

## PRODUCT DATA SHEET

# Sikasil® WT-489

High-performance, two-part industrial window bonding silicone

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

Properties	Component A Sikasil® WT-489	Component B Sikasil® WT-489
Chemical base	2-component silicone	
Color (CQP001-1)	White	Black
	mixed	Grey
Cure mechanism	Polycondensation	
Cure type	Alkoxy	
Density (uncured)	mixed	1.05 kg/l (8.76 lbs/gal)
		1.28 kg/l (10.68 lbs/gal)
Mixing ratio	A:B by volume	10:1
	A:B by weight	12:1
Viscosity (CQP029-5 / ISO 3219)	675 Pa·s	600 Pa·s
Consistency	Paste	
Application temperature	ambient	5 – 40 °C (41 – 104 °F)
Snap time (CQP554-1)	10 minutes <sup>A</sup>	
Tack free time (CQP019-3)	40 minutes <sup>A</sup>	
Shore A hardness (CQP023-1 / ISO 48-4)	7 days curing at 23 °C / 50 % r.h.	35
Tensile strength (CQP036-1 / ISO 527)	1.8 MPa (260 psi)	
100 % modulus (CQP036-1 / ISO 527)	0.89 MPa (130 psi)	
Elongation at break (ASTM D412)	230 %	
Service temperature (CQP513-1)	-40 – 150 °C (-40 – 302 °F)	
Shelf life	15 months <sup>B</sup>	9 months <sup>B</sup>

CQP = Corporate Quality Procedure

<sup>A</sup>) 23 °C (73 °F) / 50 % r. h.<sup>B</sup>) stored below 25 °C (77 °F)
**DESCRIPTION**

Sikasil® WT-489 is a two-part, neutral-curing, and fast-setting silicone sealant and adhesive suitable for structural bonding of insulating glass units into window frames, back-bedding and heel or toe bead applications.

**PRODUCT BENEFITS**

- Designed for adhesion to a wide variety of substrates
- Compatible with traditional insulating glass edge sealing systems
- Very good mechanical properties for window bonding applications
- Optimized application properties for improved productivity of automated mix and dispense equipment
- Superior UV and weathering resistance
- Remains flexible over a wide temperature range
- Long-term durability

**AREAS OF APPLICATION**

Sikasil® WT-489 has a wide adhesion range on many substrates such as glass, (coated) metal, wood, PVC and many other substrates. In combination with its good mechanical properties, this makes the adhesive suitable for structural bonding of insulating glass units into window frames and for back-bedding applications. It is further suitable for demanding 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.

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## CURE MECHANISM

Sikasil® WT-489 starts to cure immediately after mixing the 2-components.

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 (122 °F), as this could lead to bubble formation.

The mixer open time, i. e. the time the material can remain in the mixer without flushing or extrusion of product, is significantly shorter than the snap time indicated above.

## 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 process material is between 15 °C and 25 °C (59 °F and 77 °F).

Before processing Sikasil® WT-489 both components have to be mixed homogeneously and air-bubble-free in the correct ratio as indicated with an accuracy of ±10 %. Most commercially available metering and mixing equipment are suitable. For advice on selecting and setting up a suitable pump system, contact the System Engineering Department of Sika Industry. Consider that the B-component is moisture-sensitive and must therefore only be exposed briefly to air.

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 snap time of the adhesive.

When tooling freshly applied Sikasil® WT-489, 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-489 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 or a suitable industrial hand cleaner and water.

Do not use solvents on skin.

## Overpainting

Sikasil® WT-489 cannot be overpainted.

## Application Limits

To exclude materials influencing Sikasil® WT-489, 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 structural glazing or 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

## PACKAGING INFORMATION

Sikasil® WT-489 (A)

Drum	197 kg (52 gal)
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Sikasil® WT-489 (B)

Pail	20 kg (5 gal)
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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.

## ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

## LEGAL DISCLAIMER

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at [usa.sika.com](http://usa.sika.com) or by contacting SIKA's Technical Service Department via email at [tsmh@us.sika.com](mailto:tsmh@us.sika.com). Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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## Sika Corporation

30800 Stephenson Highway  
Madison Heights, MI 48071  
U.S.A.

Telephone: +1 248-577-0020

Email: [tsmh@us.sika.com](mailto:tsmh@us.sika.com)

[www.sikausa.com](http://www.sikausa.com)

