

Silbione® HC2 2022 A&B

October 2017

Soft Skin Adhesive Gel for Scar Care and Wound Management

Description **Silbione® HC2 2022 A&B** is a two component silicone elastomer that crosslinks at room temperature by 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 gel. Polymerisation occurs without formation of heat.

Examples of applications

- Adhesive wound dressings.
- Adhesive sheets in medical applications.

Advantages

- Very good adhesion on dry skin.
- No adhesion on moist wounds.
- Proven biocompatibility.
- Atraumatic removal.

Characteristics

1. Characteristics of the uncured product

<i>Properties</i>	Silbione® HC2 2022 A&B	
	A	B
Contains	Pt	SiH
Appearance	Low viscous liquid	
Colour	Transparent	
Density (At 23°C, g/cm³, approx.)	0.98	
Viscosity (At 23°C, mPa, approx.)	11 000	15 000

2. Polymerisation

<i>Properties</i>	Silbione® HC2 2022 A&B
Mixing Ratio A : B (Parts by weight)	100 : 100
Working Time (At 23°C, min, approx.)	150
Pot Life (At 40°C, min, approx.)	30
Mixing Viscosity (At 23°C, mPa, approx.)	13 000

**Characteristics
(cont')****3. Characteristics of the cured product**

<i>Properties</i>	Silbione® HC2 2022 A&B
Penetration (<i>Hollow cone 62.5 g, DIN ISO 2137, mm/10, approx.</i>)	155
Probe Tack (<i>Steel probe, 0.20 mm layer, mJ/cm², approx.</i>)	12

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

Due to the inherently weak structural network of silicone gels, mechanical properties cannot be measured on cured gels.

The data do not consist in establishing specifications.

Processing**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 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.

Packaging

Silbione® HC2 2022 A&B components are delivered in 25 kg pails kit or 200 kg drums.

Storage and shelf life

When stored in its original packaging at a temperature of between -10°C and +40°C, **Silbione® HC2 2022 A&B** may be stored for up to 12 months from its date of manufacture.

Comply with the storage instructions and expiry date marked on the packaging.

Beyond this date, Elkem Silicones no longer guarantees that the product meets the sales specifications.



Silbione® HC2 2022 A&B

Biocompatibility and Toxicity	After curing performed according the conditions described above, Silbione® HC2 2022 A&B complies with a number of regulations for Medical Devices. Contact Elkem Silicones for more detailed information.
Limitations	Silbione® silicone products may be used for healthcare applications in accordance with Elkem's healthcare product guidelines. Elkem Silicones supports the sales of these Silbione® silicone products to customers involved in manufacturing and assembling approved medical devices for less than 30-day implantation. The purchaser has the sole responsibility to select a particular Silbione® silicones product and determine its application suitability. The purchaser also has the sole responsibility to comply with all applicable statutory, regulatory and industry requirements and standards for compatibility, extractability, testing, safety, efficacy, and labeling.
Safety	Please consult the Safety Data Sheet of Silbione® HC2 2022 A&B .

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