

Sikaflex[®]-Construction (AP)

1-part polyurethane sealant for building joints

Construction

Product Description	Sikaflex [®] -Construction (AP) is a one part, moisture curing, elastic joint sealant based on polyurethane. It is suitable for outdoor applications.	
Uses	Sikaflex [®] -Construction (AP) is used as a general purpose sealant for sealing joints in building construction such as movement and construction/isolation joints around windows and doors, facades, claddings etc. in concrete, brick, wood, metal and PVC sections and structures etc.	
Characteristics / Advantages	<ul style="list-style-type: none">• Movement capability 25%• Very good adhesion to many substrates• Bubble free curing• Very short cut off string• Fast, tack free surface• High tear resistance	
Approval / Standard	ISO 11600 Classification F 25 HM	
Product Data		
Colours	Concrete grey	
Packaging	600 ml sausages, 20 sausages per box	
Storage / 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.	
Technical Data		
Chemical Base	1-part polyurethane, moisture curing	
Density	~ 1.33 kg/l (colour concrete grey)	(DIN 53479)
Skinning Time	~ 60 minutes (+23°C / 50% r.h.)	
Curing Rate	~ 1 mm/24 hours (+23°C / 50% r.h.)	
Movement Capability	25%	
Joint Dimensions	Min. width = 10 mm / max. width = 35 mm	
Sag-Flow	0 mm, very good	(DIN EN ISO 7390)
Service Temperature	-40°C to +70°C	
Mechanical / Physical Properties		
Tear Strength	~ 6 N/mm (+23°C / 50% r.h.)	(DIN 53515)
Shore A Hardness	~ 30 after 28 days (+23°C / 50% r.h.)	(DIN 53505)
E-Modulus	~ 0.4 N/mm ² at 100% elongation (+23°C / 50% r.h.)	(DIN EN ISO 8340)
Elongation at Break	~ 700% (+23°C / 50% r.h.)	(DIN 53504)
Elastic Recovery	> 70% (+23°C / 50% r.h.)	(DIN EN ISO 7389 B)



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 ~ 2 : 1 must be maintained.

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

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

Minimum joint width for perimeter joints around windows: 10 mm

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.

Approximate consumption

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

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

Non porous substrates:

E.g. metals, powder coatings etc. have to be cleaned with a fine abrasive pad and 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 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

Sikaflex® Construction (AP) is supplied ready to use.

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 (AP) 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.

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. Finish joint with smoothing liquid for a perfect sealant surface.

Cleaning of Tools	Clean all tools and application equipment with Sika® Remover-208 immediately after use. Hardened / cured material can only be mechanically removed.
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 (White not offered in New Zealand). 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 (AP) 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>Only use in well ventilated areas.</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>
Notes	All technical data stated in this Product Data Sheet are based on tests. Actual measured data may vary due to circumstances beyond our control.
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.
Health & Safety Information	
Protective Measures	<ul style="list-style-type: none"> To avoid rare allergic reactions, we recommend the use of protective gloves. Change soiled work clothes and wash hands before breaks and after finishing work. Local regulations as well as health and safety advice on packaging labels must be observed. For further information refer to the Sika Material Safety Data Sheet which is available on request. If in doubt always follow the directions given on the pack or label.
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.



Sika (NZ) Ltd
PO Box 19192
Avondale
Auckland
New Zealand

Phone: 0800 SIKA NZ
Fax: 0800 SIKA FAX
Email: info@nz.sika.com

0800 745 269
0800 745 232
www.sika.co.nz

