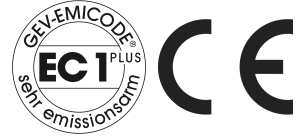


PRODUCT DATA SHEET

Sikaflex® AT Connection

Universal STP construction sealant for connection joints



DESCRIPTION

Sikaflex® AT Connection is an isocyanate free, silane terminated polymer sealant. It provides a waterproof, elastic seal with good mechanical properties over a wide range of temperatures.

USES

Sealing joints for:

- Movement and connection joints
- Facade elements
- Balconies
- Window and door frames
- Pre-cast elements
- Infill panels
- Cladding
- Curtain walling
- Interior and exterior use

CHARACTERISTICS / ADVANTAGES

- Moisture curing
- Isocyanate free
- Waterproof
- Good mechanical properties
- Resistant to weathering
- Good adhesion to porous and non-porous construction materials
- Elastic over a wide range of temperatures
- Movement capability $\pm 25\%$ (ISO 9047)
- 1-part
- Low VOC emissions
- Primerless for most substrates

SUSTAINABILITY

- Conformity with LEED v4 EQc 2: Low-Emitting Materials
- VOC emission classification GEV-Emicode EC1^{PLUS}, license number 1830/20.10.00

APPROVALS / CERTIFICATES

- CE Marking and Declaration of Performance to EN 15651-1 - Sealants for non-structural use in joints in buildings - Facade elements - F-EXT-INT CC
- CE Marking and Declaration of Performance to European Technical Assessment ETA 17/0980, based on EAD 350141-00-1106 - Fire stopping and fire sealing products, linear joint and gap seals
- ISO 11600-F Class 25HM, Sikaflex AT-Connection, SKZ, Report, No 102557/12-II
- Cleanroom Suitability Sikafloor®, Fraunhofer IPA, Report No. SI 1008-533

PRODUCT INFORMATION

Composition	Silane terminated polymer	
Packaging	300 ml cartridges	12 cartridges per box
	600 ml foil pack	20 foil packs per box
Colour	Please contact our customer service, for information of which colors are sold in Denmark.	
Shelf life	12 months from 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.	
Density	~1,30 kg/l	(ISO 1183-1)
Product declaration	EN 15651-1: F EXT-INT CC ISO 11600: F Class 25HM	

TECHNICAL INFORMATION

Shore A hardness	~24 (after 28 days)	(ISO 868)
Secant tensile modulus	~0,40 N/mm ² at 100 % elongation (23 °C) ~0,60 N/mm ² at 100 % elongation (-20 °C)	(ISO 8339)
Elastic recovery	~70 %	(ISO 37)
Tensile strain at break	~450 %	(ISO 37)
Tear propagation resistance	~4,5 N/mm	(ISO 34)
Movement capability	± 25 %	(ISO 9047)
Resistance to weathering	8	(ISO / DIS 19862)
Service temperature	-40 °C to +70 °C	

Joint design

The joint dimensions must be designed to suit the movement capability of the sealant. The joint width must be a minimum of 10 mm and a maximum of 35 mm. A width to depth ratio of 2:1 must be maintained (for exceptions, see table below).

Typical joint dimensions for joints between concrete elements:

Joint distance [m]	Min. joint width [mm]	Min. joint depth [mm]
2	10	10
4	15	10
6	20	10
8	30	15
10	35	17

All joints must be correctly designed and dimensioned in accordance with the relevant standards and codes of practice before their construction. The basis for calculation of the necessary joint widths are the type of structure, dimensions, technical values of the adjacent building materials, joint sealing material and the specific exposure of the building and the joints.

For larger joints, contact Sika Technical Services for additional information.

APPLICATION INFORMATION

Consumption	Joint width [mm]	Joint depth [mm]	Joint length [m] per 600 ml foil pack
	10	10	6
15	10	4	
20	10	3	
25	12	2	
30	15	1,3	

Consumption depends on the roughness and absorbency of the substrate. These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.

Backing material	Use closed cell, polyethylene foam backing rods		
Sag flow	0 mm (20 mm profile, +50 °C)		(ISO 7390)
Ambient air temperature	+5 °C to +40 °C		
Substrate temperature	+5 °C to +40 °C, min. +3 °C above dew point temperature		
Curing rate	~2 mm/24 hours (+23 °C / 50 % r.h.) * Sika Corporate Quality Procedure		(CQP* 049-2)
Skimming time	~60 minutes (23 °C / 50 % r.h.)		(CQP 019-1)
Tooling time	~45 minutes (+23 °C / 50 % r.h.)		(CQP 019-2)

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

- Pre-treatment Sealing and Bonding Chart
- Sika® Method Statement: Joint Sealing
- Sika® Method Statement: Joint Maintenance, Cleaning and Renovation
- Sika® Technical Manual: Facade Sealing

IMPORTANT CONSIDERATIONS

- Sikaflex® AT Connection can be over-painted with most conventional facade paint coating systems. However, paints must first be tested to ensure compatibility by carrying out preliminary trials (e.g. according to ISO technical paper: Paintability and Paint Compatibility of Sealants). Optimum results are obtained when the sealant is allowed to fully cure first. Note: non-flexible paint systems may impair the elasticity of the sealant and lead to cracking of the paint coating. Depending on type of paint used, plasticiser migration may occur causing the paint to become surface 'tacky'.
- 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 natural stone.
- Do not use for structural glazing or as a glass sealant.
- 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 to seal joints in or around swimming pools.
- Do not use for joints under water pressure or for 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.

Sikaflex® AT Connection adheres without primers and/or activators.

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, stainless steel, PVC, galvanised steel, powder coated metals or glazed tiles. 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 copper, brass and titanium-zinc, cleaned and pre-treat using Sika® Aktivator-205 applied with a clean cloth. After a waiting time of > 15 minutes (< 6 hours). Apply Sika® Primer-3 N applied by brush. Before sealing, allow a waiting time of > 30 minutes (< 8 hours)

PVC has to be cleaned and pre-treated using Sika® Primer-215 applied with a brush. Before sealing, allow a waiting time of > 30 minutes (< 8 hours).

Glass must be cleaned with Isopropanol before application

Porous substrates

Porous substrates must be primed using Sika® Primer-3 N applied by brush. For more details such as application and flash-off times, refer to the most recent Product Data Sheet of the respective pre-treatment product.

Before 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-part ready to use

APPLICATION METHOD / TOOLS

Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

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

Sikaflex® AT Connection is supplied ready to use.

Prepare the end of the foil pack or cartridge, insert into the sealant gun and fit the nozzle. Extrude Sikaflex® AT Connection 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. Water can be used. Do not use tooling products containing solvents.

CLEANING OF EQUIPMENT

Clean all tools and application equipment immediately after use with Sika® Remover-208. 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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PRODUCT DATA SHEET
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