

PRODUCT DATA SHEET

# Sikasil® WT-66 PowerCure

Accelerated window bonding adhesive

## TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical base	Silicone	
Colour (CQP001-1)	Black	
Cure mechanism	Moisture-curing <sup>A</sup>	
Cure type	Neutral	
Density (uncured)	1.41 kg/l	
Non-sag properties (CQP061-4 / ISO 7390)	Good	
Application temperature	5 – 40 °C	
Open time (CQP526-1)	15 minutes <sup>B</sup>	
Early tensile lap-shear strength (CQP046-1)	(see table 1)	
Shore A hardness (CQP023-1 / ISO 48-4)	42	
Tensile strength (CQP036-1 / ISO 527)	1.7 MPa	
100 % modulus (CQP036-1 / ISO 527)	1.1 MPa	
Elongation at break (CQP036-1 / ISO 527)	250 %	
Tear propagation resistance (CQP045-1 / ISO 34)	3.8 N/mm	
Service temperature	-40 – 150 °C	
Shelf life (CQP016-1)	9 months <sup>C</sup>	

CQP = Corporate Quality Procedure

A) provided by PowerCure

 $^{\mbox{\footnotesize B)}}$  23 °C / 50 % r.h.

C) storage below 25 °C

## **DESCRIPTION**

Sikasil® WT-66 PowerCure is an accelerated 1-component silicone adhesive for bonding insulating glass units or glass panes into a window frame and for back-bedding applications. Sikasil® WT-66 PowerCure is applied using the PowerCure Dispenser and curing is largely independent from atmospheric conditions.

## **PRODUCT BENEFITS**

- Accelerated curing speed
- Good UV and weathering resistance
- Good mechanical properties
- Remains flexible over a wide temperature range
- Suitable for bonding of windows classified in accordance with DIN EN 1627 burglar resistance class RC 2 and RC 3
- Fulfills requirements in accordance with RAL-GZ 716 part 2, table 3 (PVC and glass) and ift-guideline VE-08/4, part 1, table A4

## AREAS OF APPLICATION

Sikasil® WT-66 PowerCure has a wide adhesion range on many substrates such as glass, (coated) metal, PVC and others. Sikasil® WT-66 PowerCure is used for back-bedding applications and bonding of insulating glass units into window frames. It's structural capabilities enable a stiffening of the window sash. It is further suitable for industrial bonding and sealing applications.

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

## **CURE MECHANISM**

Sikasil® WT-66 PowerCure cures mainly by reaction with the accelerator paste.

The speed of the reaction depends mainly on the temperature, i.e. the higher the temperature the faster the curing process. Heating above 50 °C could lead to bubble formation and is therefore not allowed.

For approx. strength build up values see table below.

Time [days]	Tensile lap-strength [MPa]
0.3	0.2
1	0.6
2	0.7
7	0.9
28	1.0

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

#### 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.

## **Application**

The optimum temperature for substrate and sealant is between 15  $^{\circ}\text{C}$  and 25  $^{\circ}\text{C}.$ 

Setup the PowerCure Dispenser according to the PowerCure User Manual. If the application is discontinued for more than 10 minutes, the mixer needs to be replaced. Joints must be properly dimensioned.

Basis for calculation of the necessary joint dimensions are the technical values of the adhesive and the adjacent building materials, the exposure of the building elements, their construction and size as well as external loads.

## Tooling and finishing

Tooling and finishing must be carried out within the open time of the adhesive. When tooling freshly applied Sikasil® WT-66 Power-Cure, press the adhesive to the joint flanks to get a good wetting of the bonding surface. No tooling agents must be used.

#### Removal

Uncured Sikasil® WT-66 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 have to be washed immediately using hand wipes such as Sika® Cleaner-350H cleaning towels or a suitable industrial hand cleaner and water.

Do not use solvents on skin.

## Overpainting

Sikasil® WT-66 PowerCure cannot be overpainted.

#### Application limits

Recommended solutions from Sika for structural glazing and window bonding are usually compatible with eachother. These solutions consist of products such as Sikasil® SG, IG, WS and WT series. For specific information regarding compatibility between various Sikasil® products and other Sika products contact the Technical Department of Sika Industry.

To exclude materials influencing Sikasil® WT-66 PowerCure, all materials such as gaskets, setting blocks, sealants etc., in direct and indirect contact have to be approved by Sika in advance.

Where two or more different reactive sealants are used, allow the first to cure completely before applying the next one.

The above mentioned Sika process materials may only be used in window bonding applications after a detailed examination and written approval of the corresponding project details by Sika Industry.

## **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 Guideline
- Window Bonding Sikasil® WT Adhesives
- 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

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