

BLUESIL RTV 3318 SPU, RTV 3330 SPU

Description	BLUESIL RTV 3318 SPU and RTV 3330 SPU are silicone elastomers which, after the addition of catalyst BLUESIL CATA SPU , cure at room temperature by a polycondensation reaction, leading to a flexible and elastic material.
Examples of applications	BLUESIL RTV 3318 SPU and RTV 3330 SPU have been specifically designed for the production of molds dedicated to polyurethane resins casting, for series production. The use of the products can be suggested also for molds where other replication materials are casted (such as e.g. wax, plaster...).
Key benefits	• Very high resistance to polyurethane resins, even to those curing by a strong exothermic reaction • Ease of processing thanks to the good flowing behaviour. • High mechanical resistance. • Excellent reproduction fidelity of each detail. • Easy demolding thanks to the intrinsic self-releasing properties of silicone elastomers. • Possibility to choose between three different hardness levels: 18 - 30 - 35 Shore A.

Typical properties	<u>Principle of crosslinking</u> BLUESIL RTV 3318 SPU, RTV 3330 SPU and RTV 3335 SPU are two-component siliconic elastomers which, once mixed with BLUESIL CATA SPU, cure by a polycondensation reaction.
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1. Characteristics of the non cured products

Properties	3318 SPU	3330 SPU	CATA SPU
Aspect	Viscous liquid	Viscous liquid	Liquid
Color	Beige	Whitish	Pale yellow
Viscosity (at 23°C, mPa.s, approx.)	25 000	35 000	/
Density (g/ml, approx)	1.25	1.25	1.0

2. Polymerization

BLUESIL RTV 3318 SPU or RTV 3330 SPU or RTV 3335 SPU: 100 parts
BLUESIL CATA SPU: 5 parts

Properties	3318 SPU	3330 SPU
Color	Beige	Whitish
Pot life (At 23°C, 50 % relative humidity, minutes, approx.)	150	150
Demolding time (At 23°C, 50 % relative humidity, hours, approx.)	24	24

3. Characteristics of the cross linked products

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

Properties	3318 SPU	3330 SPU
Hardness Shore A (On a 6 mm thick specimen, approx.)	18	30

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Tensile strength at break * (MPa, approx.)	2.5	3.0
Elongation at break * (% , approx.)	350	350
Tear strength # (KN/m, approx.)	12	15
Specific gravity (g/ml, approx.)	1.25	1.25

*ASTM D412 #ASTM D624/C

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 two components (base and CATA SPU) every time before using.

1. Mixing of the two components

To 100 parts of **BLUESIL RTV 3318 SPU or RTV 3330 SPU** add 5 parts by weight of **BLUESIL CATA SPU**. 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. Degassing

After mixing **BLUESIL RTV 3318 SPU or RTV 3330 SPU** with **BLUESIL CATA SPU**, it is recommended to eliminate entrapped air.

The catalysed **BLUESIL RTV 3318 SPU or RTV 3330 SPU** is degassed under a vacuum of 30 to 50 mbar. Under vacuum, the product expands 3 to 4 times its initial volume and forms bubbles on its surface. These bubbles will disappear gradually and the mixture will sink back down to its initial volume within few minutes. Then the vacuum can be released.

Remark: releasing the vacuum several times improves the degassing. For easier degassing fill the recipient only to 1/3 of its height.

3. 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 curing rate. As opposed to this, lower temperatures and relative humidity levels will increase the pot life and decrease the curing rate. It is suggested not to place the catalysed product, during or after crosslinking, to temperatures above 50°C. At 23°C and 50% relative humidity, the moulds of **BLUESIL RTV 3318 SPU or RTV 3330 SPU** can be demoulded after 24 hours, with no dependence on the mold thickness. In order to achieve the best possible performance levels from the moulds, it is preferable to wait for 4 days before using them.

4. How to use

Apply **BLUESIL RTV 3318 SPU or RTV 3330 SPU** mixed with **BLUESIL CATA SPU** directly on the model by casting, trying to avoid bubbles and voids. Models can be made of several materials, stones, concrete, metal, etc. Even though silicone is naturally not 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.**

Regulation Please consult your local ELKEM SILICONES sales office.

Limitations Please consult your local ELKEM SILICONES sales office.

Packaging • BLUESIL RTV 3318 SPU is available in

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- Drum of 200 KG (441 LB)
- Drum of 20 KG (44.1 LB)
- Tote bin of 800 KG (1764 LB)
- BLUESIL RTV 3330 SPU is available in
 - Drum of 25 KG (55.13 LB)
 - Drum of 200 KG (441 LB)

Storage and shelf life

When stored in its original packaging:

BLUESIL RTV 3318 SPU may be stored at a temperature below 40°C / 104°F for up to 12 months from its date of manufacturing.

BLUESIL RTV 3330 SPU may be stored at a temperature below 40°C / 104°F 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 3318 SPU and BLUESIL RTV 3330 SPU

Visit our website www.elkem.com/silicones/

Warning to the users

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