BUILDING TRUST

PRODUCT DATA SHEET

Sikaflex® PRO-3 Purform®

Polyurethane sealant for floor joints and civil engineering applications

PRODUCT DESCRIPTION

Sikaflex® PRO-3 Purform® is a 1-part, moisture-curing, elastic polyurethane sealant. It seals many kinds of joint configurations in floors and civil engineering structures. The elasticity is maintained over a wide temperature range, and high mechanical and chemical resistance provides good durability.

USES

Sikaflex® PRO-3 Purform® is used for sealing in the following areas:

- Interior or exterior applications.
- Food industry.
- Clean rooms.
- Warehouse and production floor areas.
- Sewage treatment plants.
- Tunnels.
- Car park decks.
- Trafficked areas.
- Secure environments where a tamper-resistant sealant may be required e.g. prisons & secure units (supervised or hard to reach areas).

CHARACTERISTICS / ADVANTAGES

- High movement capability: ±25 % (ISO 9047), ±50 % (ASTM C719).
- Fast development of mechanical properties.
- Very good mechanical resistance.
- Extended application range to lower temperatures.
- Very good resistance to specific chemicals.
- Very good resistance to weathering.
- Non-staining to a wide range of substrates.
- Monomeric diisocyanate content <0.1 %: no user safety training needed (REACH restriction 2023, Annex XVII entry 74).
- Bubble-free curing.
- Good adhesion to many construction materials.
- Durable anti-pick formulation for joints subject to idle tampering and acts of vandalism where traditional sealants may be more easily damaged or removed.

ENVIRONMENTAL INFORMATION

- Contributes towards satisfying Indoor Environmental Quality (EQ) Credit: Low-Emitting Materials under LEED® v4.
- VOC emission classification GEV Emicode EC1^{plus}.

APPROVALS / STANDARDS

- CE marking and declaration of performance based on EN 15651-1:2012 Sealants for non-structural use in joints in buildings and pedestrian walkways — Part 1: Sealants for facade elements.
- CE marking and declaration of performance based on EN 14188-2:2004 Joint fillers and sealants — Part 2: Specifications for cold applied sealants.
- CE marking and declaration of performance based on EN 15651-4:2012 Sealants for non-structural use in joints in buildings and pedestrian walkways — Part 4: Sealants for pedestrian walkways.
- Tensile Properties, Adhesion, Change of Volume tests ISO 11600 F Class 25 HM.
- Standard Specification for Elastomeric Joint Sealants, ASTM C 920.
- Chemical Resistance, DIN EN 14187, SKZ, Report No. 208323/20.
- Determination of the staining, ASTM 1248-04, SKZ, Report No.205279/19-VI.
- Waste water, DIBt, SKZ, Test Report No. 205279/19-V.
- Outgassing VOC/SVOC, CSM procedures, Fraunhofer, Certificate, No. SI 1909-1140.
- Testing of joint sealant for pedestrian walkways ISO 11618, SKZ, No. 205279/19-VII.
- Sealants - Durability to extension compression, ISO 19862, Sikaflex® PRO-3 Purform.

PRODUCT INFORMATION

Product Declaration	EN 15651-1:2012	F EXT-INT CC 25 HM
	EN 15651-4:2012	PW EXT-INT CC 25 HM
	EN 14188-2:2004	Class 35
	ISO 11600:2002	Class 25 HM F
	ASTM C 920-18	Type S, Grade NS, Movement Class 50 Use T1, Use NT, Use I Class 2, Use M
Chemical Base	Sika® Purform® Polyurethane Technology	
Packaging	300 ml cartridge	12 cartridges per box
	600 ml cylindrical foil pack	20 foil packs per box
	Refer to the current price list for available packaging variations.	
Shelf Life	15 months from date of production	
Storage Conditions	The Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +25 °C. Always refer to the packaging. Refer to the current Safety Data Sheet for information on safe handling and storage.	
Colour	Available in a range of colours. Refer to the current price list for the colour range.	
Density	(1.30 ± 0.1) kg/l	(ISO 1183-1)

SYSTEM INFORMATION

Compatibility

- Non-staining on many natural stones according to ASTM 1248-04 / ISO 16938-1.
- To confirm suitability, tests must be carried out according to ISO 16938-1/ ASTM 1248-04 before using on natural stones and full project application.

