

Sikasil® WS-305 CN

Weatherproofing Sealant

Typical Product Data (for further data please see Safety Data Sheet)

Chemical base	1-C silicone	
Color	Multiple	
Cure mechanism	Moisture-curing	
Cure type	Neutral	
Density, uncured	1.40 kg/l (1.40 g/cc)	
Non-sag properties	2 mm (0.08")	
Application temperature	40°F to 105°F (5°C to 40°C)	
Skin time ^A	50 minutes	
Tack free time ^A	130 minutes	
Curing speed	(see diagram 1)	
Shore A-hardness (ASTM D2240)	20	
Tensile strength (ASTM D 412)	145 psi	
Elongation at break (ASTM D 412)	750%	
Tear propagation resistance (ASTM D624)	22 pli	
Movement accommodation factor (ISO 11 600)	+/- 50%	
Service temperature	-40°F to 302°F (-40°C to 150°C)	
Shelf life (storage below 77°F (25°C))	Cartridge / Unipack	12 months
	Drum / Pail	12 months

^{A)} 73°F (23°C) / 50% r.h.

Description

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

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 concrete, 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 experienced professional users only. Testing with actual substrates and conditions should be performed to ensure adhesion and material compatibility.

Industry



Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, label and Safety Data Sheet which are available at <http://usa.sika.com/> or on request at tsmh@us.sika.com. Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instructions for each Sika product as set forth in the current Product Data Sheet, label and Safety Data Sheet prior to product use.

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 diagram 1 below). Heating above 122°F (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.

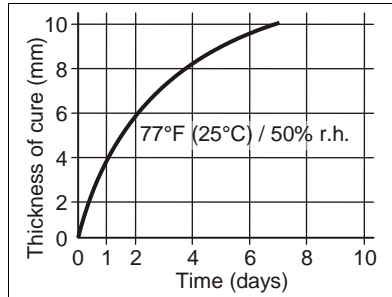


Diagram 1: Curing speed Sikasil® WS-305 CN

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. Sikasil® WS-305 CN is designed to obtain adhesion without the use of a primer; however, certain substrates may require a primer. Test by applying the sealant and/or primer sealant combination to confirm results and proposed application methods.

Application

After suitable joint and substrate preparation, Sikasil® WS-305 CN can be gunned into place. Joints must be properly dimensioned as changes are no longer possible after construction. 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 1/4" (6 mm) and a width / depth ratio of 2:1. For proper joint geometry and to prevent 3 sided adhesion to maximize sealant joint movement capability it is recommended to use compatible closed cell polyethylene or non-outgassing polyolefin backer 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.

Tooling and Finishing

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

Removal

Uncured Sikasil® WS-305 CN 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 a suitable industrial hand cleaner and water. Do not use solvents!

Overpainting

Sikasil® WS-305 CN cannot be overpainted.

Application Limits

- Most Sikasil® WS, FS, SG, IG, WT, AS and other engineering silicone sealants manufactured by Sika are compatible with each other. For specific information regarding compatibility between various Sikasil® products please contact the Technical Service 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 and other accessory materials with Sikasil® WS-305 CN must be tested in advance.
- Joints deeper than 1/2" (15 mm) should be avoided.
- The above information is offered for general guidance only. Advice on specific applications will be given on request.

Further Information

Advice on specific applications will be given on request. To contact Sika Corporation's Industry Technical Services Department please send an email to tsmh@us.sika.com. Copies of the following publications are available on our website www.sikaindustry.com:

- Safety Data Sheets
- Product Data Sheets

Packaging Information

Cartridge	295 ml
Unipack	600 ml
Pail	4.5 gal
Drum	52 gal

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.

Limited Material Warranty

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. **NO OTHER WARRANTIES IMPLIED OR EXPRESS SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

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