

Product Data Sheet

Version 07/2009 (05/2012)

Sikasil® WS-305 CN

Water-Proofing Sealant

Technical Data

Chemical Base	1-C Silicone
Colour (CQP ¹ 001-1)	Black, Grey, Bronze, Med. Bronze, Colonial White, White, Limestone, Aluminium. Custom-colours also available by special order
Cure Mechanism	Moisture
Cure Type	Neutral
Density (uncured) (CQP 006-4)	1.49 kg/L approx
Non-Sag Properties (CQP 061-4/ISO 7390)	< 2 mm approx
Application Temperature	5°C to 40°C
Skin Time ² (CQP 019-2)	35 minutes approx
Tack-Free Time ² (CQP 019-1)	180 minutes approx
Curing Speed (CQP 049-1)	See Graph
Shore A Hardness (CQP 023-1/ISO 868)	15 approx
Tensile Strength (CQP 036-1/ISO 37)	1.0 N/mm ² approx
Elongation at Break (CQP 036-1/ISO 37)	900% approx
Tear Propagation Resistance (CQP 045-1/ISO 34)	4.0 N/mm approx
100% Modulus (CQP 036-1/ISO 37)	0.4 N/mm ² approx
Movement Accommodation Capability (ASTM C-719)	+/-50%
Thermal Resistance (CQP 513-1)	Long Term 180°C approx Short Term - 4 hours 200°C approx - 1 hour 220°C approx
Service Temperature	-40 to 150°C approx
Shelf Life (Storage below 25°C)(CQP 016-1)	12 months
¹ CQP = Corporate Quality Procedure; ² 23°C and 50% Relative Humidity	

Description

Sikasil® WS-305 CN is a neutral-curing silicone adhesive with high movement capability and excellent adhesion to a wide range of substrates. Sikasil® WS-305 CN is manufactured in accordance with ISO 9001 Quality Assurance System.

Product Benefits

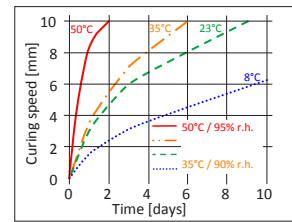
- Meets requirements of ASTM C 920 (class 50), TT-S00230C, TT-S001543A;
- Outstanding UV- and weathering-resistance;
- Adheres well to many substrates, including glass, metals, coated and painted metals, plastics and wood.

Areas of Application

Sikasil® WS-305 CN can be used for weatherproofing and sealing applications where durability under severe conditions is required. Sikasil® WS-305 CN is particularly suited as a weather-seal for curtain walls and windows. 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® WS-305 CN cures by reaction with atmospheric moisture. The reaction starts at the surface and proceeds to the core of the joint. The curing speed depends on the relative humidity and the temperature (see graph). 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 process slowed.



Curing Speed 1-C Sikasil

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, 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® WS-305 CN. 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 CN on pre-stressed polyacrylate and polycarbonate elements as it may cause environmental stress-cracking (crazing). The compatibility of gaskets, backer-rods, setting-blocks and other accessory materials with Sikasil® WS-305 CN must be tested in advance. **Note:** Joints of more than 15 mm are to be avoided. The above information is offered for general guidance only. Advice on specific applications will be given upon request.

Surface Preparation Surfaces must be clean, dry and free from oil, grease and dust. Advice on specific applications and surface pretreatment methods is available from the Technical Services Department of Sika Industry.

Application Gun Sikasil® WS-305 CN into suitably-dimensioned joints. For optimum performance, the joint width should 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 back-filling, 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 Sika Technical Services.

Tooling and Finishing Tooling and finishing must be carried out within the Skin Time of the adhesive. When tooling freshly applied Sikasil® WS-305 CN, press the adhesive into the joint flanks to achieve proper wetting of the bond surface.

Removal Uncured Sikasil® WS-305 CN may be removed from tools and equipment with Sika® Remover-208 or other 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!

Overpainting Sikasil® WS-305 CN cannot be overpainted.

Further Information Copy of the following publication is available upon request: *Material Safety Data Sheet*.

Packaging 24 x 295 ml Cartridges; 20 x 600 ml Sausages; 7.5 L Pails; and 197 L Drums

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 current Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data for the appropriate type of substance. Product Data Sheets and Material Safety Data Sheets are available on our website at: www.sika.ca or via your local Technical Sales Representative.

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 shelf life. 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 proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request or can be accessed in the Internet under www.sika.ca.

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