFR 177.2600 (USA FDA).</p> <p>Extraction testing has been conducted on a sample of cured BLUESIL RTV 3460 A & B and total extractables did not exceed the specified limits (USA FDA) for extraction with distilled water OR nhexane at reflux temperature.</p> <p>It is the responsibility of the user to determine that their use of BLUESIL RTV 3460 A&B complies with the provisions of 21 CFR 177.2600.</p> <p><i>Note: In order to comply with the above mentioned directives, BLUESIL RTV 3460 A&B must be mixed in the recommended ratio.</i></p> <p><i>For regulated applications, please contact Bluestar to ensure compliance and obtain the relevant statement.</i></p> |
| Safety | <p>Please consult the Safety Data Sheets of BLUESIL RTV 3460 A&B.</p> |

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