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Two-Component, Low-Viscosity, Polyurethane Basecoat for *Mapefloor* Parking Deck System



# DESCRIPTION

*Mapefloor PU 400 LV* is a two-component, low-viscosity, polyurethane basecoat specifically designed for use as a waterproofing membrane for elevated concrete surfaces where the *Mapefloor* parking deck system is utilized. With its high elongation and crack-bridging properties, *Mapefloor PU 400 LV* is suited as a basecoat layer on concrete substrates subject to vibration.

# FEATURES AND BENEFITS

- Can bridge cracks of up to 1/16" (1,5 mm) in concrete substrates at temperatures as low as -4°F (-20°C)
- Low-odor and VOC-compliant for use in interior, occupied environments
- Elongation greater than or equal to 750%

### **INDUSTRY STANDARDS AND APPROVALS**

LEED v3 Points Contribution	LEED Points
MR Credit 5, Regional Materials*	Up to 2 points
IEQ Credit 4.2, Low-Emitting Materials –	

Paints & Coatings ......1 point

\* Using this product may help contribute to LEED certification of projects in the categories shown above. Points are awarded based on contributions of all project materials.

### WHERE TO USE

Multi-story parking garages subjected to vehicular traffic

- Pedestrian bridges
- Balconies

# LIMITATIONS

- Do not apply onto slab-on-grade concrete surfaces.
- Do not apply *Mapefloor PU 400 LV* on surfaces that are damp, wet or covered with frost.
- *Mapefloor PU 400 LV* is not a standalone coating and must be used in conjunction with *Primer SN*, as well as with *Mapefloor Finish 415 NA* or *Mapefloor Finish 450* as an acceptable topcoat.
- 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 Fahrenheit (2,8 degrees Celsius) higher than the dew point and maintained at this level during curing.
- Do not dilute Mapefloor PU 400 LV with water or solvents.
- Do not apply *Mapefloor PU 400 LV* on dusty, unsound substrates or on substrates containing oil or grease residue.
- Do not mix partial quantities of the components of *Mapefloor PU 400 LV*.

### SUITABLE SUBSTRATES

 Properly prepared, elevated concrete substrates that have been mechanically prepared using engineer-approved methods to an International Concrete Repair Institute (ICRI) concrete surface profile (CSP) of #3, and then primed with *Primer SN*

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



# SURFACE PREPARATION

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

For complete details on surface preparation, refer to *Mapefloor* Installation Guide IGC1113.

### MIXING

Choose all appropriate safety equipment before use. Refer to the Safety Data Sheet for details. For complete details on mixing, refer to *Mapefloor* Installation Guide IGC1113.

- 1. Separately premix both Part A hardener and Part B resin to a homogenous consistency (for 2 to 3 minutes) using a low-speed drill (at 300 to 450 rpm) and a Jiffy mixing paddle.
- Pour Part A into the Part B container and mix thoroughly for 2 to 3 minutes to a smooth, homogenous consistency. Never add Part B to Part A, as mixing will be poor. Do not mix at high speeds, which can trap air within the mixed material.

# **PRODUCT APPLICATION**

Read all installation instructions thoroughly before installation. For complete details on application, refer to *Mapefloor* Installation Guide IGC1113.

- 1. Pour the mixed *Mapefloor PU 400 LV* onto the surface of the properly prepared, primed substrate. Spread the product evenly and uniformly with a rubber squeegee at a depth of 20 mils of wet film thickness (WFT) or at a rate of 80 sq. ft. per U.S. gal. (1,96 m<sup>2</sup> per L).
- Apply Mapefloor PU 400 LV within 6 to 24 hours of application of Primer SN. Re-prime if Mapefloor PU 400 LV 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.
- Allow Mapefloor PU 400 LV to cure for at least 3 hours at 75°F (24°C) or until tack-free. Then apply the appropriate topcoat.

### CLEANUP

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

# PROTECTION

 Protect Mapefloor PU 400 LV 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 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 cure time and lengthen the time before pedestrian and vehicular traffic is allowed.



### **Product Performance Properties**

Laboratory Tests	Results
Weight of product – ASTM D1475	9.6 to 9.8 lbs. per U.S. gal. (4,35 to 4,45 kg per 3,79 L)
Solids content – ASTM C1250	100%
VOCs – EPA Method 24	< 50 g per L
Viscosity – ASTM D2196	3,200 cps
Tensile strength – ASTM D412	1,200 psi (8,28 MPa)
Elongation – ASTM D412	≥ 750%
Tear resistance – ASTM D1004	240 pli (4,20 x 10 <sup>4</sup> N/m)
Shore "A" hardness – ASTM D2240	60 to 80

### **Shelf Life**

Shelf life	6 months when stored in original, unopened packaging
	at 70°F (21°C)

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**

Open time at 77°F (25°C)	20 minutes
Tack-free time at 75°F (24°C) and 50% relative humidity – TT-S-00230A	2.5 to 3 hours

### **CSI** Division Classification

Dampproofing and Waterproofing	07 10 00
Packaging	

Pail, Part A: 1.55 U.S. gals. (5,87 L)	
Pail, Part B: 3.45 U.S. gals. (13,1 L)	







### **RELATED DOCUMENTS**

Installation Guide: <i>Mapefloor</i> installation instructions	IGC1113*
Installation Guide: <i>Mapefloor</i> maintenance instructions	IGC1213*

\* At www.mapei.com

Refer to the SDS for specific data related to health and safety as well as product handling.

### STATEMENT OF RESPONSIBILITY

Before using, user shall determine the suitability of the product for its intended use and user alone assumes all risks and liability whatsoever in connection therewith. <u>ANY CLAIM SHALL BE DEEMED WAIVED UNLESS</u> <u>MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS</u> FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.



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