BUILDING TRUST

PRODUCT DATA SHEET

Sikasil® FDA

FDA silicone sealant for the pharmaceutical and food sector

DESCRIPTION

Sikasil® FDA is an elastic silicone sealant based on an acetic acid-based curing system. The curing takes place by absorbing the humidity of the air. Sikasil® FDA provides an elastic and flexible waterproof seal with resistance to UV, fungus and mildew. Movement capability ±25 %. Internal and external use.

USES

Sikasil® FDA is used as an elastic joint in areas with medicinal and food production, and where special requirements are needed. Can be used for joints where there is direct contact with food. Sikasil-FDA withstand temperatures from ÷40°C to +180°C.

FEATURES

- 1-component
- Specially adapted for direct contact with food
- Sealant with acetic acid-based curing system.
- Movement capability ±25 %.
- Good adhesion to many construction materials such as: metals, concrete, painted surfaces, wood, plastics, ceramic tiles and glass.
- High elasticity and flexibility

SUSTAINABILITY

- Sikasil® FDA is included/registered in the database for building products that can be used/included in Swan-labelled construction for indoor use.
- DGNB – New buildings and extensive renovations, version 2020 2.0.0 and 2023 1.0.0: The product is assessed to meet requirements for indicator 12, quality level 4, according to criteria matrix for ENV1.2/Environmentally hazardous substances.

CERTIFICATES AND TEST REPORTS

- Sikasil® FDA is certified according to NSF / ANSI 51 for 'all types of food contacts' up to a maximum contact temperature of 180 ° C. Hereby it can be used in direct contact with food according to NSF.
- Food Industry Approval, Sikasil FDA, ISEGA, Certificate No. 54198 u 21
- ISO 11600 G 25 LM

PRODUCT INFORMATION

Composition	Acetic acid-based silicone	
Packaging	300 ml cartridge: 12 cartridges per box	
Shelf life	24 months from the date of production.	
Storage conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +25 °C. Always refer to packaging.	
Colour	White, transparent.	
Density	~1,03 kg/l	(ISO 1183-1)

TECHNICAL INFORMATION

Shore A hardness	~20	
Secant tensile modulus	~0,60 N/mm² at 100 % elongation (+23 °C)	(ISO 8339)
Tensile strain at break	~250 %	(ISO 8339)
Movement capability	±25 %	(ISO 9047)
Tear propagation resistance	~4,2 N/mm²	(ISO 34)
Shrinkage	~3,5%	(ISO 10563)
Service temperature	–40 °C min. / +180 °C max.	
Joint design	The joint dimensions must be designed to suit the movement capability of the sealant. For joint widths ≥ 10 mm and ≤ 30 mm, a joint depth of 10 mm is recommended. For larger joints contact Sika Technical Services for additional information.	

APPLICATION INFORMATION

Consumption	**Joint width [mm]**	**Joint depth [mm]**	**Length [m] per 300 ml**
	10	10	3,5
	12	10	2,5
	16	10	1,88
	20	10	1,5
	30	16	0,63
Ambient air temperature	+5 °C min. / +40 °C max.		
Substrate temperature	+5 °C min. / +40 °C max., min. 3 °C above dew point temperature		
Curing rate	~2 mm/24 h (+23 °C / 50 % r.h.)		(CQP 049-2)
Skinning time	~15 min (+23 °C / 50 % r.h.)		(CQP 019-1)

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

FURTHER INFORMATION

- Safety data sheet
- Pre-treatment Sealing and Bonding Chart
- Sika® Method Statement: Joint Sealing
- Sika® Method Statement: Joint Maintenance, Cleaning and Renovation

IMPORTANT CONSIDERATIONS

- Sikasil® FDA hardens depending on climatic conditions and depths of joint
- Sikasil® FDA cannot be overpainted.
- Colour variations may occur due to the exposure in service to chemicals, high temperatures and/or UV-radiation (especially with white colour shade). This effect is aesthetic and does not adversely influence the technical performance or durability of the product.
- Do not use on bituminous substrates, natural rubber, EPDM rubber or on any building materials which might leach oils, plasticisers or solvents that could degrade the sealant.
- Do not use Sikasil® FDA in totally confined spaces as it requires atmospheric moisture to cure.
- Do not use to seal joints in and around swimming pools.
- Do not use where physical or abrasion exposure is likely to occur, structural glazing and insulated glazing. Contact Sika Technical Services for advice on alternative products.
- Do not use for joints under water pressure or permanent water immersion.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

