SiSiB® SSA508 A/B Soft Skin Adhesives

INTRODUCTION

SiSiB® SSA508 is a two-component, addition-curing silicone composition curing to a soft silicone adhesive. It offers high tack for strong and reliable initial adhesion.

SiSiB Soft Skin Adhesives can be gently removed with low peel forces, avoiding skin stripping and preventing any painful pulling sensation during device removal.

The elastic structure of Soft Skin Adhesives is achieved by an addition reaction (hydrosilylation) between vinyl-functionalized PDMS (polymer) and hydrogen-functionalized siloxane (crosslinker). The curing reaction is catalyzed by a platinum complex and can be carried out at room temperature or accelerated at elevated temperatures without the formation of by-products.

KEY FEATURES

- Biocompatible
- No by-products from curing process
- High tack
- Good adhesion
- High transparency

BENEFITS OF ADHESIVES

- Anti-allergenic, soft, and comfortable on skin
- Excellent breathability
- Resistant to microbial growth
- Biodurable with low surface tension, thermal and chemical stability
- Strong resistance to various media
- Ethylene oxide–sterilizable for single or multiple use
- Superior UV and aging resistance
- Repositionable for precise placement

PHYSICAL PROPERTIES

Color	A/B: Colorless
Viscosity (mPa·s)	A/B: 12,000
Pot Life at 23°C (min)	60
Mix. Ratio	1:1
Penetration (1/10mm)	200

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Peel Strength (180°, N/2.5cm)	0.8

These figures are only intended as a guide and should not be used in preparing specifications.

APPLICATIONS

SiSiB® SSA508 is a medical-grade adhesive suitable for scar repair, wound care and surgical dressing manufacturing. Soft Skin Adhesives can quickly and firmly adhere to the skin while maintaining excellent permeability to moisture and gases such as oxygen and carbon dioxide, ensuring good exchange of the wound environment. Its stable cohesion and adhesion provide reliable fixation while being gentle and non-peeling on fragile or damaged skin, and can be removed painlessly, thus significantly improving the patient's experience and comfort.

When formulating an SSA-based device, substrate selection is critical: the substrate’s properties dictate coating behavior and curing parameters during production, influence adhesive anchorage and post-cure cohesion, and ultimately determine the device’s comfort and performance in wear.

PROCESSING

Mixing

Mix Components A and B of SiSiB® SSA508 A/B homogeneously in a ratio A:B = 1:1.

Coating

Apply the mixed adhesive onto the carrier using a doctor blade, slot-die coater, or similar metering tool to achieve the desired wet film thickness.

Curing

The adhesive cures at room temperature, but the process can be accelerated by increasing the temperature to 80-120°C for 5-10 minutes.

Covering

The material composite can be finished once the silicone adhesive layer has been covered.

Cleaning

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uncured adhesive can be wiped away with volatile solvents such as ethanol or ethyl acetate, while cured adhesive should first be removed mechanically to strip away bulk gel, then the area soaked in solvent until the residue swells and finally wiped clean with fabric or paper.

NOTES

The curing reaction begins during the mixing process. Initially, curing is manifested by a gradual increase in viscosity, followed by gelation and conversion to a solid elastomer. Tools for taking components A and B should be separated or wiped clean before use to avoid mixing the two components and causing local agglomeration and inability to use them normally.

At 25°C, the safe storage period of A/B after full mixing is 1 day. The higher the temperature, the shorter the storage time.

When using, avoid contact between rubber and compounds containing N, S, P and Sn elements, otherwise it will cause insufficient or incomplete vulcanization.

The optimal ratio of components A/B is 1:1. Too large or too small ratio will affect the final performance effect of the product.

- Optionally, filter A and B agents to remove dust before glue - making.
- Keep mixing tools clean when preparing glue manually to prevent contamination of A or B agents.
- Use mixed glue within the specified time (30 min for manual mixing).
- Ensure substrates and fixtures are dry, clean, and defect - free before gluing.
- Avoid high temperatures during storage and operation as the product is heat - sensitive. Don't pour unused glue back into the original package.
- Determine usage amount and weigh the product before use as the mixed components cure and gel at room temperature to avoid waste.

PACKING

SiSiB® SSA508 is supplied in 15Kg pail or 180Kg drum.

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STORAGE

In the unopened and well-ventilated original container, SiSiB® SSA508 has a shelf life of 6 month in a dry and cool place.

HANDLING

This document does not contain the product safety information required for safe use. Before handling, please refer to the product and safety data sheets, as well as container labels, for information on safe usage, physical hazards, and health risks. Safety Data Sheet is available on the website, from the distributor, or by contacting SiSiB customer service.

NOTE

All information in the leaflet is based on our present knowledge and experience. We reserve the right to make any changes according to technological progress or further developments. Performance of the product described herein should be verified by testing.

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