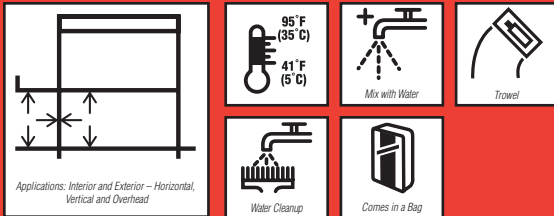




Planiseal Plug™

Ultra quick-setting water stop and anchoring mortar



GREEN INNOVATION

DESCRIPTION

Planiseal Plug is a quick-setting mortar specially designed for stopping leaks, repairing concrete and anchoring. *Planiseal Plug* is used for repairing horizontal and vertical surfaces in interior or exterior concrete applications.

USES

- Repairing substrates, floors, walls, sidewalks, pipes, and precast and concrete components.
- Anchoring door and window frames and any other component that is required to be mechanically fastened to concrete substrates.
- Quick-patching any type of conduits in concrete substrates (sewers, wastewater treatment plants, etc.)
- Patching and sealing small water leaks in concrete structures very quickly.

RECOMMENDED SUBSTRATES

- Properly prepared masonry and concrete at least 28 days old, stable and free of hydrostatic pressure.

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

TECHNICAL NOTES

- *Planiseal Plug* achieves high compression and flexural strengths in just 3 hours.
- *Planiseal Plug* is chloride-free and is intended for vertical and horizontal surfaces.
- When hardened, *Planiseal Plug* is highly resistant to water and freeze/thaw cycles.
- *Planiseal Plug* requires only the addition of water and will harden in 1 to 2 minutes at 73°F (23°C). Do not add additives, cement or aggregates to *Planiseal Plug*.
- *Planiseal Plug* can be applied using a spatula or trowel.
- *Planiseal Plug* adheres tenaciously to old concrete surfaces. Before application of *Planiseal Plug*, roughen concrete surfaces to ensure a secure bond. Do not use *Planiseal Plug* for structural concrete repairs.
- *Planiseal Plug* can only be used between 41°F to 95°F (5°C to 35°C).

INSTRUCTIONS

1. Surface Preparation

- 1.1 All substrates must be structurally sound, stable and solid.
- 1.2 Thoroughly clean surface of any substance that could interfere with the bond of the installation material, including dirt, paint, tar, asphalt, wax, oil, grease, latex compounds, form release agents, laitance, loose toppings, foreign substances and any other residues.
- 1.3 Concrete surfaces must be mechanically profiled and prepared by shotblasting, sandblasting, water-jetting, scarifying or other engineer-approved methods. Reference ICRI CSP 5 standards for acceptable profile height.
- 1.4 Concrete substrate and ambient room temperatures must be a minimum of 41°F (5°C) and must not exceed 95°F (35°C) prior to application.
- 1.5 Dampen surfaces a few minutes before application of *Planiseal Plug*. For anchoring purposes, make sure surfaces are free of standing water.

2. Mixing

- 2.1 In a clean mixing container, pour in 3 parts *Planiseal Plug* powder to 1 part cool, clean potable water.
- 2.2 Slowly add *Planiseal Plug* to water while stirring rapidly with a margin trowel. Mix until a smooth, homogenous consistency is achieved.
- 2.3 When using a drill and mixing paddle, do not overmix. Overmixing or moving the mixer up and down during the mixing process could cause air entrapment, which could shorten pot life.
- 2.4 Do not mix more material than can be applied within 1 to 2 minutes.
- 2.5 Use immediately. Do not let mixture slake (sit in container).

3. Application

- 3.1 *Planiseal Plug* can be applied with a straight steel trowel or a margin trowel.
- 3.2 Insert an anchor into the fresh *Planiseal Plug* and complete the sealing. Smooth the surface and immobilize the anchor for several hours.
- 3.3 Cut the areas to be sealed in the shape of a cone. Open the crack or hole to a depth and width of at least 3/4" (19 mm). Remove debris and clean with water.

3.4 For sealing water leaks:

- 3.4.1 Prepare mortar and wait one minute before application or until the paste gets warm and begins to stiffen.
- 3.4.2 At the appropriate time, seal the leak by applying the *Planiseal Plug* mortar directly into the opening, holding it in place until its initial set (approximately 3 to 5 minutes).
- 3.4.3 Make sure the *Planiseal Plug* is flush with the surrounding surface area without damaging the mortar.

4. Curing

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

TECHNICAL DATA (based on 73°F [23°C] and 50% relative humidity)

| | |
|--------------------------|---|
| Physical state | Powder |
| Color | Gray |
| Shelf life..... | 1 year in original bag when stored in a dry, heated and covered place |
| Apparent density | 1,16 |
| Dry solids content | 100% |
| Flammability | Flame spread: 0 Fuel contribution: 0 Smoke development: 0 |
| Health and safety..... | Consult the Material Safety Data Sheet (MSDS) for safe-handling instructions. |

Planiseal™ Plug (mixed)

| | |
|-------------------------------------|---|
| Color | Gray |
| Mixing ratio by weight | 7 U.S. oz. (198 g) water / 2.2 lbs. (1 kg) |
| Mixing ratio by volume | 1 part water to 3 parts <i>Planiseal Plug</i> |
| Consistency of mix | Thixotropic gel mortar |
| Density..... | 130 lbs. per cu. ft. (2,09 kg per L) |
| pH..... | 11 |
| Application temperature range | 41°F to 95°F (5°C to 35°C) |
| Pot life | 1 to 2 minutes |
| Initial set | 2 minutes |
| Final set | 3 to 4 minutes |
| Recoating time | 5 minutes |

Compressive strength – ASTM C109 (CAN/CSA-A5)

| | |
|----------------|------------------------|
| 3 hours | > 1,260 psi (8,69 MPa) |
| 24 hours | > 1,760 psi (12,1 MPa) |
| 3 days | > 2,970 psi (20,5 MPa) |
| 7 days | > 3,910 psi (27,0 MPa) |
| 28 days | > 4,360 psi (30,1 MPa) |

Flexural strength – ASTM C348 (CAN/CSA-A23.2-8C)

| | |
|----------------|----------------------|
| 3 hours | > 390 psi (2,69 MPa) |
| 24 hours | > 410 psi (2,83 MPa) |
| 3 days | > 440 psi (3,03 MPa) |
| 7 days | > 600 psi (4,14 MPa) |
| 28 days | > 940 psi (6,48 MPa) |

PACKAGING

Pails: 11 lb. (4,99 kg); 55 lb. (24,9 kg)

**PlanisealTM
Plug**

NOTICE

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. **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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Additional Information

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For the most current
product data, visit
www.mapei.com.



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