Sonneborn®
Sealant Systems

SONOLASTIC®

SL 1™

One-part elastomeric self-leveling polyurethane sealant

Where to Use SL 1™

- Concrete
- Pavers
- Plaza decks
- Industrial floors
- Driveways
- Sidewalks
- Decks
- Parking areas
- Metal
- Pitch pans
- Interior and exterior

Features

- Movement capability of ±25%…
- Abrasion resistant…
- Easy to gun…
- Variety of types and sizes of packaging…
- Nonpriming on most surfaces…
- Self levels…
- Wide application range…
- Excellent weatherability…

Benefits

- Expands and contracts with joint movement
- Longer wearing
- Installs quickly
- Reduces jobsite waste
- Excellent adhesion
- No tooling required
- Suitable for all climates
- Long lasting

How to Apply SL 1™

Joint Preparation

1. The number of joints and the joint width should be designed not to exceed ±25% movement.
2. The depth of the sealant should be 1/2 the width of the joint. The maximum depth is 3/8" (10 mm) and the minimum is 1/4" (6 mm).
3. In deep joints, sealant depth must be controlled with Backer-Rod (closed cell only) or Expansion-Joint Filler (see Form Nos. 1017927 and 1017916). Other caulks should not be used as fillers. Do not prime Backer-Rod or Expansion Joint Filler. Do not puncture backer-rod; it may cause bubbling.
4. Caulking and sealing should be performed when temperatures are above 40°F (4°C). Application to moist surfaces will adversely affect adhesion. Application may proceed as low as 20°F (-7°C) only if substrates are clean and completely free of moisture or frost.

Surface Preparation

1. It is essential that joints be clean and dry. Joint surfaces must be structurally sound, fully cured, and free of all loose aggregate, paint, oil, grease, asphalt, wax, mastic compounds, waterproofing compounds, form release materials, curing compounds or any other contaminants.
2. **New concrete:** Remove all loose material from joints by wire brushing. Sandblast surfaces in contact with form release agents. Fresh concrete must be fully cured. Laitance must be removed by abrading.
3. **Old concrete:** For previously sealed joints, remove all old material by mechanical means. If joint surfaces have absorbed oils, remove sufficient concrete to ensure a clean surface.

Priming

1. For most applications, priming is not required; joints subject to periodic water immersion, however, must be primed with Primer 733 (see Form No. 1017903). On surfaces other than concrete, conduct a test application to verify adhesion.
2. Apply primer in a thin, uniform film. Avoid build-up of excess primer.
3. Avoid applying primer beyond joint faces. To minimize the contamination of adjacent surfaces, apply masking tape before priming and remove before the sealant has begun to thicken and set.
4. Allow approximately 15 to 30 minutes drying time before applying sealant (primer should be tack free). Priming and sealing must be done on the same work day.

Application

1. The temperature during application should be the median of service temperature extremes.
2. Fill joints by pouring the sealant from a spouted container or flowing the sealant from a bulk-loading gun or from the cartridge or ProPak.
3. Fill joints from the bottom; avoid bridging of the joint, which may form air voids. Sealant will self level to form a clean joint surface.

Curing Time

- Skins over within 24 hours
- Foot traffic 3 days
- Full cure 1 week

Protect joint from dirt and traffic until cured. Curing of SL 1™ will vary with temperature and humidity. The above times assume a typical joint of 1/2" (13 mm) width by 1/4" (6 mm) depth at 75°F [24°C] and 50% relative humidity. Lower temperatures will extend curing time.

Clean Up

Clean equipment with Reducer 990 or xylene immediately after use and before sealant has cured. Cured sealant may be removed by cutting with a sharp-edged tool, and thin films by abrading.

For Best Performance

- Do not allow uncured SL 1™ to come into contact with alcohol-based materials or solvents.
- Do not apply polyure-thane sealants in the vicinity of uncured silicone sealants.
- SL 1™ is not intended for continuous water immersion. Contact Technical Service for recommendation.
- Backer-rods, joint fillers, and bondbreakers must be tightly installed to prevent loss of sealant through joint bottoms.
- Joints subject to puncture by high heels or umbrella points require a stiffer or higher density backup material; cork or rigid nonimpregnated cane-fiber joint fillers are suitable. Separate materials from the sealant by a nonadhering bondbreaker (polyethylene tape).
- Depth of SL 1™ should be 3/8" (10 mm) maximum.
- High temperatures and/or humidity may cause uncured material to bubble.
- Sealant may bubble if substrates are not absolutely dry or if material is applied too deep.
- Do not use other caulks, sand, or incompressibles as a bottom bed in a joint.
- Do not install when rain is expected before the sealant develops a substantial skin.
- For joint widths over 1-1/2" (38 mm), use SL 2™ (Form No. 1017903).
- Make certain the most current version of this data guide is being used; call Customer Service (1-800-433-9517) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by ChemRex® personnel are for the purpose of making technical recommendations only and are not for supervising or providing quality control on the jobsite.

