

Mapeflex Joint Filler EP 90/50

Two-Component, Semi-Rigid, 100%-Epoxy Joint Filler



DESCRIPTION

Mapeflex® Joint Filler EP 90/50 is a two-component, semi-rigid, 100%-epoxy joint filler used to fill and protect interior control and construction joints from rolling loads.

FEATURES AND BENEFITS

- Ease of application from a dual cartridge or from metered dispensing equipment
- Long working time
- Easily shaved within 24 hours of application

WHERE TO USE

- For interior use only
- Use to fill non-moving, saw-cut control joints in industrial, retail and commercial concrete slabs.
- Use to fill cracks in industrial, retail and commercial floors.

INDUSTRY SPECIFICATIONS

- Suitable for use in USDA and CFIA facilities
- Complies with ACI 302 recommendations for joint fillers

SURFACE PREPARATION

- Joints must be clean and free of loose particles, efflorescence, paints, tars, grease, asphaltic materials, bond breakers, curing compounds, wax, and any foreign substance or any conditions that may affect product performance or proper bonding.
- Joints should be cleaned with oil-free compressed air before being filled.

- Alternatively, joints can be re-cut and then vacuumed.
- For proper load transfer after filling, do not use sand or joint backing material to fill any portion of the joint. *Mapeflex Joint Filler EP 90/50* is intended to be used full depth of the joint or crack being filled.

MIXING

Before product use, take appropriate safety precautions. Refer to the Safety Data Sheet for details.

- Condition all materials to between 73°F and 90°F (23°C and 32°C) for at least 24 hours before mixing.

Mixing via dual cartridge

1. When using a pre-filled two-component cartridge of *Mapeflex Joint Filler EP 90/50*, attach the supplied static mixer to the end of the dual cartridge.
2. Place the dual cartridge into a proper 22-U.S.-oz. (651-mL) two-component dispensing gun, ensuring that the static mixer end is facing up.
3. While the static mixer is facing upward, apply pressure to the dispensing gun and allow each part of *Mapeflex Joint Filler EP 90/50* to mix upward into the static mixer. Once a uniform color is obtained at the end of the static mixer, release pressure from the dispensing gun and immediately start applying product.

Mixing Part A and Part B

1. If using an automated metering pump, ensure that the pump is properly set to a 1:1 ratio for parts A and B and that the correct static mixer is used for proper mixing of parts A and B.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Place the mixed *Mapeflex Joint Filler EP 90/50* into the clean and dry joint cavity.
2. Ensure that only 2/3 of the depth is filled initially, allow the joint filler to level on its own and displace any air from under the joint.
3. Within 1 hour of the initial filling, complete filling the joint by overfilling slightly.
4. Allow curing.
5. After curing, remove the excess *Mapeflex Joint Filler EP 90/50* with a razor knife or grinder within 12 to 24 hours of placement. Shave it flush with the concrete surface.
6. If *Mapeflex Joint Filler EP 90/50* cures longer than 24 hours, it may be required to use heat to soften the material to adequately shave.

CLEANUP

- Because *Mapeflex Joint Filler EP 90/50* is a 100%-solids epoxy, isopropyl alcohol, xylol or a similar solvent will be required for cleaning. Cured material can only be removed mechanically.

LIMITATIONS

- As recommended by ACI 302, joint fillers should be placed as late as possible after the placement of the concrete slab. Consult ACI 302 to fully understand the issues of placing joint fillers early.
- Condition all materials to a temperature between 73°F and 90°F (23°C and 32°C) for at least 24 hours before mixing and placement.
- No additional ingredients are required. Do not thin with solvents.
- For interior use only: *Mapeflex Joint Filler EP 90/50* is not UV-stable.
- Do not use in moving joints or cracks.

