

Planitop 25

Two-Component Resurfacing Mortar



BEFORE



DURING



DESCRIPTION

Planitop® 25 is a two-component, shrinkage-compensated, cementitious, flowable resurfacing mortar with a corrosion inhibitor.

FEATURES AND BENEFITS

- Flowable mortar that is easily placed onto horizontal surfaces from 1/4" to 1" (6 mm to 2.5 cm) per lift neat
- Can be extended to achieve 2" (5 cm) per lift
- Two-component
- Polymer-modified
- Abrasion-resistant

WHERE TO USE

- For horizontal concrete surface restoration from 1/4" to 1" (6 mm to 2.5 cm)
- For exposure to vehicular traffic, use *Planitop* 25 at a minimum thickness of 1/2" (12 mm).
- For resurfacing worn concrete interior and exterior.

Consult MAPEI's Technical Services Department for installation recommendations regarding uses not listed.

SURFACE PREPARATION

- Concrete surface must be clean, sound and free of loose particles, efflorescence, paints, tar, grease, asphaltic materials, bond breakers, curing compounds, wax and any foreign substances or any conditions that may affect proper bonding of the product and result in cracking, discoloration or changes in overall product performance.
- Mechanically profile and prepare concrete surfaces by engineer-approved methods in accordance with the most current ICRI 310.2R guidelines, CSP #5 to #10.
- Ensure that the concrete substrate is saturated surface-dry (SSD) before installing *Planitop 25*.

MIXING

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

1. Into a clean mixing container, pour 3/4 of the required amount of *Planitop* latex additive (Part B).
2. Slowly add *Planitop 25* powder (Part A) to *Planitop* Part B while mixing with a low-speed drill and an appropriate mixing paddle.
3. Add the remaining 1/4 of *Planitop* Part B as needed to achieve the desired consistency.
4. Mix for up to 3 minutes, to a smooth, homogenous consistency.
5. For applications between 1" and 2" (2.5 and 5 cm), extend the mix by adding up to 20% by weight (12 lbs. [5.44 kg]) of properly graded, clean, SSD pea gravel (with a maximum aggregate size of 1/2" [12 mm]).
6. Mix only as much material as can be applied within 15 to 20 minutes.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Place a scrubcoat of *Planitop 25* onto the SSD prepared concrete.
2. Immediately pour or pump *Planitop 25* with a rotor stator or piston pump onto the scrubcoat before it dries.
3. *Planitop 25* can be easily placed using a screed, gauge rake or trowel. A spiked roller is recommended for applications where large surface areas are being placed.
4. Finish using a smoother.
5. Allow *Planitop 25* to stiffen before applying a broom texture.

CURING AND PROTECTION

- Cure *Planitop 25* with wet burlap or plastic sheeting for the first 4 hours of curing. Alternatively, apply a water-based curing compound conforming to ASTM C309.

CLEANUP

- Wash hands and tools promptly with water before material hardens.
- Cured material must be mechanically removed.

LIMITATIONS

- Do not overmix.
- *Planitop 25* is a flowable mortar and will not stay in place on a slope. For sloped areas, utilize *Mapecem*® 102 or *Mapecem 202*.
- *Planitop 25* requires only the addition of the latex *Planitop* Part B, which is available in a pre-measured unit for easy field use and control. Do not add other additives or cement to *Planitop 25*.
- *Planitop 25* cannot be used as an anchoring material.
- Only use when concrete substrate and ambient temperatures are between 45°F and 95°F (7°C and 35°C). Follow hot- and cold-weather ACI guidelines when installing at below 45°F (7°C) or above 85°F (29°C).

Product Performance Properties

Laboratory Tests	Results
Compressive strength – ASTM C109 (CAN/CSA-A5)	
1 day	> 3,300 psi (22.8 MPa)
7 days	> 5,800 psi (40 MPa)
28 days	> 7,200 psi (49.7 MPa)
Flexural strength – ASTM C348 (CAN/CSA-A23.2-8C)	
1 day	> 750 psi (5.17 MPa)
7 days	> 1,300 psi (8.97 MPa)
28 days	> 1,750 psi (12.1 MPa)
Modulus of elasticity – ASTM C469	
28 days	> 2.49 x 10 ⁶ psi (17.2 GPa)
Slant/shear bond strength – ASTM C882 (modified)	
1 day	> 1,400 psi (9.66 MPa)
7 days	> 2,200 psi (15.2 MPa)
28 days	> 3,100 psi (21.4 MPa)
Splitting tensile strength (ASTM 496)	
28 days	> 620 psi (4.28 MPa)
Pull-out strength (rupture of concrete substrate) – ASTM C1583 (CAN/CSA-A23.2-6B)	
28 days	> 290 psi (2 MPa)
Volume change – ASTM C157 (modified), typical value	
28 days, dry-cured	-0.05%
28 days, wet-cured	+0.06%
Freeze/thaw resistance – ASTM C666-A (CAN/CSA A23.2-9B), 300 cycles	
	100% durability factor
Resistance to de-icing salts – ASTM C672 (CAN/CSA A23.2-16C), 50 cycles	
	0 rating, no scaling
Permeability to chlorides – ASTM C1202 (AASHTO T277)	
	100 to 1,000 coulombs (very low permeability)

Shelf Life and Product Characteristics

before mixing

Shelf life	1 year in original, unopened packaging, stored in a dry, heated and covered place. Protect Part B from freezing. If liquid is frozen, discard properly.
Physical state	Powder and latex additive
Maximum aggregate size in product	3/32" (2.5 mm)

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

Mixing ratio	From 0.84 to 1.05 U.S. gals. (3.18 to 3.97 L) of Part B per 57.1-lb. (25.9-kg) Part A unit.
Color	Gray
Consistency of mix	Flowable mortar
Application temperature range	45°F to 95°F (7°C to 35°C)
Pot life	20 minutes
Initial set	60 minutes
Final set	70 minutes
Thickness per lift	Neat = 1/4" to 1" (6 mm to 2.5 cm); Extended = 1" to 2" (2.5 to 5 cm)

CSI Division Classifications

Cast in Place Concrete	033000
Cementitious Decks and Underlayment	035000
Concrete Restoration and Cleaning	039000

Packaging

Size
Bag: Part A powder, 57.1 lbs. (25.9 kg)
Jug: Part B latex additive, 1.05 U.S. gals. (3.97 L) and 9.17 lbs. (4.16 kg)

Approximate Coverage*

per 66.3-lb. (30.1-kg) combined unit

Yield	0.47 cu. ft. (0.013 m ³)
Coverage at 1/2" (12 mm) thickness	12 sq. ft. (1.11 m ²)
Coverage at 1" (2.5 cm) thickness	6 sq. ft. (0.56 m ²)

*Coverage shown is for estimating purposes only. Actual jobsite coverage may vary according to substrate conditions and setting practices.

ADDITIONAL INFORMATION

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.**

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For the most current product data and BEST-BACKEDSM warranty information,
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