BUILDING TRUST

PRODUCT DATA SHEET

Sikaflex® AT Facade

High performance facade joint sealant

BRANZ Appraised
Appraisal No.613 [2014]

DESCRIPTION

Sikaflex® AT Facade is a 1-part, STP, moisture-curing, elastic sealant.

USES

Sikaflex® AT Facade is designed for joint sealing of movement and connection joints, porous and non-porous
substrates such as concrete, brick, steel metals.
Sealing joints for:
- Facade elements
- Movement and connections
- Infill panels
- Cladding
- Curtain walling
- Interior and exterior use

Sealing between a range of porous and non-porous substrates

CHARACTERISTICS / ADVANTAGES

- Low modulus
- Very good workability
- Over-paintable*
- Highly resistant to weathering
- Movement capability ± 25% (ISO 9047)
- Low stress on substrates
- Very low VOC emissions
- Primerless for most substrates and applications

*See Limitations

ENVIRONMENTAL INFORMATION

- VOC emission classification GEV-Emicode EC1PLUS, license number 3865/20.10.00
- LEED v4 EQc 2. Low-Emitting Materials

APPROVALS / STANDARDS

- 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
- ISO 11600-F Class 25LM, Sikaflex AT-Facade, SKZ, Report, No 102993/12-II
- DIN 18540-F, Sikaflex AT-Facade, SKZ, Report, No 70268/2
- BRANZ Appraised, Appraisal No.613 (2024)

NZ Building Code Compliant
- B2 Durability: Clauses B2.3.1 (b) 15 years. (c) 5 years
- E2 External Moisture: Clause E2.3.2
- F2 Hazardous Building Materials: Clause F2.3.1

PRODUCT INFORMATION

Chemical Base	Silane terminated polymer (STP)	
Packaging	300 ml cartridge	12 cartridges per box
	600 ml foil pack	20 foil packs per box

Colour	White, Grey, Black	
Shelf Life	12 months from date of production	
Storage Conditions	The product must be stored in original, unopened and undamaged 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 DIN 18540-F ISO 11600 F 25 LM	

TECHNICAL INFORMATION

Shore A Hardness	~25 (after 28 days)	(ISO 868)
Secant Tensile Modulus	~0.30 N/mm² at 100 % elongation (+23 °C) ~0.50 N/mm² at 100 % elongation (−20 °C)	(ISO 8339)
Elongation at Break	~550 %	(ISO 37)
Elastic Recovery	~95 %	(ISO 7389)
Tear Propagation Resistance	~5.5 N/mm	(ISO 34)
Movement Capability	± 25 %	(ISO 9047)
Resistance to Weathering	10	(ISO / DIS 19862)
Service Temperature	-40 °C to +90 °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 6 mm and a maximum of 50 mm. A width to depth ratio of 2:1 must be maintained. Joint widths less than 10 mm are generally for interior connection joints or crack control joints and therefore considered as non-movement joints.
Example of typical joint widths for joints between concrete elements for exterior applications if the joint sealant is classified as ±25 % movement capability according to ISO 9047, calculation according to DIN 18540:

Joint distance in m	Min. joint width in mm	Min. joint depth in 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
- The specific exposure of the building and the joints

For joint design and calculations 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

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 rod	
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. Minimum +3 °C above dew point temperature	
Curing Rate	~3 mm/24 hours (+23 °C / 50 % r.h.)	(CQP* 049-2) * Sika Corporate Quality Procedure
Skin Time	~80 minutes (+23 °C / 50 % r.h.)	(CQP 019-1)
Tooling Time	~65 minutes (+23 °C / 50 % r.h.)	(CQP 019-2)

SYSTEM INFORMATION

Compatibility

Compatible with the following substrates:

Non-porous substrates

Aluminium, anodised aluminium, stainless steel, copper, brass, titanium-zinc, PVC, galvanised steel, powder coated metals, glazed tiles

Porous substrates

Concrete, aerated concrete, brick, cement based renders and mortars

For other types of substrates contact Sika Technical Services for additional information

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 DOCUMENTS

- Sika Pre-treatment Sealing and Bonding Chart
- Safety Data Sheet (SDS)
- Sika Method Statement: Joint Sealing
- Sika Method Statement: Joint Maintenance, Cleaning and Renovation

LIMITATIONS

- Protect the sealant after application for at least 6 hours.
- Sikaflex® AT Facade 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 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 no use on natural stone.
- 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 and around swimming pools.
- 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 clean, dry, sound and free from oils, grease, dust, cement laitance and loose or friable particles.
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 similar mechanical tools can be used.
Repair all damaged joint edges with suitable Sika repair products.
Sikaflex® AT Facade 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 exposure or water immersion / 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.
Lightly 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, clean and pre-treat using Sika® Aktivator-205 applied with a clean cloth. After a waiting time of > 15 minutes (< 6 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).

Porous substrates

Porous substrates
Concrete, aerated concrete and cement based renders, mortars and bricks surfaces must be primed using Sika® Primer-3 N applied by brush.
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.
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.
Contact Sika Technical Services for additional information.

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 skinning 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 Facade 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 Facade 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 (e.g. Sika® Tooling Agent N) to smooth the joint surface. Water can be used. Do not use tooling products containing solvents.

CLEANING OF TOOLS

Clean all tools and application equipment with Sika® Remover-208 immediately after use. 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 performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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