BUILDING TRUST

PRODUCT DATA SHEET

Sikaflex® Construction Sealant

ONE-COMPONENT, ALL PURPOSE, POLYURETHANE SEALANT

PRODUCT DESCRIPTION

Sikaflex® Construction Sealant is a premium grade, moisture-cured, 1-component, polyurethanebased, 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.
- Aviavble in 4 colors (Limestone, White, Capital Tan, Dark Bronze)

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 tearresistance.
- 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 ±35 % joint movement.

APPROVALS / STANDARDS

- 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

Chemical Base	Polyurethane
Packaging	10.1 fl. oz. (299 ml), moisture-proof composite cartridges, 12/case
Color	White, Limestone, Capitol Tan, Dark Bronze
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) Teasted at: 73 °F (23 °C) 50 % R.H.
Tensile Stress at Specified Elongation	175 psi (1.21 MPa) (28 days)		(ASTM D 412) Teasted at: 73 °F (23 °C) 50 % R.H.
Tensile Modulus of Elasticity	25 % 50 % 100 %	35 psi (0.24 MPa) 60 psi (0.41 MPa) 85 psi (0.59 MPa)	(ASTM D-412) 21 days, 73 °F (23 °C) 50 % R.H.
Elongation at Break	550 % (21 days)		(ASTM D-412) Teasted at: 73 °F (23 °C) 50 % R.H.

Adhesion in Peel	**Substrate**	**Peel Strength**	**Adhesion Loss**	(TT-S-00230C, ASTM C-794) Tested at: Teasted at: 73 °F (23 °C) 50 % R.H.
	Concrete	20 lb.	0 %	
	Aluminium	20 lb.	0 %	
	Glass	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	(ASTM C-793)
Service Temperature	-40 to 170 °F (-40 to 77 °C)	

APPLICATION INFORMATION

Coverage

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

	Depth 1/4"	**Depth 3/8"**	**Depth 1/2"**
Width			
1/4"	24.2		
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

20 oz (591 ml) Sausage: Yield in Linear fleet

	Depth 1/4"	**Depth 3/8"**	**Dpeth 1/2"**
Width			
1/4"	48.1		
3/8"	32.1	21.4	
1/2"	24.1	16.0	12.0
3/4"	16.0	10.7	8.0
1"			6.0

Backing Material	Use closed cell, polyethylene foam backing rods.
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.
Curing Rate	Final cure: 5–7 days
Tack Free Time	3-6 hrs

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” minimum and 1/2” 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” 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.

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.

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 5ppm of chlorine.)
- Maximum depth of sealant must not exceed 1/2”; minimum depth is 1/4”.
- Maximum width of sealant must not exceed 1”.
- 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.
- 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 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.

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.

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 the exact product data and uses.

ECOLOGY, HEALTH AND SAFETY

Keep container tightly closed. Keep out of reach of children. Not for internal consumption. For industrial use only. For professional use only. For further information and advice regarding transportation, handling, storage and disposal of chemical products, users should refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety related data. Read the current actual Safety Data Sheet before using the product. In case of emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

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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SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.** Sale of SIKA products are subject to the Terms and Conditions of Sale which are available at https://usa.sika.com/en/group/SikaCorp/termsandconditions.html or by calling 201-933-8300.

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