

**Product Data Sheet**

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Identification no. 432

Sikaflex-1CSL

**Sikaflex®-1c SL**High performance, self-leveling,  
1-part polyurethane sealant

Construction

|                     |   |
|---------------------|---|
| <b>Description</b>  | Sikaflex-1C SL is a single component, self-leveling, premium-grade polyurethane sealant with an accelerated curing capacity. Meets Federal Specification TT-S-00230C, Type 1, Class A. Meets ASTM C-920, Type S, Grade P, Class 25, use T, NT, M, O, G, I.  |
| <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> <li>■ Pitch Pans</li> </ul>   |
| <b>Advantages</b>   | <ul style="list-style-type: none"> <li>■ 1-component, no mixing</li> <li>■ Self-leveling, pourable</li> <li>■ Accelerated curing</li> <li>■ Permanently elastic</li> <li>■ High durability</li> <li>■ Resists aging, weathering</li> <li>■ Excellent adhesion</li> <li>■ Convenient, easy-to-use packaging</li> <li>■ Jet fuel resistant</li> </ul> |
| <b>Coverage</b>     | 10.1 fl. oz. cartridge seals 12 lineal ft. of 1/2 x 1/4 in. joint. 30 fl. oz. cartridge seals 36 lineal ft. of 1/2 x 1/4 in. joint.   |
| <b>Packaging</b>    | 10.1 fl. oz. moisture-proof composite cartridges, 24/case. 30 oz. moisture-proof composite cartridges, 12/case. Available on special order: 5 gallon pails.   |

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

|   |  |  |
|---|--|--|
| <b>Shelf Life</b>                       | 10.1 oz. cartridge   | 1 year in original unopened packaging. |
|   | 29 oz. cartridge   | 1 year in original unopened packaging. |
|   | 5 gallon pail  | 6 months.                              |
|   | 55 gallon drum   | 6 months.                              |
| <b>Storage Conditions</b>               | Store at 40°-95°F (4°-35°C). <b>Condition material to 65°-75°F before using.</b>               |  |
| <b>Color</b>                            | Limestone  |  |
| <b>Application Temperature</b>          | 40°-100°F. Sealant should be installed when joint is at mid-range of its anticipated movement. |  |
| <b>Service Range</b>                    | -40° to 170°F.   |  |
| <b>Curing Rate</b>                      | Tack-free Time: 1 to 2 hours. Final Cure: 3 to 5 days  |  |
| <b>Recovery</b>                         | >90%   |  |
| <b>Shore 'A' Hardness (ASTM D-2240)</b> | <b>21 Day</b>  | 50 ± 5                                 |
| <b>Tensile Properties (ASTM D-412)</b>  |  |  |
| <b>21 Day</b>                           | Tensile Strength:  | 300 psi                                |
|   | Elongation @ Break:  | 500%                                   |
|   | Modulus of Elasticity 100%:  | 200 psi                                |
| <b>Adhesion in Peel (ASTM C-794)</b>    |  |  |
| <u>Substrate</u>                        | <u>Peel Strength</u>   | <u>Adhesion Loss</u>                   |
| Mortar                                  | > 15 pli   | 0% Adhesion Loss                       |
| Aluminum                                | > 15 pli   | 0% Adhesion Loss                       |
| <b>Joint Movement</b>                   | ± 25%  |  |
| <b>Weathering Resistance</b>            | Excellent  |  |


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## How to Use

**Surface Preparation** Clean all surfaces. Joint walls must be sound, clean, dry, frost-free, and free of oil and grease. Curing compound residues and any other foreign matter must be thoroughly removed. Install bond breaker tape or backer rod to prevent bond at base of joint.

**Priming** Priming is not usually necessary. Substrates only require priming if testing indicates a need or where sealant will be subjected to water immersion after cure. Consult Sikaflex Primer Technical Data Sheet or Technical Service for additional information on priming.

**Application** Recommended application temperatures: 40°-100°F. Pre-conditioned sealant to approximately 70°F is necessary when working at extremes. For best performance, Sikaflex-1CSL 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. 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. Always use bond breaker tape or closed cell backer rod for support on horizontal joints.

- Limitations**
- Allow 1 week cure at standard conditions when using Sikaflex-1CSL in total water immersion situations.
  - Maximum exposure level of chlorine is 5 ppm.
  - In joints subject to movement - maximum depth of sealant must not exceed 1/2 in.; minimum depth is 1/4 in.
  - Minimum depth of sealant for horizontal joints subject to traffic is 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-vapor transmission condition exists 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

**Irritant** **Sensitizer; Combustible Liquid** - Contains xylenes, ethyl benzene, isocyanate prepolymer. Can cause skin and/or respiratory sensitization after prolonged or repeated exposure. Skin, eye, respiratory irritant. Avoid skin contact. Use only with adequate ventilation. Use of safety goggles and chemical resistant gloves is recommended. In case of exceedance of PELs, use an appropriate, properly fitted NIOSH approved respirator. Remove contaminated clothing. Keep away from sparks, open flames and high heat.

**First Aid** In case of skin contact, wash immediately and thoroughly with soap and water. If symptoms persist, consult physician. For eye contact, flush immediately with plenty of water for at least 15 minutes; contact a physician. For respiratory problems, remove person to fresh air; if symptoms persist, consult physician. In case of ingestion, dilute with water and consult physician. Remove contaminated clothing.

**Clean Up** In case of spills or leaks, wear suitable protection equipment, contain spill, collect with absorbent material, and transfer to a suitable container. Ventilate area. Avoid contact. Dispose of in accordance with current, applicable local, state and federal regulations.

## Linear Feet of Sealant per Gallon

| Inches | Depth |      |      |      |       |       |
|--------|-------|------|------|------|-------|-------|
|        | 1/4   | 1/2  | 3/4  | 1    | 1 1/4 | 1 1/2 |
| 1/4    | 308.0 |      |      |      |       |       |
| 1/2    | 154.0 | 77.0 |      |      |       |       |
| 3/4    | 102.7 | 51.3 | 34.2 |      |       |       |
| 1      | 77.0  | 38.5 | 25.7 | 19.3 |       |       |
| 1 1/4  | 61.6  | 30.8 | 20.5 | 15.4 | 12.3  |       |
| 1 1/2  | 51.3  | 25.7 | 17.1 | 12.8 | 10.3  | 8.6   |

Width

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