

Sikasil® AS-60 IN

Industrial assembly sealant & adhesive

Technical Product Data

Chemical base	1-Component Silicone	
Colour (CQP ¹ 001-1)	White	
Cure mechanism	Neutral Alkoxy-cure	
Density (uncured) (CQP 006-4)	1.39 kg/l approx.	
Non-sag properties	Good	
Application temperature	5 - 40°C	
Tack free time ² (CQP 019-1)	35 min. approx.	
Skin time ² (CQP 019-2)	15 min. approx.	
Curing speed (CQP 049-1)	(see diagram)	
Shore A-hardness (CQP 023-1 / ISO 868)	38 approx.	
Tensile strength (CQP 036-1 / ISO 37)	1.6 MPa approx.	
Elongation at break (CQP 036-1 / ISO 37)	400 % approx.	
Thermal resistance (CQP 513-1)	4h	200 °C
Short Term	1h	220 °C
Service temperature	-40 - 150°C	
Shelf life (storage below 25°C) (CQP 016-1)	12 months	

¹⁾ CQP = Corporate Quality Procedure ²⁾ 23°C / 50% r.h.

Description

Sikasil® AS-60 IN is a one-part, non-corrosive neutral-Alkoxy curing silicone adhesive especially designed for industrial assembly processes. It combines mechanical strength with high elongation. It adheres excellent to a wide range of substrates.

Product Benefits

- Good mechanical properties
- Excellent adhesion to a wide variety of substrates
- Very good adhesion and mechanical performance under harsh environment conditions
- Superior heat resistance
- Remains flexible over a wide temperature range
- Good long-term durability

Areas of Application

Sikasil® AS-60 IN can be used for industrial bonding and sealing applications. It is especially designed for frame and junction box bonding in the photovoltaic industry, where specific tests have proven its excellent suitability. The product is suitable for professional experienced users only. Tests with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.

** This product is currently in the field test phase and has not been finally released. Technical data stated herein is based on preliminary testing and experience and is subject to change. Product is only suitable for experienced users and only after suitable pre-testing. Subject to mandatory legal provisions, Sika's liability is limited to the replacement of the defective products.*



Cure Mechanism

Sikasil® AS-60 IN cures by reaction with atmospheric moisture. The reaction thus starts at the surface and proceeds to the core of the joint. The skin forming time and curing speed respectively depends on the relative humidity and the temperature (see diagram 1 below). To increase the curing speed, Sikasil® AS-60 IN can be heated up to 50 °C (above 50 °C risk of bubble formation). At low temperatures the water content of the air is lower and the curing process proceeds more slowly.

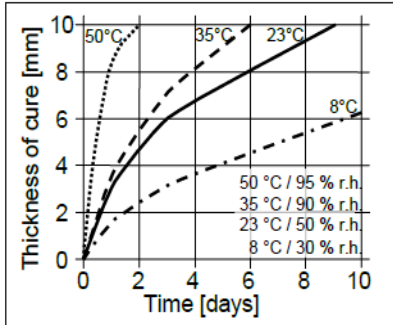


Diagram 1: Curing speed for Sikasil®-AS 60IN

Application Limits

For specific information regarding compatibility between various Sikasil® products contact the Technical Department of Sika Industry. Sikasil® AS adhesives and sealants are compatible with Sika® Spacer Tape HD. Prior use all materials in contact with Sikasil® AS-60 IN need to be approved by Sika. Where two or more different reactive process materials are used, allow the first to cure completely before applying the next. Sikasil® engineering sealants and adhesives may only be used in industrial assembly applications by experienced professionals and after a detailed examination. A written approval of the corresponding project details by the Technical Department of Sika Industry is recommended. The suitability of Sikasil® AS-60 IN for a specific application including compatibility and adhesion must be tested in advance on original substrates and under actual conditions.

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 pretreatment methods is available from the Technical Department of Sika Industry.

Application

After suitable joint and substrate preparation, Sikasil® AS-60 IN is applied into place. Basis for calculation of the necessary joint dimensions are the technical values of the adhesive and the adjacent materials, the exposure of the elements, their construction and size as well as external loads. Joints deeper than 15 mm need to be avoided.

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 sealant or adhesive. When tooling freshly applied Sikasil® AS-60 IN press the adhesive to the joint flanks to get a good wetting of the bonding surface. No tooling agents have to be used.

Removal

Uncured Sikasil® AS-60 IN 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 on skin!

Further Information

Copies of the following publications are available on request:

- Material Safety Data Sheets
- General Guidelines Bonding and Sealing with Sikasil® AS adhesive

Packaging Information

Unipack	600 ml
Pail	25 Kg
Drum	250 Kg

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

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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