Elkem

Version 2025.12

SILBIONE MED ADH 4200

RTV silicone medical adhesive

One-part polycondensation cure

For body contact and implantation in human application < 30 days.

Key Benefits

- Fast room temperature curing
- High cohesion and adhesive strength
- Tin-free
- Solvent-free

Applications

- Adhesives for silicone medical devices
- Suitable for skin contact applications
- Bonding of silicones to other silicones, metals and various other substrates

Typical properties

As supplied

Property	Unit	Value
Appearance	-	Thixotropic Paste
Color	-	Translucent
Tack Free Time	minutes	8

Please Note: The typical properties are not intended for use in preparing specifications.

Room Temperature Cure at 25°C, 50% Humidity, 7 days

Property	Unit	Value
Specific Gravity	-	1.06
Hardness	ShA	26
Tensile Strength	MPa (psi)	3.9 (570)
Elongation	%	668
Tear Strength	N/mm (ppi)	11.2 (64)
Adhesive Strength	Lbf/in	19.5

Please Note: The typical properties are not intended for use in preparing specifications.

Instructions for Use

SILBIONE MED ADH 4200 is designed and provided as a 1-part adhesive that cures when exposed to atmospheric moisture.

Surface Preparation

Please note that traces of organic rubber or foreign materials can cause inhibition. Ensure work area is clean, and traces of any previous materials completely removed. Thoroughly clean surfaces that are going to be bonded using Kimwipes with a non-oily cleaner, like Isopropyl alcohol, to remove surface contaminants.

Curing

The vulcanization time of this silicone adhesive is influenced by the thickness of the applied layer, the level of relative humidity, and the exposure of the adhesive to atmospheric moisture. For most standard applications, it is recommended to maintain a relative humidity around 50% at room temperature (23°C) to achieve optimal curing. After application, the adhesive typically forms a tack-free, durable outer skin within minutes—even when applied in thicker layers. Since SILBIONE MED ADH 4200 cures upon contact with atmospheric moisture, always keep tubes tightly sealed when not in use to prevent premature curing. If a plug of cured material forms at the tip, simply remove or dispense the plug prior to the next application.

Contaminants & Inhibition Risks

Potential surface contaminants that cause inhibition or issues with the mixed material when applied. The following materials that come in contact can cause these issues: sulfur-cured organic rubbers, latex, chlorinated rubbers and other unreacted residues.

Processing

Bonding Application

Dispense and spread a layer of silicone on one of the surfaces. Squeeze the two surfaces together to bond, applying consistent and constant pressure, to ensure full contact for the duration of the curing process. Regulate pressure to not force too much silicone adhesive from between the pieces, which can then diminish adhesive strength.

Primers

Customers can choose to enhance the bonding strength of the silicone to their surface by applying primers onto their desired surface beforehand. Surface preparation for primers is the same as adhesives, but primers will be applied onto the surface and allowed to dry before the adhesive is applied. Elkem Silicones provides a variety of primers that are compatible with SILBIONE MED ADH 4200.

Please contact your Elkem Silicones sales representative for more information.

Packaging

SILBIONE MED ADH 4200 are available in the following packaging

- 200 ML cartridge
- 18 KG pail

Storage and Shelf Life

SILBIONE MED ADH 4200 can be stored for up to 18 months when stored in its original unopened packaging between the temperatures of 8°C (46°F) and 30°C (86°F) at 50% humidity upon the manufacturing date. Always store SILBIONE MED ADH 4200 in its original, tightly sealed container or tube when not in use. This minimizes the contact of the adhesive with atmospheric moisture, which triggers curing. Beyond these conditions and shelf-life date, Elkem Silicones no longer guarantees the product will meet sales specifications.

Regulation

SILBIONE MED ADH 4200 is intended for the healthcare market and was tested under ISO 10993 for applications less than 30 days body contact to determine biocompatibility.

Product Stewardship may have other documentation available per request (i.e. SVHC, SDS, RoHS, CMR, SiH Status, TSE/BSE, D4/D5/D6, dangerous goods, and more.) Please contact our sales office.

Elkem Silicones maintains certification to the latest version of ISO 9001 and RC 14001.

Safety and handling

Please consult the Safety Data Sheet for SILBIONE MED ADH 4200. The user is responsible for determining the material's suitability and safety of use in their application by referring to the Elkem Silicones healthcare and biomedical product guidelines.

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