

PRODUCT DATA SHEET

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STRUCTURAL SEALANT GLAZED CURTAIN WALLS

Sikasil® SG-18

STRUCTURAL SILICONE ADHESIVE

Technical Data		
Chemical Base		1-C silicone
Colour (CQP ¹ 001-1)		Black and Grey S6
Cure Mechanism		Moisture-curing
Cure Type		Neutral
Density (uncured)		1.5 kg/L
Non-Sag Properties (CQP 061-4/ISO 7390)		2 mm
Application Temperature	ambient	5 °C to 40 °C
Skin Time (CQP 019-1)		30 minutes ¹
Tack Free Time (CQP 019-3)		90 minutes ¹
Curing Speed (CQP 049-1)		See Diagram 1
Shore A Hardness (CQP 023-1/ISO 868)		44
Tensile Strength (CQP 036-1/ISO 37)		2 MPa
100% Modulus (CQP 036-1/ISO 37)		1.1 MPa
Elongation at Break (CQP 036-1/ISO 37)		300 %
Tear Propagation Resistance (CQP 045-1/ISO 34)		4 N/mm
Thermal Resistance (CQP 513-1)	4 hours 1 hour	200 °C 220 °C
Service Temperature		-40 °C to 150 °C
Shelf Life (CQP 016-1)	Cartridge/pail Unipack	12 months ² 15 months ²
CQP = Corporate Quality Procedure; ¹ 23 °C and 50 % Relative Humidity ² Storage below 25 °C		

Description Sikasil® SG-18 is a neutral-curing silicone adhesive with excellent adhesion to a wide range of substrates.

- Product Benefits**
- Meets requirements of ASTM C 1184, and ASTM C 920 class 12.5;
 - Outstanding UV and weathering resistance;
 - Bonds well to glass, metals and coated metals.

Areas of Application Sikasil® SG-18 can be used as a structural glazing adhesive and for other bonding applications where superior resistance to UV radiation, high temperatures and weathering is required. This product is suitable for professional experienced users only. Tests with original substrates and conditions must be performed to ensure adhesion and material compatibility.

Cure Mechanism Sikasil® SG-18 cures by reaction with atmospheric moisture. At low temperatures the water content of the air is generally lower and the curing reaction proceeds somewhat slower (See Diagram 1).

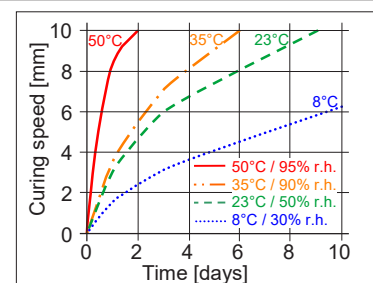


Diagram 1:
Sikasil® SG-18 curing speed

METHOD OF APPLICATION	
Surface Preparation	Surfaces must be clean, dry and free from oil, grease 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. Sikasil® SG-18 can be processed with hand, pneumatic or electric driven piston guns as well as pump equipment. For advice on selecting and setting up a suitable pump system, contact the System Engineering Department of Sika Industry. Joints must be properly dimensioned. Basis for calculation of the necessary joint dimensions are the technical values of the adhesive and the adjacent building elements, their construction and size as well as external loads. Joints deeper than 15 mm should be avoided.
Tooling and Finishing	Tooling and finishing must be carried out within the Skin Time of the sealant or adhesive. When tooling freshly applied Sikasil® SG-18, press the adhesive into the joint flanks to achieve proper wetting of the bond surface. No tooling agents to be used.
Removal	Uncured Sikasil® SG-18 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 should be washed immediately using Sika® Hand Cleaner towels or suitable industrial hand cleaner and water. Do not use solvents on skin!
Over-painting	Sikasil® SG-18 cannot be over-painted.
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, WT as well as SikaHyflex®-300 and -600 series. For specific information regarding compatibility between various Sikasil® and SikaHyflex® products contact the Technical Department of Sika Industry. To exclude materials influencing Sikasil® SG-18, all materials such as gaskets, tapes, setting blocks, sealants, ect., in direct and indirect contact have to be approved by Sika in advance. Where two or more different reactive sealant are used, allow the first to cure completely before applying the next. 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 application is available on request from the Technical Department of Sika Industry. Copies of the following publications are available upon request: <ul style="list-style-type: none"> ▪ Safety Data Sheets ▪ General Guidelines “Structural Silicone Glazing with Sikasil® Adhesive”
Packaging information	Cartridge of 300 mL; Unipack of 600 mL; Pail of 26 kg
Value Bases	All technical data stated in this Product Data Sheet are laboratory test-based. Current measured values may vary due to factors beyond our influence.
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

SIKA CANADA INC.

Head Office
601, avenue Delmar
Pointe-Claire, Quebec
H9R 4A9

Other locations
Toronto
Edmonton
Vancouver

1-800-933-SIKA
www.sika.ca

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