The substrate must be sound, clean, dry and free of all contaminants such as dirt, oil, grease, cement laitance, old sealants and poorly bonded paint coatings which

could affect adhesion of the sealant. The substrate must be of sufficient strength to resist the stresses induced by the sealant during movement.
Removal techniques such as wire brushing, grinding, grit blasting or other suitable mechanical tools can be used.
All dust, loose and friable material must be completely removed from all surfaces before application of any activators, primers or sealant.
Sikasil® FDA normally adhere without
primer on: Glass, clinker, ceramics, stoneware, but degreasing with acetone or Sika® Cleaner P is recommended.
For optimum adhesion and joint durability, the following substrate priming (and/or pre-treatment) procedures must be followed:
For optimum adhesion, joint durability and critical, high performance applications such as joints on multi-storey buildings, highly stressed joints, extreme weather and / or water exposure.
The following priming and/or pre-treatment procedures must be followed:

Non-porous substrates
Aluminium, anodised aluminium, epoxy, polyester, polyurethan, epoxy based concrete, PVC paint (with preliminary test).
Slightly roughen surface with a fine abrasive pad.
Clean and pre-treat using Sika® Aktivator-205 applied with a clean cloth.
Before sealing, allow a waiting time of > 15 minutes (< 6 hours).
Other metals, such as steel, stainless steel, galvanized iron, zinc, lead, copper, alloys: clean and pre-treat using Sika® Aktivator-205 applied with a clean cloth.
After a waiting time of > 15 minutes (< 6 hours). Apply Sika® Primer-210 applied by brush. Before sealing, allow a waiting time of > 30 minutes (< 8 hours).

Porous substrates
Concrete, aerated concrete and cement based renders, mortars and bricks surfaces must be primed using Sika® Primer-210 applied by brush.
Before bonding / sealing, allow a waiting time of > 30 minutes (< 8 hours).
Adhesion tests on project specific substrates must be performed and procedures agreed with all parties before full project application.
For more detailed advice and instructions contact Sika Technical Services.

Note: Primers and activators are adhesion promoters and not an alternative to improve poor preparation / cleaning of the joint surface. Primers also improve the long term adhesion performance of the sealed joint.

MIXING

1-component - ready to use

APPLICATION METHOD / TOOLS

Reference must be made to further documentation where applicable, such as relevant method statement, application manual and installation or working instructions.

Masking
It is recommended to use masking tape where neat or exact joint lines are required. Remove the tape within the skin time after finishing.

Joint Backing
After the required substrate preparation, insert a suitable backing rod to the required depth.

Priming
If required, prime the joint surfaces as recommended in substrate preparation. Avoid excessive application of primer to avoid causing puddles at the base of the joint.

Application
Sikasil® FDA is supplied ready to use.
Prepare the end of the foil pack or cartridge, insert into the sealant gun and fit the nozzle. Extrude Sikasil® FDA into the joint ensuring that it comes into full contact with the sides of the joint and avoiding any air entrapment.

Finishing
As soon as possible after application, sealant must be firmly tooled against the joint sides to ensure adequate adhesion and a smooth finish.
Use a compatible tooling agent to smooth the joint surface. Do not use tooling products containing solvents.

CLEANING OF EQUIPMENT

Clean all tools and application equipment immediately after use with Sika® Remover-208. Once cured, hardened material can only be removed mechanically. For cleaning skin use Sika® Cleaning Wipes-100.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

LEGAL NOTES

Any information or suggestions for use concerning Sika's products, which we either in writing or orally have given buyers or end-users of the product, have been given in good faith based on our own experiences and based on approved praxis and the technological and scientific knowledge on the time of giving such suggestions and information, which are given without any type of guarantees, and which do not lead to any further responsibility from Sika Danmark A/S, besides what is stated in the sales agreement in question. The buyer or end-user should themselves investigate or otherwise make sure, that our products are suitable for the use in question and further make sure that the products are kept and used correct and in agreement with the published rules and considering the actual conditions in order to avoid damages or less satisfactory results. Any order is accepted and any deliverance is affected according to the general terms of sales and delivery from Sika Danmark A/S, which are considered known and accepted, and which could be handed out when asked for. Our catalogues are not up-dated automatically. The present product data sheet is only for use in Denmark. Values stated in the present product data sheet should be seen as recommended, unless stated otherwise.

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