



The Chemical Company

PRODUCT DATA

7 07 92 00 Joint Sealants

SONOLASTIC® SL 1™

One-component elastomeric, self-leveling polyurethane sealant

Description

SL 1™ is a one-component nonpriming, self-leveling elastomeric polyurethane designed for expansion joints in concrete floors and decks. Use it where flexibility as well as abrasion and puncture resistance are required.

Yield

See page 3 for charts.

Packaging

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

In bulk: 6 months when properly stored

Cartridges and ProPaks: 1 year when properly stored

Storage

Store in unopened containers in a cool, clean, dry area. Storing at elevated temperatures will reduce shelf life.

Color

Limestone and gray

Features

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

Benefits

- Expands and contracts with joint movement
- Provides longer wearing and durability
- Installs quickly
- Reduces jobsite waste
- Offers excellent adhesion
- Requires no tooling
- Suitable for all climates
- Offers long-lasting performance

Where to Use

APPLICATION

- Expansion joints
- Pavers
- Plaza decks
- Industrial floors
- Driveways
- Sidewalks
- Decks
- Parking areas
- Pitch pans

LOCATION

- Horizontal
- Interior and exterior

SUBSTRATE

- Concrete
- Metal

How to Apply

Joint Preparation

1. The number of joints and the joint width should be designed not to exceed $\pm 25\%$ 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). Maximum recommended joint width is 1-1/2" (38 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.



Technical Data

Composition

SL 1™ is a single-component polyurethane sealant, which cures by reaction with atmospheric moisture.

Compliances

- ASTM C 920, Type S, Grade P, Class 25, Use T, M
- Federal Specification TTS- 00230C, Type 1, Class A
- 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	VALUE
Service temperature range, ° F (° C)	-40 to 180 (-40 to 82)
Shrinkage	Nil

Test Data

PROPERTY	RESULTS	TEST METHODS
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 hrs	Excellent	ASTM G 26
Low temperature flexibility, ° F (° C)	-15 (-26)	ASTM C 793
Viscosity, poise	325	Brookfield

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

Surface Preparation

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.

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.

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 – 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. 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.
2. 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.
3. The maximum depth of SL 1™ should be 3/8" (10 mm).

Curing Time

1. Protect joint from dirt and traffic until cured.
2. Curing of SL 1™ will vary with temperature and humidity. Curing 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.

Skins over: within 24 hours

Foot traffic: 3 days

Full cure: 1 week

Yield

LINEAR FEET PER GALLON*

JOINT DEPTH (INCHES)	JOINT WIDTH (INCHES)						
	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
1/2	—	—	—	—	51	44	38

* 1 gallon equals approximately twelve 300 ml cartridges.

LINEAR METERS PER LITER

JOINT DEPTH (MM)	JOINT WIDTH (MM)						
	6	10	13	16	19	22	25
6	24.8	16.5	12.4	9.8	—	—	—
10	—	—	—	6.6	5.5	4.7	4.1
13	—	—	—	—	4.1	3.5	3

LINEAR FEET PER 825 ML CARTRIDGE

JOINT DEPTH (INCHES)	JOINT WIDTH (INCHES)						
	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
1/2	—	—	—	—	12	10.2	8.8

LINEAR METER PER 825 ML CARTRIDGE

JOINT DEPTH (MM)	JOINT WIDTH (MM)						
	6	10	13	16	19	22	25
6	20.5	13.6	10.2	8.1	—	—	—
10	—	—	—	5.4	4.5	3.9	3.4
13	—	—	—	—	3.4	2.9	2.5

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, 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 polyurethane sealants in the vicinity of uncured silicone sealants or uncured Sonolastic® 150 or 150 Tint Base.
- SL 1™ is not intended for continuous water immersion. Contact Technical Service for recommendations.
- 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).
- Maximum depth of SL 1™ should be 3/8" (10 mm).
- High temperatures 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™.
- Make certain the most current versions of product data sheet and MSDS are 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 BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

Health and Safety

SL 1™

Warning

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

0.87 lbs/gal or 104 g/L, less water and exempt solvents

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

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