

PRODUCT DATA SHEET

Sikaflex® + Construction Sealant

One-component, all purpose, non-sag polyurethane sealant

PRODUCT DESCRIPTION

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

USES

- Designed for all types of joints where maximum depth of sealant will not exceed 1/2".
- Suitable for vertical or horizontal joints.
- Has many applications as an elastic sealant between materials with dissimilar coefficients of expansion.
- Available in 6 colors (Limestone, White, Capitol Tan, Dark Bronze, Aluminum Gray, Black)

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
- Capable of $\pm 35\%$ joint movement

APPROVALS / STANDARDS

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

Chemical Base	Polyurethane
Packaging	10.1 fl. oz. (299 ml), moisture-proof composite cartridges, 12/case
Shelf Life	12 months in original, unopened containers
Storage Conditions	Store at 40 to 95 °F (4 to 35 °C). Condition material to 65 to 75 °F (18 to 24 °C) before using
Color	White, Limestone, Capitol Tan, Dark Bronze, Aluminum Gray, Black

TECHNICAL INFORMATION

Shore A Hardness	45±5 (21 days)	(ASTM C-661) Tested at: 73 °F (23 °C) 50 % R.H.												
Tensile stress at specified elongation	<table><thead><tr><th>Curing time</th><th>Tension</th></tr></thead><tbody><tr><td>21 days</td><td>25 %</td></tr><tr><td>21 days</td><td>50 %</td></tr><tr><td>21 days</td><td>100 %</td></tr></tbody></table>	Curing time	Tension	21 days	25 %	21 days	50 %	21 days	100 %	(ASTM D-412) Tested at: 73 °F (23 °C) 50 % R.H.				
Curing time	Tension													
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21 days	100 %													
Elongation at Break	550 % (21 days)	(ASTM D-412) Tested at: 73 °F (23 °C) 50 % R.H.												
Movement Capability	+/- 35 %	(ASTM C-719)												
Adhesion in peel	<table><thead><tr><th>Substrate</th><th>Peel Strength</th><th>Adhesion Loss</th></tr></thead><tbody><tr><td>Concrete</td><td>20 lb. (9 kg)</td><td>0 %</td></tr><tr><td>Aluminum</td><td>20 lb. (9 kg)</td><td>0 %</td></tr><tr><td>Glass</td><td>20 lb. (9 kg)</td><td>0 %</td></tr></tbody></table>	Substrate	Peel Strength	Adhesion Loss	Concrete	20 lb. (9 kg)	0 %	Aluminum	20 lb. (9 kg)	0 %	Glass	20 lb. (9 kg)	0 %	(TT-S-00230C, ASTM C-794) Tested at: 73 °F (23 °C) 50 % R.H.
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Glass	20 lb. (9 kg)	0 %												
Tear Strength	55 lb./in.	(ASTM D-624)												
Service Temperature	-40 to 170 °F (-40 to 77 °C)													
Chemical Resistance	Good resistance to water, diluted acids, and diluted alkalines													
Resistance to Weathering	Excellent													

APPLICATION INFORMATION

Coverage	10.1 oz (299 ml) Cartridge: Yield in Linear Feet			
	Width	Depth 1/4"	Depth 3/8"	Depth 1/2"
	1/4"	24.3		
	3/8"	16.2	10.8	
	1/2"	12.1	8.1	6.1
	3/4"	8.1	5.4	4.0
	1"			3.0

Ambient Air Temperature	40 to 100 °F (4 to 38 °C). Sealant should be installed when joint is at midrange of its anticipated movement.
Substrate Temperature	40 to 100 °F (4 to 38 °C). Sealant should be installed when joint is at midrange of its anticipated movement.
Cure Time	Final cure: 5–7 days (depending on temperature and humidity)
Tack Free Time	3–6 hrs (depending on temperature and humidity)

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

LIMITATIONS

- Allow 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 1/2 in. (12.7 mm); minimum depth is 1/4 in. (6.3 mm).
- Maximum width of sealant must not exceed 1 in. (25.4 mm).
- Maximum expansion and contraction should not exceed 35% 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.
- To avoid bubbling, do not apply when ambient air and substrate temperatures exceed 100 °F (38 °C). 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 water, 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.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

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: 40 to 100 °F (4 to 38 °C). For cold weather application, condition units at approximately 70 °F (21 °C); 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 1/4 in. (6.3 mm) minimum and 1/2 in. (12.7 mm) 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 1/2 in. (12.7 mm) and closed cell backer rod is recommended. Tool sealant to ensure full contact with joint walls and remove air entrapment. **Dry tool** as necessary.

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.

Sika Corporation

201 Polito Avenue
Lyndhurst, NJ 07071
Phone: +1-800-933-7452
Fax: +1-201-933-6225
usa.sika.com



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CLEANING OF TOOLS

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.

OTHER RESTRICTIONS

See Legal Disclaimer.

LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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