BUILDING TRUST

PRODUCT DATA SHEET

Sikasil® SG-20

High-strength, 1-component silicone structural glazing adhesive, CE-marked

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical base		1-component silicone
Colour (CQP001-1)		Black, grey S6, white S3
Cure mechanism		Moisture-curing
Cure type		Neutral
Density (uncured)		1.36 kg/l
Non-sag properties (CQP061-4 / ISO 7390)		Very good
Application temperature	ambient	5 – 40 °C
Skin time (CQP019-1)		25 minutes [A]
Tack free time (CQP019-3)		180 mintues [A]
Curing speed (CQP049-1)		(see diagram)
Shore A hardness (CQP023-1 / ISO 48-4)		39
Tensile strength (CQP036-1 / ISO 527)		2.2 MPa
100 % modulus (CQP036-1 / ISO 527)		0.9 MPa
Elongation at break (CQP036-1 / ISO 527)		450 %
Tear propagation resistance (CQP045-1 / ISO 34)		7 N/mm
Service temperature		-40 – 150 °C
Shelf life		9 months [B]

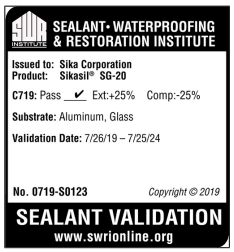
CQP = Corporate Quality Procedure

[A] 23 °C / 50 % r. h.

[B] stored below 25 °C

DESCRIPTION

Sikasil® SG-20 is a 1-component, neutral-curing structural glazing silicone adhesive, which combines mechanical strength with high elongation. It is complying with EOTA ETAG 002 and provided with the CE-mark. It adheres excellent to a wide range of substrates.



PRODUCT BENEFITS

- Meets requirements of EOTA ETAG 002 (carries ETA), EN 13022, ASTM C1184, ASTM C920 for Type S, Grade NS, Class 25 (movement capability ± 25 %)
- Structural sealant for structural sealant glazing systems according ETAG 002 Part 1, ETA-06/0090 issued by Technical Assessment Body Centre Scientifique et Technique du Bâtiment, Declaration of Performance 15323048 by notified product certification body 0757, certificate of constancy of performance 0757-CPR-596-7110760-4-6, provided with the CE marking
- Design tensile strength for dynamic loads: σ_{des} = 0.17 MPa (ETA)
- Fire rated class B1 (DIN 4102-1)
- Outstanding UV and weathering resistance
- Bonds excellent to glass, metals, coated metals, plastics and wood
- SNJF-VEC recognzied (product code: 2436)
- Complies with common VOC requirements: Indoor Air Comfort GOLD: pass, EMICODE: EC1 Plus, French VOC Regulation: A+, BREEAM International (v.6 2021)/BREEAM NOR (v.6 2022): Exemplary Level, M1: pass, Global LEED v4/v4.1 beta EQc 2: Low-Emitting Materials: CDPH-IAQ SCAQMDRule1168

AREAS OF APPLICATION

Sikasil® SG-20 is ideal for structural glazing and other bonding applications where high mechanical performance with silicone is required.

This product is suitable for experienced professional users only. Tests with actual substrates and conditions have to be performed ensuring adhesion and material compatibility.

CURE MECHANISM

Sikasil® SG-20 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).

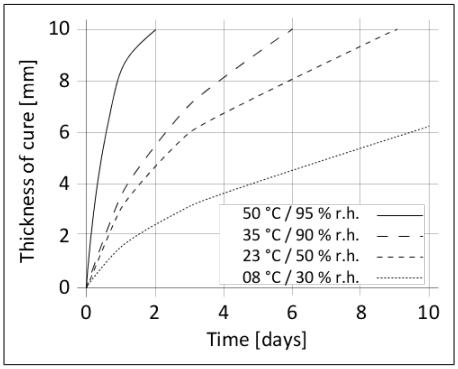


Diagram 1: Curing speed Sikasil® SG-20

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.
Sikasil® SG-20 can be processed with manual, 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 materials, the exposure of the building elements, their construction and size as well as external loads.
Joints deeper than 15 mm must 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-20 press the adhesive to the joint flanks to get a good wetting of the bonding surface. No tooling agents to be used.

Removal

Uncured Sikasil® SG-20 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 such as Sika® Cleaner-350H or a suitable industrial hand cleaner and water.
Do not use solvents on skin.

Overpainting

Sikasil® SG-20 cannot be overpainted.

Application Limits

Recommended solutions 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® SG-20, all materials such as gaskets, tapes, 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
  Structural Silicone Glazing with Sikasil® SG Adhesives

PACKAGING INFORMATION

Cartridge	300 ml
Unipack	600 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

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

DISCLAIMER

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