

## **BUILDING TRUST**

# PRODUCT DATA SHEET

# Sikaflex® AT- Facade

HIGH PERFORMANCE MOVEMENT JOINT SEALANT



# PRODUCT DESCRIPTION

Sikaflex AT-Façade is a 1-part, moisture curing elastic sealant based on Silane Terminated Polymers. Sikaflex AT-Façade is especially formulated for movement and connection joints on porous and non-porous substrates, where excellent weatherability and highest UV resistance are required.

#### **USES**

Sikaflex AT-Façade is suitable for joint sealing of movement and connection joints between the same or different substrates i. e. for concrete, steel and other metals, brick etc.

## **CHARACTERISTICS / ADVANTAGES**

- Fulfils ISO 11600 F, Class 25 LM
- Movement capability +/-25%
- Low stress to the substrate
- Highest UV resistance, colour stability and ageing resistance
- Excellent workability (low extrusion force, perfect smoothability)
- Very easy to tool and finish
- Excellent adhesion on porous and non porous substrates
- Primerless adhesion on many substrates
- Over paintable\*
- Solvent free
- Silicone free
- Matt finish
- (\*See notes of application)

## **TESTS**

#### **APPROVALS/ STANDARDS**

- DIN 18540 F, SKZ Würzburg
- ISO 11600 Group F, class 25LM
- SNJF
- ASTM C920
- BRANZ appraised, Appraisal No. 613 [2008]

#### **ENVIRONMENTAL INFORMATION**

- EMICODE EC1PLUS R
- LEED EQc 4.1
- SCAQMD, Rule 1168
- BAAQMD, REg. 8, Rule 51

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PRODUCT DATA					
FORM	COLOUR White, Grey, Black				
	PACKAGING 300ml cartridges, 12 pc per box   600ml sausages, 20 pc per box.				
STORAGE	STORAGE CONDITIONS / SHELF-LIFE  Twelve (12) months from date of production if stored in undamaged original sealed containers, in dry conditions and protected from direct sunlight at temperatures between +10°C and +25°C.				
TECHNICAL DATA	CHEMICAL BASE 1-part Silane Terminated Polymers (PU-Hybrid technology, moisture curing)				
	<b>DENSITY</b> ~ 1.3kg/l depending on colour	(DIN 53 479)			
	<b>SKIN TIME</b> ~ 80 minutes (+23°C / 50% r.h.)				
	<b>CURING RATE</b> ~ 3mm/24 h (+23°C / 50% r.h.)				
	MOVEMENT CAPABILITY 25% LM				
	JOINT DIMENSIONS  Min. width = 10mm / max. width = 40mm				
	SAG FLOW 0mm, very good	(DIN EN ISO 7390)			
	SERVICE TEMPERATURE -40°C to +70°C				
MECHANICAL / PHYSICAL PROPERTIES	<b>TEAR STRENGTH</b> ~ 5.5 N/mm <sup>2</sup> (+23°C / 50% r.h.)	(DIN 53 515)			
	SHORE A HARDNESS ~ 25 after 28 days (+23°C / 50% r.h.)	(DIN 53 505)			
	E-MODULUS  0.3 N/mm <sup>2</sup> at 100% elongation (+23°C)  0.5 N/mm <sup>2</sup> at 100% elongation (-20°C)	(DIN EN ISO 8340)			
	<b>ELONGATION AT BREAK</b> ~ 550% (+23°C / 50% r.h.)	(DIN 53 504)			
	<b>ELASTIC RECOVERY</b> > 80% (+23°C / 50% r.h.)	(DIN EN ISO 7389 B)			

# **SYSTEM INFORMATION**

## **JOINT DESIGN**

The joint width must be designed to suit the movement capability of the sealant. In general the joint width must be > 10mm and < 40mm. A width to depth ratio of

 $\sim$  2 : 1 must be maintained.

