

BLUESILTM RTV 3325

Description The **BLUESIL RTV 3325** is a silicone elastomer which, after the addition of a catalyst, cures at room temperature and leads to a flexible and elastic material.

Examples of applications Moulds for the production of parts made of different materials, such as plaster, wax, acrylic resin, polyester resin, epoxy resin, as well as silicone elastomers, with following application examples:

- Decoration items: *cornices, , ornaments, statues,*
- Figurines: *toys, candles, statues, giftware,*
- Furnishing: *furniture and decorative parts*
- Construction: *decorative items, pavement, paving stone, columns*
- Artistic foundries: molds for the *lost wax casting* technique

Advantages

- Good fluidity.
- Excellent mechanical properties, in particular tear strength.
- Excellent flexibility and its low modulus facilitate the mould release.
- **Range of catalysts** allowing the **BLUESIL RTV 3325** to fulfill the requirements for various applications:
 - **BLUESIL CATA 24H:** standard kinetics (24 hours mould release)
 - **BLUESIL CATA 6H:** fast kinetics (6 hours mould release)
 - **BLUESIL CATA SPE:** special catalyst with high polyester resistance
 - **BLUESIL CATA THIXO:** thixotropic catalyst

These catalysts have the advantage of being odourless.

Characteristics 1. Characteristics of the non cured product

<i>Properties</i>	BLUESIL RTV 3325
Viscosity (at 23°C, mPa.s, ISO 3219, approx.)	35 000
Color	White
Density	1.2

2. Polymerization

BLUESIL RTV 3325 100 parts
BLUESIL CATA..... 5 parts

BLUESIL™ RTV 3325**2. Polymerization (cont')**

<i>Properties</i>	CATA 24H	CATA 6H	CATA SPE	CATA THIXO
Specificity	Standard	Quick	EP Resin Resistance	Thixotropic
Color	Colorless	Colorless	Colorless	Blue
Pot life <i>(at 23°C, 50% relative humidity, minutes)</i>	90 - 150	20 - 60	90 - 150	90 - 150
Demolding Time <i>(at 23°C, 50% relative humidity, hours)</i>	24	6	24	24

3. Characteristics of the cross linked product

Measures made after 96 hours at 23°C

<i>Propriétés</i>	CATA 24H	CATA 6H	CATA SPE	CATA THIXO
Shore Hardness <i>(Shore A)</i>	25	28	26	24
Elongation at break <i>(%, approx.)</i>	450	440	490	450
Tensile strength <i>(MPa, approx.)</i>	4.0	4.2	4.3	3.0
Tear strength <i>(KN/m, approx.)</i>	21	26	25	21
Linear shrinkage <i>(%)</i>	< 0.7	< 0.7	< 0.7	< 0.7

Processing**It is advised to remix both base and catalyst before mixing them together.****1. Mixing of the two components**To 100 parts of **BLUESIL RTV 3325** add 5 parts of the selected catalyst.

The two components are thoroughly mixed either using an electrical or pneumatic mixer on a low speed setting so as to limit the inclusion of air in the mixture as well as temperature rise.

2. Degassing

After mixing base and catalyst, it is recommended to degas to eliminate entrapped air.

If the processing is done with the help of a machine both parts are degassed before mixing.

The **BLUESIL RTV 3325** is degassed under vacuum pressure of 30 to 50 mbar.

Under vacuum pressure, the product will expand 3 at 4 times its initial volume and forms bubble on its surface.

This bubble will disappear gradually and the mixture will sink back down to its initial volume within 5 to 10 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.

BLUESIL™ RTV 3325**Processing (cont')****3. Cross linking**

The best curing conditions are at 23 °C and 50 % relative humidity. The use of products at higher temperatures and/or relative humidity levels will reduce the pot life and increase the setting rate. As opposed to this, lower temperatures and relative humidity levels 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 and 50 % relative humidity, the membranes can be demolded after 16 to 24 hours. In order to achieve the best possible performance levels from the membranes, it is preferable to wait for 24 hours before using them. The definitive properties will be acquired after 3 days.

Packaging

- **BLUESIL RTV 3325:** 5 kg bucket (48 buckets per pallet)
- **Catalyst:** 250 gr. bottle (48 bottles per cardboard)
- **BLUESIL RTV 3325:** 20 kg plastic pail (12 pails per pallet)
- **Catalyst:** 1 kg bottle (12 bottles per cardboard)
- **BLUESIL RTV 3325:** 200 kg metal drum (4 drums per pallet)
- **Catalyst:** 20 kg drum (2 drums per pallet)
- **KIT 1 KG + CATA 24H** (12 cardboards with 16 kits per pallet)

Storage and shelf life

When stored in their original unopened packaging at a temperature of between – 5°C and + 30°C:

- **BLUESIL RTV 3325** may be stored for up to 24 months,
- **Catalysts** may be stored for up to 12 months,

from the date of manufacture clearly marked on the packaging.

Beyond this date, Bluestar Silicones no longer guarantees that the products meet sales specifications.

Part used drums should be resealed between each use.

Safety

Please consult the Safety Data Sheets for **BLUESIL RTV 3325** and **catalysts**.

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