TECHNICAL INFORMATION

Shore A Hardness

40 (after 28 days) (EN ISO 868)

80 % of final hardness	Time
+5 °C	6 days
+10 °C	5 days
+23 °C	2 days
+40 °C	1 day

Secant Tensile Modulus

0.65 N/mm² at 100 % elongation (+23 °C) (ISO 8339)
1.00 N/mm² at 100 % elongation (−20 °C)

Elongation at Break

800 % (ISO 37)

Movement Capability

± 25 % (EN ISO 9047)
± 35 % (EN 14188-2)
± 50 % (ASTM C719)

Elastic Recovery

90 % (EN ISO 7389)

Tear Propagation Resistance

9.0 N/mm (ISO 34-2)

Service Temperature

Maximum	+80 °C
Minimum	-40 °C

Chemical Resistance	Resistant to many chemicals. Refer to the following test report or contact Sika Technical Services for additional information: Chemical Resistance, DIN EN 14187, SKZ, Report No. 208323/20.
Resistance to Weathering	High resistance to weathering (10 cycles) (ISO 19862)
Joint Design	For movement joints, the width must be at least 8 mm and should not exceed 40 mm. For non-movement joints such as connection joints in interior areas, the joint width can be less than 8 mm. The joint dimensions must be designed to suit the movement capability of the sealant. In all cases joints must be at least 8 mm deep, or a have a width to depth ratio of 1 : 0.5 for the facade joints or 1 : 0.8 for floor joints whichever is greater. For more information about joint design and calculations refer to the Sika document Design guideline: Dimensioning of construction joints or contact Sika Technical Services.

APPLICATION INFORMATION

Consumption

Joint width	Joint depth	Joint length per 600 ml foil pack
10 mm	10 mm	6 m
15 mm	12 mm	3.3 m
20 mm	16 mm	1.9 m
25 mm	20 mm	1.2 m
30 mm	24 mm	0.8 m

Sag Flow

0 mm (20 mm profile, +50 °C) (EN ISO 7390)

Product Temperature

Maximum	+40 °C
Minimum	+5 °C

Ambient Air Temperature

Maximum	+40 °C
Minimum	0 °C

For applications at temperatures below +5 °C, please contact Sika Technical Services.

Substrate Temperature

Maximum	+40 °C
Minimum	0 °C

The substrate temperature must be +3 °C above dew point temperature and free from frost and ice.

Backing Material

Use closed cell, polyethylene foam backing rod.

Curing Rate

3.5 mm/24 hours (+23 °C / 50 % r.h.)

Skin Time

50 minutes (+23 °C / 50 % r.h.)

Tooling Time

40 minutes (+23 °C / 50 % r.h.)

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.

FURTHER DOCUMENTS

- Pre-treatment chart for construction sealants and adhesives.
- Design guideline: Dimensioning of construction joints.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

IMPORTANT
Poor adhesion due to inadequate surface preparation
Primers are adhesion promoters.
1. Do not use primers for improving poorly prepared or poorly cleaned joint surfaces.

IMPORTANT
Poor adhesion due to incorrect priming procedure
Incorrectly defined or uncontrolled priming procedures may lead to a variation in Product performance.
1. Test adhesion on project-specific substrates and agree on procedures with all parties before full project application. For more information contact Sika Technical Services.

The substrate must be sound, clean, dry and free of contaminants such as dirt, oil, grease, cement laitance, sealant residues and poorly bonded coatings which could affect adhesion of the primer and sealant.
The substrate must be of sufficient strength to cope with the stresses induced by the sealant during movement.
1. Use techniques such as wire brushing, grinding, grit blasting or other suitable mechanical methods to remove all weak substrate material.
2. Repair all damaged joint edges with suitable Sika repair products.
3. Remove dust, loose and friable material from all surfaces before applying the sealant.

If tested or supported by experience, the Product can be used without primers or activators on many substrates.
Use the following priming or pre-treatment procedures to ensure optimum adhesion and joint durability, or if the Product is used for high-performance applications such as joints on multi-storey buildings, highly stressed joints, or joints exposed to extreme weather.
NON-POROUS SUBSTRATES
Aluminium, anodised aluminium, stainless steel, galvanised steel or glazed tiles:
1. Lightly roughen the surface with a fine abrasive pad.
2. Clean the surface.
3. Pretreat the surface with Sika® Aktivator-205 applied with a clean cloth.

