

Sikaflex®-11 FC

1-part moisture curing, polyurethane adhesive sealant

Product Description

Sikaflex®-11 FC is a one-part polyurethane high modulus flexible sealant. Sikaflex®-11 FC is for indoor and outdoor applications.

Uses

Joints in the construction industry, particularly where a higher modulus and lower movement capacity are required for joints with low or medium movement

- Connection joints between floor/stairs and wall
- Connection joints between floor and machinery
- Seam sealing / sealing of pipe ducts / ventilation systems
- Multi purpose in metal and wood construction work

Characteristics / Advantages

- Very good adhesion to many construction materials
- High tear strength
- High modulus sealant
- Non-sag consistency
- Movement capability 15%

Tests

Approvals / Standards

Conforms to the requirements of ISEGA Certificate for foodstuff.

Product Data

Form

Appearance / Colours

Uniwhite, concrete grey, black

Packaging

300 ml cartridges, 12 cartridges per box
600 ml cartridges, 20 sausages per box

Storage

Storage Conditions / Shelf-Life

12 months from date of production if stored in undamaged original sealed containers, in dry conditions and protected from direct sunlight at temperatures between +10°C and +25°C.

Construction



Technical Data

Chemical Base	1-part polyurethane, moisture curing	
Density	~ 1.3 kg/l (colour concrete grey)	(DIN 53 4793)
Skinning Time	~ 60 minutes (+23°C / 50% r.h.)	
Curing Rate	~ 3 mm/24h (+23°C / 50% r.h.)	
Movement Capability	15%	
Joint Dimensions	Min. width = 10 mm / max. width = 30 mm	
Sag Flow	0 mm, very good	(DIN EN ISO 7390)
Service Temperature	-40°C to +70°C	

Mechanical / Physical Properties

Tear Strength	~ 7 N/mm (+23°C / 50% r.h.)	(DIN 53 515)
Shore A Hardness	~ 40 after 28 days (+23°C / 50% r.h.)	(DIN 53 505)
E-Modulus	~ 0.7 N/mm ² at 100% elongation (23°C / 50% r.h.)	(DIN EN ISO 8340)
Elongation at Break	~ 400% (+23°C / 50% r.h.)	(DIN 53 504)
Elastic Recovery	> 70% (+23°C / 50% r.h.)	(DIN EN ISO 7389 B)

Resistance

Chemical Resistance	Resistant to water, seawater, diluted alkalis, cement grout and water dispersed detergents. Not resistant to alcohols, organic acids, concentrated alkalis and concentrated acids, chlorinated and aromatic (hydro-carbons) fuel.
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System Information

Application Details

Consumption / Joint Design

The joint width must be designed to suit the movement capability of the sealant. In general the joint width must be > 10 mm and < 35 mm. A width to depth ratio of ~ 1 : 0.8 (for floor joints) must be maintained.

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 is 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.

Joints < 10 mm are for crack control and therefore non movement joints. Relevant is the joint width at the time of application of the sealant (guide value of +10°C.)

Approximate consumption (for floor joints)

Joint Width	10 mm	15 mm	20 mm	25 mm	30 mm
Joint Depth	10 mm	12 - 15 mm	17 mm	20 mm	25 mm
Joint Length / 600 ml	~ 6 m	~ 2.5 - 3.0 m	~ 1.8 m	~ 1.2 m	~ 0.8 m
Joint Length / 310 ml	~ 3 m	~ 1.5 m	~ 0.9 m	~ 0.6 m	~ 0.4 m

Minimum joint width for perimeter joints around windows: 10 mm

Backing: Use only closed cell, polyethylene foam backing rods

Substrate Quality	Clean and dry, homogeneous, free from oils and grease, dust and loose or friable particles. Cement laitance must be removed.
Substrate Preparation / Priming	<p><i>Non porous substrates:</i> Metals, powder coatings, etc. have to be cleaned with a fine abrasive pad and Sika® Aktivator-205 (Sika® Cleaner-205) by using a clean towel/cloth. After a flash off time of at least 15 min, apply Sika® Primer-3 N 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.).</p> <p><i>Porous substrates:</i> Concrete, aerated concrete and cementitious renders, mortars, brick, etc. have to be primed with Sika® Primer-3 N by using a brush. Before sealing allow a flash off time of at least 30 min. (max. 8 hrs.).</p> <p>Important note: Primers are only adhesion promoters. They neither substitute for the correct cleaning of the surface nor improve their strength significantly.</p> <p>Primers improve long term performance of a sealed joint.</p> <p>For further information refer to the Sika® Primer Table.</p>

Application Conditions / Limitations

Substrate Temperature	+5°C min. / +40°C max.
Ambient Temperature	+5°C min. / +40°C max.
Substrate Moisture Content	Dry

Application Instructions

Application Method / Tools	<p>Sikaflex®-11 FC is supplied ready to use.</p> <p>After suitable joint and substrate preparation, insert backing rod to required depth and apply primer if necessary. Insert cartridge into sealant gun and firmly extrude Sikaflex®-11 FC into joint making sure that it is full contact with the side of the joint. Fill the joint, avoiding air entrapment. Sikaflex®-11 FC must be tooled firmly against joint sides to ensure good adhesion.</p> <p>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. Slick joint with smoothing liquid for a perfect sealant surface.</p>
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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 removed mechanically.
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Notes on Application / Limitations	<p>Elastic sealants may not be over painted.</p> <p>Compatible coatings may cover the joint sides to max. 1 mm. The compatibility must be tested according to DIN 52 452-2.</p> <p>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.</p> <p>Before using on natural stone contact our Technical Service.</p> <p>Do not use Sikaflex®-11 FC 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.</p> <p>Do not use Sikaflex®-11 FC to seal swimming pools as it is not suitable for joints with water pressure or permanent water immersion.</p> <p>Do not mix with or expose uncured Sikaflex®-11 FC 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.</p>
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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 Material 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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