



## PRODUCT DATA SHEET

# Sikaflex® Construction Sealant

ONE-COMPONENT, MULTI-PURPOSE, POLYURETHANE SEALANT

### PRODUCT DESCRIPTION

Sikaflex® Construction Sealant is a premium grade, moisture-cured, 1-component, polyurethane-based, non-sag elastomeric sealant.

### WHERE TO USE

- Designed for all types of joints where maximum depth of sealant will not exceed 13 mm (1/2 in)
- Suitable for vertical or horizontal joints
- Has many applications as an elastic sealant between materials with dissimilar coefficients of expansion
- Available in 5 colours (Limestone, White, Capital Tan, Dark Bronze, Aluminum Grey)  
Ideal for:
  - Weatherproofing of joints between brickwork, blockwork, masonry, wood and concrete or metal frames
  - Sealing joints in walls, floors, balconies, around window or door frames
  - Sealing expansion joints

### CHARACTERISTICS / ADVANTAGES

- High elasticity – cures to a tough, durable, flexible consistency with exceptional cut and tear resistance
- Stress relaxation
- Excellent adhesion – bonds to most construction materials without a primer
- Excellent resistance to aging, weathering
- Non-staining
- Urethane-based; suggested by EPA for radon reduction
- Paintable with water, oil and rubber-based paints
- Capable of  $\pm 35\%$  joint movement

### ENVIRONMENTAL INFORMATION

Conformity with LEED® v4 EQ Credit: Low-Emitting Materials

### APPROVALS / CERTIFICATES

- ASTM C 920, Type S, Grade NS, Class 35, use NT, T, O, M, G
- Federal specification TT-S-00230 C Type II, Class A

### PRODUCT INFORMATION

<b>Packaging</b>	300 mL (10.1 US fl. oz) cartridge (12/case)
<b>Colour</b>	White and Limestone
<b>Shelf Life</b>	12 months in original unopened packaging.
<b>Storage Conditions</b>	Store dry at temperatures between 4 and 35 °C (39 and 95 °F). Condition product between 18 and 30 °C (65 and 86 °F) before using.
<b>Volatile organic compound (VOC) content</b>	≤ 40 g/L

## TECHNICAL INFORMATION

Shore A Hardness	40 ± 5 (21 days)	(ASTM C661)		
Tensile Strength	1.21 MPa (75 psi) (28 days)	(ASTM D412)		
Tensile Stress at Specified Elongation	<b>Curing time</b>	<b>Tension</b>	(ASTM D412)	
	21 days	25 %	0.24 MPa (35 psi)	
	21 days	50 %	0.41 MPa (60 psi)	
	21 days	100 %	0.59 MPa (85 psi)	
Elongation at Break	550 % (21 days)	(ASTM D412)		
Adhesion in Peel	<b>Substrate</b>	<b>Peel Strength</b>	<b>Adhesion Loss</b>	(TT-S-00230C, ASTM C794)
	Concrete	9 kg (20 lb)	0 %	
	Aluminium	9 kg (20 lb)	0 %	
	Glass	9 kg (20 lb)	0 %	
Tear Strength	9.63 N/mm (55 lb/in)	(ASTM D 624)		
Movement Capability	± 35 %	(ASTM C719)		
Chemical Resistance	Good resistance to water, diluted acids, and diluted alkalines.			
Resistance to Weathering	Excellent			
Service Temperature	-40 to 77 °C (-40 to 170 °F)			

## APPLICATION INFORMATION

Yield	<b>300 mL (10.1 oz) Cartridge: Yield in Linear meters</b>			
		<b>Depth 6 mm (1/4")</b>	<b>Depth 9.5 mm (3/8")</b>	<b>Depth 13 mm (1/2")</b>
	<b>Width</b>			
	<b>6 mm (1/4")</b>	7.4 (24.2)		
	<b>9.5 mm (3/8")</b>	4.9 (16.2)	3.3 (10.8)	
	<b>13 mm (1/2")</b>	3.7 (12.1)	2.5 (8.1)	1.9 (6.1)
	<b>19 mm (3/4")</b>	2.5 (8.1)	1.6 (5.4)	1.2 (4.0)
	<b>25.4 mm (1")</b>			0.9 (3.0)
Backing Material	Use closed cell, polyethylene foam backing rods.			
Ambient Air Temperature	4 to 38 °C (39 to 100 °F). Sealant should be installed when joint is at midrange of its anticipated movement.			
Substrate Temperature	4 to 38 °C (39 to 100 °F). Sealant should be installed when joint is at midrange of its anticipated movement.			
Curing Rate	Final cure: 5 - 7 days			
Tack-free time	3 - 6 hours			

## BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods. Properties tested at 23 °C (73 °F) and 50 %

R.H. unless stated otherwise.

