

PRODUCT DATA SHEET

Sikaflex® Construction

SEALANT FOR BUILDING JOINTS

DESCRIPTION

Sikaflex® Construction is a one-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 sealing applications.

CHARACTERISTICS / ADVANTAGES

- One component, ready to use
- Fast-curing
- Non-sag
- Bubble-free curing
- Can be overpainted
- High tear resistance
- Very good adhesion to many substrates
- Good weather and ageing resistance
- Excellent workability, easy to smoothen

APPROVALS / STANDARDS

- Conforms to ISO 11600 Classification F 25 HM /20 LM
- Conforms to ASTM C 920 Type S, Grade NS, Class 25, Use NT, G, M and A

PRODUCT INFORMATION

Chemical Base	1-component polyurethane, moisture curing
Packaging	600ml sausages, 20 sausages per box
Colour	White, Concrete Grey (other colors available upon request)
Shelf Life	12 months from date of production if stored in undamaged, original, sealed packaging and if storage conditions are met.
Storage Conditions	Store in dry conditions, protected from direct sunlight and at temperatures between +5 °C and +25 °C.
Density	1.30 kg/l approx. 2) (CQP 1) 006-4, ISO 1183-1)

TECHNICAL INFORMATION

Shore A Hardness	35 after 28 days approx. ²⁾	(CQP 023-1, ISO 868)
Tensile Strength		
Secant Tensile Modulus	0.45 N/mm ² approx. at 100% elongation (23 °C) 0.75 N/mm ² approx. at 100% elongation (-20 °C)	(ISO 8339)
Modulus of Elasticity in Tension	0.6 N/mm ² approx. at 100% elongation ²⁾ after 28 days	(CQP 555-1, ISO 8339)
Elongation at Break	800% approx. ²⁾	(CQP 036-1, ISO 37)
Elastic Recovery	> 80% ²⁾ after 28 days	(ISO 7389)
Tear Strength	1.2 N/mm ² approx. ²⁾	(CQP 036-1, ISO 37)
Tear Propagation Resistance	7.0 N/mm approx. ²⁾	(CQP 045-1, ISO 34)
Movement Capability	25%	(ISO 9047)
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
Backing Material	Use closed cell, polyethylene foam backing rods.		
Sag Flow	0 mm		(CQP 061-4, ISO 7390)
Ambient Air Temperature	+5 °C to +40 °C, min. 3 °C above dew point temperature		
Substrate Temperature	+5 °C to +40 °C		
Curing Rate	3 mm/24 h approx. ²⁾		(CQP 049-2)
Skin Time	60 minutes approx. ²⁾		(CQP 019-1)
Tooling Time	80 minutes approx. (23 °C / 50% r.h.)		(CQP 019-2)

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

Substrate must be clean, dry, homogeneous, and free from oil, grease, dust and loose or friable particle. Cement laitance must be removed

Non-porous substrates

e.g. metal, powder coating etc. have to be cleaned with a fine abrasive pad and Sika® Aktivator-100 by using a clean towel / cloth.

After a flash off time of at least 15 min, apply Sika® Primer-3 N by using a brush. Before sealing allow a flash off time of at least 30 min. (max. 8 hrs.). For PVC, use Sika® Primer-215. Before sealing, allow a flash off time of at least 30 min. (max. 8 hrs.).

Porous substrates

e.g. 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).

Important Note: Primers are only adhesion promoter. They neither substitute for the correct cleaning of the surface nor improve their strength significantly.

Primers improve long term performance of a sealed joint.

For further information refer to the Sika® Primer table.

APPLICATION METHOD / TOOLS

Sikaflex® Construction is supplied ready to use.

After suitable joint and substrate preparation, insert backing rod to required depth and apply primer if necessary. Insert foil pack into sealant gun and firmly extrude Sikaflex® Construction into joint making sure that it is full contact with the side of the joint. Fill the joint, avoiding air entrapment. Sikaflex® Construction must be tooled firmly against joint sides to ensure good adhesion.

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

CLEANING OF TOOLS

Clean all tools and application equipment immediately after use with Sika® Remover-208 and/or Sika® Top-Clean T or equivalent. Hardened / cured materials can only be mechanically removed.

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.
- Color variations may occur due to exposure to chemicals, high temperatures and/or UV-radiation (especially with the color shade white). However, a change in color 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 as a glass sealer
- 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.

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.

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.

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.

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 recommenda-

tions. 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.

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