

## PRODUCT DATA SHEET

# Sikasil® WS-305 AM

## WEATHERPROOFING SEALANT

### TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical base	1-component silicone
Color (CQP001-1)	White, colonial white, black, bronze, medium bronze, aluminum, aluminum gray, anodized light gray, dark gray, gray S6
Cure mechanism	Moisture-curing
Cure type	Neutral
Density (uncured)	1.40 kg/l
Non-sag properties (CQP061-4 / ISO 7390)	2 mm
Application temperature	5 – 40 °C (41 – 104 °F)
Skin time (CQP019-1)	50 minutes
Tack free time (CQP019-3)	130 minutes
Curing speed (CQP049-1)	(see Diagram 1)
Shore A hardness (CQP023-1 / ISO 7619-1)	20
Tensile strength (ASTM D412)	1 MPa (145 psi)
Elongation at break (ASTM D412)	750 %
Tear propagation resistance (CQP045-1 / ISO 34)	4 N/mm (22.5 pli)
Service temperature	-40 – 150 °C (-40 – 302 °F)
Shelf life (CQP016-1)	12 months

#### DESCRIPTION

Sikasil® WS-305 AM is a neutral curing silicone sealant with high movement capability and excellent adhesion to a wide range of substrates. It is particularly suited as a weather seal for curtain walls and windows.

#### PRODUCT BENEFITS

- Fulfills ASTM C920 Type S, Grade NS, Class 50, Use M,G,A
- 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 AM can be used for weatherproofing and sealing applications where durability under severe conditions is required. This product is suitable for experienced professional users only. Testing with actual substrates and conditions should be performed to ensure adhesion and material compatibility.

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## CURE MECHANISM

Sikasil® WS-305 AM 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).

The curing speed of the reaction depends mainly on the relative humidity and temperature. Material temperature above 50 °C could lead to bubble formation and has to be avoided.

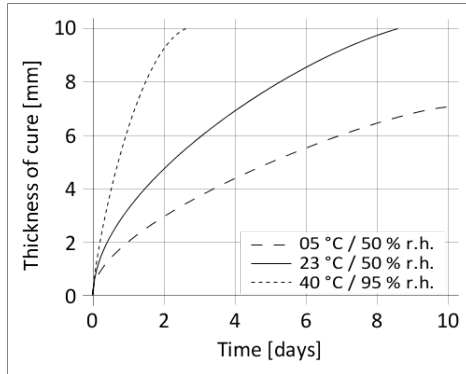


Diagram 1: Curing Speed of Sikasil® WS-305 AM

## 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 AM 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

The optimum temperature for substrate and sealant is between 15 °C and 25 °C.

Sikasil® WS-305 AM can be processed with hand-, 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. 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.

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.

## Tooling and finishing

Tooling and finishing must be carried out within the skin time of the sealant or adhesive. When tooling freshly applied Sikasil® WS-305 AM 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® WS-305 AM can 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® WS-305 AM 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 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 AM. 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 AM 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 AM must be tested in advance.

Joints deeper than 15 mm have to be avoided.

## 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:

- Product Data Sheets
- Safety 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.

## ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

## LEGAL DISCLAIMER

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at [usa.sika.com](http://usa.sika.com) or by contacting SIKA's Technical Service Department via email at [tsmh@us.sika.com](mailto:tsmh@us.sika.com). Nothing contained in any SIKA literature or 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 label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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