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#### STANDARD DESIGN DIMENSIONS FOR CONCRETE ELEMENTS AS PER DIN 18 540 /TABLE 3:

Joint distance [m]	2	2 - 3.5	3.5 - 5	5 - 6.5	6.5 - 8
Design joint width [mm]	15	20	25	30	35
Min. joint width [mm]	10	15	20	25	30
Joint depth [mm]	8	10	12	15	15

Minimum joint width for joints around windows: 10mm

All joints must be properly designed and dimensioned by the specifier and the main contractor in accordance with the relevant standards, because changes are usually not feasible after construction. The basis for calculation of the necessary joint width are the technical values of the joint sealant and the adjacent building materials, plus the exposure of the building, its method of construction and its dimensions.

#### APPROXIMATE CONSUMPTION

Joint width [mm]	10	15	20	25	30
Joint depth [mm]	8	8	10	12	15
Joint length / 600ml [m] approx.	7.5	4.5	2.5	1.6	1.3

Backing: Use only closed cell, polyethylene foam backing rods.

#### **SUBSTRATE QUALITY**

Clean and dry, homogeneous, free from oils and grease, dust and loose or friable particles. Cement laitance and incompatible paints must be removed.

#### **SUBSTRATE PREPARATION / PRIMING**

Sikaflex AT- Façade generally has strong adhesion to most clean, sound substrates. For optimum adhesion and critical, high performance applications such as multi story building work, for high stress bonding joints or in case of extreme weather exposure substrate primers and cleaners must be used. If in doubt apply product in test area first.

#### Non porous substrates:

E.g. metals, aluminium, powder coatings, etc. have to be cleaned with a fine abrasive pad and Sika Activator-205 by using a clean towel / cloth. Before sealing allow a flash off time of at least 15 min. - max 6 hrs. For metals like copper, brass, titanium-zinc use SikaPrimer-3 N as an adhesion promoter.

#### Porous substrates:

E. g concrete, aerated concrete and cementitious renders, mortars, brick, etc. have to be primed with SikaPrimer-3 N by using a brush. Before sealing allow a flash off time of at least 30 min. (max. 8 hrs.)

#### Important note:

Primers are only adhesion promoters. They neither substitute for the correct cleaning of the surface nor do they improve the bond strength significantly. Primers improve long term performance of a sealed joint.

For further information refer to the Sika Primer Product Data Sheet.

# APPLICATION CONDITIONS / LIMITATIONS

#### **SUBSTRATE TEMPERATURE**

+5°C min. / +40°C max.

# AMBIENT TEMPERATURE

+5°C min. / +40°C max.

# SUBSTRATE MOISTURE CONTENT

Dry

## **APPLICATION METHOD / TOOLS**

Sikaflex AT-Façade is supplied ready to use.

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After suitable joint and substrate preparation, insert Backing Rod to required depth and apply primer if necessary. Insert cartridge into the sealant gun and firmly extrude Sikaflex AT-Façade into the joint making sure that it is full in contact with the side of the joint. Fill the joint, avoiding air entrapment. Sikaflex AT-Façade should be tooled firmly against the joint sides to ensure complete contact and good adhesion.

Masking tape should be used where sharp exact joint lines or exceptionally neat lines are required. Remove the tape whilst the sealant is still soft. Finish joint with smoothing liquid for a perfect sealant surface.

#### **CLEANING**

Clean all tools and application equipment with Sika Remover-208 immediately after use. Hardened / cured material can only be removed mechanically.

#### **IMPORTANT NOTES**

- Elastic sealants should generally not be over painted.
- However compatible coatings may overlap the joint edge to max. 1mm.
   The compatibility must be tested according to DIN 52 452-4.
- Colour variations may occur due to exposure to chemicals, high temperatures, UV-radiation. However a change in colour will not adversely influence the technical performance or the durability of the product.
- Before using on natural stone contact our Technical Service Department.
- Do not use Sikaflex AT-Façade as a glass sealer, on bituminous substrates, natural rubber, EPDM rubber or on building materials which might bleed oils, plasticizers or solvents which could attack the sealant.
- Not suitable for joints under water pressure or permanent water immersion.

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.

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.

**VALUE BASE** 

**LOCAL RESTRICTIONS** 

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# HEALTH AND SAFETY INFORMATION

#### **LEGAL NOTES**

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

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.

# FOR MORE SIKAFLEX® AT- FACADE INFORMATION:







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