## LIMITATIONS

- Allow one (1) week cure at standard conditions when using Sikaflex® Construction Sealant in total water immersion and prior to painting.
- Avoid exposure to high levels of chlorine. (Maximum

- continuous level is 5 ppm of chlorine.)
- Maximum depth of sealant must not exceed 13 mm (1/2 in); minimum depth is 6 mm (1/4 in).
  - Maximum width of sealant must not exceed 25.4 mm (1 in).
  - The depth of sealant in horizontal joints subject to traffic is 13 mm (1/2 in).
  - Maximum expansion and contraction should not exceed 35 % of average joint width.
  - Do not apply or cure in the presence of curing silicone sealants.
  - Avoid contact with alcohol and other solvent cleaners during cure.
  - Do not apply when joint walls are wet or damp and / or moisture-vapor-transmission condition exists from the substrate as this can cause bubbling within the sealant.
  - To avoid bubbling, do not apply when ambient air and substrate temperatures exceed 38 °C (100 °F). In extreme summertime conditions, preferably install sealant when ambient air and substrate temperatures are falling.
  - Use opened cartridges the same day.
  - When applying sealant, avoid air-entrapment.
  - Since system is moisture-cured, permit sufficient exposure to air.
  - The ultimate performance of Sikaflex® Construction Sealant depends on good joint design and proper application with joint surfaces properly prepared.
  - Do not tool with detergent or soap solutions.
  - White color tends to yellow slightly when exposed to ultraviolet rays.
  - Light colors can yellow if exposed to direct gas fired heating elements
  - Do not use in contact with bituminous / asphaltic materials.
  - When overcoating with water-based, oil-based or rubber-based paints, compatibility and adhesion testing of mock-up installations is essential.
  - Do not use paints which are silicone-based or have a high solvent content. Avoid solvent-based and alcohol-based primers, stains, sealers and coatings.

## ENVIRONMENT, HEALTH & SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

## APPLICATION INSTRUCTIONS

### SUBSTRATE PREPARATION

All joint surfaces must be clean, sound, dry and frost-free. Joint walls must be free of oils, tar, asphalt, bitumen, grease, paints, coatings, sealers, curing compound residues, and any other foreign matter that might prevent adhesion. Ideally this should be accomplished by mechanical means. Bond breaker tape or backer rod must be used in bottom of joint to prevent bond.

### Priming

Priming is not usually necessary. Most substrates only require priming if testing indicates a need or where sealant will be subjected to water immersion after cure. Consult Sikaflex® Primers Product Data Sheet for additional information.

### APPLICATION METHOD / TOOLS

For best performance, Sikaflex® Construction Sealant should be gunned into joint when joint slot is at mid-point of its designed expansion and contraction. Recommended application temperature is between 4 and 38 °C (39 and 100 °F). For cold-weather application, store sealant at approximately 21 °C (70 °F) and remove just prior to using. Ensure joint is clean sound, dry and frost-free before sealing. Install with hand or power operated caulking gun. Cut plastic tip on cartridge to desired joint size. Puncture airtight seal at base of tip. Place nozzle of gun into bottom of joint and fill entire joint. Keeping the nozzle deep in the sealant, continue with a steady flow of sealant preceding nozzle to avoid air entrapment. Also, avoid overlapping of sealant since this also entraps air. Tool sealant when wet to compact and ensure contact with joint walls, produce the required finish and achieve a correctly dimensioned seal. Proper sealant dimensions for moving joints is 2:1 width to depth ratio, with a recommended 6 mm (1/4 in)

minimum and 13 mm (1/2 in) maximum depth of sealant. For non-moving joints, the width to depth ratio can vary.

### **CLEAN UP**

Clean all tools and equipment with Sika® Urethane Cleaner and Thinner. Once hardened, product can only be removed mechanically. Wash soiled hands and skin thoroughly in hot soapy water or use Sika® Hand Cleaner towels.

### **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 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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: [www.sika.ca](http://www.sika.ca)

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#### **Other locations**

Boisbriand (Quebec)  
Brantford; Cambridge;  
Sudbury; Toronto (Ontario)  
Edmonton (Alberta)  
Surrey (British Columbia)

**Product Data Sheet**  
Sikaflex® Construction Sealant  
August 2023, Version 01.01  
02051101000000070

