service chimie

: 5, place de l'Église
77400 Saint Thibault des Vignes
: 33.01.64.30.89.22 • : 33.01.64.30.87.49
: CentreTech@Service-Chimie.fr

Fiche technique

BLUESIL RTV 3255 + CATA XY 85

Silicones

Delivering your potential

Technical Data Sheet n° 648-V2 – 2019/11/15

Description

BLUESIL RTV 3255 is a silicone elastomer which, after the addition of catalyst BLUESIL **CATA XY 85 NL,** cures at room temperature and leads to flexible and elastic material.

Examples of applications

Production of high-flexibility moulds used for soles shoes or technical products.

Key benefits

- High temperature resistance
- High hardness and tear strength
- Easy processing

Typical properties

1. Characteristics of the non cured product

Properties	RTV 3255	CATA XY 85 NL
Aspect	Viscous liquid	Viscous liquid
Colour	Red	Colorless
Density (at 23 °C, approx)	1,5	1
Viscosity (at 23 °C, mPa.s, approx)	30 000	100

2. Polymerisation

BLUESIL RTV 3255: 100 parts
BLUESIL CATA XY 85 NL: 4 parts

Properties	BLUESIL RTV 3255
Pot life (hours, at 23 °C, approx.)	3
Demolding time (hours, at 23 °C 50 % H.R.)	24

3. Characteristics of the cross linked product

Measured after curing for 24 hours at 23 °C and 50 % relative humidity

Properties	BLUESIL RTV 3255
Hardness Shore A (On a 6 mm thick specimen, approx.)	55
Tensile strength at break (1) (mPa, approx.)	0.8
Elongation at break (%, approx.)	100
Tear strength (1) (kN/m, approx.)	4

(1) On a 2 mm thick specimen

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

Instruction of use

Remix each of the 2 components (base and catalyst) every time before using.

1. Mixing of the two components

Elkem
A Bluestar Company

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To 100 parts of **BLUESIL RTV 3255** add 4 parts by weight of **BLUESIL CATA XY 85 NL.** 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 the temperature rise.

2. Cross linking

The best curing conditions are at 23°C and 50 % relative humidity. The use of the 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 rate. 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 moulds can be demolded after 3 h .In order to achieve the best possible performance levels from the moulds, it is preferable to wait for 24 h before using them. The definitive properties will be acquired after 3 days.

3. Modification of viscosity

Sometimes it may be useful to lower the viscosity of **BLUESIL RTV 3255;** this is achieved by adding BLUESIL H47V50 to **BLUESIL RTV 3255** before adding the catalyst. Adding 10% BLUESIL H47V50 to **BLUESIL RTV 3255** drops viscosity by around one-quarter without any notable change either to the pot life or the final properties after curing. Adding more than 10% of this diluent increases the pot life but gives a softer material.

4. Preparation of materials and bonding

BLUESIL RTV 3255 can be bonded to metals, glass, laminates, or silicone or organic resin based moulded parts and on cured silicone rubbers.
The following procedure, although simple, must be followed exactly:
1. Clean and degrease metal surfaces then wipe with a cloth soaked in acetone or rinse with acetone. Silicone rubber surfaces must be wiped with acetone, then roughened by rubbing with sand paper.

2. All surfaces, apart from silicone rubber ones, are treated with a primer, by dipping, spraying or brushing, then drying in air for at least 30 minutes at 23 °C.
3. The catalysed **BLUESIL RTV 3255** is then poured into place and sets to core in the times given above.

4. For any information about primer, please consult us.

5. Curing

Under normal conditions of temperature and humidity, catalysed **BLUESIL RTV 3255** can be handled after 24 hours, whatever the thickness of the part.

Under these conditions, only the linear shrinkage continues to change after 24 hours to reach a maximum after 30 days. As opposed to this, at high temperature, hardness and tensile strength increase: for example after 2 weeks at 300°C, **BLUESIL RTV 3255** has a Shore A hardness of 90 and a tensile strength of around 5 MPa.
As opposed to other materials of the same type, **BLUESIL RTV 3255** fully cures whatever the thickness or the shape of the moulded part, or its degree of confinement.
As opposed to this, whilst **BLUESIL RTV 3255** can cure and be used in confined conditions at normal temperatures, its use in confined conditions at high temperatures leads to it having an extremely limited service life. Other **BLUESIL RTV's** should be used in this case: please consult us.
Part used drums should be resealed between each use.

Regulation	Please consult your local ELKEM SILICONES sales office.

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Limitations	Please consult your local ELKEM SILICONES sales office.
Packaging	• BLUESIL RTV 3255 is available in o Drum of 25 KG (55.13 LB) • BLUESIL RTV 3255 + 4% CATA XY 85 NL KIT is available in o Piece of 1.04 KG (2.29 LB)
Storage and shelf life	When stored in its original packaging: BLUESIL RTV 3255 may be stored at a temperature below 40°C / 104°F for up to 12 months from its date of manufacturing. BLUESIL RTV 3255 + 4% CATA XY 85 NL KIT may be stored for up to 12 months from its date of manufacturing. Comply with the storage instructions and expiration date marked on the packaging. Beyond this date, Elkem Silicones no longer guarantees that the product meets the sales specifications.
Safety	Please consult the Safety Data Sheet of: BLUESIL RTV 3255 and BLUESIL RTV 3255 + 4% CATA XY 85 NL KIT

Visit our website www.silicones.elkem.com