

Sikaflex® PRO-3

1-part high performance sealant for flooring

Construction

Product Description / Uses

Sikaflex® PRO-3 is a one part, moisture curing, elastic joint sealant with high mechanical resistance for the following indoor and outdoor applications:

- Movement and connection joints in floors
- Pedestrian and traffic areas (e. g. parking decks, car parks)
- Warehouses and production areas
- Applications in the food industry
- Joints in waste water and sewage treatment plants
- Floor joints in tunnel construction
- Applications in cleanrooms

Characteristics / Advantages

- Movement capability of 25% (ISO 9047)
- Movement capability of 35% (ASTM C 920)
- Very high mechanical and chemical resistance
- Bubble-free curing
- Very good adhesion to most construction materials
- Solvent free and odourless
- Very low emission

Approvals / Standards

Conforms to EN15651-4 PW EXT-INT CC 25 HM
Conforms to ISO 11600 F 25 HM
Conforms to ASTM C 920 class 35
Tested according principals of DIBT for Waste Water Exposure
EMICODE EC1^{PLUS} R, very low emission
ISEGA Certificate for foodstuff area usage.
Conforms to BS 6920 (drinking water contact)
CSM TVOC tested (ISO-6.8)
CSM biological resistant : very good
Resistance against Diesel and Jet Fuel according to the DIBT guidelines

Specific Ratings

LEED® EQc 4.1	SCAQMD, Rule 1168	BAAQMD, Reg. 8, Rule 51
passes	passes	passes

Product Data

Colours

White, black, concrete grey, medium grey, further colours available upon request

Packaging

300 ml cartridge, 12 cartridges per box
600 ml foil pack, 20 foil packs per box

Storage Conditions / Shelf-Life

15 months from date of production if stored in undamaged original sealed containers, in dry conditions and protected from direct sunlight at temperatures between +5°C and +25°C.



Technical Data

Chemical Base	i-Cure [®] technology polyurethane	
Density	1.35 kg/l approx.	(CQP ¹) 006-4, ISO 1183-1)
Sag Flow	0 mm (20 mm profile, 50°C)	(CQP 061-4, ISO 7390)
Skin Time	60 minutes approx. ²⁾	(CQP 019-1)
Tooling Time	55 minutes approx. ²⁾	(CQP 019-2)
Curing Rate	3.5 mm/24 h approx. ²⁾	(CQP 049-1)
Movement Capability	±25% ±35%	(ISO 9047) (ASTM C 719)
Shore A Hardness	37 after 28 days approx. ²⁾	(CQP 023-1, ISO 868)
Tear propagation resistance	8 N/mm approx. ²⁾	(CQP 045-1, ISO 34)
Secant Tensile Modulus	0.6 N/mm ² approx. at 100% elongation ^{2), 3)} 1.1 N/mm ² approx. at 100% elongation (-20°C) ³⁾	(CQP 020-1, ISO 8339)
Elongation at Break	600% approx. ²⁾	(CQP 036-1, ISO 37)
Elastic Recovery	> 90% ²⁾	(CQP 018-1, ISO 7389)
Application Temperature	+5°C to +40°C, min. 3°C above dew point temperature	
Service Temperature	-40°C to +70°C	
Resistance	Sikaflex [®] PRO-3 is resistant to water, seawater, diluted alkalis, cement grout and water dispersed detergent. Sikaflex [®] PRO-3 has short term resistant (≤ 72 hours) to diesel and jet fuel according to the DIBT guidelines. Sikaflex [®] PRO-3 is not resistant to alcohols, organic acids, concentrated alkalis, concentrated acids and other hydro carbons than stated above.	

¹⁾ Sika Corporate Quality Procedure

²⁾ 23°C / 50% r.h.

³⁾ conditioning: Method B

Application Details

Joint Design/ Consumption

The joint width must be designed to suit the movement capability of the sealant. In general the joint width should be > 10 mm < 35 mm. A width to depth ratio of approx. 1:0.8 must be maintained

Standard joint widths for joints between concrete elements: with a ΔT^* of 40 °C

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

with a ΔT^* of 80 °C

Joint distance [m]	2	4	6	8	10
Min. joint width [mm]	10	15	20	28	35
Min. joint depth [mm]	10	12	17	22	28

* ΔT is considered to be the difference between the highest expected temperature in use (or lowest, check which case leads to higher ΔT) and the application temperature.

