



MapeflexTM P1 SL

**One-Component, Self-Leveling
Elastomeric Polyurethane
Sealant**



**FOR
PROFESSIONAL
USE ONLY**



DESCRIPTION

Mapeflex P1 SL is a high-performance, one-component, self-leveling, moisture-cured, elastomeric polyurethane sealant. Mapeflex P1 SL offers superior adhesion to most surfaces, durability and excellent flexibility for moving joints. Mapeflex P1 SL meets the requirements of ASTM C920, Type S, Grade P, Class 25, Uses T, M, G, A and O; TT-S-00230C, Type I, Class A; and CAN/CGSB-19.13-M87.

FEATURES AND BENEFITS

- Joint movement of +/- 25%
- High abrasion and tear resistance
- Tremendous adhesion
- Paintable and sandable
- Low-VOC content
- Non-staining* and odorless
- Excellent resistance to weathering
- Low dirt pick-up; retains flexibility
- One-component

* Product will typically not stain or "shadow" surfaces it is applied to.

INDUSTRY STANDARDS AND APPROVALS

- ASTM C-920, Type S, Grade P, Class 25, Uses T, M, G, A and O
- TT-S-00230C, Type I, Class A
- CAN/CGSB-19.13-M87
- Meets South Coast Air Quality Management District (SCAQMD) VOC limits

LEED Points Contribution

LEED Points

MR Credit 5, Regional Materials** Up to 2 points
 IEQ Credit 4.1, Low-Emitting
 Materials – Adhesives & Sealants.....1 point

** Using this product may help contribute to LEED certification of projects in the categories shown above. Points are awarded based on contributions of all project materials.

WHERE TO USE

- Moving expansion joints of all kinds where material is applied between 1/4" and 1/2" (6 and 12 mm) in depth
- Use for sealing moving horizontal joints on sidewalks, plaza decks, industrial floors, parking garages and pitch pans.
- Use in interior/exterior applications above and below grade on concrete, masonry, brick, wood, steel, aluminum, painted metal, glass, and natural stone.

LIMITATIONS

- Do not expose to alcohol, solvents or neutral curing silicones during product cure.
- Do not apply on wet or damp substrates.
- Do not use for immersed applications.
- Allowable depth of Mapeflex P1 SL is between 1/4" and 1/2" (6 and 12 mm).
- Do not apply at temperatures below 41°F (5°C). In cold weather, acclimate the material to about 68°F (20°C) for 24 hours before application.



- Product may exhibit discoloration due to ultraviolet (UV) light exposure; however, product performance will not diminish.
- Maximum temperature for application is 95°F (35°C)
- Temperatures below 55°F (13°C) combined with low humidity will extend cure times.

SUITABLE SUBSTRATES

- Use in interior/exterior horizontal applications above and below grade on 28-day-old concrete, masonry, brick, wood, steel, aluminum, glass, painted metal and natural stone.

Consult MAPEI's Technical Services Department for installation recommendations regarding substrates and conditions not listed.

SURFACE PREPARATION

1. Surfaces must be sound, clean, dry and frost-free.
2. Remove all dirt, loose particles, grease, oil, curing compounds, or other bond-breaking matter.
3. Clean joints of debris and contaminants – including oils, loose materials and dirt – to allow for good adhesion of the product. Expose clean rough concrete for best results.
4. If saw-cutting is used to clean the joint, remove all the dust from the prepared area. Vacuum or use oil-free compressed air to completely blow out all dust and debris.
5. Cold-storage environments must have clean, frost-free concrete before installation.
6. Nonporous surfaces may be prepared by wiping with a rag and an appropriate residue-free solvent (xylene or acetone). Immediately wipe with a clean rag and allow the solvent to evaporate before application of the sealant.
7. Use on-site testing to verify adequate bond. Most surfaces will demonstrate a suitable bond strength. In the few cases where bond is not sufficient or in immersed applications, use an alternate product.

