BUILDING TRUST

PRODUCT DATA SHEET

# Sikaflex®-621

All-in-one adhesive sealant with primerless adhesion

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

| | | |
|---|---|---|
| **Chemical base** | | 1-component polyurethane (Purform®) |
| **Colour (CQP001-1)** | | White, grey, black |
| **Cure mechanism** | | Moisture-curing |
| **Density (uncured)** | depending on color | 1.3 kg/l |
| **Non-sag properties** | | Good |
| **Application temperature** | ambient | 5 – 40 °C |
| **Skin time (CQP019-1)** | | 45 minutes [A] |
| **Open time (CQP526-1)** | | 35 minutes [A] |
| **Curing speed (CQP049-1)** | | (see diagram) |
| **Shrinkage (CQP014-1)** | | 1 % |
| **Shore A hardness (CQP023-1 / ISO 48-4)** | | 35 |
| **Tensile strength (CQP036-1 / ISO 527)** | | 1.5 MPa |
| **Elongation at break (CQP036-1 / ISO 527)** | | 600 % |
| **Tear propagation resistance (CQP045-1 / ISO 34)** | | 7 N/mm |
| **Service temperature (CQP509-1 / CQP513-1)** | | -50 – 90 °C |
| | 24 hours | 120 °C |
| | 1 hour | 140 °C |
| **Shelf life** | | 12 months [B] |

CQP = Corporate Quality Procedure

[A] 23 °C / 50 % r.h.

[B] stored below 25 °C

## DESCRIPTION

Sikaflex®-621 is based on Purform®, an industry-leading polyurethane with less than 0.1 % monomeric diisocyanate for better health protection and occupational safety.

Sikaflex®-621 is an all-in-one 1-component adhesive sealant that bonds well to a wide variety of substrates like metals, plastics, and paint coatings without any primer. This all-in-one product is suitable for internal and external sealing applications.

## PRODUCT BENEFITS

- Bonds well to a wide variety of substrates without primer
- Good ageing and weathering resistance
- Can be painted
- Less than 0.1% monomeric diisocyanate for improved occupational hygiene
- Low emissions

## AREAS OF APPLICATION

Sikaflex®-621 is used for internal and external sealing and bonding applications in industrial manufacturing and vehicle repair. It generally bonds without a primer to materials including timber, metals, plastics, and paint coatings.

Seek the manufacturer's advice and perform tests on original substrates before using Sikaflex®-621 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.

## CURE MECHANISM

Sikaflex®-621 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).

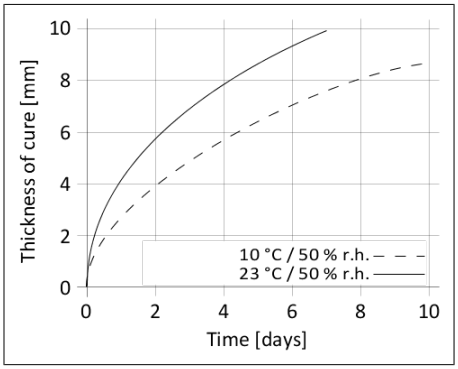


Diagram 1: Curing speed for Sikaflex®-621

## CHEMICAL RESISTANCE

Sikaflex®-621 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®-621 can be processed between 5 °C and 40 °C (climate and product) but changes in reactivity and application properties have to be considered. The optimum temperature for substrate and sealant is between 15 °C and 25 °C.
Sikaflex®-621 can be processed with manual, pneumatic or electric driven piston guns as well as pump equipment.
The open time is significantly shorter in hot and humid climate. The parts must always be installed within the open time. Never join bonding parts if the adhesive has built a skin.
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®-621 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 or a suitable industrial hand cleaner and water.
Do not use solvents on skin.

### Overpainting

Sikaflex®-621 can be painted after formation of a skin. If the paint requires a baking process, best performance is achieved by allowing the sealant to fully cure first. 1C-PUR and 2C-acrylic based paints are usually suitable. All paints have to be tested by carrying preliminary trials under manufacturing conditions. The elasticity of paints is usually lower than that of sealants. This could lead to cracking of the paint in the joint area.

## 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 Guideline
  Bonding and Sealing with 1-component Sikaflex®

## PACKAGING INFORMATION

| | |
|---|---|
| Cartridge | 300 ml |
| 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

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

## DISCLAIMER

The information, and, in particular, the recommendations relating to the application and end-use 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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