MAPEFLEX® JOINT FILLER EP 90/50
Two-Component, Semi-Rigid, 100%-Epoxy Joint Filler

SECTION 07 92 16
RIGID JOINT SEALANT

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Products for maintenance of concrete, including the following:
   1. Joint filler.

1.2 RELATED SECTIONS

A. Section 03 30 00 - Cast-in-Place Concrete.

1.3 REFERENCES

A. ASTM International:
   1. ASTM C881/C881M - Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete.

1.4 SUBMITTALS

A. Submit under provisions of Section 01 30 00 - Administrative Requirements.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: Minimum of 5 years' experience in manufacturing similar products.

B. Installer Qualifications: Minimum of 2 years' experience in installing similar products.

1.6 PRE-INSTALLATION MEETINGS

A. Convene a minimum of two weeks prior to starting work of this section.

1.7 DELIVERY, STORAGE AND HANDLING

A. Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.

B. Handling: Handle materials to avoid damage.

1.8 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity and ventilation) within limits

recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.9 SEQUENCING

A. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Product Performance:

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	53%
VOCs (Rule #1168 of California's SCAQDM)	30 g per L
Shore "A" Hardness – ASTM D2240	90
Shore "D" Hardness – ASTM D2240	40

B. Acceptable Manufacturer:

MAPEI North America
1144 E. Newport Center Dr.; Deerfield Beach, FL 33442
Toll-Free for CRS Technical Services: Tel. 888-365-0614
Email: CRS@mapei.com
Web: www.mapei.com

C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

D. Substitutions: Not permitted.

2.2 JOINT FILLER

A. Epoxy Joint Filler: Two-part, 100%-solids, moisture-tolerant, semi-rigid epoxy joint sealant.
1. Product: Subject to compliance with requirements, provide MAPEI Corporation; Mapeflex Joint Filler EP 90/50.
2. Type "A" Shore durometer hardness of at least 80 when tested according to ASTM D2240.

2.3 MISCELLANEOUS MATERIALS

A. Portland Cement: ASTM C150, Type I, II or III unless otherwise indicated.

B. Water: Potable.

2.4 MIXES

A. General: Mix products, in clean containers, according to manufacturer's written instructions.
1. Do not add water, thinners or additives unless recommended by manufacturer.
2. When practical, use manufacturer's premeasured packages to ensure that materials are mixed in proper proportions. When premeasured packages are not used, measure

ingredients using graduated measuring containers; do not estimate quantities or use shovel or trowel as a unit of measure.

3. Do not mix more materials than can be used within time limits recommended by manufacturer. Discard materials that have begun to set.

PART 3 EXECUTION

3.1 PREPARATION

A. Joints must be clean and free of loose particles, efflorescence, pains, tars, asphaltic materials, bond breakers, curing compounds, wax, and any foreign substance or any conditions that might affect product performance or proper bonding.

B. Joints should be cleaned with oil-free compressed air before being filled.

C. Alternatively, joints can be re-cut and then vacuumed.

D. For proper load transfer after filling, do not use sand or backing material to fill any portion of the joint. Mapeflex Joint Filler EP 90/50 is intended to be used at the full depth of the joint or crack being filled.

3.2 MIXING

Before product use, take appropriate safety precautions. Refer to Safety Data Sheet (SDS) for more information.

- Condition all materials to between 75°F to 90°F (24°C to 32°C) for at least 24 hours before mixing.

Mixing via dual cartridge

A. When using a pre-filled two-component cartridge of Mapeflex Joint Filler EP 90/50, attached the supplied static mixer to the end of the dual cartridge.

B. Place the dual cartridge into the proper 22-U.S.-oz (6.51 mL) two-component dispensing gun, ensuring that the static mixer end is facing up.

C. 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

A. 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.

3.3 INSTALLATION

Read all installation instructions thoroughly before installation.

A. Place the mixed Mapeflex Joint Filler EP 90/50 into the clean and dry joint cavity.

B. 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.

C. Within 1 hour of the initial filling, complete filling the joint by overfilling it slightly.

D. Allow curing.

E. After curing, remove the excess Mapeflex Joint Filler EP 90/50 with a razor knife or grinder. Shave it flush with the concrete surface.

F. If Mapeflex Joint Filler EP 90/50 cures longer than 24 hours, it might be required to use heat to soften the material for adequately shaving.

3.4 CLEANUP

A. 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.

END OF SECTION