BUILDING TRUST

BUILDING PRODUCT INFORMATION SHEET

Sikaflex®-11 FC Purform®

Multipurpose fast curing polyurethane elastic adhesive and joint sealant

DESCRIPTION

Sikaflex®-11 FC Purform® is a 1-part, moisture curing, elastic adhesive and sealant designed for interior and exterior multipurpose bonding and joint sealing. Sikaflex®-11 FC Purform® provides excellent adhesion, strength, elasticity, UV stability and tear resistance properties for a durable strong bond or permanent weatherproof joint.

USES

An adhesive to bond construction components and materials such as:

- Concrete
- Masonry
- Reconstituted or cast stone
- Ceramic
- Wood
- Metal
- Glass

A sealant to seal vertical and horizontal joints.

FEATURES

- Solvent Free polyurethane
- High tensile strength
- High tear propogation resistance
- Movement capability of ± 25 % (ISO9047)
- Easy to apply and non-sagging
- Bonds well to most construction materials
- Good mechanical and weathering resistance
- Very low monomer content Sika® Purform® technology

SUSTAINABILITY

- Conformity with LEED v4 EQc 2: Low-Emitting Materials
- VOC emission classification GEV-Emicode EC1PLUS, license number 11290/20.10.00
- Class A+ according to French Regulation on VOC emissions
- VOC emission classification of building materials RTS M1

LIMITATIONS OF USE

The product is not a substitute for any mechanical fixings that are specified by the manufacturer of the element being bonded

A building element used for load bearing, bracing, structural support or other applications as defined in the NZBC, must be fastened in accordance with the specification / instructions from that elements manufacturer

If bonded elements require NZBC compliance, the maximum substrate moisture contents at the time of application must comply with E2/AS1 Paragraph 10.2

At least one of the bonding surfaces must be porous to enable the adhesive to cure effectively

For bonded elements requiring NZBC compliance only use in bonding applications that will remain dry.

APPROVALS / CERTIFICATES

- CE Marking and Declaration of Performance to EN 15651-1 - Sealants for non-structural use in joints in buildings - Facade elements - F EXT-INT CC 25HM
- CE Marking and Declaration of Performance to EN 15651-3 - Sealants for non-structural use in joints in buildings - Sealants for joints for non-structural use in sanitary areas - XS 3
- CE Marking and Declaration of Performance to EN 15651-4 - Sealants for non-structural use in joints in buildings - Sealants for pedestrian walkways - PW EXT-INT CC 25HM
- Migration Behaviour EN 1186, EN 13130, CEN/TS 14234, Sikaflex®-11 FC Purform, ISEGA, Certificate No. 54312 U 21
- Water Potable - AS4020:2018 Certificate

PRODUCT INFORMATION

Product identifier	Sikaflex®-11 FC Purform®	
Place of manufacture	Overseas	
Composition	Sika® Purform® Polyurethane	
Packaging	300 ml Cartridge	12 cartridges per carton
	600 ml foil pack (Sausage)	20 foil packs per carton
Shelf life	15 months from the date of production	
Storage conditions	The product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +25 °C. Always refer to packaging.	
Colour	White & Black, 300ml Cartridge only, Grey 300ml cartridge and 600ml Sausage	
Density	~1.35 kg/l	(ISO 1138-1)

TECHNICAL INFORMATION

Shore A hardness	~33 (after 28 days)	(ISO 868)
	Time	Final hardness development (+23 °C / 50 % r.h.)
	1 day	60 %
	2 days	85 %
	3 days	100 %
Tensile strength	~1.8 N/mm^2	(ISO 37)
Secant tensile modulus	~0.6 N/mm^2 at 100 % elongation (+23 °C)	(ISO 8339)
Tensile strain at break	~800 %	(ISO 37)
Movement capability	± 25 %	(ISO 9047)
Lap shear strength	~1.0 MPa	(ISO 4587)
Elastic recovery	~85 %	(ISO 7389)
Tear propagation resistance	~8.0 N/mm	(ISO 34)
Service temperature	-40 °C min. / +80 °C max.	
Chemical resistance	Resistant to many chemicals. Contact Sika® Technical Services for additional information.	
Contact with water	Water potable compatibility	
Joint design	The joint dimensions must be designed to suit the movement capability of the sealant. The joint width must be ≥ 10 mm and ≤ 35 mm. A width to depth ratio of 1:0.5 for facade joints and a with to depth ratio of 1:0.8 for floor joints must be maintained (for exceptions, see table below).	

Typical joint dimensions for joints between concrete elements:

Joint distance (m)	Minimum joint width (mm)	Minimum joint depth (mm)
2	10	10
4	15	10
6	20	10
8	30	15
10	35	17

Minimum joint width for perimeter joints around windows is 10 mm.

All joints must be correctly designed and dimensioned in accordance with the relevant standards and codes of practice before their construction. The basis for calculation of the necessary joint widths are the type of structure, dimensions, technical values of the adjacent building materials, joint sealing material and the specific exposure of the building and the joints.

