

# Mapeflex Joint Filler EP 90/50

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



## DESCRIPTION

Mapeflex<sup>®</sup> 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 non-moving, construction 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 75°F and 90°F (24°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, 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 75°F and 90°F (24°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
VOCs (Rule #1168 of California’s SCAQMD)	30

### 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).
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### 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

<b>Size</b>
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 cm<sup>3</sup>), and one cartridge yields 39.7 cu. in. (651 cm<sup>3</sup>).

\*For estimating purposes only

## ADDITIONAL INFORMATION

Refer to the 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](mailto:sustainability_USA@mapei.com) (USA) or [sustainability-durabilite@mapei.com](mailto:sustainability-durabilite@mapei.com) (Canada).

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