



PRODUCT DATA SHEET

Sikaflex® + Construction Sealant

ONE-COMPONENT, ALL-PURPOSE, POLYURETHANE SEALANT

PRODUCT DESCRIPTION

Sikaflex® + Construction Sealant is a 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 12.7 mm (1/2").
- Suitable for vertical or horizontal joints.
- Has many applications as an elastic sealant between materials with dissimilar coefficients of expansion.

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
- Can be applied to green/new concrete 24 hours after cure
- Can be applied on concrete that has been wet 1 hour after water source has stopped
- 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 (see limitations)
- Capable of ±35 % joint movement

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
- Canadian Standard CANICGSB 19.13-M87

Environmental:

- LEED® EQc 4.1 SCAQMD
- Rule 1168
- BAAQMD, Reg. 8, Rule 51

PRODUCT INFORMATION

Packaging	300 ml (10.1 fl. oz.), moisture-proof composite cartridges, 12/case
Colour	Aluminum Grey
Shelf Life	12 months in original, unopened containers

Storage Conditions

Store between 4 and 35 °C (40 and 95 °F). Condition material between 18 and 24 °C (65 and 75 °F) before using

TECHNICAL INFORMATION

Shore A Hardness	40±5 (21 days)			(ASTM C-661) Teasted at: 23 °C (73 °F) 50 % R.H.
Tensile Stress at Specified Elongation	1.21 MPa (175 psi) (28 days)			(ASTM D-412) Teasted at: 23 °C (73 °F) 50 % R.H.
Modulus of Elasticity in Tension	Curing time	Tension		
	21 days	25 %	0.24 MPa (35 psi)	(ASTM D-412) Teasted at: 23 °C (73 °F) 50 % R.H.
	21 days	50 %	0.41 MPa (60 psi)	
	21 days	100 %	0.59 MPa (85 psi)	
Elongation at Break	550 % (21 days)			(ASTM D-412) Teasted at: 23 °C (73 °F) 50 % R.H.
Adhesion in Peel	Substrate	Peel Strength	Adhesion Loss	(TT-S-00230C, ASTM C-794) Teasted at: 23 °C (73 °F) 50 % R.H.
	Concrete	9 kg (20 lb.)	0 %	
	Aluminum	9 kg (20 lb.)	0 %	
	Glass	9 kg (20 lb.)	0 %	
Tear Strength	55 lb./in.			(ASTM D-624)
Movement Capability	+/- 35 %			(ASTM C-719)
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	300 ml (10.1 fl. oz) Cartridge: Yield in Linear feet			
		Depth 6.35 mm (1/4")	Depth 9.5 mm (3/8")	Depth 12.7 mm (1/2")
	Width			
	6.35 mm (1/4")	24.3		
	9.5 mm (3/8")	16.2	10.2	
	12.7 mm (1/2")	12.1	8.1	6.1
	19 mm (3/4")	8.1	5.4	4.0
25.4 mm (1")			3.0	
Ambient Air Temperature	4 to 38 °C (40 to 100 °F). Sealant should be installed when joint is at midrange of its anticipated movement.			
Curing Time	Final cure: 5–7 days			
Tack-free time	3–6 hrs			



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.

LIMITATIONS

- Allow 1-week cure at standard conditions when using Sikaflex® + Construction Sealant in total water immersion situations 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 12.7 mm (1/2 in.); minimum depth is 6.3 mm (1/4 in.).
- Maximum width of sealant must not exceed 25.4 mm (1 in.).
- Maximum expansion and contraction should not exceed 25 % of average joint width.
- Do not cure in the presence of curing silicone sealants.
- Avoid contact with alcohol and other solvent cleaners during cure.
- When using on green/new concrete, concrete must be good quality and strength, sealing poor or low strength concrete 24 hours after may impact the ability of the sealant to gain proper adhesion.
- On wet concrete, water source must be stopped 1 hour before application and concrete must be free of standing water.
- Do not apply when moisture-vapor-transmission condition exists from the substrate as this can cause bubbling within the sealant.
- 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 over-coating with water, oil and rubber based paints, compatibility and adhesion testing is essential.
- Do not use paints which are silicone based or have a high solvent content.

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

Clean all surfaces. Joint walls must be sound, clean, dry, frost-free, and free of oil and grease and any other contaminants. Install bond breaker tape or backer rod to prevent bond at base of joint.

Priming

Priming is not usually necessary. Most substrates only require priming if testing indicates a need. Consult Sikaflex® Primer Product Data Sheet or Technical Service for additional information on priming.

APPLICATION METHOD / TOOLS

Recommended application temperatures: 4 to 38 °C (40 to 100 °F). For cold weather application, condition units at approximately 21 °C (70 °F); remove prior to using. For best performance, Sikaflex® + Construction Sealant should be gunned into joint when joint slot is at mid-point of its designed expansion and contraction. Place nozzle of gun into bottom of the joint and fill entire joint. Keep the nozzle in the sealant, continue on with a steady flow of sealant preceding the nozzle to avoid air entrapment. Avoid overlapping of sealant to eliminate entrapment of air. Tool as required. Joint dimension should allow for 6.3 mm (1/4 in.) minimum and 12.7 mm (1/2 in.) maximum thickness for sealant. Proper design is 2:1 width to depth ratio. For use in horizontal joints in traffic areas, the absolute minimum depth of the sealant is 12.7 mm (1/2 in.) and closed cell backer rod is recommended. Tool sealant to ensure full contact with joint walls and remove air entrapment. Tool as necessary, dry or with clean water.

For green/new concrete application, 24 hours after concrete has cured. Concrete must be of good quality and strength. Note: Curing will vary depending on temperature and humidity.

- In formed joints, forms must be removed 6 hours before applying sealant.
- In control joints, concrete must be cut 8 hours before applying sealant.

For wet concrete application, water source must be stopped 1 hour before application and concrete must be free of standing water.

CLEAN UP

Uncured material can be removed with approved

solvent. Cured material can only be removed mechanically. For spillage, collect, absorb, and dispose of in accordance with current, applicable local, state, and federal regulations.

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

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