

Sikaflex® 2c SL

Two-Component, Self-Leveling, Polyurethane Elastomeric Sealant

Description	Sikaflex® 2c SL is a two-component, premium-grade, polyurethane-based, elastomeric sealant. It is principally a chemical cure in a self-leveling consistency.
Where to Use	<ul style="list-style-type: none"> ■ Intended for use in all properly designed working joints with a minimum depth of 6 mm (1/4 in). ■ Ideal for horizontal applications. ■ Placeable at temperatures as low as 4°C (39°F). ■ Adheres to most substrates commonly found in construction. ■ Submerged conditions, such as canal and reservoir joints. ■ Ideal for vehicle traffic joints.
Advantages	<ul style="list-style-type: none"> ■ True self-leveling properties. ■ Capable of ±50% joint movement. ■ Chemical cure allows the sealant to be placed in joints exceeding 13 mm (1/2 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 40 architectural colours. ■ Colour uniformity assured via Color-pak system. ■ Available in pre-pigmented Limestone Grey (no Color-pak needed). ■ Self-leveling consistency, easy to apply in horizontal joints. ■ Easy to mix. ■ Paintable with water, oil, and rubber-base paints. ■ Jet fuel resistant. ■ USDA approved. ■ Booster pak available for faster cure in cold weather. ■ Meets ASTM C 920, Type M, Grade P, Class 25, use T, NT, M, G, A, O, I. ■ Meets Federal Specification TT-S-00227E, Type I, Class A. ■ Meets CAN/CGSB 19.24-M90. ■ Canadian Food Inspection Agency acceptance. ■ Ministry of Transport Québec acceptance.

Technical Data

Packaging	5.7 and 11.4 L units (1.5 and 3 US gal. units). Booster pak sold separately					
Colours	A wide range of architectural colours are available. Special colours available on request.					
Yield	Linear meter of Sealant per Litre					
Width	Depth					
mm (in)	6 (1/4)	13 (1/2)	19 (3/4)	25 (1)	32 (1 1/4)	38 (1 1/2)
6 (1/4)	24.8					
13 (1/2)	12.4	6.2				
19 (3/4)	8.3	4.1	2.8			
25 (1)	6.2	3.1	2.1	1.6		
32 (1 1/4)	5.0	2.5	1.7	1.2	1.0	
38 (1 1/2)	4.1	2.1	1.4	1.0	0.8	0.7
Shelf Life	1 year in original, unopened packaging. Store dry at 4° - 35°C (39° - 95°F). Condition product to 18° - 24°C (65° - 75°F) before using.					



Properties at 23°C (73°F) and 50% R.H.

Application Temperature	4° to 38°C (39° to 100°F), ambient and substrate temperatures. Sealant should be installed when joint is at mid-range of its anticipated movement.		
Service Range	-40° - 77°C (-40° - 170°F)		
Curing Rate ASTM C 679	Tack-free time	6-8 hrs	
	Final cure	3 days	
Working Time 5.7 L (1.5 US gal.) unit	4°C (39°F)	23°C (73°F)	38°C (100°F)
Sikaflex® 2c SL	2 hrs	3 hrs	3 hrs
W/1 Booster	2 hrs	2 hrs	2 hrs
W/2 Booster	< 1 hr	< 1 hr	2 hrs
Tear Strength ASTM D 624	17.5 N/mm (100 lb/in)		
Shore A Hardness ASTM D 2240	40 ± 5		
Tensile Properties ASTM D 412			
Tensile strength at break	1.2 MPa (175 psi)		
Tensile elongation	650%		
100% Modulus	0.69 MPa (100 psi)		
Adhesion in Peel (Fed Spec. TT-S-00227E)			
Substrate	Peel strength	% Adhesion loss	
Concrete	5.3 N/mm (30 lb/in)	Zero	
Weathering Resistance	Excellent		
Chemical Resistance	Good resistance to water, diluted acids, diluted alkalines, and residential sewage. Consult Technical Service for specific data.		

