

PRODUCT DATA SHEET

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STRUCTURAL SEALANT GLAZED CURTAIN WALLS

Sikasil® SG-500 CN^{US}

TWO-COMPONENT STRUCTURAL SILICONE ADHESIVE

Technical Data	Properties	Component A	Component B
	Chemical Base	2-C Silicone	
Colour (CQP ¹ 001-1)	Mixed	White	Black
Cure Mechanism		Black	
Cure Type	Polycondensation		
Density (CQP 006-04)	Mixed	1.4 kg/L approx	1.08 kg/L approx
Mixing Ratio		1.38 kg/L approx	
Viscosity (CQP 029-6)	A:B by volume	10:1	
Consistency	A:B by weight	13:1	
Application Temperature	1,200 Pa's approx		
Snap Time ² (CQP 554-1)	130 Pa's approx		
Tack-Free Time ² (CQP 019-1)	Paste		
Shore A Hardness (CQP 023-1/ISO 868/ASTM C-661)	5 °C to 40 °C		
Tensile Strength (CQP 036-1/ISO 37/ASTM D-412)	60 min approx		
Elongation at Break (CQP 036-1/ISO 37/ASTM D-412)	270 min approx		
Tear Propagation Resistance (CQP 045-1/ISO 34)	40 approx		
100% Modulus (CQP 036-1/ISO 37/ASTM D-412)	2.0 N/mm ² approx		
12.5% Modulus (CQP 036-1/ISO 37/ASTM D-412)	350 %		
Movement Accommodation Capability (ASTM C 719)	4 N/mm ² approx		
Tension design stress under permanent load (EN 13022)	1.0 N/mm ² approx		
Shear design stress under permanent load (EN 13022)	0.2 N/mm ² approx		
Thermal Resistance	4 hours 1 hour	+/-12.5 %	
Short-Term		0.14 N/mm ²	
Service Temperature	0.01 N/mm ²		
Shelf Life (Storage below 25 °C) (CQP 016-1)	-40 °C to 150 °C (-40 °F to 300 °F)		
	15 months	12 months	

¹ CQP = Corporate Quality Procedure ²23 °C and 50 % Relative Humidity

Description Sikasil® SG-500 CN^{US} is a two-part, high-modulus, neutral curing structural silicone adhesive.

- Product Benefits**
- Meets requirements of ASTM C 1184, ASTM C 920 and GB 16776;
 - Offers broad adhesion range;
 - Resistant to UV and weathering;
 - Offers long-term durability;
 - Quality product based on proven and constant-quality raw materials.

Areas of Application	Sikasil® SG-500 CN ^{US} is ideal for structural glazing and similar highly-demanding industrial applications. This product is suitable for professional experienced users only. Tests with actual substrates and conditions must be performed to ensure adhesion and material compatibility.
Cure Mechanism	Sikasil® SG-500 CN ^{US} starts to cure immediately after mixing the two components. The speed of the reaction depends mainly on the temperature; 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 listed in the property table. For more information, contact the Technical Services Department of Sika Industry.
Surface Preparation	Surfaces must be clean, dry and free from oil, grease and dust. Advice on specific applications and surface pretreatment methods will be given on request. Contact Sika Canada's Technical Service.
Mixing	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 %. Most commercially available metering and mixing equipments are suitable. While the A-part of Sikasil® SG-500 CN ^{US} is stable in air, the B-part is moisture sensitive and must only be exposed briefly to air. Advice on specific applications will be given on request. Joints must be properly dimensioned as changes are no longer possible after construction. 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. No tooling agents should be used.
Removal	Uncured sealant may be removed from tools and equipment with Sika® Remover-208 or other suitable solvent. Strictly follow solvent manufacturer's instructions for use and warnings. 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 on skin!
Over-painting	Sikasil® SG-500 CN ^{US} cannot be over-painted.
Application Limits	Most Sikasil® WS, FS, SG, IG, WT, AS and other engineering silicone sealants manufactured by Sika are compatible with each other and with SikaGlaze® IG sealants, however, in all cases for specific information regarding compatibility between various Sikasil® and SikaGlaze® products, please contact the Technical Services Department of Sika Industry. All other sealants have to be approved by Sika before using them in combination with Sikasil® SG-500 CN ^{US} . Where two or more different reactive sealants are used, allow the first to cure completely before applying the next. Sikasil®IG, SG, 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 Service Department of Sika Industry. The compatibility of gaskets, backer rods, setting blocks and other accessory materials with Sikasil® SG-500 CN ^{US} must be tested in advance. Where two or more different reactive sealants are used, allow the first to cure completely before applying the next.
Further Information	Copy of the following publication is available upon request: <i>Safety Data Sheet</i>
Packaging	Drums (Part A): 260 kg Pail (Part B): 20 kg
Value Bases	All technical data stated on this Product Data Sheet are based on the results of laboratory tests only. Actual measured data in the field may vary due to site specific conditions which are not known to Sika and beyond our control.
Health and Safety Information	For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent SAFETY DATA SHEET containing physical, ecological, toxicological and other safety-related data. KEEP OUT OF REACH OF CHILDREN FOR INDUSTRIAL USE ONLY

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 shelflife. 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 information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: www.sika.ca

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