

Sikaflex[®]-11FC

1-part elastic joint sealant and multipurpose adhesive

Product Description

Sikaflex[®]-11 FC is a one part, moisture curing, elastic joint sealant and multipurpose adhesive based on polyurethane for indoor and outdoor applications.

Uses

Sikaflex[®]-11 FC is a joint sealant and multipurpose adhesive therefore suitable for various application fields:

- As a *joint sealant* for vertical and horizontal joints, soundproofing of pipes between concrete and sheathing. Caulking between partitions, seam sealing, sealing in metal and wood construction, ventilation construction and many more.
- As a *multipurpose adhesive* for indoor and outdoor bonding of window sills, thresholds, stair steps, skirting boards, base boards, crash protections boards, covering boards, prefabricated elements and many more

Characteristics / Advantages

- New Sikaflex 11FC will adhere to well cleaned existing Sikaflex 11FC
- Can be overpainted with many flexible paint systems. (Preliminary tests recommended)
- Non corrosive
- Resistant to bacterial attack
- 1-part, ready to use
- Flexible and elastic
- High pick resistance for applications in shop fronts, prisons, schools and public amenities.
- Very good adhesion to most construction materials
- Good mechanical properties
- Good weathering and ageing resistance
- Non sag consistency
- No need to grout the bonded part
- Impact and vibration absorbing

Approvals/Standards

Potable water approved (AS4020)
VOC content (SCAQMD Rule 1168)

Construction



Product Data

Appearance / Colours	White, grey, black, beige
Packaging	310 ml cartridges (carton of 12) 600 ml foil packs (carton of 20)
Storage Conditions / Shelf-Life	12 months from date of production if stored in undamaged original unopened containers, in dry conditions and protected from direct sunlight at temperatures between +5°C and +25°C.

Technical Data

Chemical Base	Polyurethane, moisture curing.
Density	1.26 kg/l (JIS A1439)
Tack-free Time	40 minutes approx. ¹ (JIS A1439)
Curing Rate	5 mm / 36h approx. ¹
Sag Flow	0 mm, very good (JIS A5758)
Application Temperature	5°C to 35°C
Service Temperature	-20°C to +70°C
Tensile Strength	1.3 N/mm ² approx. (ISO 37)
Shore A Hardness	38 approx. ¹ (JIS K6253)
Elongation at Break	350% approx. ¹ (ISO 37)
Chemical Resistance	Resistant to water, seawater, diluted alkalis, cement grout and water dispersed detergent. Not resistant to alcohols, organic acids, concentrated alkalis and concentrated acids, chlorinated (hydro-carbons) fuel.

System Information

Consumption / Joint Design

Permissible change in joint at ambient temperatures:

- Above 0°C is ± 10% of average joint width at time sealing
- Below 0°C is a total of ± 5% of average joint width at the time of sealing

For successful sealing of joints with Sikaflex-11FC it is essential that the following guidelines on joint configuration are observed:

General Use: for joints up to 12 mm, width to depth ratio = 1 : 1
for joints over 12 mm wide, width of depth ratio = 2 : 1

To ensure that the correct width to depth ratio is achieved and to provide a firm backing against which the sealant can be tooled off and also to prevent the sealant from adhering to the bottom of the joint, the space under the Sikaflex-11FC must be filled with a tight fitting, non-rotting, non-absorbent backing material, e.g. fibreboard combined with a bond breaking tape or, alternatively, an open cell polyurethane or closed cell polyethylene backer rod supplied by Sika.

It is essential that oil or tar impregnated backing materials are not used.

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	~ 6.0 m	~ 2.5 - 3.0 m	~ 1.8 m	~ 1.2 m	~ 0.8 m
Joint length / 310 ml	~ 3.1 m	~ 1.5 m	~ 0.9 m	~ 0.6 m	~ 0.4 m

¹ 23°C / 50% r.h.

Backing: Use open or closed cell, polyethylene foam backing rods

Sealing & Bonding:

- In spots:
1 cartridge for 100 x 3 cm spots
(Diameter =3 cm; thickness = 0.4 cm)
- In strips:
1 cartridge for 12 linear meters (5 x 5 mm cross section).

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>Sikaflex[®]-11 FC generally has strong adhesion to most clean, sound substrates. For optimum adhesion and critical, high performance applications such as multi story building work, for high stress bonding joints or in case of extreme weather exposure substrate primers and cleaners must be used. If in doubt apply product in test area first.</p> <p><i>Non porous substrates:</i> Glazed tiles, powder coated metals, aluminium, anodised aluminium, stainless steel and galvanised steel have to be cleaned with a fine abrasive pad and Sika[®]Aktivator-205 by using a clean towel or cloth. Before sealing allow a flash off time of at least 15 min.</p> <p>All other metal surfaces not mentioned above have to be cleaned with a fine abrasive pad and Sika[®]Aktivator-205 by using a clean towel or cloth. After a flash off time of at least 15 minutes, apply Sika[®]Primer-3 N by using a brush. Before sealing allow a flash off time of at least 30 minutes (max. 8 hours).</p> <p>For PVC use Sika[®]Primer-215. Before sealing allow a flash off time of at least 30 minutes (max. 8 hours).</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 minutes (max. 8 hours).</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. For further information please refer to the Sika[®] Pre-treatment table.</p>
Dew Point	Substrate temperature must be 3°C above dew point.
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> <p>Sealing & Bonding: After substrate preparation apply Sikaflex[®]-11 FC in strips or spots on the bonding surface at intervals of a few centimeters. Use hand pressure to set the element to be bonded into position. If necessary, use adhesive tape, wedges, or props to hold the assembled elements together for the initial hours of curing. An incorrectly positioned element can be easily unfastened and repositioned in the first few minutes after application. Apply pressure again.</p> <p>Optimum bonding will be obtained after complete curing of Sikaflex[®]-11 FC, i.e. after 24 to 48 hours at +23°C for a thickness between 2 to 3 mm.</p>
Cleaning of Tools	Clean all tools and application equipment with Sika [®] Remover-208 / Sika [®] HandClean towel immediately after use. Cured material can only be removed mechanically.
Further Documents	■ Pre-treatment Chart Sealing & Bonding

available

- Safety Data Sheet (SDS)
- Method Statement Joint Sealing

Notes on Application / Limitations

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.

Sikaflex-11FC in White is not recommended for Kitchen and Bathroom tile joint sealing as the sealant can discolour. Sikasil PRO or Sikasil C (AP) are the products recommended for this application.

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.

Do not use Sikaflex®-11 FC to seal swimming pools.

When overpainting, an on-site test is recommended to determine actual compatibility. Oil-based and alkyd-based paints are generally not suitable.

Do not expose uncured Sikaflex®-11 FC to alcohol (which is often within thinners, solvents and cleaning agents), as they may interfere with the curing reaction.

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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