Joints ≤ 10 mm in width are for crack control and therefore non-movement joints.

For larger joints contact Sika Technical Services for additional information.

APPLICATION INFORMATION

Consumption

Sealing

Approximate consumption for floor joints

Joint width [mm]	Joint depth [mm]	Joint length [m] per 300 ml	Joint length [m] per 600 ml
10	10	3	6
15	12–15	1.5	2.5–3
20	17	0.9	1.8
25	20	0.6	1.2
30	25	0.4	0.8

Minimum joint width for perimeter joints around windows is 10 mm.

Consumption depends on the roughness and absorbency of the substrate.

These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.

Yield

Bonding

Yield 1 Cartridge (300 ml)	Dimension
~15 m bead	Nozzle diameter = 5 mm (~20 ml per linear meter)

Yield depends on the roughness and absorbency of the substrate.

These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.

Sag flow	0 mm (20 mm profile, +23 °C)	(ISO 7390)
Ambient air temperature	+5 °C min. / +40 °C max.	
Relative air humidity	30 % to 90 %	
Substrate temperature	+5 °C min. / +40 °C max. Minimum +3 °C above dew point temperature	
Backing material	Use closed cell, polyethylene foam backing rod	
Curing rate	~4.0 mm / 24 hours (+23 °C / 50 % r.h.) *Sika Corporate Quality Procedure	(CQP* 049-2)
Skinning time	~50 min (+23 °C / 50 % r.h.)	(CQP 019-1)

MANUFACTURER AND IMPORTER INFORMATION

Manufacturer information	Address	Sika Supply Centre AG Industriestrasse 26 6060, Sarnen Switzerland
Importer information	Address	Sika (NZ) Limited 85-91 Patiki Road Avondale, Auckland 1026

	New Zealand
Phone number	0800 745 269
Website	https://nzl.sika.com/
Email address	info@nz.sika.com
NZBN	9429000018791

BUILDING CODE INFORMATION

Building Code clauses	Note: This product is an adhesive and on its own is not within the scope of the NZ Building Code. However, when it is used as part of an internal floor, wall, or ceiling system, or with other building elements that must comply with the NZ Building Code, and it is used in accordance with that material supplier's specification and Sika's technical literature, it will contribute to meeting the requirements of the following clauses: B1 Structure: Performance clauses B1.3.1, B1.3.2, B1.3.3 (a ,b, j, q), B1.3.4 B2 Durability: Performance clauses B2.3.1 - (b) not less than 15 Years, (c) not less than 5 years F2 Hazardous Building Materials: Performance clause F2.3.1
Building Code compliance statements	Performance B1.3.1, B1.3.2, B1.3.3 (a, b, j, q) B1.3.4: When used as an adhesive this product contributes to meeting the loading requirements that bonded lining elements are subjected to, as a result of self-weight, imposed in-use gravity loading, impact, and the effects of creep and shrinkage over time. Performance B2.3.1 (b) 15 years and (c) 5 years: This product achieves these durability requirements and will remain serviceable for 15 years, or more, when installed and maintained in accordance with the relevant Sika technical literature. nzl.sika.com. According to Sika's "Service Improvement" records, maintained within its ISO9001:2015 Quality Management System, this product has performed successfully since it was introduced in 2024. Performance F2.3.1: This product meets this requirement when used and applied in accordance with Sika's installation instructions and does not present a health hazard to people occupying or using the building. Refer to the Sika Product Technical Data sheet and product Safety Data Sheet nzl.sika.com for further information if required

BASIS OF PRODUCT DATA

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

IMPORTANT CONSIDERATIONS

- For ease of use, the temperature of Sikaflex®-11 FC Purform® should be +20 °C.
- Application during high temperature changes is not recommended (movement during curing).
- When using Sikaflex®-11 FC Purform® for joints in permanent water immersion, Sika Primer 3N must be used.
- Before bonding or sealing, check adhesion and compatibility of paints and coatings by carrying out preliminary trials.
- Sikaflex®-11 FC Purform® can be overpainted with most conventional water-based coating and paint systems. However, paints must first be tested to ensure compatibility by carrying out preliminary trials. The best over-painting results are obtained when the adhesive is allowed to fully cure first. Note: non-flexible paint systems may impair the elasticity of the adhesive and lead to cracking of the paint film.
- Colour variations may occur due to the exposure in service to chemicals, high temperatures and/or UV-radiation (especially with white colour shade). This effect is aesthetic and does not adversely influence the technical performance or durability of the product.
- Always use Sikaflex®-11 FC Purform® in conjunction with mechanical fixings for overhead applications or heavy components.
- For very heavy components provide temporary support until Sikaflex®-11 FC Purform® has fully cured.
- Full surface applications / fixings are not recommended since the inner part of the adhesive layer may never cure.
- Before using on reconstituted, cast or natural stone, contact Sika Technical Services.
- 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 adhesive.
- Do not use on polyethylene (PE), polypropylene (PP), polytetrafluoroethylene (PTFE / Teflon), and certain plasticised synthetic materials. Preliminary trials are recommended or contact Sika® Technical Services.
- Do not use to seal joints in and around swimming pools.
- Do not use for joints under water pressure.

