

**Product Data Sheet**

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 Sikaflex® 1C SL

## Sikaflex® 1C SL

High Performance, Self-Leveling, One-Component, Polyurethane Sealant

<b>Description</b>	Sikaflex 1C SL, is a one-component, self-leveling, premium-grade, polyurethane sealant with an accelerated curing capacity.
<b>Where to Use</b>	Sikaflex 1C SL is used to seal horizontal expansion joints in concrete and cementitious slabs such as: <ul style="list-style-type: none"> <li>■ Sidewalks.</li> <li>■ Balconies.</li> <li>■ Pavements.</li> <li>■ Terraces.</li> <li>■ Warehouses.</li> <li>■ Factories.</li> <li>■ Civil structures.</li> <li>■ Plazas.</li> </ul>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>■ One-component, no mixing.</li> <li>■ Self-leveling, pourable.</li> <li>■ Accelerated curing.</li> <li>■ Permanently elastic.</li> <li>■ Excellent adhesion.</li> <li>■ Meets Federal Specification TT-S-00230C, Type I, Class A.</li> <li>■ Meets ASTM C920, Type S, Grade P, Class 25.</li> <li>■ Meets CAN/CGSB 19.13-M87, Classification C-1-25-B-N.</li> <li>■ Canadian Food Inspection Agency acceptance.</li> <li>■ Ministry of Transport Québec acceptance.</li> <li>■ Jet fuel resistant.</li> </ul>

**Technical Data**

<b>Packaging</b>	300 mL (10 fl oz) cartridge, 24/case; 889 mL (29 fl oz) cartridge, 12/case; 17 L (5 US gal.) pail, special order only	
<b>Colour</b>	Limestone	
<b>Yield</b>	<b>Linear Meter of Sealant per Liter</b>	
<b>Width</b>	<b>Depth</b>	
<b>mm (in)</b>	<b>6 (¼)</b>	<b>13 (½)</b>
<b>6 (¼)</b>	24.8	
<b>13 (½)</b>	12.4	6.2
<b>19 (¾)</b>	8.3	4.1
<b>Shelf Life</b>	Cartridge/sausage: 15 months; pail: 9 months - in original, unopened packaging. Store between 4° - 23°C (39° - 73°F). Condition product to 18° - 23°C (65° - 73°F) before using.	
<b>Properties at 23°C (73°F) and 50% R.H.</b>		
<b>Application Temperature</b>	4° - 38°C (39° - 100°F) Sealant should be installed when joint is at midrange of its anticipated movement.	
<b>Service Range</b>	-40° to 77°C (-40° - 170°F)	
<b>Curing Rate</b>	Tack-free to touch	1-2 h
	Final cure	3-5 days
<b>Recovery ASTM C719</b>	> 90%	
<b>Shore A Hardness ASTM D2240</b>	21 days 45 ± 5	
<b>Tensile Properties ASTM D412</b>	21 days	
	Tensile stress	3.8 MPa (550 psi)
	Elongation at break	700%
	Modulus of elasticity 100%	1 MPa (150 psi)
<b>Adhesion in Peel ASTM C794</b>	<b>Peel Strength</b>	<b>Adhesion Loss</b>
Concrete substrate	> 5.3 N/mm (> 30 pli)	0%
<b>Joint Movement</b>	± 25%	
<b>Weathering Resistance</b>	Excellent	



## 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 not usually necessary. Most substrates only require priming if testing indicates a need or where sealant will be subjected to water immersion after cure. Consult Sikaflex Primers technical data sheet for additional information

### Application

Recommended application temperatures: 4° - 38°C (39° - 100°F). Pre-conditioned sealant to approximately 21° C (70°F) is necessary when working at extremes. For best performance, Sikaflex 1C SL should be poured into joint when joint slot is at mid-point of its designed expansion and contraction. Pour sealant into joint slot in one direction and allow sealant to flow and level out as necessary. Tool as required, although minimum tooling is necessary. 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. Always use bond breaker tape or closed cell backer rod for support on horizontal joints.

### 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

- Allow 1 week cure at 23°C (73°F) and 50% R.H. when using Sikaflex 1C SL in total water immersion situations.
- Maximum exposure level to chlorine is 5 ppm.
- In joints subject to movement -maximum depth of sealant must not exceed 13 mm (1/2 in); minimum depth is 6 mm (1/4 in).
- Minimum depth of sealant for horizontal joints subject to traffic is 13 mm (1/2 in).
- Maximum expansion and contraction should not exceed 25% 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-vapour-transmission conditions exist from the substrate as this can cause bubbling within the sealant.
- Use opened uni-pac sausages the same day.
- The ultimate performance of Sikaflex 1C SL depends on good joint design and proper application with joint surfaces properly prepared.

### Caution

Keep away from sparks, open flames and high heat. Contains xylene; avoid breathing vapours. Use with adequate ventilation. In confined areas, the use of a NIOSH/MSHA approved, organic respirator is recommended. Sensitizer - can cause skin and/or respiratory sensitization after prolonged or repeated exposure. Avoid skin contact. Consult product label for additional information.

### First Aid

In case of skin contact, wash with soap and water. For eye contact flush immediately with plenty of water for at least 15 min. Contact a physician. For respiratory problems, transport victim to fresh air. Remove contaminated clothing and wash before re-use.

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](http://www.sika.ca).

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