How to Use

Surface Preparation

All joint interfaces must be clean, sound, and frost-free. Joint interfaces must be free of oils, grease, curing compound residues, and any other foreign matter that might prevent bond. Ideally this should be accomplished by mechanical means. Bond breaker tape or backer rod must be used in bottom of joint to prevent bond.

Priming

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.

Mixing

Pour entire contents of Component B into pail of Component A. Add entire contents of Color-pak into pail and mix with a low-speed drill (400-600 rpm) and proper mixing paddle. Mix for 3-5 min to achieve a uniform colour and consistency. Scrape down sides of pail periodically. Avoid entrapment of air during mixing. Color-pak must be used with tint base. When using a booster pak add entire content into component A prior to mixing.

Note: When mixing 11.4 L (3 US gal.) unit, two containers of Component B and two color-paks must be used. Color-pak must be used with tint base. For pre-pigmented Limestone base, just mix with low speed drill and proper mixing paddle (no Color-pak needed).

Application

Recommended application temperatures 4° - 38°C (39° - 100°F). Pre-conditioning units to approximately 21°C (70°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 SL should be applied into joints when joint slot is at mid-point of its designed expansion and contraction.

To place, pour or extrude the SL grade in one direction and allow it to flow and level as necessary. If extruding, load mixed sealant directly into bulk gun or use follower plate loading system. 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 receding nozzle to avoid air entrapment. Also, avoid overlapping of sealant since this also entraps air. Tool as required. Proper joint design for moving joints is 2:1 width to depth ratio, with a recommended 6 mm (1/4 in) minimum and 13 mm (1/2 in) maximum depth of sealant. For non-moving joints, the width to depth ratio can vary. To accelerate the cure of Sikaflex® 2c SL in cold weather temperatures, add Sikaflex® 2c booster.

Clean Up

Uncured material can be removed with Sika® Equipment Cleaner/Epoxy Thinner or Sika® Hand Cleaner. Cured material can only be removed mechanically.

Limitations

- The ultimate performance of Sikaflex® 2c SL, depends on good joint design and proper application.
- Minimum depth in working joint is 6 mm (1/4 in).
- Maximum expansion and contraction should not exceed 50% of average joint width.
- 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.
- Avoid exposure to high levels of chlorine. (Maximum level is 5 ppm).
- Do not apply when moisture vapour transmission exists since this can cause bubbling within the sealant.
- Avoid over-mixing sealant.
- Light colour shades tend to yellow over time when exposed to ultraviolet rays.
- When overcoating: an on-site test is recommended to determine actual compatibility.
- The minimum depth of sealant in horizontal joints subject to traffic is 13 mm (1/2 in).
- Do not tool with detergent or soap solution.



Construction

Caution	Component A: Irritant - Avoid contact. Product is a skin, respiratory and eye irritant. Use of safety goggles and chemical resistant gloves recommended. Use of a NIOSH approved respirator required if PELs are exceeded. Use with adequate ventilation. Component B: Combustible; Sensitizer; Irritant - Contains Xylene. Keep away from heat, sparks and open flame. Use with adequate ventilation. Product is a respiratory and skin sensitizer. Avoid contact. Product is an eye, skin, and respiratory irritant. Use of safety goggles and chemical resistant gloves recommended. Use of a NIOSH approved respirator required if PELs are exceeded.
First Aid	In case of skin contact, wash thoroughly with soap and water. For eye contact, flush immediately with plenty of water for at least 15 minutes; contact physician. For respiratory problems, remove to fresh air. Wash clothing before re-use. Discard contaminated shoes.

For more information, consult Sika Material Safety Data Sheet.

KEEP OUT OF REACH OF CHILDREN
FOR INDUSTRIAL USE ONLY

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, within their shelf life. 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 proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Technical Data Sheet for the product concerned, copies of which will be supplied on request or can be accessed in the Internet under www.sika.ca.



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Construction

