BUILDING TRUST

PRODUCT DATA SHEET

Sikaflex®-271

Glazing adhesive with acceleration option

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical base		1-component polyurethane
Color (CQP001-1)		Black
Cure mechanism		Moisture-curing
Density (uncured)	Adhesive	1.2 kg/l
Non-sag properties		Very good
Application temperature	ambient	10 – 45 °C
Skin time (CQP019-1)		20 minutes [A]
Open time (CQP526-1)		15 minutes [A]
Shrinkage (CQP014-1)		1 %
Shore A hardness (CQP023-1 / ISO 48-4)		65
Tensile strength (CQP036-1 / ISO 527)		7 MPa
Elongation at break (CQP036-1 / ISO 527)		300 %
Tear propagation resistance (CQP045-1 / ISO 34)		10 N/mm
Tensile lap-shear strength (CQP046-1 / ISO 4587)		5 MPa
Service temperature (CQP509-1 / CQP513-1)		-40 – 90 °C
	4 hours	120 °C
	1 hour	140 °C
Shelf life (CQP016-1)	unipack	9 months [B]
	pail / drum	6 months [B]

CQP = Corporate Quality Procedure

[A] 23 °C / 50 % r. h.

[B] Storage below 25 °C

DESCRIPTION

Sikaflex®-271 is an elastic polyurethane adhesive system for glazing applications. Suited for bonding materials relevant for direct glazing such as paints, glass, ceramic frits, painted and e-coated surfaces in commercial-vehicle production and repair.
Sikaflex®-271 is compatible with Sika's black-primerless bonding process and can be accelerated with Sika's Booster and PowerCure systems.

PRODUCT BENEFITS

- Excellent application properties
- Curing can be accelerated with Sika Booster and Sika PowerCure
- High mechanical strength
- Solvent-free

AREAS OF APPLICATION

The Sikaflex®-271 system is designed especially for manual and automated direct-glazing application out of bulk packaging in the Transportation OEM market.
Seek manufacturer's advice and perform tests on original substrates before using Sikaflex®-271 on materials prone to stress cracking.
Sikaflex®-271 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

Sikaflex®-271 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.

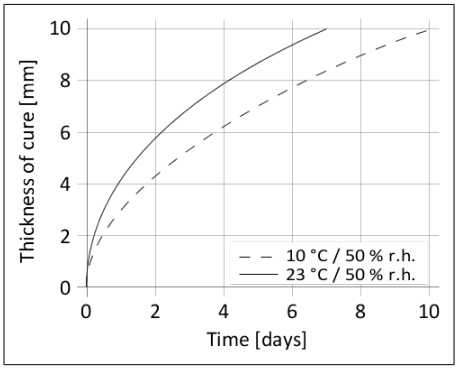

Diagram 1: Curing speed Sikaflex®-271

CHEMICAL RESISTANCE

Sikaflex®-271 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®-271 can be processed between 10 °C and 45°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.

Consider the viscosity increase at low temperature. For easy application, condition the adhesive at ambient temperature prior to use. To ensure a uniform thickness of the bondline it is recommended to apply the adhesive in form of a triangular bead (see figure 1).

Figure 1: Recommended bead configuration

Sikaflex®-271 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. The glass 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.

Removal

Uncured Sikaflex®-271 can 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!

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
- 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 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.

Oy Sika Finland Ab
TM Industry
Tammiston kauppatie 22 B
01510 Vantaa
Puh. 09-511 431
www.sika.fi