

Sikaflex® Construction

1-C polyurethane sealant for building joints

Product Description/Uses	Sikaflex® Construction is an one component, moisture curing, elastic joint sealant based on polyurethane. It is suitable for outdoor applications	
Characteristics / Advantages	<ul style="list-style-type: none"> ■ One component, ready to use ■ Very good adhesion to many substrates ■ Excellent workability, easy to smooth ■ Non sag ■ Bubble free curing ■ Can be overpainted ■ High tear resistance ■ Good weather and ageing resistance 	
Approval / Standard	<p>Conforms to ISO 11600 Classification F 25 HM /20 LM</p> <p>Conforms to ASTM C 920 Type S, Grade NS, Class 25, Use NT, G, M and A</p>	
Technical Data		
Colours	White, Concrete Grey, Black, Dark Amber, Beige, further colours available upon request	
Packaging	600ml sausages, 20 sausages per box	
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 +5°C and +25°C.	
Chemical Base	1-component polyurethane, moisture curing.	
Density	1.30 kg/l approx. ²⁾	(CQP ¹⁾ 006-4, ISO 1183-1)
Sag Flow	0 mm	(CQP 061-4, ISO 7390)

Skin Time	60 minutes approx. ²⁾	(CQP 019-1)
Curing Rate	3 mm/24 h approx. ²⁾	(CQP 049-2)
Movement Capability	25%	(ISO 9047)
Tensile Strength	1.2 N/mm ² approx. ²⁾	(CQP 036-1, ISO 37)
Tear Propagation	7.0 N/mm approx. ²⁾	(CQP 045-1, ISO 34)
Resistance		
Shore A Hardness	35 after 28 days approx. ²⁾	(CQP 023-1, ISO 868)
E-Modulus	0.6 N/mm ² approx. at 100% elongation ²⁾ after 28 days	(CQP 555-1, ISO 8339)
Elongation at Break	800% approx. ²⁾	(CQP 036-1, ISO 37)
Elastic Recovery	> 80% ²⁾ after 28 days	(ISO 7389)
Application Temperature	+5°C to +40°C	
Service Temperature	-40°C to +70°C	

Application Details

Joint Design/Consumption The joint width must be designed to suit the movement capability of the sealant. In general the joint width must be > 10 mm and < 40 mm. A width to depth ratio of ~ 2 : 1 must be maintained.

Standard design dimensions for concrete elements as per DIN 18 540 /table 3:

Joint distance [m]	2	2 - 3.5	3.5 - 5	5 - 6.5	6.5 - 8
Design joint width [mm]	15	20	25	30	35
Min. joint width [mm]	10	15	20	25	30
Joint depth [mm]	8	10	12	15	15

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 are the technical values of the joint sealant and the adjacent building materials as well as the exposure of the building, its method of Construction and its dimensions.

Approximate consumption

Joint width [mm]	10	15	20	25	30
Joint depth [mm]	8	8	10	12	15
Joint length / 600 ml [m]	~ 7.5	~ 4.5	~ 2.5	~ 1.6	~ 1.3

Backing: Use only closed cell, polyethylene foam backing rods.

Substrate Preparation / Priming Surface must be clean, dry, homogeneous and free from oil, grease, dust and loose or friable particles. Cement laitance must be removed.

Non porous substrates:

E.g. 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.).

Porous substrates:

E. g 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.).

Important note: Primers are only adhesion promoters. They neither substitute for the correct cleaning of the surface nor improve their strength significantly.

Primers improve long term performance of a sealed joint.

For further information refer to the Sika® Primer table.



Application Method / Tools	<p>Sikaflex® Construction 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® Construction into joint making sure that it is full contact with the side of the joint. Fill the joint, avoiding air entrapment. Sikaflex® Construction 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>
Cleaning of Tools	<p>Clean all tools and application equipment with Sika® Remover-208 / Sika® TopClean-T immediately after use. Hardened / cured material can only be mechanically removed.</p>
Further Documents available	<ul style="list-style-type: none">■ Material Safety Data Sheet(MSDS)■ Pre-treatment Chart Sealing & Bonding■ Method Statement Joint Sealing■ Method Statement Joint Maintenance, Cleaing and Renovation■ Technical Manual Facade sealing
Notes on Application / Limitations	<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® Construction 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® Construction to seal swimming pools.</p> <p>Not suitable for joints with water pressure or permanent water immersion.</p> <p>The freshly applied sealant has a smell similar to 'Amaretto' until it has fully cured (benzalehyde).</p> <p>Do not mix with or expose uncured Sikaflex® Construction 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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