

SILBIONE RTV 4420 A & B

Description	SILBIONE RTV 4420 A&B is a two component silicone elastomer which cures at room temperature by a polyaddition reaction. The polymerisation can be accelerated by heat. The silicone material is delivered as two low viscous liquid components, which once mixed and cured, transform into an elastic and resistant material. Polymerisation occurs without formation of heat.
Examples of applications	• Heel cushions • Toe separators • Liners for limb prostheses
Key benefits	• Very high stretchability • Sterilisable • Fast mixing and easy processing due to low viscosity

Typical properties

1. Characteristics of the non cured product

Properties	SILBIONE RTV 4420	
	A	B
Contains	Pt	SiH
Appearance	Low viscous liquid	
Colour	Translucent	
Density (At 23°C, g/cm ³ , approx.)	1.07	
Viscosity (At 23°C, mPa·s, approx.)	4000	

2. Polymerisation

Properties	SILBIONE RTV 4420 A&B
Mixing Ratio A : B (parts by weight)	1 : 1
Potlife (At 23 °C, minutes, approx.)	50

3. Characteristics of the cured product

Curing conditions: 60 minutes at 80°C

Properties	SILBIONE RTV 4420 A&B
Hardness Shore A (DIN 53505, approx.)	20
Tensile Strength (DIN 53504, N/mm ² , approx.)	5.0
Elongation (DIN 53504, %, approx.)	650
Tear Strength (DIN 53515, N/mm, approx.)	15

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 (part A and B) every time before using.

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 by using a low-speed electric or pneumatic mixer to minimise the introduction of air and to avoid any temperature increase.

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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. Wait a few minutes to complete the degassing and then release the vacuum. The silicone is ready for pouring, either by gravity or under low pressure.

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

3. Polymerisation

SILBIONE RTV 4420 A&B polymerises at 23°C. The curing may be slowed down at lower temperature or 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.
- 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	Extensive toxicology testing on SILBIONE® products has demonstrated their adequate biocompatibility and suitability for the recommended applications. SILBIONE RTV 4420 A and SILBIONE RTV 4420 B satisfies regulatory requirement in several countries and complies with a number of medical and pharmaceutical regulations. Contact Elkem Silicones for more detailed information.
Limitations	Please consult your local ELKEM SILICONES sales office.
Packaging	• SILBIONE RTV 4420 A is available in ○ Pail of 25 KG (55.13 LB) ○ Drum of 200 KG (441 LB) ○ Tote bin of 1000 KG (2205 LB) • SILBIONE RTV 4420 B is available in ○ Pail of 25 KG (55.13 LB) ○ Drum of 200 KG (441 LB)
Storage and shelf life	When stored in its original packaging: SILBIONE RTV 4420 A may be stored at temperatures between -5°C / 23°F and 30°C / 86°F for up to 12 months from its date of manufacturing. SILBIONE RTV 4420 B may be stored at temperatures between -5°C / 23°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: SILBIONE RTV 4420 A and SILBIONE RTV 4420 B

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

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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.