All joints must be properly designed and dimensioned in accordance with the relevant standards, before construction. Basis for calculation of the necessary joint width are the technical values of the joint sealant and the adjacent building materials, as well as the exposure of the building, type of construction and its dimensions.

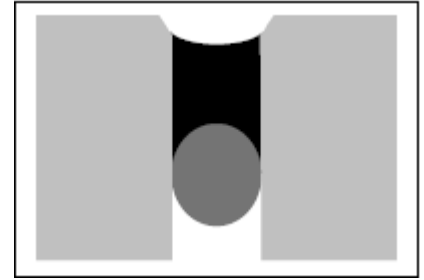
Approximate consumption

Joint width [mm]	10	15	20	25	30
Joint depth [mm]	10	12	16	20	24
Joint length / 600 ml [m]	6	3.3	1.9	1.2	0.8

Backing: Use closed cell, polyethylene foam backing rods.



Flush joint design prevents trip hazards and dirt traps



Recessed joint design protects the sealant against mechanical loads

Substrate Preparation / Priming

Sikaflex[®] PRO-3 generally has strong adhesion without primers/activators to most dry, clean and sound substrates.

For optimum adhesion and critical, high performance applications such as multi story building work, high stress bonding joints, extreme weather exposure or water immersion the following procedure 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 with Sika[®] Aktivator-205 by using a clean towel. Before sealing allow a flash-off time >15 min (max.6 hours).

Metals like copper, bras, titanium-zinc etc. have to be cleaned and pre-treated with Sika[®] Aktivator-205 by using a clean towel. After a flash-off time >15 minutes, apply Sika[®] Primer-3 N by using a brush and allow a flash-off time >30 minutes (max. 8 hours) before sealing.

PVC has to be cleaned and thereafter pre-treated with Sika[®] Primer-215 by using a brush. Before sealing allow a flash-off time > 30 min (max.8 hours).

Porous substrates

Concrete, aerated concrete and cementitious plasters, mortars, brick, etc. have to be primed with Sika[®] Primer-3 N by using a brush. Before sealing allow a flash-off time >30 minutes (max. 8 hours).

For detailed instructions consult the Product Data Sheet for pre-treatments or contact our Technical Service Department.

Primers are adhesion promoters. They neither substitute for the correct cleaning of the surface nor improve its strength significantly.

Application Method / Tools

Sikaflex[®] PRO-3 is supplied ready to use.

After suitable substrate preparation, insert backing rod to the required depth and apply primer if necessary. Insert foil pack into sealant gun and extrude Sikaflex[®] PRO-3 into joint making sure that it is in full contact with the sides of the joint and avoid air entrapment. Sikaflex[®] PRO-3 must be tooled firmly against joint sides to ensure good adhesion.

Masking tape may be used where exact joint lines or exceptionally 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 solvent containing products!

Cleaning of Tools

Clean all tools and application equipment with Sika[®] Remover-208 / Sika[®] Thinner C immediately after use. Once cured the material can only be removed mechanically.

Further Documents available

- Safety Data Sheet (SDS)
- Pre-treatment Chart Sealing & Bonding

- Method Statement Joint Sealing
- Method Statement Joint Maintenance, Cleaning and Renovation

Notes on Application / Limitations

Sikaflex[®] PRO-3 can be over-painted with most conventional paint systems. The paint must be tested for compatibility by carrying out preliminary trials and the best results are obtained if the sealant is allowed to cure fully first. Please note that 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.

Do not use Sikaflex[®] PRO-3 as a glass sealer, on bituminous substrates, natural rubber, EPDM rubber or on building materials which might bleed oils, plasticisers or solvents which could attack the sealant. Do not use Sikaflex[®] PRO-3 to seal swimming pools. Do not expose uncured Sikaflex[®] PRO-3 to alcohol containing products as they may interfere with the curing reaction.

Value Base

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.

Health and Safety Information

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.

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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