

PRODUCT DATA SHEET

Sikaflex® Construction

1-PART POLYURETHANE SEALANT FOR BUILDING JOINTS

DESCRIPTION

Sikaflex® Construction is a 1-component, moisture-curing, elastic joint sealant based on polyurethane. It is suitable for outdoor applications.

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
- Excellent workability, easy to smooth
- Very good adhesion to many substrates
- Non sag
- One component, ready to use
- Weather resistance, excellent aging resistance
- High tear resistance
- Bubble free curing and can be overpainted

APPROVALS / STANDARDS

ISO 11600 (Type F Class 25HM / 20LM)

PRODUCT INFORMATION

Chemical base	1-part polyurethane, moisture curing
Packaging	600 ml sausages, 20 sausages per box.
Colour	White, concrete grey, black, beige
Shelf life	12 months from date of production if stored in undamaged original sealed containers.
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.
Density	1.30 kg/l approx.

TECHNICAL INFORMATION

Shore A Hardness	35 after 28 days approx.	(DIN 53505)
Tensile Strength	1.2 N/mm ² approx.	(ISO 37)
Secant Tensile Modulus	0.6 N/mm ² approx. at 100% elongation after 28 days	(ISO 8340)
Elongation at Break	800% approx.	(DIN 53504)
Elastic Recovery	≥ 85%	(DIN EN ISO 7389 B)

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 ≤ 35 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 as per DIN 18540 / Table 3:

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

Minimum joint width for perimeter joints around windows: 10 mm

All joints must be properly designed and dimensioned by the specifier and the main contractor in accordance with the relevant standards, because changes are not usually 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)	Joint depth (mm)	Joint length (m)/600 ml
10	8	7.5
15	8	4.5
20	10	2.5
25	12	1.6
30	15	1.3

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

APPLICATION INFORMATION

Consumption	Approximate consumption		
	Joint width [mm]	Joint depth [mm]	Joint length / 600 ml [m]
	10	8	~ 7.5
	15	8	~ 4.5
	20	10	~ 2.5
	25	12	~ 1.6
	30	15	~ 1.3

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

Sag Flow 0 mm (very good) (DIN EN ISO 7390)

Ambient Air Temperature +5 °C to +40 °C, min. 3 °C above dew point temperature

Substrate Temperature +5 °C to +40 °C

Substrate Moisture Content Dry

Curing Rate 3 mm / 24 hours approx.

Skin time 60 minutes approx. (23 °C / 50% r.h.)

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.

IMPORTANT CONSIDERATION

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 deviations may occur due to exposure to chemicals, high temperatures, UV-radiation (especially with colour shade white)*. 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.

Do not use Sikaflex® Construction 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. Do not use Sikaflex® Construction to seal swimming pools. Not suitable for joints with water pressure or permanent water immersion. Only use in good ventilated areas. The freshly applied sealant has a smell similar to 'Amaretto' until it has fully cured (benzaldehyde). Do not mix with or expose uncured Sikaflex® Construction to substances that may react with isocyanates, especially alcohols which are often components within e.g. thinners, solvents, cleaning agents and formwork releasing compounds. Such contact could interfere or prevent the cross linking curing reaction of the material.

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

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

Non porous substrates: E.g. metals, powder coatings, etc. have to be cleaned with a fine abrasive pad and Sika® Aktivator-205 by using a clean towel / cloth. After a flash off time of at least 15 min, apply Sika® Primer-3N 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 cementitious renders, mortars, brick, etc. have to be primed with Sika® Primer-3N 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 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 sausage 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.

Sleek joint with smoothing liquid for a perfect sealant surface.

CLEANING OF TOOLS

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

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

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.

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Product Data Sheet

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