

Sikasil® WS-305 S

Weatherproofing sealant

Technical Product Data

Chemical base	1-C silicone	
Color (CQP ¹⁾ 001-1)	See color chart	
Cure mechanism	Moisture-curing	
Cure type	Neutral	
Density (uncured) (CQP006-4)	1,5 kg/l.	
Non-sag properties	≤ 2mm	
Application temperature	+5°C to -40°C	
Skin time ²⁾ (CQP019-1)	20 min.	
Curing speed (CQP049-1)	(see diagram 1)	
Elastic recovery(GB/T 14683)	90%	
Elongation at break (CQP036-1 / ISO 37)	900% approx.	
100% modulus (CQP 555-1 / GB/T 14683)	0.4 N/mm ²	
Thermal resistance (CQP 513-1)	4 hours	200 °C
short term	1 hour	220 °C
Service temperature (CQP513-1)	permanent	-40°C to +150°C
Shelf life (storage below 25°C) (CQP016-1)	15 months	

¹⁾ CQP = Corporate Quality Procedures

²⁾ 23°C / 50% r.h.

Description

Sikasil® WS-305 S is neutral-curing silicone sealant with a high movement capability and excellent adhesion to a wide range of substrates.

Product Benefits

- Meets requirements of GB/T14683-2017
- Outstanding UV and weathering resistance
- Adheres well to many substrates including glass, metals, coated and painted metals, plastics and wood

Areas of Application

Sikasil® WS-305 S can be used for weatherproofing and sealing applications where durability under severe conditions is required. Sikasil® WS-305 S is particularly suited as a weather seal for curtain walling and windows. This product is suitable for professional experienced users only. Tests with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.



Cure Mechanism

Sikasil® WS-305 S cures by reaction with atmospheric moisture.

The reaction thus starts at the surface and proceeds to the core of the joint. The curing speed depends on the relative humidity and the temperature (see diagram 1). Heating above 50 °C to speed-up the vulcanization is not advisable as it may lead to bubble formation.

At low temperatures the water content of the air is lower and the curing reaction proceeds more slowly

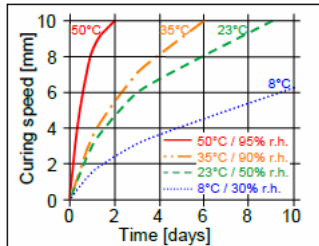


Diagram 1: Curing Sikasil® WS-305 S

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. For specific information regarding compatibility between various Sikasil® and SikaGlaze® products contact the Technical Department of Sika Industry. All other sealants have to be approved by Sika before using them in combination with Sikasil® WS-305 S. Where two or more different reactive sealants are used, allow the first to cure completely before applying the next.

Do not use Sikasil® WS-305 S on pre-stressed polyacrylate and polycarbonate elements as it may cause environmental stress cracking (crazing).

The compatibility of gaskets, backer rods and other accessory materials with S Sikasil® WS-305 S must be tested in advance.

Joints deeper than 15 mm have to

be avoided.

The above information is offered for general guidance only. Advice on specific applications will be given on request.

Method of Application

Surface preparation

Surfaces must be clean, dry and free from oil, grease and dust. Advice on specific applications and surface pre-treatment methods is available from the Technical Department of Sika Industry.

Application
After suitable joint and substrate preparation, Sikasil® WS-305 S is gunned into place. Joints must be properly dimensioned as changes are no longer possible after construction. For optimum performance the joint width needs to be designed according to the movement capability of the sealant based on the actual expected movement. The minimum joint depth is 6 mm and a width / depth ratio of 2:1 must be respected. For backfilling it is recommended to use closed cell, sealant compatible foam backer rods e.g. high resilience polyethylene foam rod. If joints are too shallow for backing material to be employed, we recommend using a polyethylene tape. This acts as a release film (bond breaker), allowing the joint to move and the silicone to stretch freely.

For more information contact the Technical Department of Sika Industry.

Tooling and finishing

Tooling and finishing must be carried out within the skin time of the adhesive. When tooling freshly applied Sikasil® WS-305 S press the adhesive to the joint flanks to get a good wetting of the bonding surface.

Removal

Uncured Sikasil® WS-305 S 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® Handclean towels or a suitable industrial hand cleaner and water. Do not use solvents!

Overpainting
Sikasil® WS-305 S cannot be overpainted.

Further Information

Copies of the following publications are available on request:

- Safety Data Sheet
- General Guidelines: Solutions for Facades - Application of Sikasil® Weather Sealants

Packaging Information

Unipack	600 ml
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Value Bases

All technical data stated in this Product Data Sheet 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.

Legal Notes

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 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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