

# MAPEFLEX® JOINT FILLER PO 95/100 Two-Component, Semi-Rigid Polyurea 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 D2240 Standard Test Method for Rubber Property Durometer Hardness.

# 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.
  - 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:

Gel time 20 to 30 seconds

Tensile strength – ASTM D412

At 7 days 807.86 to 900 psi (5.57 to 6.21 MPa)

Elongation – ASTM D412

At 7 days 100% to 180%

 100% modulus – ASTM D412
 > 270%

 300% modulus – ASTM D412
 > 435%

 VOCs
 28 g per L

 Shore "D" Hardness – ASTM D2240
 46 to 58

Density – ASTM C905 8.152 lbs./gal. (0.774 g/cm<sup>3</sup>)

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: <u>CRS@mapei.com</u>
Web: <u>www.mapei.com</u>

- 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. Polyurea Joint Filler: Two-component, semi-rigid, rapid-setting polyurea joint filler.
  - 1. Product: Subject to compliance with requirements, provide MAPEI Corporation; Mapeflex Joint Filler PO 95/100.
  - Type "A" Shore durometer hardness of at least 75 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, paints, tars, asphaltic materials, bond brakers, curing compounds, wax, and any foreign substance or any conditions that may 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 PO 95/100 is intended to be used at the full depth for 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 and 90°F (24°C and 32°C) for at least 24 hours before mixing

## Mixing via dual cartridge

- A. Attach the supplied static mixer to the end of the dual cartridge.
- B. Place the dual cartridge into the proper 22-US.-oz (651 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 PO 95/100 to mix upward into the static mixer.
- D. 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 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 PO 95/100 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 15 minutes of the initial filling, complete filling the joint by overfilling it slightly.
- D. Allow curing.

- E. After curing, remove the excess Mapeflex Joint Filler PO 95/100 with a razor knife or grinder. Shave it flush with the concrete surface.
- F. If Mapeflex Joint Filler PO 95/100 cures longer than 24 hours, it may be required to use heat to soften the material for adequately shaving.

# **CLEANUP**

Because Mapeflex Joint Filler PO 95/100 is a two-component polyurea, xylol or a similar solvent will be required for cleaning. Cured material can only be removed mechanically.

**END OF SECTION**