

## PRODUCT DATA SHEET

Sikaflex<sup>®</sup>-270

1-component assembly adhesive

## TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

|                                                  |                          |                        |
|--------------------------------------------------|--------------------------|------------------------|
| Chemical base                                    | 1-component polyurethane |                        |
| Color (CQP001-1)                                 | Black                    |                        |
| Cure mechanism                                   | Moisture-curing          |                        |
| Density (uncured)                                | 1.27 kg/l                |                        |
| Non-sag properties                               | Good                     |                        |
| Application temperature                          | adhesive                 | 15 – 45 °C             |
|                                                  | ambient                  | 15 – 40 °C             |
| Skin time (CQP019-4)                             | 30 minutes <sup>A</sup>  |                        |
| Shrinkage (CQP014-1)                             | 1 %                      |                        |
| Shore A hardness (CQP023-1 / ISO 48-4)           | 55                       |                        |
| Tensile strength (CQP036-1 / ISO 527)            | 5.5 MPa                  |                        |
| Elongation at break (CQP036-1 / ISO 527)         | 600 %                    |                        |
| Tear propagation resistance (CQP045-1 / ISO 34)  | 9 N/mm                   |                        |
| Tensile lap-shear strength (CQP046-1 / ISO 4587) | 4 MPa                    |                        |
| Service temperature (CQP509-1 / CQP513-1)        | -40 – 100 °C             |                        |
|                                                  | 4 hours                  | 120 °C                 |
| Shelf life                                       | Drum / Pail              | 9 months <sup>B</sup>  |
|                                                  | Unipack                  | 12 months <sup>B</sup> |

CQP = Corporate Quality Procedure

<sup>A)</sup> 23 °C / 50 % r.h.<sup>B)</sup> stored below 25 °C

## DESCRIPTION

Sikaflex<sup>®</sup>-270 is a 1-component polyurethane adhesive system. It is elastic and has a pasty-like consistency as well as good non-sag property. Sikaflex<sup>®</sup>-270 cures with humidity provided by environment and curing can be accelerated by use of SikaBooster<sup>®</sup> technology.

## PRODUCT BENEFITS

- 1-component formulation for easy application
- High lap-shear strength to fulfil needs for Automotive glass bonding
- Elastic, can cope with thermal elongation of different substrates
- Good gap-filling capabilities
- Capable of withstanding high dynamic stresses
- Solvent free

## AREAS OF APPLICATION

Sikaflex<sup>®</sup>-270 is designed for automated assembly applications. It is well suited for direct glazing and bonding of other vehicle parts. Seek manufacturer's advice and perform tests on original substrates before using this product on materials prone to stress cracking. This product is suitable for experienced professional users only. Tests with actual substrates and conditions have to be performed ensuring adhesion and material compatibility.

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## CURE MECHANISM

Sikaflex®-270 cures by reaction with atmospheric moisture. At low temperatures the water content of the air is generally lower and the curing reaction proceeds somewhat slower (see diagram 1).

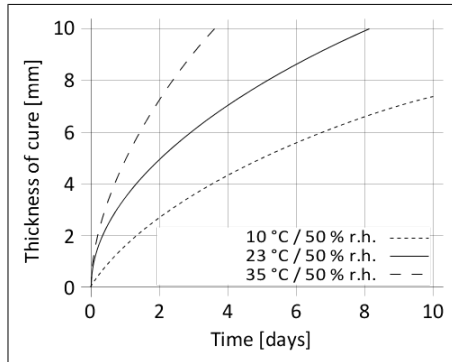


Diagram 1: Curing speed Sikaflex®-270

## CHEMICAL RESISTANCE

Sikaflex®-270 is generally resistant to fresh water, seawater, diluted acids and diluted caustic solutions; temporarily resistant to fuels, mineral oils, vegetable and animal fats and oils; not resistant to organic acids, glycolic alcohol, concentrated mineral acids and caustic solutions or solvents.

## METHOD OF APPLICATION

### Surface preparation

Surfaces must be clean, dry and free from grease, oil, dust and contaminants. Surface treatment depends on the specific nature of the substrates and is crucial for a long lasting bond. Suggestions for surface preparation may be found on the current edition of the appropriate Sika® Pre-treatment Chart. Consider that these suggestions are based on experience and have in any case to be verified by tests on original substrates.

### Application

Sikaflex®-270 must be applied between 15 °C and 40 °C (climate), but changes in reactivity and application properties have to be considered. The temperature for substrate need to be at least 3 °C above the dew point.

To ensure a uniform thickness of the bondline it is recommend to apply the adhesive in form of a triangular bead (see figure 1).

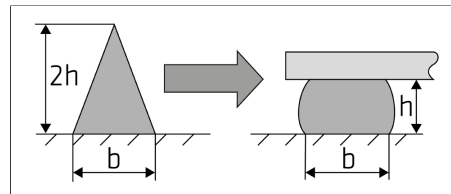


Figure 1: Recommended bead configuration

The open time is significantly shorter in hot and humid climate. The parts must always be installed within the skin formation time.

Sikaflex®-270 can be processed with pump equipment.

For advice on selecting and setting up a suitable pump system, contact the System Engineering Department of Sika Industry.

## Tooling and finishing

Tooling and finishing must be carried out within the skin time of the product. It is recommended using Sika® Tooling Agent N. Other finishing agents must be tested for suitability and compatibility prior the use.

## Removal

Uncured Sikaflex®-270 may be removed from tools and equipment with Sika® Remover-208 or another suitable solvent. Once cured, the material can only be removed mechanically. Hands and exposed skin have to be washed immediately using hand wipes such as Sika® Cleaner-350H cleaning towels or a suitable industrial hand cleaner and water. Do not use solvents on skin.

## FURTHER INFORMATION

The information herein is offered for general guidance only. Advice on specific applications is available on request from the Technical Department of Sika Industry.

Copies of the following publications are available on request:

- Safety Data Sheets
- Sika Pre-treatment Chart
  - For 1-component Polyurethanes
- General Guidelines
  - Bonding and Sealing with 1-component Sikaflex®

## PACKAGING INFORMATION

|         |        |
|---------|--------|
| Unipack | 600 ml |
| Pail    | 23 l   |
| Drum    | 195 l  |

## BASIS OF PRODUCT DATA

All technical data stated in this document are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## HEALTH AND SAFETY INFORMATION

For information and advice regarding transportation, handling, storage and disposal of chemical products, users shall refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety-related data.

## DISCLAIMER

The information, and in particular, the recommendations relating to the application and enduse of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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