

PRODUCT DATA SHEET

Sikasil® SG-550

High-strength, 2-component silicone structural glazing adhesive, CE-marked

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

| Properties | Sikasil® SG-550 (A) | Sikasil® SG-550 (B) |
|---|--------------------------------|------------------------|
| Chemical base | 2-component silicone | |
| Color (CQP001-1) | White | Black |
| | Black | |
| Cure mechanism | Polycondensation | |
| Cure type | Neutral | |
| Density (uncured) | 1.35 kg/l | 1.08 kg/l |
| | 1.33 kg/l | |
| Mixing ratio | A:B by volume A:B by weight | 10:1 12:1 |
| Viscosity (CQP029-6) | 1 100 Pa·s | 200 Pa·s |
| Consistency | Paste | |
| Application temperature | ambient 5 – 40 °C | |
| Snap time (CQP554-1) | 30 minutes ^A | |
| Tack free time (CQP019-3) | 150 minutes ^A | |
| Shore A hardness (CQP023-1 / ISO 48-4) | 55 | |
| Tensile strength (CQP036-1 / ISO 527) | 3.4 MPa | |
| 100 % modulus (CQP036-1 / ISO 527) | 1.7 MPa | |
| Elongation at break (CQP036-1 / ISO 527) | 300 % | |
| Tear propagation resistance (CQP045-1 / ISO 34) | 4.5 N/mm | |
| Service temperature (CQP513-1) | -40 – 150 °C | |
| Shelf life | 12 months ^B | 12 months ^B |

CQP = Corporate Quality Procedure

^{A)} 23 °C / 50 % r. h.^{B)} storage below 25 °C

DESCRIPTION

Sikasil® SG-550 is a 2-component, neutral-curing structural silicone adhesive with very high mechanical strength. It is mainly used for structural glazing applications and is well suited wherever in structural bonding higher mechanical strength is required. It is complying with EOTA ETAG 002 and provided with the CE-mark.

PRODUCT BENEFITS

- Meets requirements of EOTA ETAG 002 (carries ETA), EN 15434, ASTM C1184 and ASTM C920 (class 12.5)
- Outstanding UV and weathering resistance
- Structural Sealant Glazing Kit: Structural Sealant according ETAG 002 Part 1 Edition November 1999 (Revised March 2012) used as EAD, ETA-11/0392 issued by Technical Assessment Body Österreichisches Institut für Bautechnik, Declaration of Performance 60241468, certified by notified product certification body 0757, certificate of constancy of performance 0757-CPR-596-7110760-5-4, and provided with the CE marking
- High design tensile strength for dynamic loads: $\sigma_{des} = 0.20$ MPa (ETA)
- SNJF-VEC recognized (product code: 3741)
- Complies with common VOC requirements: Indoor Air Comfort GOLD: pass, EMICODE: EC1 Plus, BREEAM International (v.6 2021), LEED v4/v4.1 EQc 2: Low-Emitting Materials

AREAS OF APPLICATION

Sikasil® SG-550 is ideal for structural glazing and other bonding applications where high mechanical strength 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.

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CURE MECHANISM

Sikasil® SG-550 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.

When processing Sikasil® SG-550 both components have to be mixed homogeneously and air-bubble-free in the correct ratio as indicated with an accuracy of $\pm 10\%$. 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® SG-550, 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® SG-550 may be removed 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® SG-550 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® SG-550, 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
Structural Silicone Glazing with Sikasil® SG Adhesives

PACKAGING INFORMATION

Sikasil® SG-550 (A)

| | |
|------|--------|
| Pail | 25 kg |
| Drum | 250 kg |

Sikasil® SG-550 (B)

| | |
|------|-------|
| Pail | 20 kg |
|------|-------|

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.

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Sika Hellas ABEE
15, Protomagias Str.
GR 145 68, Kryoneri, Attica
Tel.: +30 210 81 60 600
E-mail: info@gr.sika.com
www.sika.gr

