



**MAPEFLOOR PU 400 FC**  
**Two-Component, Fast-Curing, Polyurethane Basecoat for Mapefloor Parking Deck System**

**SECTION 07 18 00**  
**Traffic Coatings**

**PART 1 GENERAL**

**1.1 SUMMARY**

- A. Products for concrete protection and sealing.

**1.2 RELATED SECTIONS**

- A. Section 03 30 00 – Cast-in-Place concrete
- B. Section 03 40 00 – Pre-cast concrete

**1.3 SUBMITTALS**

- A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
- B. Product Data: Submit manufacturer's data sheets and safety data sheets (SDS) on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.
- C. Samples: Submit samples of specified traffic deck system. Samples shall be construed as examples of finished color and texture of the system only.

**1.4 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Mapefloor PU 400 FC, as supplied by MAPEI, is approved for use in this project.
- B. Applicator Qualifications: Applicator shall be approved to install the specific system.
- C. Field Sample:
  - 1. Install a sizeable field sample at the discretion of the Engineer of Record (EOR)
  - 2. Apply material in accordance with manufacturer's written application instructions.
  - 3. Field sample will be standard for judging color and texture on remainder of project.
  - 4. Maintain field sample during construction for workmanship comparison.
  - 5. Do not alter, move or destroy field sample until work is completed and approved by owner's representative.
- D. Requirement of Regulatory Agencies: Comply with applicable codes, regulations, ordinances and laws regarding use and application of coating systems.

**1.5 PRE-INSTALLATION MEETINGS**

- A. Convene at least two weeks prior to starting work of this section.

**1.6 DELIVERY, STORAGE AND HANDLING**



- A. Deliver: Materials shall be delivered in original sealed containers, clearly marked with supplier's name, brand name, type of material and legible lot number.
- B. Storage and Handling: Recommended material storage temperature is 73°F (23°C). Handle products to prevent damage to container. All materials shall be stored in compliance with fire and safety requirements. Do not store at high temperatures or in direct sunlight.

#### 1.7 PROJECT CONDITIONS

- A. Prior to starting work, read and follow the Safety Data Sheet (SDS) and container labels for detailed health and safety information.
- B. Do not proceed with application of material when surface temperature is less than 40°F (4°C), if precipitation is imminent, or over a damp, unclean or frosty surface. Ambient temperature should be a minimum 40°F (4°C) and rising, and more than 5 degrees Fahrenheit (2.8 degrees Celsius) above dew point. Special precautions are to be taken when ambient and/or surface temperature are approaching, at, or above 100°F (38°C) and it may be necessary to limit material application to evening hours for exterior exposed decks.
- C. Coordinate waterproofing work with other trades. Applicator shall have sole right of access to the specified area for the time needed to complete the application and allow the vehicular traffic coatings to cure adequately.
- D. Protect plants and other surfaces not to be coated against damage or soiling.
- E. Keep products away from spark or flame. Do not allow the uses of spark-producing equipment during application and until all vapors have dissipated. Post "No Smoking" signs.
- F. Maintain work area in a neat and orderly condition, removing empty containers, rags and rubbish daily from the site.

### PART 2 PRODUCTS

#### 2.1 MANUFACTURER

- A. Product Performance:

Tensile strength – ASTM D412	1,200 psi (8.28 MPa)
Elongation – ASTM D412	≥ 750%
- 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](mailto:CRS@mapei.com)  
Web: [www.mapei.com](http://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 TRAFFIC COATINGS

- A. Two-component, fast-curing, polyurethane basecoat specifically designed for use as a waterproofing membrane for elevated concrete surfaces when the Mapefloor parking deck system is utilized.



1. Product: Subject to compliance with requirements, provide MAPEI Corporation; Mapefloor PU 400 FC.

## 2.3 ACCESSORIES

- A. Miscellaneous materials such as cleaning agents, adhesives, reinforcing fabric, backer rod, deck drains, etc., shall be compatible with the specified traffic coat system.

## 2.4 MIXING

- A. Comply with manufacturer's instructions for mixing procedures.

# PART 3 EXECUTION

## 3.1 EXAMINATION

- A. Verify that the work done over other sections meets the following requirements:
  1. That the concrete deck surface, 21 to 28 days old, has been properly prepared. Refer to the International Concrete Repair Institute (ICRI) for appropriate surface profile preparation.
  2. Concrete surface must be free of loose particles, efflorescence, paints, tars, grease, asphaltic materials, bond breakers, curing compounds, wax, and dry foreign substances or any conditions that may affect product performance or proper bonding.

## 3.2 PREPARATION

- A. Mapefloor PU 400 FC must be applied over properly prepared, elevated concrete surfaces that have been primed with Primer SN or Mapefloor PU Primer.

For complete details on surface preparation, refer to the Mapefloor installation manual in the Concrete Restoration Systems section of MAPEI's website.

## 3.3 MIXING

PART 4 Before product use, take appropriate safety precautions. Refer to the Safety Data Sheet for details.

- A. Separately premix the Part A hardener to a homogeneous consistency (for 1 minute).
- B. Pour Part A into the Part B and mix thoroughly for 2 to 3 minutes to a smooth, homogeneous consistency. Never add Part B to Part A, as mixing will be poor.

## 3.3 APPLICATION

Read all installation instructions thoroughly before installation.

- A. Pour the mixed Mapefloor PU 400 FC onto the surface of the properly prepared primed surface. Spread the product evenly and uniformly with a rubber squeegee at a depth of 20 mils of WFT or at a rate of 80 sq. ft. per U.S. gal. (1.96 m<sup>2</sup> per L).
- B. Apply Mapefloor PU 400 FC within 1.5 to 24 hours of application of Primer SN or Mapefloor PU Primer. Re-prime if Mapefloor PU 400 FC cannot be applied within 24 hours (contact MAPEI's Technical Services Department for re-priming instructions). Steep slopes may require thinner, multiple passes of coating to achieve the necessary thickness.
- C. Allow Mapefloor PU 400 FC to cure at least 1.5 hours at 75°F (24°C) or until tack-free. Then



apply the appropriate topcoat.

#### 3.4 CLEANUP

- A. Before the material hardens, clean tools with an appropriate solvent or cleaning material, such as xylene.

#### 4.5 PROTECTION

- A. Protect Mapefloor PU 400 FC from direct sunlight during curing, as well as from traffic and precipitation, until the application is coated with an appropriate wear surface. At a temperature of 75°F (24°C), a Mapefloor parking deck system will allow foot traffic after 16 hours. Vehicular traffic is allowed on coated surfaces after at least 48 to 72 hours. Lower temperatures will increase the curing time and lengthen the time before pedestrian and vehicular traffic is allowed.

END OF SECTION