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PRODUCT DATA SHEET

Sikasil® WS-304 ME

Low-modulus silicone weatherproofing sealant

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical base		1-component silicone
Colour (CQP001-1)		Black, white
Cure mechanism		Moisture-curing
Density (uncured)		1.2 kg/L
Non-sag properties (CQP061-4 / ISO 7390)		Good
Application temperature	ambient	5 – 40 °C
Skin time (CQP019-1)		40 minutes [A]
Tack free time (CQP019-3)		120 minutes [A]
Shore A hardness (CQP023-1 / ISO 48-4)		25 [B]
Tensile strength (CQP036-1 / ISO 527)		1.0 MPa
100 % modulus (CQP036-1 / ISO 527)		0.3 MPa
Elongation at break (CQP036-1 / ISO 527)		600 %
Tear propagation resistance (CQP045-1 / ISO 34)		4 N/mm
Service temperature		-40 – 150 °C
Shelf life		12 months [C]

CQP = Corporate Quality Procedure
B) after 28 days
A) 23 °C / 50 % r. h.
C) storage below 25 °C

DESCRIPTION

Sikasil® WS-304 ME is a one-component, durable, neutral-curing silicone sealant with a high movement capability and good adhesion to a wide range of substrates. It is particularly suited as a weather seal for structural glazing, curtain walling and windows in hot and tropical climatic conditions.

PRODUCT BENEFITS

- Meets requirements of ASTM C920 for Type S, Grade NS, Class 50 (movement capability ± 50 %)
- Low VOC content (< 20 g/L)
- Low emitting material
- Good UV and weathering resistance
- Adheres well to glass, metals, coated/ painted metals and wood

AREAS OF APPLICATION

Sikasil® WS-304 ME can be used for weatherproofing and sealing applications where durability under severe conditions is required.
It is particularly suited as a weather seal for structural glazing, curtain walling and windows.
This product is suitable for experienced professional users only. Tests with actual substrates and conditions have to be performed ensuring adhesion and material compatibility.

CURE MECHANISM

Sikasil® WS-304 ME 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.

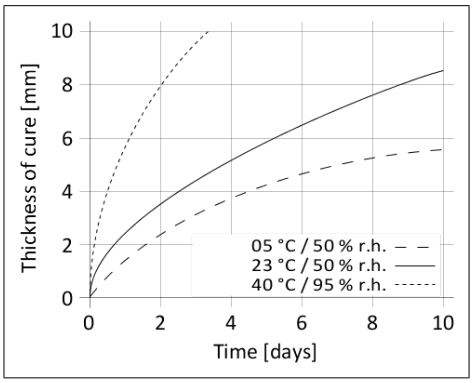


Diagram 1: Curing speed Sikasil® WS-304 ME

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

Sikasil® WS-304 ME can be processed with manual, pneumatic or electric driven piston guns.

Joint design

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 minimum 2:1 and maximum 4:1 must be respected.

Note: Joints deeper than 15 mm must be avoided.

For backfilling, it is recommended to use closed cell, sealant compatible foam backer rods, such as 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. When tooling freshly applied Sikasil® WS-304 ME press the adhesive to the joint flanks to get a good wetting of the bonding surface. No tooling agents are to be used.

Removal

Uncured Sikasil® WS-304 ME 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 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-304 ME cannot be overpainted.

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:

- Safety Data Sheets
- General Guidelines

PACKAGING INFORMATION

Cartridge	300 mL
Unipack	600 mL
Drum	200 L

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

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

DISCLAIMER

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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: www.sika.ca

Sika Canada Inc.
Head Office
601, avenue Delmar
Pointe-Claire, Quebec
H9R 4A9
1-800-933-SIKA
www.sika.ca