BUILDING TRUST

PRODUCT DATA SHEET

Sikasil® WT-480

HIGH-MODULUS, 2-COMPONENT WINDOW BONDING ADHESIVE

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties		Sikasil® WT-480 (A)	Sikasil® WT-480 (B)
Chemical base		2-component silicone	
Color (CQP001-1)		White, light grey	Black, dark grey
	mixed	Black, grey S6	
Cure mechanism		Polycondensation	
Cure type		Neutral	
Density (uncured)		1.4 kg/l	1.1 kg/l
	mixed	1.4 kg/l	
Mixing ratio	A:B by volume	10:1	
	A:B by wight	13:1	
Viscosity (CQP029-6)		1 100 Pa·s	250 Pa·s
Consistency		Paste	
Application temperature	ambient	5 – 40 °C	
Snap time (CQP554-1)		35 minutes [A]	
Tack free time (CQP019-3)		180 minutes [A]	
Shore A hardness (CQP023-1 / ISO 7619-1)		60	
Tensile strength (CQP036-1 / ISO 527)		2.5 MPa	
100 % modulus (CQP036-1 / ISO 527)		2.0 MPa	
Elongation at break (CQP036-1 / ISO 527)		140 %	
Tear propagation resistance (CQP045-1 / ISO 34)		2.5 N/mm	
Service temperature (CQP513-1)		-40 – 150 °C	
Shelf life (CQP016-1)		15 months [C]	12 months [C]

CQP = Corporate Quality Procedure

[A] 23 °C / 50 % r. h.

[B] For further values including design values see Calculation Value Sheet

[C] stored below 25 °C

DESCRIPTION

Sikasil® WT-480 is a 2-component, neutral-curing structural silicone adhesive with very high modulus, for structural bonding of insulating glass units into window frames and for back-bedding applications.

PRODUCT BENEFITS

- Meets requirements of EOTA ETAG 002 and RAL-GZ 716/1
- Very high modulus
- Excellent adhesion to a wide variety of substrates
- Outstanding UV and weathering resistance
- Very good mechanical properties
- Good gap-filling capabilities
- Remains flexible over a wide temperature range
- Long-term durability

AREAS OF APPLICATION

Sikasil® WT-480 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, especially the high modulus of elasticity, this makes the adhesive most suitable for structural bonding of insulating glass units into window frames and for back-bedding applications. It is further suitable for highly 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 to ensure adhesion and material compatibility.

CURE MECHANISM

Sikasil® WT-480 starts to cure immediately after mixing the two 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 could lead to bubble formation and is therefore not allowed.
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 sealant is between 15 °C and 25 °C.
Before processing Sikasil® WT-480 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-480, 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-480 may be re-moved from tools and equipment with Sika® Remover-208 or another suitable solvent. Once cured, the material can only be removed mechanically.
Re-usable, usually metallic, static mixer can be cleaned with Sika® Mixer Cleaner.
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-480 cannot be overpainted.

Application limits

Recommended solution from Sika for structural glazing and window bonding are usually compatible to each other. 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-480, 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
- General Guideline
  Window Bonding Sikasil® WT Adhesives

PACKAGING INFORMATION

Sikasil® WT-480 (A)

Pail	26 kg
Drum	260 kg

Sikasil® WT-480 (B)

Pail	20 kg

Sikasil® WT-480 (A+B)

Side by side cartridge	490 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.

Sika Hellas ABEE
15 Protomagias Str.
14568 Kryoneri
Attica-Greece
Tel.: +30 210 8160 600
Fax: +30 210 8160 606
www.sika.gr | sika@gr.sika.com