

Planiseal Plug

Ultra Quick-Setting Water Stop and Anchoring Mortar



DESCRIPTION

Planiseal® Plug is a quick-setting hydraulic cement specially designed for stopping leaks, for repairing voids and pockets in concrete, and for anchoring. It is ideal for plugging active water leaks on horizontal and vertical concrete surfaces.

FEATURES AND BENEFITS

- Quick-setting
- Suitable for vertical and horizontal surfaces

WHERE TO USE

- For repairing concrete precast pipes, cracks and joints in concrete and block foundations, tanks, pools, fish ponds, irrigation canals, etc.
- For eliminating active leaks under pressure quickly and effectively
- Easily forced into voids with a gloved hand to plug leaks
- Easily molded into a waterproof cove at floor and wall cold joints, using a spatula or margin trowel

SURFACE PREPARATION

- Thoroughly clean sound, stable surfaces of substances that could affect the bond of *Planiseal Plug*, including dirt, paint, tar, asphalt, wax, oil, grease, latex compounds, form release agents, laitance and friable delaminated concrete.
- Profile cracks to have square edges or a dove tail where possible.
- Open the crack or hole to a depth and width of at least 3/4" (19 mm).
- If a leak is not active, the surface should be saturated surface-dry (SSD) before application of *Planiseal Plug*.

MIXING

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

1. Into a clean mixing container, pour 3 parts of Planiseal Plug powder per 1 part of clean, potable water.
2. Slowly add *Planiseal Plug* to water while stirring rapidly with a margin trowel. Mix until a smooth, homogenous, putty-like consistency is achieved.
3. Mix only the amount of material that can be applied within 1 to 2 minutes.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

For stopping active leaks:

1. Immediately form the mixed material into a ball and force into the void or prepared crack.
2. Maintain pressure and hold the material in the void without moving it until the mortar has taken initial set and hardened sufficiently to resist hydrostatic pressure.
3. Shave off any excess *Planiseal Plug* from the surface with a margin trowel. Ensure that the surface is flush with the surrounding surface area without gouging the mortar.

CURING

- *Planiseal Plug* is self-curing.

CLEANUP

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

LIMITATIONS

- *Planiseal Plug* requires only the addition of water. Do not add additives, cement or aggregates.
- Make sure that concrete substrate and ambient room temperatures are between 41°F and 95°F (5°C and 35°C) before application.
- In cold conditions, *Planiseal Plug* should be stored at room temperature and mixed with warm water (at 73°F [23°C]).

- In hot climates, *Planiseal Plug* should be stored in the shade and mixed with cooler water.
- *Planiseal Plug* must be applied to a saturated surface-dry (SSD) substrate. Application to a dry substrate may lead to cracking.
- Due to the rapid-setting nature of *Planiseal Plug*, it is not intended to use for large repairs. Only mix and use what can be properly installed within the setting time.

Product Performance Properties

Laboratory Tests	Results
Compressive strength – ASTM C109 (CAN/CSA-A5)	
3 hours	> 1,260 psi (8.69 MPa)
1 day	> 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)
1 day	> 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)
VOCs (Rule #1168 of California's SCAQMD)	0 g per L

Shelf Life and Product Characteristics

before mixing

Shelf life	1 year when stored in original, unopened packaging at 73°F (23°C) in a dry place
Physical state	Powder
Color	Gray
Dry solids content	100%

Application Properties

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
Unit weight	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

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.

CSI Division Classification

Maintenance of Concrete	03 01 00
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Packaging

Size
Pail: 11 lbs. (4.99 kg)
Pail: 55 lbs. (24.9 kg)

Approximate Coverage*

Yield
15.5 cu. in. per lb. (254 cm ³ per 0.45 kg) of mixed material

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

ADDITIONAL INFORMATION

Refer to the Safety Data Sheet (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-durabilite@mapei.com.



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