MIXING

Note: Choose all appropriate safety equipment before use. Refer to Material Safety Data Sheet (MSDS) for more information

- No mixing is required. Acclimate the material to 68°F (20°C) for 24 hours before application.

PRODUCT APPLICATION

1. Read all installation instructions and complete all preparations thoroughly before installation.
2. Place cartridge in a professional manual or pneumatic caulking gun.
3. Apply *Mapeflex P1 SL* into the joint as indicated:
 - For joints subject to foot traffic, recess the material 1/8" (3 mm) from the top of the joint.
 - For joints on parking garages, recess the material 1/4" (6 mm) from the top of the joint.
 - For joints on highways or roadways, recess the material 1/2" (12 mm) from the top of the joint.
4. *Mapeflex P1 SL* does not require tooling.
5. During placement, close the area for traffic and allow material to cure overnight before re-opening.
6. *Mapeflex P1 SL* may be painted with an elastomeric paint after it is tack-free.

JOINT DESIGN

1. Expansion joints should be designed to move a maximum of +/- 25%, with a typical width of between 1/2" and 1" (12 mm and 2,5 cm).
2. The depth of the *Mapeflex P1 SL* should be half the width of the joint – no less than 1/4" (6 mm) deep, and no more than 1/2" (12 mm) deep.
3. Control the depth of the *Mapeflex P1 SL* by inserting a closed-cell polyethylene or non-gassing polyolefin backer rod into the joint. If the joint depth does not provide space for a backer rod, use a polyethylene bond-breaker tape to prevent three-sided adhesion.
4. The closed-cell backer rod should be about 25% (and no more than 40%) wider than the joint depth.
5. For use in traffic areas, apply at a depth of 1/2" (12 mm).

CLEANUP

- Remove uncured sealant with an approved solvent such as xylene.
- Cured material can only be removed mechanically.

Product Performance Properties

Laboratory Tests	Results
Movement capability (ASTM C719)	+/- 25%
Shore hardness (A) (ASTM C661)	30 +/- 5
100% modulus (ASTM D412)	About 55 psi (0,38 MPa)
Elongation at break (ASTM D412)	1,100%
Tensile strength (ASTM D412)	230 psi (1,59 MPa)
Accelerated weathering (ASTM C793)	Passes; no cracks
Staining (ASTM C510)	Passes; no staining or color change
VOCs (Rule #1168 of California's SCAQMD)	30 g per L
Slump of sealant (ASTM D2202)	None
Service temperature	-40°F to 178°F (-40°C to 81°C))
Compatibility with paints	Water-based: Yes Solvent-based: Carry out tests beforehand
UV resistance	Good
Water and spray resistance	Excellent

Shelf Life and Application Properties

Time before skinning over	1.5 hours
Time before tack-free	2 hours
Cure rate at 73°F (23°C) and 50% relative humidity	1/16" (1,5 mm) per 24 hours
Shelf life	1 year
Storage conditions	Store at between 40°F and 72°F (4°C and 22°C)

CSI Division Classification

Joint Sealants	07 92 00
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Packaging

Product Code	Size/Color
44919	29 U.S. oz. (857 mL) cartridge: Limestone

Approximate Product Coverage* – in lineal feet (meters) per 29 U.S. oz. (857 mL) cartridge

	Width 1/2" (12 mm)	Width 3/4" (19 mm)	Width 1" (2,5 cm)
Depth 1/4" (6 mm)	32 (9,75)	N/A	N/A
Depth 3/8" (10 mm)	N/A	16 (4,88)	N/A
Depth 1/2" (12 mm)	N/A	N/A	8 (2,44)

* Coverage shown is for estimating purposes only. Actual jobsite coverage may vary according to substrate conditions and setting practices.

Mapeflex™ P1 SL



Refer to the MSDS for specific data related to VOCs, health and safety, and handling of product.

STATEMENT OF RESPONSIBILITY

Before using, user shall determine the suitability of the product for its intended use and user alone assumes all risks and liability whatsoever in connection therewith. **ANY CLAIM SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.**

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