Industry

Sikaflex®-271 PowerCure

Designed for PowerCure – Fast Curing High Strength Adhesive System

Typical Product Data

Chemical base	Polyurethane
Color (CQP[1] 001-1)	Black
Cure mechanism	Moisture-curing
Density (uncured) (CQP 006-4)	1.2 kg/l (10.0 lb/gal)
Non-sag properties (CQP-061-1)	Very good
Application temperature	5° – 40°C (41° – 105°F)
Open time[2] (CQP 526-1)	10 minutes
Early tensile lap-shear strength[2] (CQP 046-1)	See table 1
Shore A hardness (CQP 023-1 / ISO 868)	65
Tensile strength (CQP 036-1 / ISO 37)	7 MPa (1000 psi)
Elongation at break (CQP 036-1 / ISO 37)	300%
Tear propagation resistance (CQP 045-1 / ISO 34)	10 N/mm (60 pli)
Tensile lap-shear strength (CQP 509-1 / ISO 4587)	5 MPa (700 psi)
Service temperature (CQP 513-1)	-40 - 90°C (-40° – 194°F)
Shelf life (CQP 016-1) (storage below 25°C)	9 months

1) CQP = Corporate Quality Procedure 2)23°C (73°F) / 50% r.h.

Description

Sikaflex®-271 PowerCure is an accelerated 1-component polyurethane adhesive suitable for glass bonding applications.

It is made for Sika's PowerCure System and is applied using the PowerCure Dispenser.

Product Benefits

- Accelerated adhesive system for fast adhesion, curing and strength build-up
- Curing speed almost independent of climatic conditions
- Short cut-off string
- Excellent working characteristics
- PVC and solvent free

Areas of Application

Sikaflex®-271 PowerCure has been specially designed for applications where adhesion and strength build-up within a short period of time is required. It is well suited for direct glazing in assembly lines and for repair.

This product is suitable for professional experienced 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 the accelerator paste. For approx. strength build up values see table below.

Time [min]	Strength [MPa]
60	0.7 (100 psi)
120	3.5 (500 psi)

Table 1: Tensile lap shear strength at 23°C (73°F)/ 50 % r.h.

Chemical Resistance

Sikaflex®-271 PowerCure is resistant to fresh water, seawater, limewater, sewage effluent, dilute acids and caustic solutions; temporarily resistant to fuels, mineral oils, vegetable and animal fats and oils; not resistant to organic acids and caustic solutions or solvents.

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 dust, grease and contaminants. Due to the wide variety of substrate compositions, preliminary tests for new applications are mandatory. *It is required to test the substrate under original conditions to properly evaluate the required pre-treatment steps.*

Advice on specific applications is available from the Technical Department of Sika Industry.

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 is processed between 5°C and 40°C (40°F and 105°F) (change in reactivity needs to be considered). The optimum temperature for the substrate is between 15°C and 25°C (59°F and 77°F).

To ensure uniform thickness of the adhesive bead, we recommend that the adhesive is applied in the form of a triangular bead (see figure 1).

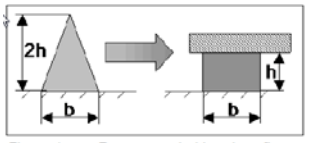

Figure 1: Recommended bead configuration

Removal

Uncured Sikaflex®-271 PowerCure 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 a suitable industrial hand cleaner and water. Do not use solvents!

Further Information

Copies of the following publications are available on request:

- Safety Data Sheets
- PowerCure User Manual and Quick Reference Guide

Packaging Information

PowerCure Pack	600 ml

Basis of Product Data

All technical data stated in this Product Data Sheet are based on laboratory tests only. 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.

Limited Material Warranty

Sika Corporation warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.

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