BUILDING TRUST

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.

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 5 colors (Limestone, White, Capital Tan, Dark Bronze, Aluminum Gray)

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 ±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
Color	White, Limestone, Capitol Tan, Dark Bronze, Aluminum Gray
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

TECHNICAL INFORMATION

Shore A Hardness	40±5 (21 days)			(ASTM C-661) Tested at: 73 °F (23 °C) 50 % R.H.
Tensile Strength	175 pst (1.21 MPa) (28 days)			(ASTM D-412) Tested at: 73 °F (23 °C) 50 % R.H.
Tensile stress at specified elongation	**Curing time**	**Tension**		(ASTM D-412) Tested at: 73 °F (23 °C) 50 % R.H.
	21 days	25 %	35 psi (0.24 MPa)	
	21 days	50 %	60 psi (0.41 MPa)	
	21 days	100 %	85 psi (0.59 MPa)	
Elongation at Break	550 % (21 days)			(ASTM D-412) Tested at: 73 °F (23 °C) 50 % R.H.
Adhesion in peel	**Substrate**	**Peel Strength**	**Adhesion Loss**	(TT-S-00230C, ASTM C-794) Tested at: 73 °F (23 °C) 50 % R.H.
	Concrete	20 lb. (9 kg)	0 %	
	Aluminum	20 lb. (9 kg)	0 %	
	Glass	20 lb. (9 kg)	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 170 °F (-40 to 77 °C)			

APPLICATION INFORMATION

Coverage

10.1 oz (299 ml) Cartridge: Yield in Linear fleet

Width	Depth 1/4"	Depth 3/8"	Depth 1/2"
1/4"	24.3		
3/8"	16.2	10.2	
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
Tack Free Time	3–6 hrs Lower temperatue and humidity will extend the tack free and cure rates.

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. 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.

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**

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