

BLUESIL™ RTV 3310 – CATA 6H – CATA 24H

Description **BLUESIL RTV 3310** is a silicone elastomer which, after the addition of catalysts **BLUESIL CATA 6H** or **BLUESIL CATA 24H**, cures at room temperature by a polycondensation reaction and leads to a flexible and elastic material.

Examples of applications Very flexible molds for the production of parts in common reproduction materials, such as plaster, wax, resins (epoxy, acrylic, polyester):

- Decoration items: picture frames, ornaments, statues.
- Figurines, toys, candles, giftware.
- Furniture parts.

Advantages

- Easy demolding thanks to the intrinsic release properties of silicone elastomers.
- Excellent reproduction of details.
- Easy processing.
- High flexibility and mechanical resistance.

Characteristics **1. Characteristics of the non cured product**

<i>Properties</i>	RTV 3310
Appearance	Viscous liquid
Viscosity (At 23 °C, mPa.s, ISO 3219, approx.)	20 000
Color	Whitish

2. Polymerization

BLUESIL RTV 3310 100 parts
BLUESIL CATA 6H or CATA 24H 5 parts

<i>Properties</i>	RTV 3310 + CATA 6H	RTV 3310 + CATA 24H
Color	Whitish	
Pot Life (At 23 °C, 50 % relative humidity, minutes)	30	120
Demolding Time (At 23 °C, 50 % relative humidity, hours)	6	24

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Characteristics
(cont')

3. Characteristics of the cross linked product

Measured after curing for 96 hours at 23°C and relative humidity 50%

Properties	BLUESIL RTV 3310
Shore A Hardness (Shore A, on a 6 mm thick specimen, approx.)	10
Elongation at break* (% , approx.)	420
Tensile strength at break* (MPa, approx.)	2.5
Tear strength* (kN/m, approx.)	12
Specific weight (g/ml, approx.)	1.20

* on a 2 mm thick specimen

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 3310** add 5 parts of catalysts **BLUESIL CATA 6H** or **BLUESIL CATA 24H**.

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 3310** 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.

These bubbles 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.

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 de-moulded 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.

Remark: Part used drums should be resealed between each use.

BLUESIL™ RTV 3310 – CATA 6H – CATA 24H**Impiego (seguito)****4. How to use**

Apply **BLUESIL RTV 3310** mixed with **BLUESIL CATA 6H** or **BLUESIL CATA 24H** directly on the model by casting, trying to avoid bubbles and voids.

Even though silicone is naturally no-adhering to most materials, it is always recommendable to prepare the model to avoid any risk of the silicone sticking and so damaging the model. Remove dust and apply a pore filler like soapy water, waxes diluted in xylene, etc.

Part used drums should be resealed between each use.

Packaging

BLUESIL RTV 3310 is available in the following packaging:

- 5 kg buckets (48 buckets per pallet)
- 25 kg plastic pails (12 pails per pallet)

BLUESIL CATA 6H and **BLUESIL CATA 24H** are available in 20 kg pails, 0.25 kg bottles and 1 kg bottles.

Storage and shelf life

When stored in their original packaging at a temperature of between -5°C and $+30^{\circ}\text{C}$, **BLUESIL RTV 3310** and the catalysts **BLUESIL CATA 6H** and **BLUESIL CATA 24H** may be stored for up to 12 months from their date of manufacture.

Comply with the storage instructions and expiry date marked on the packaging.

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

Safety

Consult the Safety Data Sheets for **BLUESIL RTV 3310** and catalysts **BLUESIL CATA 6H** and **BLUESIL CATA 24H**.

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