BUILDING TRUST

PRODUCT DATA SHEET

Sikaflex®-271 PowerCure

Accelerated glazing adhesive

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical base	Polyurethane
Color (CQP001-1)	Black
Cure mechanism	Moisture-curing [A]
Density (uncured)	1.2 kg/l
Non-sag properties (CQP061-1)	Very good
Application temperature	5 – 40 °C
Open time (CQP526-1)	10 minutes [B]
Early tensile lap-shear strength (CQP046-1 / ISO 4587)	See table 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
Shelf life	9 months

CQP = Corporate Quality Procedure [A] Provided by PowerCure [B] 23 °C / 50 % r.h.

DESCRIPTION

Sikaflex®-271 PowerCure is an accelerated elastic polyurethane adhesive for glazing and vehicle-glass-replacement applications. Suitable for bonding materials relevant for direct glazing such as paints, glass, ceramic frits, painted and e-coated surfaces in commercial-vehicle production and repair.
Curing of Sikaflex®-271 PowerCure is accelerated by Sika's PowerCure technology which makes it largely independent of atmospheric conditions.

PRODUCT BENEFITS

- Accelerated curing and adhesion build-up
- Excellent application properties
- Ideal for glass replacement in commercial vehicles
- Low climate dependency of the curing speed with Sika® Booster
- High mechanical strength
- Solvent-free

AREAS OF APPLICATION

Sikaflex®-271 PowerCure is designed especially for manual direct-glazing application and vehicle-glass replacement in commercial vehicles. Thanks to the PowerCure Technology Sikaflex®-271 PowerCure exhibits a fast strength and adhesion build-up.
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

Sikaflex®-271 PowerCure cures by reaction with moisture provided by the accelerator paste and largely independent from atmospheric moisture. For typical strength build up data see table below.

Time [h]	Tensile lap-shear strength at 23 °C [MPa]
1	0.7
2	3.5

Table 1: Strength build-up of Sikaflex®-271 PowerCure

CHEMICAL RESISTANCE

Sikaflex®-271 PowerCure 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 pretreatment steps must be confirmed by preliminary tests on original substrates considering specific conditions in the assembly process.

Application

Setup the PowerCure Dispenser according to the PowerCure User Manual. If the application is discontinued for more than 2 minutes, the mixer needs to be replaced.

Sikaflex®-271 PowerCure can be processed between 5 °C and 40 °C but changes in reactivity as well as application properties need to be considered. The optimum temperature for substrate and adhesive is between 15 °C and 25 °C.

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.

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

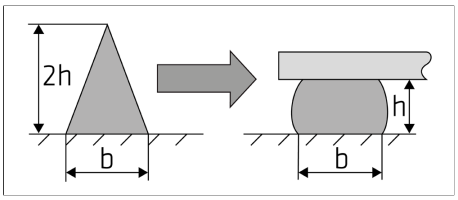

Figure 1: Recommended bead configuration

Removal

Uncured Sikaflex®-271 PowerCure 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®
- PowerCure User Manual
- PowerCure Quick Reference Guide

PACKAGING INFORMATION

PowerCure Pack	600 ml

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.

Oy Sika Finland Ab
TM Industry
PL 49, Koskelontie 23 C
02921 Espoo
Puh. 09-511 431
www.sika.fi