

## Product Data Sheet

Version 01/2009 (05/2013)

**Sikasil® WT-480**

## High-Modulus Adhesive for Structural Glass Bonding

## Technical Data

		Component A	Component B
Chemical Base		2-part Silicone	
Colour (CQP <sup>1</sup> 001-1)		Off-White	Black
Colour - mixed		Black	
Cure Mechanism		Polycondensation	
Cure Type		Alkoxy	
Density (CQP 006-04)		1.4 kg/L approx	1.1 kg/L approx
		Mixed 1.37 kg/L approx	
Mixing Ratio		A:B by volume 10:1	
		A:B by weight 13:1	
Viscosity (CQP 029-6)		1,100 Pa's approx	250 Pa's approx
Consistency		Paste	
Application Temperature		5°C to 40°C	
Snap Time <sup>2</sup> (CQP 554-1)		35 min approx	
Tack-Free Time <sup>2</sup> (CQP 019-1)		180 min approx	
Shore A Hardness (CQP 023-1/ISO 868)		60 approx	
Tensile Strength (CQP 036-1/ISO 527)		2.5 N/mm <sup>2</sup> approx	
Elongation at Break (CQP 036-1/ISO 527)		140% approx	
100% Modulus (CQP 036-1/ISO 527)		2.0 N/mm <sup>2</sup> approx	
12.5% Modulus <sup>3</sup> (CQP 036-1/ISO 527)		0.5 N/mm <sup>2</sup> approx	
Movement Accommodation Capability (ASTM C 719)		+/- 12.5%	
Thermal Resistance (CQP 513-1)		180°C approx	
		Short-Term 4 hours 190°C approx	
		1 hour 200°C approx	
Service Temperature		-40 to 150°C approx	
Shelf Life (Storage below 25°C) (CQP 016-1)		12 months	
<sup>1</sup> CQP = Corporate Quality Procedure <sup>2</sup> 23°C and 50% Relative Humidity <sup>3</sup> For further values, including design values, see Calculation Value Sheet.			

## Description

Sikasil® WT-480 is a high modulus, two-part, silicone adhesive which develops mechanical strength and adhesion within a short period of time. Sikasil® WT-480 is manufactured in accordance with ISO 9001 Quality Assurance System.

## Product Benefits

- Excellent adhesion to most relevant substrates ;
- Outstanding UV and weathering resistance;
- Remains flexible over a wide temperature range; long-term durability;
- Meets requirements of EOTA ETAG 002 and RAL-GZ 716/1.

## Areas of Application

Sikasil® WT-480 adheres well to 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. This product is suitable for professional experienced users only. Tests with actual substrates and conditions must be performed to ensure adhesion and material compatibility.



<b>Cure Mechanism</b>	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 is not advisable as it may 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. For more information, contact the Technical Services Department of Sika Industry.
<b>Application Limits</b>	All Sikasil® SG, IG, WT, WS and FS silicone sealants and adhesives are compatible with each other. Sikasil® SG, IG and WT sealants and adhesives are compatible with SikaGlaze® IG sealants. All other sealants have to be approved by Sika before using them in combination with Sikasil® WT-480. Where two or more different reactive sealants are used, allow the first to cure completely before applying the next. Sikasil® SG, IG and WT sealants and adhesives may only be used in structural glazing or window bonding applications by experienced professionals and after a detailed examination and written approval of the corresponding project details by the Technical Services Department of Sika Industry. The compatibility of gaskets, backer rods, setting blocks and other accessory materials with Sikasil® WT-480 must be tested in advance. The above information is offered for general guidance only. Advice on specific applications will be given upon request.
<b>Surface Preparation</b>	Surfaces must be clean, dry and free from oil, grease and dust. Advice on specific applications and surface pretreatment methods is available from the Technical Services Department of Sika Industry.
<b>Mixing</b>	This is a two-component product that requires thorough mixing for proper performance; mix both components in the correct ratio (to an accuracy of +/- 10%) to obtain a homogeneous and air-bubble-free mixture. Most commercially available metering and mixing equipment is suitable. Please contact Technical Services for specific advice. <b>Note:</b> While Component A is stable in air, Component B is moisture sensitive and must be exposed to air only very briefly.
<b>Application</b>	Joints must be properly dimensioned as changes will no longer be possible after construction. The technical values of the adhesive and adjacent building materials, the exposure of the building elements, their construction and size, as well as external loads must form the basis for calculating the necessary joint dimensions. For more information, contact Technical Services.
<b>Tooling and Finishing</b>	Tooling and finishing must be carried out within the Snap Time of the adhesive.
<b>Removal</b>	Uncured sealant may be removed from tools and equipment with Sika® Remover-208 or other suitable solvent. Once cured, the material can only be removed mechanically. Hands and exposed skin should be washed immediately using Sika® Hand Cleaner towels or other suitable industrial hand cleaner and water. Do not use solvents!
<b>Over-Painting</b>	Sikasil® WT-480 is an elastic adhesive and cannot be over-painted.
<b>Further Information</b>	Copy of the following publication is available upon request: <i>Material Safety Data Sheet</i> .
<b>Packaging</b>	<b>Component A:</b> 260 kg Drums; <b>Component B:</b> 20 kg Pails
<b>Value Bases</b>	All technical data stated in this Product Data Sheet are laboratory test-based. Current measured values may vary due to factors beyond our influence.
<b>Health and Safety Information</b>	For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the current Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data for the appropriate type of substance. Product Data Sheets and Material Safety Data Sheets are available on our website at: <a href="http://www.sika.ca">www.sika.ca</a> or via your local Technical Sales Representative.

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, within their shelf life. 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 proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request or can be accessed in the Internet under [www.sika.ca](http://www.sika.ca).

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