Elkem

BLUESIL RTV 3325 + Catalysts

Associated Product(s)

This datasheet gives details and instructions applicable to BLUESIL CATA 24H, BLUESIL 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.

Features / Benefits

The product(s) covered by this Technical Data Sheet is/are bringing the following features/benefits:

- 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

These catalysts have the advantage of being odourless.

Example 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.

Technical Characteristics

1. Characteristics of the non cured product

Properties	**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

Properties	CATA 24H	CATA 6H	CATA SPE
Specificity	Standard	Quick	EP ResinResistance
Color	Colorless	Colorless	Colorless
Pot life *(at 23°C, 50% relative humidity, minutes)*	90 - 150	20 - 60	90 - 150
Demolding Time *(at 23°C, 50% relative humidity, hours, approx.)*	24	6	24

3. Characteristics of the cross linked product

Measures made after 96 hours at 23°C

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

Please note: The technical characteristics are not intended for use in preparing specifications. Please contact our local Sales Department for assistance in writing specifications

Packaging

The product(s) covered by this Technical Data Sheet is/are available with the following packaging:

Product	Linked Packagings
BLUESIL CATA 24H	- Drum of 150.000 KG (330.69 LBS) - Piece of 0.250 KG (0.55 LBS) - Drum of 20.000 KG (44.09 LBS) - Carton of 12.000 KG (26.46 LBS)
BLUESIL RTV 3325	- Drum of 200.000 KG (440.92 LBS) - Piece of 5.000 KG (11.02 LBS) - Drum of 20.000 KG (44.09 LBS)

For more information on packaging, please contact yout local Elkem sales office

Storage temperature

The product(s) should be stored within the below temperature range:

Product	Minimum storage temperature (when stored in its original packaging)	Maximum storage temperature (when stored in its original packaging)
BLUESIL CATA 24H	-5°C / 23°F	30°C / 86°F

Comply with the storage instructions and expiration date marked on the packaging. Beyond this date, Elkem no longer guarantees that the product meets the sales specifications

Shelf Life

Product	Shelf life from date of manufacturing
BLUESIL RTV 3325	730 days

Comply with the storage instructions and expiration date marked on the packaging. Beyond this date, Elkem no longer guarantees that the product meets the sales specifications

Instruction of Use

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.

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.

Sustainability

For Elkem, sustainability is central to our business strategy. Our mission is to provide advanced material solutions shaping a better and more sustainable future, adding value to our stakeholders globally. We are committed to reducing in embodied carbon emission. For further information, please visit our website or contact us to learn more about our sustainability roadmap.

Additional information

Should you have any questions, please contact Elkem for more information.