Other metals, such as copper, brass and titanium-zinc:
1. Lightly roughen the surface with a fine abrasive pad.
2. Clean the surface.
3. Pretreat the surface with Sika® Aktivator-205 applied with a clean cloth.
4. Wait until the flash-off time is over.
5. Prime the surface with Sika® Primer-3 N applied with a brush.

Powder-coated metals:
1. Carry out preliminary trials to verify adhesion. For more information contact Sika Technical Services.

PVC substrates:
1. Prime the surface with Sika® Primer-215 applied with a brush.

POROUS SUBSTRATES
Concrete, aerated concrete and cement based renders, mortars and bricks:
1. Prime the surface with Sika® Primer-3 N or Sika® Primer-115 applied with a brush.

Concrete that is 2 to 3 days old, or matt wet (surface dry):
1. Prime the surface with Sika® Primer-115 applied with a brush.

Reconstituted, cast stone or natural stone:
1. Carry out preliminary trials to check if the stone is susceptible to plasticiser migration. For information about a suitable primer to prevent plasticiser migration, contact Sika Technical Services.

ASPHALT (ACCORDING TO EN 13108-1 AND EN 13108-6):
Fresh cut or existing cut asphalt must have a clean bonding surface with more than 50 % exposed aggregate.
1. Prime the surface with Sika® Primer-3 N or Sika® Primer-115 applied with a brush.

For more details of the primer or pretreatment products, refer to the corresponding Product Data Sheet. Contact Sika Technical Services for additional information.

MIXING

1-part ready to use.

APPLICATION

IMPORTANT
Strictly follow installation procedures
Strictly follow installation procedures as defined in Method Statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

IMPORTANT
Staining on natural stone substrates due to plasticiser migration
Staining from plasticiser migration may occur when used on cast, reconstituted or natural stone such as granite, marble or limestone substrates. Customers should test a sample prior to application.

IMPORTANT
Degradation of sealant due to chemical attack
Do not use the Product to seal joints in and around swimming pools containing water treatment agents such as chlorine.
Do not use on bituminous substrates, natural rubber, EPDM rubber or on any building materials which might leach oils, plasticisers or solvents that could degrade the sealant.

IMPORTANT
Insufficient curing due to exposure to alcohol
Exposure to alcohol during curing may interfere with the curing reaction and cause the Product to remain soft or become tacky.
Do not expose the Product to alcohol-containing products during the curing period.
1. Apply masking tape where neat or exact joint lines are required.
2. After the required substrate preparation, insert a backing rod to the required depth.
3. Prime the joint surfaces as recommended in sub-

strate preparation.
Note: Avoid excessive application of the primer.
4. Open the seal on the top of the cartridge or open the end of the foil pack.
5. Fit the nozzle and cut it to the desired bead size.
6. Insert the Product into the application gun.
7. Apply the Product into the joint.
Note: Avoid air entrapment. Make sure that the Product comes into full contact with the adhesion area of the joint.
8. IMPORTANT Do not use tooling products containing solvents. As soon as possible after application, tool the Product firmly against the joint sides to ensure adequate adhesion and a smooth finish. Use a compatible tooling agent such as Sika® Tooling Agent N to smooth the joint surface.
9. Remove the masking tape within the skin formation time of the Product.

OVERPAINTING THE SEALANT

Sikaflex® PRO-3 can be over-painted with most conventional facade paint coating 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). Optimum results are obtained when the sealant is allowed to fully cure first.

IMPORTANT

Tacky paint due to plasticiser migration

Paints and sealants or adhesives may contain plasticizers and other substances that migrate and can cause the painted surface to become tacky.

IMPORTANT

Cracking paint due to joint movement

Rigid paint applied on top of a sealant or flexible adhesive may crack when used on joints subject to movement.

The Product can be overpainted with most conventional paint coating systems.

1. Allow the Product to fully cure before overpainting.
2. Before overpainting, carry out preliminary trials to test compatibility of the paint or coating system with the Product in accordance with ISO/TR 20436:2017 – Buildings and civil engineering works — Sealants — Paintability and paint compatibility of sealants.

Colour variation

Note: Colour variation may occur especially with white or other light colour shades. This effect is purely aesthetic and does not adversely influence the technical performance or durability of the Product.

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.

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