Construction

Sikaflex®-2c Slope Grade

Acceptable mixes to obtain a two component, polyurethane elastomeric sealant

Description

Sikaflex-2c Slope Grade is a 2-component, premium-grade, polyurethane-based, elastomeric sealant comprised of various mixes of Sikaflex-2c SL and NS EZ Mix. Meets ASTM C-920, Type M, Grade SSL, Class 25, use T, NT, M, G, A, O.

Where to Use

- Intended for use in all properly designed working joints with a minimum depth of ¼ inch.
- Ideal for sloped applications ranging from 10° to 50° slope.
- Placeable at temperatures as low as 40°F.
- Adheres to most substrates commonly found in construction.
- Submerged environments, such as canal and reservoir joints.

Advantages

- Adjustable mixes for slope and workability preference
- Chemical cure allows the sealant to be placed in non-moving joints exceeding ½ in. in depth.
- High elasticity with a tough, durable, flexible consistency.
- Exceptional cut and tear resistance.
- Exceptional adhesion to most substrates without priming.
- Available in 35 architectural colors.
- Color uniformity assured via Color-pak system.
- Easy to mix.
- Paintable with water-, oil-, and rubber-base paints.
- Jet fuel resistant.

Packaging

1.5 gal. unit, 3 gal unit.

Typical Data *(Material and curing conditions 73°F (23°C) and 50% R.H.)*

RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATION METHODS, TEST METHODS, ACTUAL SITE CONDITIONS AND CURING CONDITIONS.

Shelf life	One year in original, unopened containers.
Storage Conditions	Store dry at 40°-95°F (4°-35°C). **Condition material to 65°-75°F before using.**
Colors	A wide range of architectural colors are available. Special colors available on request.
Application Temperature	40° to 100°F, ambient and substrate temperatures. Sealant should be installed when joint is at mid-range of its anticipated movement.
Service Range	-40° to 170°F (-40°-75°C).
Curing Rate (ASTM C-679)	Tack-Free Time 6-10 hrs. Final Cure 3 days
Application Life	4-6 hrs.
Tear Strength (ASTM D-624)	45 - 100 lb./in.
Shore A Hardness (ASTM D-2240)	20 - 45
Tensile Properties (ASTM D-412)	
Tensile Strength at Break	95 - 175 psi
Tensile Elongation	300 - 650%
Stress at 100%	70 - 100psi

Adhesion in Peel (Fed Spec. TT-S-00227E)

Substrate	Peel Strength	% Adhesion Loss
Concrete	15 - 30 lb.	Zero

Weathering Resistance	Excellent
Chemical Resistance	Good resistance to water, diluted acids, diluted alkalines, and residential sewage. Consult Technical Service at 1-800-933-SIKA for specific data.

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1 gallon: Yield in Linear feet				
Depth		1/4"	3/8"	1/2"
Width	1/4"	307.9		
	3/8"	205.3	136.8	
	1/2"	153.9	102.6	77.0
	3/4"	102.6	68.4	51.3
	1"			38.5
	1.25"			30.8
	1.5"			25.7

How to Use

Surface Preparation

Priming is typically not necessary. Most substrates only require priming if sealant will be subjected to water immersion after cure. Testing should be done, however, on questionable substrates, to determine if priming is needed. Consult Technical Service or Sikaflex Primer Technical Data Sheet for additional information on priming. Note: Most Exterior Insulation Finish Systems (EIFS) manufacturers recommend the use of a primer. When EIFS manufacturer specifies a primer or if on-site bond testing indicates a primer is necessary, Sikaflex 429 primer is recommended. On-site adhesion testing is recommended with final system prior to the start of a job.

Mixing

Two options are available for mixing:

1. Mix each pail of SL or NS EZ Mix separately and then mix together at the desired ratio or at the ratio required for a specific slope.

2. Mix the full amounts of 'A' components of SL and NS EZ Mix at the desired ratio or at the ratio required for a specific slope then mix in the full amounts of 'B' component to the 'A' component mixture

When mixing, it is important to pour entire contents of Component 'B' into pail of Component 'A' and to use the entire contents of each pail to ensure proper formulation, curing, and performance. Add entire contents of Color-pak into pail and mix with a low-speed drill (400-600 rpm) and Sikaflex paddle.* Mix for 3-5 minutes to achieve a uniform color and consistency. Scrape down sides of pail periodically. Avoid entrapment of air during mixing. When mixing in cold weather (<50°F), do not force the mixing paddle to the bottom of the pail. After adding Component 'B' and Color-pak into Component 'A', mix the top 1/2 to 3/4 of the pail during the first minute of mixing. After scraping down the sides of the pail, mix again for another minute. The paddle should reach the bottom of the pail between the first and second minute of mixing. Scrape down the sides of the pail a second time and then mix for an additional 2-3 minutes until the sealant is well blended. Color-pak must be used with tint base. For pre-pigmented Limestone base, just mix with low speed drill and Sikaflex paddle (no Color-pak needed).

Ratio of Sikaflex-2c SL to Sikaflex-2c NS EZ Mix					
Grade (Slope)	3:1	3:2	1:1	2:3	1:3
10° (11%)	▲	▲	▲	▲	▲
20° (22%)		▲	▲	▲	▲
30° (33%)			▲	▲	▲
40° (44%)			▲	▲	▲
50° (56%)				▲	▲
	More Fluid				Less Fluid

The chart shows the possible slopes for each ratio of Sikaflex®-2c SL and NS EZ Mix at 72 F and 20% RH.

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Application	Recommended application temperatures 40°-100°F. Pre-conditioning units to 65-75°F is necessary when working at extremes. Move pre-conditioned units to work areas just prior to application. Apply sealant only to clean, sound, dry, and frost-free substrates. Sikaflex-2c should be applied into joints when joint slot is at mid-point of its designed expansion and contraction. To place, load directly into bulk gun or use a follower plate loading system. Pour or extrude to Slope Grade in one direction and allow it to flow and level as necessary. 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.
Tooling and Finishing	Tool sealant to ensure full contact with joint walls and remove air entrapment. Joint dimension should allow for 1/4 inch minimum and 1/2 inch maximum thickness for sealant. Proper design is 2:1 width to depth ratio. To accelerate the cure of Sikaflex-2c NS EZ Mix in cold weather temperatures, add Sikaflex-2c booster.
Removal	Uncured material can be removed with xylene. Strictly follow solvent manufacturer's warnings and instructions for use. 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	■ The ultimate performance of Sikaflex-2c NS EZ Mix, depends on good joint design and proper application. ■ Minimum depth in working joint is 1/4 in. ■ Maximum expansion and contraction should not exceed 50% of average joint width. ■ When used in areas with heavy traffic either recess joint or use TG (Traffic Grade) Additive to increase durability. ■ Do not cure in the presence of curing silicones. ■ Avoid contact with alcohol and other solvent cleaners during cure. ■ Allow 3 day cure before subjecting sealant to total water immersion. Primer is required if sealant will be subjected to total water immersion. ■ Avoid exposure to high levels of chlorine. (Maximum level is 5 ppm).

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