Product Performance Properties

Laboratory Tests	Results
Compressive strength – ASTM D695	
At 72 hours at 73°F (23°C)	1,761 psi (12.1 MPa)
Tensile strength – ASTM D638	
At 7 days	844 psi (5.82 MPa)
Tensile elongation – ASTM D638	
At 7 days	53%
Shore “A” hardness – ASTM D2240	90
Shore “D” hardness – ASTM D2240	40
Adhesion to concrete – ASTM D4541	
At 7 days	624 psi (4.30 MPa)
Brookfield viscosity – ASTM C881	5,000 cps
VOC content (SCAQMD Rule 1168)	< 50 g per L
Typical VOC content per SCAQMD Rule 1168 testing methods	30 g per L

Shelf Life and Product Characteristics

Shelf life	2 years in original, unopened container at 73°F (23°C). Store at 40°F to 95°F (4°C to 35°C).
Colors	Limestone, Stone Grey, Telegrey, Beige, Oxide Red, Green, Odra and Signal Blue

Application Properties

at 73°F (23°C)

Time until tack-free	8 to 12 hours
Initial cure	6 to 8 hours
Ready for traffic	Light traffic: 6 to 8 hours Heavy traffic: 8 to 12 hours

CSI Division Classifications

Maintenance of Concrete	03 01 00
Rigid Joint Sealant	07 92 16

Packaging

Size
Dual cartridge: 20.3 U.S. oz. (600 mL)
Part A, Pail: 5 U.S. gals. (18.9 L) Part B, Pail: 5 U.S. gals. (18.9 L)

Approximate Coverage*

per 1 U.S. gal. (3.79 L)

Joint Width	Joint Depth				
	1" (2.5 cm)	1.5" (3.8 cm)	2" (5 cm)	2.5" (6.3 cm)	3" (7.5 cm)
3/32" (2.5 mm)	205 ft. (62.5 m)	136 ft. (41.5 m)	102 ft. (31.1 m)	82 ft. (25.0 m)	68 ft. (20.7 m)
1/8" (3 mm)	154 ft. (46.9 m)	102 ft. (31.1 m)	77 ft. (23.5 m)	61 ft. (18.6 m)	51 ft. (15.5 m)
3/16" (4.5 mm)	102 ft. (31.1 m)	68 ft. (20.7 m)	51 ft. (15.5 m)	41 ft. (12.5 m)	34 ft. (10.4 m)
1/4" (6 mm)	77 ft. (23.5 m)	51 ft. (15.5 m)	38 ft. (11.6 m)	30 ft. (9.14 m)	25 ft. (7.62 m)
3/8" (10 mm)	51 ft. (15.5 m)	34 ft. (10.4 m)	25 ft. (7.62 m)	20 ft. (6.10 m)	17 ft. (5.18 m)
1/2" (12 mm)	38 ft. (11.6 m)	25 ft. (7.62 m)	19 ft. (5.79 m)	15 ft. (4.57 m)	12 ft. (3.66 m)

Note: One U.S. gal. (3.79 L) of mixed material yields 231 cu. in. (3 785 cm³), and one cartridge yields 39.7 cu. in. (651 cm³).

* For estimating purposes only

ADDITIONAL INFORMATION

Refer to the Safety Data Sheet (SDS) for specific data related to health and safety as well as product handling.

For information on MAPEI's commitment to sustainability and transparency, as well as how MAPEI products may contribute to green building standards and certification systems, contact sustainability_USA@mapei.com (USA) or sustainability-durabilite@mapei.com (Canada).

WARNING

The test results shown in the TECHNICAL DATA table were obtained in compliance with test methods and curing cycles, if applicable, defined in the industry standards referenced on the Technical Data Sheet. Please note that the use of test procedures or methods other than those indicated in the table could lead to different values and that, in such cases, any liability of our company is excluded.

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement nor replace requirements per the TDS in effect at the time of the MAPEI product installation. For the most up-to-date TDS and warranty information, please visit our website at www.mapei.com. **ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.**

Before using, the user must determine the suitability of our products for the intended use, and the user alone assumes all risks and liability. **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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