BUILDING TRUST

PRODUCT DATA SHEET

Sikaflex® Construction

1-component, moisture-curing, elastic joint sealant.

DESCRIPTION

Sikaflex® Construction is a 1-component, moisture-curing, elastic joint sealant.

USES

Sikaflex® Construction is designed for movement and connection joints on porous substrates as well as indoor and outdoor general sealing applications.

CHARACTERISTICS / ADVANTAGES

- Movement capability of ± 25 (ASTM C 719)
- Good workability
- Good adhesion to many substrates

APPROVALS / STANDARDS

- ISO 11600 F 25 LM
- ASTM C 920 class 25

PRODUCT INFORMATION

Chemical Base	Polyurethane	
Packaging	600 ml foil pack, 20 foil packs per box	
Shelf Life	Sikaflex® Construction has a shelf life of 12 months from the date of production, if it is stored in undamaged, original, sealed packaging, and if the storage conditions are met.	
Storage Conditions	Sikaflex® Construction shall be stored in dry conditions, where it is protected from direct sunlight and at temperatures between +5 °C and +25 °C.	
Colour	Colour range to be defined by local sales organization.	
Density	1.35 kg/l approx.	(ISO 1183-1)

TECHNICAL INFORMATION

Shore A Hardness	28 approx. (after 28 days)	(ISO 868)
Secant Tensile Modulus	0.45 N/mm² approx. at 100% elongation (23 °C) 0.75 N/mm² approx. at 100% elongation (−20 °C)	(ISO 8339)
Elongation at Break	800% approx.	(ISO 37)
Movement Capability	± 25% ± 25%	(ISO 9047) (ASTM C 719)
Elastic Recovery	90% approx.	(ISO 7389)

Tear Propagation Resistance	6.0 N/mm approx.	(ISO 34)
Service Temperature	–40 °C to +70 °C	

Joint Design

The joint width must be designed to suit the joint movement required and the movement capability of the sealant. The joint width shall be ≥ 10 mm and ≤ 40 mm. A width to depth ratio of 2:1 must be maintained (for exceptions, see table below).

Standard joint widths 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, before their construction. The basis for calculation of the necessary joint widths are the type of structure and its dimensions, the technical values of the adjacent building materials and the joint sealing material, as well as the specific exposure of the building and the joints.

For larger joints please contact our Technical Service Department.

APPLICATION INFORMATION

Consumption

Joint length [m] per 600 ml foil pack	Joint width [mm]	Joint depth [mm]
6	10	10
4	15	10
3	20	10
2	25	12
1.3	30	15

Sag Flow	0 mm (20 mm profile, 50 °C)	(ISO 7390)
Ambient Air Temperature	+5 °C to +40 °C, min. 3 °C above dew point temperature	
Substrate Temperature	+5 °C to +40 °C	
Backing Material	Use closed cell, polyethylene foam backing rods.	
Curing Rate	3 mm/24 hours approx. (23 °C / 50% r.h.)	(CQP 049-2)
Skin Time	90 minutes approx. (23 °C / 50% r.h.)	(CQP 019-1)
Tooling Time	80 minutes approx. (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 DOCUMENTS

- Material Data Sheet (SDS)
- Pre-treatment Chart Sealing & Bonding
- Method Statement Joint Sealing
- Method Statement Joint Maintenance, Cleaning and Renovation
- Technical Manual Facade Sealing

LIMITATIONS

- Sikaflex® Construction can be over-painted with most conventional facade coating paint 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). The best over-painting 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 film
- Colour variations may occur due to exposure to chemicals, high temperatures and/or UV-radiation (especially with the colour shade white). However, a

change in colour is purely of aesthetic nature and does not adversely influence the technical performance or durability of the product.
- Do not use Sikaflex® Construction on natural stone.
- Do not use Sikaflex® Construction on bituminous substrates, natural rubber, EPDM rubber or on any building materials which might bleed oils, plasticizers or solvents that could attack the sealant.
- Do not use Sikaflex® Construction to seal joints in and around swimming pools.
- Do not use Sikaflex® Construction for joints under water pressure or for permanent water immersion.
- Do not expose uncured Sikaflex® Construction to alcohol containing products as this may interfere with the curing reaction.

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 homogeneous, free from oils, grease, dust and loose or friable particles. Sikaflex® Construction adheres without primers and/or activators.
However, for optimum adhesion and critical, high performance applications, such as on multi-story buildings, highly stressed joints, extreme weather exposure or water immersion, the following priming and/or pretreatment procedures shall be followed:

Non-porous substrates
Aluminium, anodised aluminium, stainless steel, galvanised steel, powder coated metals or glazed tiles have to be cleaned and pre-treated using Sika® Aktivator-205, wiped on with a clean towel. Before sealing, allow a flash-off time of > 15 minutes (< 6 hours).
Other metals, such as copper, brass and titanium-zinc, also have to be cleaned and pre-treated using Sika® Aktivator-205,wiped on with a clean towel. After the necessary flash-off time, use a brush to apply Sika® Primer-3 N and allow a further flash-off time of > 30 minutes (< 8 hours) before sealing the joints.
PVC has to be cleaned and pre-treated using Sika® Primer-215 applied with a brush. Before sealing, allow a flash-off time of > 30 minutes (< 8 hours).

Porous substrates
Concrete, aerated concrete and cement based renders, mortars and bricks shall be primed using Sika® Primer-3 N applied with a brush. Before sealing, allow a flash-off time of > 30 minutes (< 8 hours).

For more detailed advice and instructions please contact the local Sika Technical Services Department.

Note: Primers are adhesion promoters. They are neither a substitute for the correct cleaning of a surface, nor do they improve the strength of the surface significantly.

APPLICATION METHOD / TOOLS

Sikaflex® Construction is supplied ready to use.
After the necessary substrate preparation, insert a suitable backing rod to the required depth and apply any primer if necessary. Insert a foil pack or cartridge into the sealant gun and extrude Sikaflex® Construction into the joint making sure that it comes into full contact with the sides of the joint and avoids any air entrapment. Sikaflex® Construction sealant must be firmly tooled against the joint sides to ensure adequate adhesion.
It is recommended to use masking tape where exact joint lines or neat lines are required. Remove the tape within the skin time. Use a compatible tooling agent (e.g. Sika® Tooling Agent N) to smooth the joint surfaces. Do not use tooling products containing solvents.
If Sikaflex® Construction is dry-tooled it shows a slightly structured, concrete-like surface. If it is wet-tooled (using a compatible tooling agent, e.g. Sika® Tooling Agent N) it shows a smooth surface.

CLEANING OF TOOLS

Clean all tools and application equipment immediately after use with Sika® Remover-208 and/or Sika® Top-Clean T. Once cured, residual material can only be removed mechanically.

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.

Sika Pakistan (Pvt.) Limited
141-CCA Phase IV, DHA
Lahore Punjab 54792
Pakistan
phone: +92 42 3569 4266 - 67
fax: +92 42 3569 4268
http://pak.sika.com/