

# PRODUCT DATA SHEET

## Sikaflex® PRO-3

### 1-PART HIGH PERFORMANCE CIVIL ENGINEERING JOINT SEALANT



#### DESCRIPTION

Sikaflex® PRO-3 is a 1-component, moisture-curing, elastic joint sealant with high mechanical and chemical resistance. Suitable for use in hot and tropical climatic conditions.

#### USES

Sikaflex® PRO-3 is designed for movement and connection joints in floors, pedestrian and traffic areas (example: parking decks, car parks), warehouses and production areas, applications in the food industry, sewage treatment plants, tunnel construction and in clean rooms. It can be used for vertical and overhead joints.

#### CHARACTERISTICS / ADVANTAGES

- Movement capability of  $\pm 35\%$  (ASTM C 719)
- Very high mechanical and chemical resistance
- Bubble-free curing
- Good adhesion to most construction materials
- Jet fuel and diesel resistance
- Solvent-free
- Very low emissions

#### SUSTAINABILITY

- Sikaflex® PRO-3 conforms to LEED® EQc 4.1
- VOC content < 30 g/l (US EPA method 24)
  - EMICODE EC1<sup>PLUS</sup> R
  - SCAQMD, Rule 1168
  - BAAQMD, Regulation. 8, Rule 51

#### APPROVALS / CERTIFICATES

- ASTM C 920, class 35
- ISO 11600 F 25 HM
- EN 15651-4 PW EXT-INT CC 25 HM
- ISEGA Certificate for foodstuff area usage
- BS 6920 (drinking water contact)
- ASTM C 1248 non-staining on marble
- ISO 16938-1 non-staining on marble
- CSM TVOC tested (ISO -6.8)
- CSM biological resistant: very good
- Tested according principals of DIBt for Waste Water Exposure
- Resistance against Diesel and Jet Fuel according to the DIBt guidelines



#### PRODUCT INFORMATION

<b>Composition</b>	<i>i-Cure</i> ® Technology polyurethane
<b>Packaging</b>	600 mL foil pack, 20 foil packs per box
<b>Colour</b>	Concrete grey (further colours available upon request)
<b>Shelf life</b>	Sikaflex® PRO-3 has a shelf life of 15 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® PRO-3 shall be stored in dry conditions, where it is protected from direct sunlight and at temperatures between +5 °C and +25 °C.

**Density** ~1.35 kg/l (ISO 1183-1)

## TECHNICAL INFORMATION

**Shore A Hardness** ~37 (28 d) (ISO 868)

**Secant Tensile Modulus** ~0.60 N/mm<sup>2</sup> at 100 % elongation (23 °C) (ISO 8339)  
~1.10 N/mm<sup>2</sup> at 100 % elongation (-20 °C)

**Elongation at Break** ~600 % (ISO 37)

**Elastic Recovery** ~90 % (ISO 7389)

**Tear Propagation Resistance** ~8.0 N/mm (ISO 34)

**Movement Capability** ± 35 % (ASTM C 719)

**Chemical Resistance** Sikaflex® PRO-3 is resistant to water, seawater, diluted alkalis, cement slurry and water dispersed detergent, diesel and jet fuel according to the DIBt guidelines.  
Sikaflex® PRO-3 is not resistant to alcohols, organic acids, concentrated alkalis and concentrated acids and other hydro-carbons.

**Service Temperature** -40 °C min. / +70 °C max.

**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 ≤ 50 mm. A width to depth ratio of 1 : 0.8 must be maintained (for exceptions, see table below).

### Standard joint widths for joints between concrete elements:

(Movement Capability: ± 35 % (ASTM C719) and ΔT: 80 °C)

Joint distance [m]	Min. joint width [mm]	Min. joint depth [mm]
2	10	10
4	12	10
6	18	15
8	22	18
10	28	22

For larger joints following depth should be maintained:

Joint width [mm]	Joint depth [mm]
30	24
35	28
40	32
45	35
50	35

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 more detailed advice and instructions please contact our Technical Department.

## APPLICATION INFORMATION

Consumption	Joint length [m] per 600 ml foil pack	Joint width [mm]	Joint depth [mm]
	6	10	10
	3.3	15	12
	1.9	20	16
	1.2	25	20
	0.8	30	24
	0.5	40	32
	0.3	50	35

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<b>Backing Material</b>	Use closed cell, polyethylene foam backing rods.		
<b>Sag Flow</b>	0 mm (20mm profile, 50 °C)		(ISO 7390)
<b>Ambient Air Temperature</b>	+5 °C min. / +40 °C max. (min. 3 °C above dew point temperature)		
<b>Substrate Temperature</b>	+5 °C min. / +40 °C max.		
<b>Curing Rate</b>	~3.5 mm / 24 h (23 °C / 50 % r.h.)		(CQP 049-2)
<b>Skinning time</b>	~60 min (23 °C / 50 % r.h.)		(CQP 019-1)
<b>Tooling Time</b>	~50 min (23 °C / 50 % r.h.)		(CQP 019-2)

## APPLICATION INSTRUCTIONS

### SUBSTRATE PREPARATION

The substrate must be clean, dry, sound and homogeneous, free from oils, grease, dust and loose or friable particles. Sikaflex® PRO-3 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 pre-treatment 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 (< 2 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 (< 4 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 (< 4 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 (< 4 hours).

For more detailed advice and instructions please contact our Technical 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® PRO-3 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® PRO-3 into the joint making sure that it comes into full contact with the sides of the joint and avoids any air entrapment. Sikaflex® PRO-3 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 (example: Sika® Tooling Agent N) to smooth the joint surfaces.

Do not use tooling products containing solvents.

### CLEANING OF EQUIPMENT

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.

### FURTHER INFORMATION

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

## IMPORTANT CONSIDERATIONS

- Sikaflex® PRO-3 can be overpainted with most conventional facade coating paint systems. However, paints must first be tested to ensure compatibility by carrying out preliminary trials (example: 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.
- Before using Sikaflex® PRO-3 on natural stone, please contact our Technical Department.
- Do not use Sikaflex® PRO-3 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® PRO-3 to seal joints in and around swimming pools.
- Colour variations may occur due to exposure to chemicals or other extreme external influences. 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 expose uncured Sikaflex® PRO-3 to alcohol containing products as this may interfere with the curing reaction.

## BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

## 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 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.

### SIKA NORTHERN GULF

Bahrain / Qatar / Kuwait  
Tel: +973 177 38188  
sika.gulf@bh.sika.com  
gcc.sika.com

### SIKA SOUTHERN GULF

UAE / Oman / SIC  
Tel: +971 4 439 8200  
info@ae.sika.com  
gcc.sika.com

### SIKA SAUDI ARABIA

Riyadh / Jeddah / Damman  
Tel: +966 11 217 6532  
info@sa.sika.com  
gcc.sika.com



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All products are supplied  
under a management  
system certified to conform  
to the requirements of the  
quality, environmental and  
occupational health &  
safety standards ISO 9001,  
ISO 14001 and OHSAS  
18001.

### Product Data Sheet

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