

Silbione[®] RT Gel 4717 A&B

Solventless Biocompatible Adhesives for Wound & Scar Care

Description

Silbione[®] RT GEL 4717 A&B are two component silicone elastomers that crosslink at room temperature by polyaddition reaction. The polymerisation can be accelerated by heat.

The silicone materials are delivered as two low viscous liquid components, which once mixed and cured, transform into an elastic and resistant gel. Polymerisation occurs without the evolution of heat.

Applications

- Adhesive wound dressings
- Adhesive sheetings for scar treatment

Features

- Excellent adhesion on dry skin
- No adhesion on moist wounds
- Proven biocompatibility
- Fast and easy processing due to low viscosity and 1:1 mixing ratio

Typical Properties

1. Typical properties of the non cured product

Properties	RT GEL 4717	
	A	B
• Appearance	Low viscous liquid	
• Color	Transparent	
• Density, approx. [g/cm³] at 23 °C	0,98	
• Viscosity, approx. [mPa·s] at 23 °C	45000	45000

2. Polymerisation

Properties	RT GEL 4717 A&B
• Mixing Ratio A : B parts by weight	100 : 100
• Working Time, approx. [min] at 23 °C	30
• Mixing Viscosity, approx. [mPa·s] at 23 °C	45000

3. Characteristics of the cured product

Properties	RT GEL 4717
• Penetration, approx. [mm/10], hollow cone (62,5 g), DIN ISO 2137	170
• Probe Tack approx. [g/cm²], steel probe, 0,25 mm layer	600

Bio-compatibility

Extensive toxicology testing on **Silbione[®]** products has demonstrated their adequate biocompatibility and suitability for the recommended applications. Our evaluations according to EN/ISO 10993 have shown that **Silbione[®]** products are neither skin irritating nor skin sensitizing materials. They satisfy regulatory requirements in several countries, in particular those of class I medical devices as in 93/42/CEE European Directive, or those of US Pharmacopoeia class VI. Toxicological summaries, statements and specific regulatory status are available upon request from your Bluestar Silicones contact.

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Instructions for 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,
- PVC stabilised with tin salts and additives,
- epoxy resins catalysed with amines,
- certain organic solvents, e.g. ketones, alcohols, ether etc.

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

Storage and shelf life

Silbione® RT GEL 4717 A&B when stored in its original unopened packaging, at a temperature between -10 °C and +30 °C, may be stored for 6 months from the date of manufacture. Beyond this date, Bluestar Silicones no longer guarantees that the product meets the sales specifications.

Safety

Please read the container labels for **Silbione® RT GEL 4717 A&B** or consult the Material Safety Data Sheet (MSDS) before handling for safe use, physical and health hazard information. The MSDS is not included with the product packaging, but can be obtained by contacting Bluestar Silicones at 866-474-6342 or consult your Bluestar Silicones representative.

Packaging

Silbione® RT GEL 4717 A&B is available in pails of 25 kg.

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