Technical Data Sheet n° SIL 06 107 3 – June 2006
Cancels and replaces SIL 02°116 3, SIL 02°117 3, SI L 02°118 3

RHODORSIL® RTV 3325

Description

RHODORSIL® 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.

Applications

▪ Moulds for the mass production of parts in various materials (plaster, wax, reconstituted stone, various resins (epoxy, acrylic, polyester), mortar, silicone elastomer) such as :
- Decorative items: *cornices, columns, ornaments, statues…*
- Figurines: toys, candles, statues, giftware...
- Furnishing : casting of furniture and decoration
- Construction: *prefabrication of decorative features, pavement, paving stone, urban furniture.*

▪ Membrane for the lost wax system

Advantages

▪ Good fluidity.

▪ Excellent mechanical properties, in particular tear strength.

▪ Excellent flexibility and its low modulus facilitate mould release.

▪ Range of catalysts allows the RTV 3325 to fulfil requirements for various applications:

- **cata 24h** standard kinetics (24h demould)
- **cata 6h** fast kinetics (6h demould)
- **cata SPE** special catalyst with high polyester resistance
- **cata Thixo** thixotropic catalyst

These catalysts have the advantage of being odourless.

Characteristics

1. <u>Characteristics of the non cured product</u>

Properties	RTV 3325
Viscosity *(at 23°C, mPa.s, ISO 3219, approx.)*	35 000
Colour	White
Density	1.2

RHODORSIL® RTV 3325

2. Polymerization

RHODORSIL® RTV 3325.....100 parts
CATALYST H.....5 parts

Properties	Cata 24h	Cata 6h	Cata SPE	Cata Thixo
Specificity	Standard	Quick	Polyester Resistant	Thixotropic
Colour	Colourless	Colourless	Colourless	Blue
Pot Life *(at 23℃, 50% relative humidity, minutes)*	90 - 150	20 - 60	90 - 150	90 – 150
Demoulding Time *(at 23℃, 50℃ relative humidity, hours)*	24	6	24	24

3. Characteristics of the cross linked product

Measures made after 96 hours at 23℃

Properties	Cata 24h	Cata 6h	Cata SPE	Cata Thixo
Shore Hardness *(Shore A)*	25	28	26	24
Elongation at break *(%)*	450	440	490	450
Tensile strength *(MPa)*	4.0	4.2	4.3	3.0
Tear strength *(KN/m)*	21	26	25	21
Linear shrinkage *(%)*	< 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 **RHODORSIL® RTV 3325** add 5 parts by weight 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 **RHODORSIL® 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.
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 16-24h. In order to achieve the best possible performance levels from the membranes, it is preferable to wait for 24 h before using them. The definitive properties will be acquired after 3 days.

Packaging

RHODORSIL® RTV 3325 and **the appropriate catalyst** are available in the following packaging :

- Base **5 KG** bucket (48 buckets per pallet)
- Catalyst **250 GR** bottle (48 bottles per box)

- Base **20 KG** plastic pail (12 pails per pallet)
- Catalyst **1 KG** bottle (12 bottles per box)

- Base **200 KG** metal drum (4 drums per pallet)
- Catalyst **20 KG** drum (2 drums per pallet)

Storage and shelf life

When stored in their original unopened packaging at a temperature of between – 5°C and + 30°C,
- RHODORSIL® RTV 3325 may be stored for up to 24 months

- Catalyst 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

Consult the SAFETY DATA SHEET for **RHODORSIL® RTV 3325** and **catalysts.**

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