Technical Data

Compliances

- Federal Specification TT-S-00230C, Type 1 Class A
- ASTM C 920, Type S, Grade P, Class 25, Use T, M
- Corps of Engineers CRD-C-541
- Canadian Specification CAN/CGSB 19.13-M87, Classification C-1-40-B-N and C-1-25-B-N, No. 81028
- Canadian approval for use in areas that handle food
- USDA compliant for use in areas that handle meat and poultry

Typical Properties

Property	Result
Service temperature range, °F (°C)	-40 to 180 (-40 to 82)
Expected life	5 - 10 years
Shrinkage	Nil

Test Data

Property	Value (Average)	Test Method
Tensile strength, psi (MPa)	300 (2.1)	ASTM D 412
Elongation, %	800	ASTM D 412
Hardness/Shore A	25	ASTM C 661
Shrinkage	Nil	
Artificial weathering xenon arc, 1,000 hours	Excellent	ASTM G 26
Low temperature flexibility, °F (°C)	-15 (-26)	ASTM C 793
Service temperature range, °F (°C)	-40 to 180 (-40 to 82)	
Viscosity (poise)	325	Brookfield

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

Order Information

Packaging

SL1™

- 2 gallon pails (7.6 L)
- 825 mL cartridges, 12 cartridges per carton
- 300 mL cartridges in limestone, 30 cartridges per carton
- 20 oz. (590 mL) ProPaks in limestone, 20 ProPaks per carton

Shelf life is 6 months in bulk, and 1 year in cartridges and ProPaks when stored in unopened containers under normal conditions. Storing at elevated temperatures will reduce shelf life.

Colors

- Limestone and gray

Coverage

Linear Feet per Gallon*

Joint Depth	Joint Width 1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"
1/4"	308	205	154	122			
3/8"				82	68	58	51

* 1 gallon equals approximately twelve 300 mL cartridges.

Linear Meters per Liter

Joint Depth (mm)	Joint Width (mm) 6	10	13	16	19	21	25
6	24.8	16.5	12.4	9.8			
10				6.6	5.5	4.7	4.1

Linear Feet per 825 mL Cartridge

Joint Depth	Joint Width 1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"
1/4"	72	48	36	28.5			
3/8"				19.25	16	13.5	12

Warning

SL 1™ contains calcium oxide, titanium dioxide, talc, mineral spirits, amorphous silica (fumed), toluene diisocyanate

Risks

Combustible liquid and vapor. May cause skin and eye irritation. May cause dermatitis and allergic responses. Potential skin and/or respiratory sensitizer. Inhalation of vapors may cause irritation and intoxication with headaches, dizziness and nausea. Ingestion may cause irritation. Reports associate repeated or prolonged occupational overexposure to solvents with permanent brain, nervous system, liver and kidney damage. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

Precautions

KEEP OUT OF THE REACH OF CHILDREN. KEEP AWAY FROM HEAT, FLAME, AND SOURCES OF IGNITION. Keep container closed when not in use. Use only with adequate ventilation. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Avoid breathing vapors. DO NOT take internally. Use impervious gloves, eye protection and if the TLV is exceeded or product is used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. SEEK IMMEDIATE MEDICAL ATTENTION. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs, or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Refer to Material Safety Data Sheet (MSDS) for further information.

Proposition 65

This product contains materials listed by the state of California as known to cause cancer, birth defects or other reproductive harm.

VOC Content

SL 1™ contains 104 g/L or 0.87 lbs/gal less water and exempt solvents.

For medical emergencies only, call ChemTrec (1/800/424-9300).

Limited Warranty Notice

Every reasonable effort is made to apply ChemRex® exacting standards both in the manufacture of our products and in the information which we issue concerning these products and their use. We warrant our products to be of good quality and will replace or, at our election, refund the purchase price of any products proved defective. Satisfactory results depend not only upon quality products, but also upon many factors beyond our control. Therefore, except for such replacement or refund, CHEMREX® MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, RESPECTING ITS PRODUCTS, and CHEMREX® shall have no other liability with respect thereto. Any claim regarding product defect must be received in writing within one (1) year from the date of shipment. No claim will be considered without such written notice or after the specified time interval. User shall determine the suitability of the products for the intended use and assume all risks and liability in connection therewith. Any authorized change in the printed recommendations concerning the use of our products must bear the signature of the ChemRex® Technical Manager.

Sonneborn®

ChemRex®

Corporate Office:
889 Valley Park Drive; Shakopee, MN 55379

Customer Service: 1/800/433-9517
Technical Services: 1/800/ChemRex (1/800/243-6739)
Web Site: www.chemrex.com

Form No. 1017901
© 2002 ChemRex®

For professional use only.
Not for sale to or use by the general public.

Printed on recycled paper including 10% post-consumer fiber

26M 1/02
Replaces 1/01