- Do not use to seal glass.
- Do not use for bonding glass if the bond line is exposed to sunlight.
- Do not use for structural bonding.
- Do not expose uncured Sikaflex®-11 FC Purform® to alcohol containing products as this may interfere with the curing reaction.

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

DESIGN REQUIREMENTS

There are no specific Sika design instructions for this product, when used as a general purpose adhesive. Refer to the product data sheet for general information at nzl.sika.com

If the building elements to be bonded are within the scope of the NZ Building Code then the bonding instructions of the manufacturer / supplier of those elements must be followed

SUBSTRATE PREPARATION

The substrate must be sound, clean, dry and free of all contaminants such as dirt, oil, grease, cement laitance, old sealants and poorly bonded paint coatings which could affect adhesion of the adhesive / sealant. The substrate must be of sufficient strength to resist with the stresses induced by the sealant during movement.

Removal techniques such as wire brushing, grinding, sanding or other suitable mechanical tools can be used.

All dust, loose and friable material must be completely removed from all surfaces before application of any activators, primers or adhesive / sealant.

Sikaflex®-11 FC Purform® adheres without primers and/or activators.

However, for adhesion to many substrates, joint durability and critical, high performance applications the following priming and/or pre-treatment procedures must be followed:

Non-porous substrates

Aluminium, anodised aluminium, stainless steel, PVC, galvanised steel, powder coated metals or glazed tiles, slightly roughen surface with a fine abrasive pad. Clean and pre-treat using Sika® Cleaner P or Sika® Aktivator-205 applied with a clean cloth.

Before bonding / sealing, allow a waiting time of > 15 minutes (< 6 hours).

Other metals, such as copper, brass and titanium-zinc, clean and pre-treat using Sika® Cleaner P or Sika® Aktivator-205 applied with a clean cloth. After a waiting time of > 15 minutes (< 6 hours). Apply Sika® Primer-3 N by brush.

Allow a further waiting time of > 30 minutes (< 8 hours) before bonding / sealing,

PVC has to be cleaned and pre-treated using Sika® Primer-215 applied with a brush.

Before bonding / sealing, allow a waiting time of > 15 minutes (< 8 hours).

Porous substrates

Concrete, aerated concrete and cement-based renders, mortars and bricks, prime surface using Sika® Primer-3 N or Sika® Primer-115 applied by brush.

Before bonding / sealing, allow a waiting time of > 30 minutes (< 8 hours).

Note: Primers and activators are adhesion promoters and not an alternative to improve poor preparation / cleaning of the joint surface. Primers also improve the long-term adhesion performance of the sealed joint.

Contact Sika Technical Services for additional information.

APPLICATION

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

Bonding Procedure

Application

After the necessary substrate preparation, prepare the end of the cartridge / foil pack before or after inserting into the sealant gun then fit the nozzle.

Apply in triangular beads, strips or spots at intervals of a few centimetres each. Use hand pressure only to fix the components to be bonded into position before skinning of the adhesive occurs. Incorrectly positioned components can easily be unbonded and repositioned during the first few minutes after application. If necessary, use temporary adhesive tapes, wedges, or supports to hold the assembled components together during the initial curing time.

Fresh, uncured adhesive remaining on the surface must be removed immediately. Final strength will be reached after complete curing of Sikaflex®-11 FC Purform®, i.e. after 24 to 48 hours at +23 °C, depending on the environmental conditions and adhesive layer thickness. **Sealing Procedure**

Masking

It is recommended to use masking tape where neat or exact joint lines are required. Remove the tape within the skin time after finishing.

Joint Backing

After the required substrate preparation, insert a suitable backing rod to the required depth.

Priming

Prime the joint surfaces as recommended in substrate preparation. Avoid excessive application of primer to avoid causing puddles at the base of the joint.

Application

Prepare the end of the cartridge / foil pack before or after inserting into the sealant gun then fit the nozzle. Extrude Sikaflex®-11 FC Purform® into the joint ensuring that it comes into full contact with the sides of the joint and avoiding any air entrapment.

Finishing As soon as possible after application, sealant must be firmly tooled against the joint sides to ensure adequate adhesion and a smooth finish. Use a compatible tooling agent (e.g. Sika® Tooling Agent N) to smooth the joint surface. Do not use tooling products containing solvents.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with Sika® Remover-208 or Sika® Wonder Wipes immediately after use. Once cured, hardened material can only be removed mechanically. For cleaning skin use Sika® Wonder Wipes.

MAINTENANCE REQUIREMENTS

There are no maintenance requirements for this Sika product

The building element being bonded, and the bonding substrate must both be maintained in accordance with each of their manufacturers instructions

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.

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

The building product/building product line is not subject to warning or ban under section 26 of the Building Act 2004.

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