

PRODUCT DATA SHEET

Sikaflex®-923

FAST CURING, TWO COMPONENT ASSEMBLY ADHESIVE

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties	Sikaflex®-923 + Sikaflex®-92 B1 L30	
Chemical base	2-component polyurethane	
Color (CQP001-1)	Light grey	
Density (uncured)	A-component	1.3 kg/l
	B-component	1.5 kg/l
Mixing ratio	by volume	10 : 1
	by weight	9.1 : 1
Non-sag properties (CQP061-1)	Fair	
Application temperature	10 – 35 °C	
Open time (CQP526-1)	30 minutes ^A	
Early tensile lap-shear strength (CQP046-1 / ISO 4587)	(see table 1)	
Shrinkage (CQP014-1)	2 %	
Shore A hardness (CQP023-1 / ISO 7619-1)	50	
Tensile strength (CQP036-1 / ISO 527)	3 MPa	
Elongation at break (CQP036-1 / ISO 527)	350 %	
Tear propagation resistance (CQP045-1 / ISO 34)	7 N/mm	
Tensile lap-shear strength (CQP046-1 / ISO 4587)	2 MPa	
Service temperature (CQP513-1)		-50 – 90 °C
	1 hour	150 °C
Shelf life (CQP016-1)	6 months	
Mixer	Statomix MS 13/18 G	

CQP = Corporate Quality Procedure

^A) 23 °C / 50 % r.h.**DESCRIPTION**

Sikaflex®-923 is a rather low viscous two component polyurethane adhesive with good gap filling performance. It cures by chemical reaction between both components. Sikaflex®-923 can be used to bond large parts and where a long open time is required.

PRODUCT BENEFITS

- Adequate working time combined with fast curing
- Good gap filling capabilities
- Low odor
- Low VOC

AREAS OF APPLICATION

Sikaflex®-923 is suitable to bond large components such as floors, roofs, panels, etc. in the commercial vehicles industry. Possible substrates are metals, particularly aluminum (incl. anodized), steel (incl. phosphated, chromated, zinc plated), metal primers and paint coatings (2-part systems), ceramic materials and plastics.

Seek manufacturer's advice and perform tests on original substrates before using Sikaflex®-923 on materials prone to stress cracking.

This product is suitable for experienced professional users only. Test with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.

CURE MECHANISM

The curing of Sikaflex®-923 takes place by chemical reaction of the two components Sikaflex®-923 (A) and Sikaflex®-92 B1 L30 (B). For typical strength build up see data table 1 below.

Time [h]	Strength [MPa]
2 h	0.5 MPa
4 h	1 MPa
6 h	1.5 MPa

Table 1: Early tensile lap-shear strength (CQP046-1) at 23 °C

CHEMICAL RESISTANCE

Sikaflex®-923 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 and dust. Surface treatment depends on the specific nature of the substrates and is crucial for a long lasting bond. All pre-treatment steps must be confirmed by preliminary tests on original substrates considering specific conditions in the assembly process.

Application

Sikaflex®-923 need to be processed with an adequate dispensing system. The mixer type needs to be respected (see table Typical Product Data).

Sikaflex®-923 can be applied between 10 °C and 35 °C 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. To ensure a uniform thickness of the bondline it is recommend to apply the adhesive in form of a triangular bead (see figure 1).

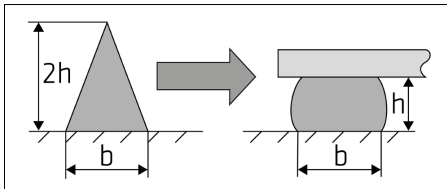


Figure 1: Recommended bead configuration

The open time is significantly shorter in hot and humid climate. The parts must always be joint within the open time. As a rule of thumb, a change of + 10 °C reduces the open time by half.

Sikaflex®-923 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 open time of the adhesive. We recommend the use of Sika® Tooling Agent N. Other finishing agents or lubricates must be tested for suitability and compatibility.

Removal

Uncured Sikaflex®-923 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 should be washed immediately using Sika® Cleaner-350H 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
Polyurethane
- General Guidelines
Bonding and Sealing with 1-component Sikaflex®

PACKAGING INFORMATION

Sikaflex®-923

Drum	195 l
Pail	23 l

Sikaflex®-92 B1 L15

Drum	195 l
Pail	23 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.