



Mapefloor Finish 450™

Two-Component, Aliphatic, Polyurethane Topcoat



DESCRIPTION

Mapefloor Finish 450 is a two-component, solvent-free, aliphatic, polyurethane topcoat specifically designed to provide a protective wear coat for elevated concrete surfaces in areas that are exposed to direct sunlight.

FEATURES AND BENEFITS

- Superior resistance for exterior applications exposed to sunlight
- Highly attractive wearing surface, in as little as one coat
- High resistance to wear and abrasion for long-lasting performance
- Resistant to chemical agents, including diluted acids, bases, oil and fuel
- Impervious to water and/or chloride penetration
- Easy to clean
- Available in 9 standard colors (Light Gray, Red, Tan, Black, Charcoal, Concrete Gray, Dark Maple, Green, Medium Gray)

WHERE TO USE

- As an aliphatic topcoat in drive lanes and parking stalls over *Mapefloor PU 400 FC*
- Multi-story parking garages
- Suspended pedestrian walkways, balconies and stadiums
- Concrete surfaces requiring high resistance to wear and abrasion
- For waterproofing horizontal, interior/external, elevated concrete surfaces
- When specification calls for an aesthetically pleasing and skid-resistant surface

SUITABLE SUBSTRATES

- *Mapefloor Finish 450* is the final layer to complete the *Mapefloor* parking deck system. Before *Mapefloor Finish 450* is installed, the substrate must have the following:
 - A surface mechanically prepared to an ICRI CSP #3 and primed with *Primer SN™* or *Mapefloor PU Primer*
 - A basecoat of *Mapefloor PU 400 FC* installed within 6 to 24 hours of installing *Mapefloor Finish 450*

Consult MAPEI's Technical Services Department regarding substrates and conditions not listed.

SURFACE PREPARATION

- For instructions on surface preparation, refer to the *Mapefloor* Parking Deck Systems Installation Manual.

MIXING

Before product use, take appropriate safety precautions. Refer to the Safety Data Sheet for details. For complete details on mixing, refer to the *Mapefloor* Parking Deck Systems Installation Manual.

1. Premix *Mapefloor Finish 450*'s Part A to a homogenous consistency (for 2 to 3 minutes) using a low-speed drill (at 300 to 450 rpm) and an appropriate mixing paddle.
2. Pour *Mapefloor Finish 450*'s Part B into *Mapefloor Finish 450*'s Part A container and mix thoroughly for 2 to 3 minutes to a smooth, homogenous consistency.
3. During mixing, it may be necessary to scrape the sides of the mixing vessel with a margin trowel.



PRODUCT APPLICATION

Read all installation instructions thoroughly before installation. For complete details on application, maintenance and applicable systems, refer to the *Mapefloor* Parking Deck Systems Installation Manual.

1. Allow *Mapefloor PU 400 FC* to cure for at least 1.5 hours at 75°F (24°C) or until tack-free.
2. Pour the mixed *Mapefloor Finish 450* onto the basecoat in a ribbon pattern.
3. Spread *Mapefloor Finish 450* evenly and uniformly with a 1/4" (6 mm) notched squeegee between 12 and 15 mils wet film thickness (WFT) or 107 to 134 sq. ft. per U.S. gal. (2.60 to 3.29 m² per L) dependent on the *Mapefloor* system being installed. Consult the *Mapefloor* Parking Deck Systems Installation Manual for complete system application rates.
4. Back-roll to achieve desired thickness and proper coverage.
5. Immediately broadcast oven-dried 16/30 mesh silica quartz sand into the wet *Mapefloor Finish 450* at a rate of 10 to 15 lbs. per 100 sq. ft. (or 0.49 to 0.73 kg per m²), and back-roll.
6. Allow 5 to 6 hours for curing.
7. For complete application instruction on the use of *Mapefloor Finish 450* as an intermediate coat and topcoat for the various *Mapefloor* parking deck systems, please consult the *Mapefloor* Parking Deck Systems Installation Manual.

CLEANUP

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

PROTECTION

- Protect *Mapefloor Finish 450* from traffic and precipitation. At a temperature of 75°F (24°C), a *Mapefloor* parking deck system will allow light 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.

LIMITATIONS

- Do not mix at high speeds, which can trap air within the mixed material.
- Do not apply onto unvented pan decks.
- Do not apply onto topping slabs that have waterproofing installed underneath on the structural slab.
- Do not apply onto slab-on-grade concrete surfaces.
- Do not apply *Mapefloor Finish 450* on surfaces that are damp, wet or covered with frost.
- Do not dilute *Mapefloor Finish 450* with water or solvents.

- Do not mix partial quantities of the components of *Mapefloor Finish 450*.
- Before and during application, the ambient temperature range must be 45°F to 85°F (7°C to 29°C). Special precautions should be taken when ambient and substrate temperatures exceed 85°F (29°C). The substrate temperature must be at least 5 degrees F (2.8 degrees C) above the dew point and maintained at this level during curing.
- Do not apply *Mapefloor Finish 450* in direct sunlight. To minimize blistering, always apply when the substrate and ambient temperatures are falling and not rising.
- *Mapefloor Finish 450* topcoat is part of the *Mapefloor* parking deck system and must be used in conjunction with *Primer SN* or *Mapefloor PU Primer* as well as *Mapefloor PU 400 FC* basecoat.

Product Performance Properties

Laboratory Tests	Results*
Weight of product – ASTM D1475	10.9 to 11.2 lbs. per U.S. gal. (4.94 to 5.08 kg per 3.79 L)
Solids content – ASTM C1250	100%
VOCs – EPA Method 24	12 g per L
Viscosity – ASTM D2196	1,000 to 2,200 cps
Tensile strength – ASTM D412	1,800 to 2,200 psi (12.4 to 15.2 MPa)
Elongation – ASTM D412	90% to 115%
Tear resistance – ASTM D1004	300 to 400 pli (5.25 to 7.01 x 10 ⁴ N/m)
Water resistance – ASTM D471	1% at 7 days
Shore “A” hardness – ASTM D2240	85+
Adhesion – ASTM D4541	300 psi (2.07 MPa)

* Results are typical values. Individual batches may vary up to 10% from the typical value.

Shelf Life

Shelf life	1 year when stored in original, unopened packaging at 70°F (21°C)
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Protect containers from freezing in transit and storage. Provide for heated storage on site and deliver all materials at least 24 hours before work begins.

Application Properties

Color	Light Gray, Red, Tan, Black, Charcoal, Concrete Gray, Dark Maple, Green, Medium Gray
Open time at 77°F (25°C)	30 to 40 minutes
Cure time at 75°F (24°C) and 50% relative humidity – TT-S-00230A	5 to 6 hours

CSI Division Classification

Dampproofing and Waterproofing	07 10 00
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Packaging

Part A, Pail: 3.52 U.S. gals. (13.3 L)
Part B, Pail: 1.48 U.S. gals. (5.60 L)

Mapefloor Finish 450



RELATED DOCUMENTS

[Mapefloor Parking Deck Systems Installation Manual*](#)

* At www.mapei.com

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 (USA) or sustainability-durabilite@mapei.com (Canada).

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.**

We proudly support the following industry organizations:



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For the most current product data and BEST-BACKED™ warranty information, visit www.mapei.com.

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