



Planitop[®] 15

Form-and-Pour, One-Component Repair Mortar



DESCRIPTION

Planitop 15 is a one-component, shrinkage-compensated, cementitious, fiber-reinforced, fluid mortar. *Planitop 15* contains a corrosion inhibitor and silica fume, and is well-suited for form-and-pour and form-and-pump applications where high early strength and flowability are required.

FEATURES AND BENEFITS

- Fiber-reinforced
- Can be installed using form-and-pour or form-and-pump methods
- Can be extended up to 50% by weight for full-depth repairs when properly installed reinforcing steel is incorporated
- Contains silica fume and a corrosion inhibitor
- Compatible with *Mapeshield™* I galvanic anodes

INDUSTRY STANDARDS AND APPROVALS

LEED v4 Points Contribution

LEED Points

Health Product Declaration (HPD)*Up to 2 points

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

Additional Green Certifications

- Living Building Challenge (LBC) Red List Free: This product has been verified per the most current Red List on the LBC Website.

WHERE TO USE

- For interior and exterior applications
- For horizontal, vertical and overhead repairs when formed
- Areas of congested reinforcement
- For repairs greater than 3/8" (10 mm) in thickness

LIMITATIONS

- Do not overmix *Planitop 15*.
- Only use at between 45°F to 95°F (7°C to 35°C). Refer to the American Concrete Institute (ACI) for cold-weather or hot-weather application guidelines.
- *Planitop 15* may crack in hot or windy applications if not properly cured.
- Do not apply over standing water.

SURFACE PREPARATION

- Concrete surface must be clean and free of loose particles, efflorescence, paints, tars, grease, asphaltic materials, bond breakers, curing compounds, wax, and any foreign substances or any conditions that may affect product performance or proper bonding.
- Saw-cut the perimeter of the repair area into a square with a minimum depth of 3/8" (10 mm).
- Mechanically profile and prepare concrete surfaces by engineer-approved methods in accordance with the most current ICRI 310.2R guidelines.
- Ensure that the concrete substrate is saturated surface-dry (SSD) before installing *Planitop 15*. Alternatively, the prepared concrete can be coated with *Planibond 3C*.



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- Ensure that all exposed reinforcing steel is prepared in accordance with the most current ICRI 310.1 guideline and coated with either *Planibond 3C* or *Mapofer™ 1K*.
- Pretreat formwork with a form-release agent.

MIXING

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

1. *Planitop 15* requires 1 U.S. gal. (3,79 L) of water per 55-lb. (24,9-kg) bag.
2. Into a clean mixing container, pour 3/4 of the water.
3. Slowly add *Planitop 15* powder to the water while mixing, using a low-speed drill and an appropriate mixer. Mix for 1 to 2 minutes. While mixing, add the remaining water and continue mixing to a smooth, homogenous consistency.
4. For applications between 4" (10 cm) and full depth, extend up to 50% by weight (27.5 lbs. per 55-lb. bag [12,5 kg per 24,9-kg bag] of *Planitop 15*) with clean 3/8" (10 mm) pea gravel.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Apply by form-and-pour or form-and-pump method into formwork on horizontal, vertical and overhead surfaces. Refer to ACI RAP 4 and RAP 5 for details about these placement techniques.
2. If the top of formwork is exposed, finish to the desired texture.
3. For hot and windy areas, the use of *Mapecrete™ Film* is recommended.

CURING

- Protect *Planitop 15* from high winds and direct sunlight while it cures.
- Moist-cure any exposed *Planitop 15* with wet burlap or a polyethylene sheet, a fine mist of water or an appropriate ASTM C309-referenced curing compound.
- For improved curing, leave formwork in place for three days after application of *Planitop 15*.

CLEANUP

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

Product Performance Properties

| Laboratory Tests | Results |
|---|---|
| Compressive strength – ASTM C109 (CAN/CSA-A5) | |
| 1 day | > 4,350 psi (30 MPa) |
| 7 days | > 8,600 psi (59,3 MPa) |
| 28 days | > 10,875 psi (75 MPa) |
| Flexural strength – ASTM C348 (CAN/CSA-A23.2-8C) | |
| 1 day | > 725 psi (5 MPa) |
| 7 days | > 1,160 psi (8 MPa) |
| 28 days | > 1,450 psi (10 MPa) |
| Modulus of elasticity – ASTM C469 | |
| 28 days | 4.5 x 10 ⁶ psi (31,1 GPa) |
| Slant/shear bond strength – ASTM C882 (modified) | |
| 1 day | > 1,850 psi (12,8 MPa) |
| 28 days | > 3,040 psi (21,0 MPa) |
| Volume change – ASTM C157 (modified) | |
| 28 days, dry-cured | -0.08% |
| 28 days, wet-cured | +0.11% |
| 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) | |
| | 0 rating, no scaling (50 cycles) |
| Permeability to chlorides – ASTM C1202 (AASHTO T277) | |
| | Very low – 100 to 1,000 coulombs at 28 days |
| VOCs (Rule #1168 of California's SCAQMD) | |
| | 0 g per L |

Shelf Life

| | |
|------------|---|
| Shelf life | 1 year when stored in original, unopened packaging at 73°F (23°C) |
|------------|---|

Application Properties

mixed neat at a 15% water ratio (about 1 U.S. gal. [3,79 L])

| | |
|--------------------------------|-----------------------------|
| Consistency of mix | Very flowable mortar |
| Pot life | 60 minutes |
| Initial set | > 3 hours |
| Final set | < 10 hours |
| Thickness per lift, mixed neat | 3/8" to 4" (10 mm to 10 cm) |

Packaging

| Size |
|------------------------|
| Bag: 55 lbs. (24,9 kg) |

Approximate Coverage* per 55 lbs. (24,9 kg)

| Mixture type | Yield |
|--|--------------------------------------|
| Neat | 0.46 cu. ft. (0,013 m ³) |
| Extended with 27.5 lbs. (12,5 kg) of 3/8" (10 mm) pea gravel | 0.6 cu. ft. (0,017 m ³) |

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

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

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 or 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

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