

PRODUCT DATA SHEET

Sikaflex®-268 PowerCure

ACCELERATED ASSEMBLY AND GLAZING ADHESIVE/SEALANT FOR RAIL APPLICATIONS

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical base	Polyurethane
Colour (CQP001-1)	Black
Cure mechanism	Moisture-curing ^A
Density (uncured)	1.3 kg/L
Non-sag properties (CQP061-1)	Very good
Application temperature	10 °C – 35 °C
Open time (CQP526-1)	30 minutes ^B
Early tensile lap-shear strength (CQP046-1 / ISO 4587)	(see table 1)
Shrinkage (CQP014-1)	1 %
Shore A hardness (CQP023-1 / ISO 48-4)	55
Tensile strength (CQP036-1 / ISO 527)	6 MPa
Elongation at break (CQP036-1 / ISO 527)	500 %
Tear propagation resistance (CQP045-1 / ISO 34)	13 N/mm
Tensile lap-shear strength (CQP046-1 / ISO 4587)	4.5 MPa
Service Temperature (CQP509-1 / CQP513-1)	-50 °C – 90 °C
Shelf life	9 months ^C

CQP = Corporate Quality Procedure

^{A)} provided by PowerCure

^{B)} 23 °C / 50 % r.h.

^{C)} storage below 25 °C

DESCRIPTION

Sikaflex®-268 PowerCure is an accelerated adhesive system specifically designed for the rail industry. Curing of Sikaflex®-268 PowerCure is accelerated by Sika's PowerCure technology which makes it largely independent of atmospheric conditions. It is suitable for assembly bonding and glazing applications; its outstanding weathering resistivity and unique resistance to a wide variety of cleaning agents make it an ideal solution for use in exterior joints in the rail industry.

Sikaflex®-268 PowerCure is compatible with Sika's black-primerless bonding process.

PRODUCT BENEFITS

- Resistant to a wide variety of cleaning agents
- Passes EN45545-2 R1/R7 HL3
- Fast-curing by PowerCure Technology
- Very good weathering stability
- Very good processing and tooling characteristics
- Solvent-free

AREAS OF APPLICATION

Sikaflex®-268 PowerCure is designed for assembly and direct-glazing applications in rail, commercial vehicle industry and repair markets. It exhibits excellent tooling and application properties. With its superior resistance to a wide range of cleaning agents combined with outstanding weathering resistance, it can be used for exterior joints.

Curing of Sikaflex®-268 PowerCure is accelerated by Sika's PowerCure technology which makes it largely independent of atmospheric conditions.

Seek manufacturer's advice and perform tests on original substrates before using Sikaflex®-268 PowerCure on materials prone to stress cracking.

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

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CURE MECHANISM

Sikaflex®-268 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]	Strength [MPa]
2	0.2
3	1
4	2
6	3.5

Table 1: Tensile lap-shear strength at 23 °C / 50 % r.h.

CHEMICAL RESISTANCE

Sikaflex®-268 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.

It is resistant to a wide range of rail cleaning agents if used according to the guidelines of the manufacturer. Some rail cleaning agents contain aggressive chemicals such as phosphoric acids which may influence the durability of Sikaflex®-268 PowerCure significantly. Therefore it is of highest importance to limit the exposure time to a minimum, observe correct dilution of cleaning agent and to perform a thorough rinsing after the cleaning process. Test newly introduced cleaning agents.

The above information is offered for general guidance only. Advice on specific applications will be given on request.

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

Setup the PowerCure Dispenser according to the PowerCure User Manual. If the application is discontinued for more than 15 minutes, the mixer needs to be replaced.

Sikaflex®-268 PowerCure can be applied at temperatures between 10 °C and 35 °C but changes in reactivity as well as application properties need to be considered. The optimum temperature for substrate and sealant 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 recommend to apply the adhesive in form of a triangular bead (see figure 1).

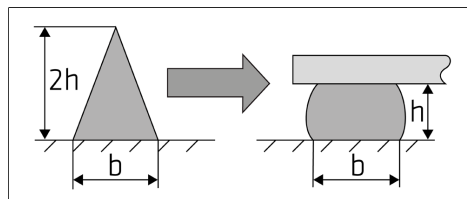


Figure 1: Recommended bead configuration

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 of lubricates must be tested for suitability and compatibility.

Removal

Uncured Sikaflex®-268 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.

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
- PowerCure User Manual and Quick Reference Guide
- General Guidelines
Bonding and Sealing with 1-component Sikaflex®

PACKAGING INFORMATION

PowerCure Pack	600 mL
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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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: www.sika.ca

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