

BLUESIL RTV 3041 A & B and A & B SB

Description	BLUESIL RTV 3041 A&B and A&B SB is a two-components silicone elastomer which is available in 5 versions with different features: - A + B = standard grade - A + B SB = self-bleeding grade BLUESIL RTV 3041 A&B and A&B SB crosslinks at room temperature by polyaddition reaction. The polymerisation can be accelerated by heat (max. 150°C). The silicone components are delivered as two viscous liquids, which once mixed and cured, transform into a transparent, elastic and resistant material. Polymerisation occurs without production of heat.
Examples of applications	Reproduction of 3D objects in polyurethane, waxes, foams, epoxy, polyester etc.
Key benefits	- Accurate reproduction of details, - Very good transparency, - Exceptional mechanical properties, - Free matching within product range.

Typical properties 1. Characteristics of the non cured product

<i>Properties</i>	RTV 3041 A	
	RTV 3041 B	RTV 3041 SB B
Appearance	A: Viscous liquid	B: Low viscous liquid
Colour	Transparent	
Density (at 23°C, g/cm³, approx.)	A: 1.08	
	B: 1.03	B: 0.97
Viscosity (at 23°C, mPa·s, approx.)	A: 50000	
	B: 6000	B: 2400

Remark: The A part contains the Pt catalyst; the B parts contain the SiH crosslinker.

2. Polymerization

<i>Properties</i>	RTV 3041 A	
	RTV 3041 B	RTV 3041 SB B
Mixing Ratio A : B (parts by weight)	10 : 1	
Working Time (at 23°C, min, approx.)	75	75
Demoulding time (at 23°C, hours)	< 24 h	< 24 h
Mixing Viscosity (at 23°C, mPa·s, approx.)	42000	35000

BLUESIL RTV 3041 A & B and A & B SB

3. Characteristics of the cured product

Curing conditions: 60 minutes at 80 °C

Properties	RTV 3041 A	
	RTV 3041 B	RTV 3041 SB B
Hardness (DIN 53 505, Shore A, approx.)	38	35
Tensile strength (DIN 53 504, specimen S3A, N/mm ² , approx.)	5.5	5.1
Elongation (DIN 53 504 specimen S3A, %, approx.)	350	350
Tear strength (DIN 53 515, N/mm approx.)	22	18

Remarks: Curing the silicone at elevated temperature has no influence on the final properties. Nevertheless, heating can alter the dimensions.

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

1. Mixing the two components

The components A and B are mixed by weight in the above indicated ratio.

The mixing can be carried out either by hand or using a low-speed electric or pneumatic mixer to minimise the introduction of air and to avoid any temperature increase.

It is also possible to use a special mixing and dispensing machine for the two silicone components. Further information is available upon request.

2. Degassing

The mixture should be degassed preferably at 30 to 50 mbar to eliminate any entrapped air. If a dispensing machine is used, the two components are degassed separately prior to mixing.

The silicone mixture expands to 3 to 4 times of its initial volume and bubbles rise to the surface. The bubbles progressively disappear and the mixture returns to its initial volume after 5 to 10 minutes. Wait a few minutes to complete the degassing and then flash the vacuum. The silicone is ready for pouring, either by gravity or under low pressure.

Note: Flashing the vacuum once or twice accelerates the degassing. It is recommended to use a container with a high diameter / height ratio.

3. Polymerisation

The system polymerises at 23°C. The curing may be slowed down at lower temperature and contrary accelerated by heat.

Contact with certain materials can inhibit the crosslinking. See list below:

- natural rubbers vulcanised with sulphur,
- RTV 2 silicone elastomers catalysed with metal salts, e.g. tin-compounds,

BLUESIL RTV 3041 A & B and A & B SB

- PVC stabilised with tin salts and additives,
- epoxy resins catalysed with amines.

In case of doubts, it is recommended to test the substrate by applying a small quantity of the mixed silicone on a restricted area.

Regulation Please consult your local ELKEM SILICONES sales office.

Limitations Please consult your local ELKEM SILICONES sales office.

- Packaging**
- BLUESIL RTV 3041 A E5 is available in
 - Drum of 200 KG (441 LB)
 - Pail of 20 KG (44.1 LB)
 - BLUESIL RTV 3041 B E5 is available in
 - Canister of 20 KG (44.1 LB)
 - Piece
 - BLUESIL RTV 3041 SB B E5 is available in
 - Canister of 20 KG (44.1 LB)
 - Piece

Storage and shelf life When stored in its original packaging:
 BLUESIL RTV 3041 A E5 may be stored at temperatures between -10°C / 14°F and 30°C / 86°F for up to 12 months from its date of manufacturing.
 BLUESIL RTV 3041 B E5 may be stored at temperatures between -10°C / 14°F and 30°C / 86°F for up to 12 months from its date of manufacturing.
 BLUESIL RTV 3041 SB B E5 may be stored at temperatures between -10°C / 14°F and 30°C / 86°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 3041 A E5, BLUESIL RTV 3041 B E5 and BLUESIL RTV 3041 SB B E5

Visit our website www.elkem.com/silicones/

Warning to the users

The information contained in this document is given in good faith based on our current knowledge. It is only an indication and is in no way binding, particularly as regards infringement of or prejudice to third party rights through the use of our products. ELKEM SILICONES guarantees that its products comply with its sales specifications. This information must on no account be used as a substitute for necessary prior tests which alone can ensure that a product is suitable for given use. Determination of the suitability of product for the uses and applications contemplated by users and others shall be the sole responsibility of users. Users are responsible for ensuring compliance with local legislation and for obtaining the necessary certifications and authorisations. Users are requested to check that they are in possession of the latest version of this document and ELKEM SILICONES is at their disposal to supply any additional information.