

# Planiseal 88

Cement-Based, Waterproofing and Surface-Preparation Coating



## DESCRIPTION

*Planiseal*<sup>®</sup> 88 is a one-component, polymer-modified, cementitious coating for waterproofing, including masonry surfaces, at a maximum depth of 10 feet (3,05 m). *Planiseal* 88 is also used as a surface-preparation product for MAPEI waterproofing products.

## FEATURES AND BENEFITS

- Ideal for vertical and overhead surfaces exposed to negative as well as positive hydrostatic pressures
- Great adhesion to properly prepared concrete and masonry substrates
- Freeze/thaw-resistant
- Applicable by trowel or brush
- Breathable and compatible with high-performance coatings

## WHERE TO USE

- For interior or exterior concrete applications exposed to positive or negative hydrostatic pressure
- For waterproofing vertical and overhead surfaces

## SURFACE PREPARATION

- Concrete surfaces must be clean and free of loose particles, efflorescence, paints, tars, grease, asphaltic materials, bond breakers, curing compounds, wax and any foreign substances.
- Mechanically profile and prepare concrete surfaces by engineer-approved methods in accordance with the most current ICRI 310.2R guidelines to obtain a concrete surface profile (CSP) of #2 to #4.
- Ensure that the concrete substrate is saturated surface-dry (SSD) before installing *Planiseal* 88.

## MIXING

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

1. Into a clean mixing container, pour  $\frac{3}{4}$  of the required mixing liquid. See below for the mixing ratio, depending on the desired application.
  - a. Trowel-grade: 6 to 6.5 U.S. qts. (5,68 to 6,15 L) of water per 55-lb. (24,9-kg) bag
  - b. Brush-grade: 6 to 6.5 U.S. qts. (5,68 to 6,15 L) of water, plus an additional 8 U.S. oz. (0,24 L) of water, per 55-lb. (24,9-kg) bag
2. To improve adhesion and waterproofing characteristics, mix with 1 part of *Planicrete*<sup>®</sup> AC to 1 part of cool, clean water. The combined amount of *Planicrete* AC and water should equal the mixing ratios listed above, depending on whether the desired application is trowel-grade or brush-grade.
3. Slowly add *Planiseal 88* to the mixing liquid while mixing with a Jiffy paddle and drill.
4. Add the remaining  $\frac{1}{4}$  of mixing liquid. Mix up to 4 minutes until a smooth, homogenous consistency is achieved. Let the mixture sit in the container ("slake") for about 10 minutes, remix it and apply it to the surface.

## PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Apply *Planiseal 88* with a hawk and trowel or a stiff nylon bristle brush.
2. The first coat must completely fill and cover all holes, cavities and static cracks. Ensure a uniform, well-bonded coat by working the material aggressively into the surface. Apply in a horizontal direction across the surface.
3. Apply a second coat after the first coat has developed sufficient strength – typically within 5 to 6 hours, but not to exceed 24 hours. Work this coat vertically into the surface, ensuring that the uniform coat fills all voids.
4. A third coat may need to be applied in extreme cases of hydrostatic pressure.

## CLEANUP

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

## CURING

- Protect from hot and windy conditions during curing.

## LIMITATIONS

- Not for use on traffic-bearing surfaces
- Not for use as a standalone, below-grade waterproofing product for commercial applications or for depths greater than 10 feet (3,05 m)
- Only use at temperatures between 45°F and 95°F (7°C and 35°C).

### Product Performance Properties

Laboratory Tests	Results
<b>Compressive strength – ASTM C109 (CAN/CSA-A5)</b>	
7 days	> 3,500 psi (24,1 MPa)
28 days	> 3,600 psi (24,8 MPa)
<b>Flexural strength – ASTM C348 (CAN/CSA-A23.2-8C)</b>	
7 days	> 1,000 psi (6,90 MPa)
28 days	> 1,100 psi (7,59 MPa)
<b>Pull-off strength (rupture of concrete) – ASTM C1583 (CAN/CSA-A23.2-6B)</b>	
28 days	> 145 psi (1 MPa)
<b>Permeance (ASTM E-96)</b>	21.6 perms (mixed with water); 17.3 perms (mixed with a 1-to-1 dilution of <i>Planicrete AC</i> and water)
<b>Resistance to freeze/thaw cycles</b>	Good
<b>Resistance to de-icing salts – ASTM C672, 40 cycles (CAN/CSA-A23.2-16C)</b>	Good – 1 rating (very slight scaling)
<b>Permeability to chlorides – ASTM C1202 (AASHTO T277)</b>	Very low – in the range of 100 to 1,000 coulombs
<b>Density</b>	107 lbs. per cu. ft. (1,72 kg per L)
<b>pH</b>	12
<b>VOCs (Rule #1113 of California's SCAQMD)</b>	0 g per L

### Shelf Life and Product Characteristics

before mixing

<b>Shelf life</b>	1 year when stored in original, unopened packaging at 73°F (23°C)
<b>Physical state</b>	Powder
<b>Color</b>	Gray; white

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

<b>Mixing ratio by weight</b>	
Trowel-grade	22% to 24% water/powder
Brush-grade	24% to 25% water/powder
<b>Mixing ratio by volume</b>	
Trowel-grade	6 to 6.5 U.S. qts. (5,68 to 6,15 L) per 55-lb. (24,9-kg) bag
Brush-grade	6 to 6.5 U.S. qts. (5,68 to 6,15 L), plus an additional 8 U.S. oz. (0,24 L) of water per 55-lb. (24,9-kg) bag
Consistency of mix	Plastic mortar to slurry coat
Application temperature range	45°F to 95°F (7°C to 35°C)
Pot life	1 hour
Recoating time	5 hours minimum, 24 hours maximum

## CSI Division Classifications

Cementitious Waterproofing	07 16 00
Maintenance of Concrete	03 01 00

## Packaging

<b>Size</b>	
Bag: 55 lbs. (24,9 kg), gray	
Bag: 55 lbs. (24,9 kg), white	

## Approximate Coverage\*

per 55 lbs. (24,9 kg)

Application Thickness	Coverage
3/64" (1,2 mm)	150 to 175 sq. ft. (13,9 to 16,3 m <sup>2</sup> )
5/64" (2 mm)	89 to 133 sq. ft. (8,27 to 12,4 m <sup>2</sup> )
1/8" (3 mm)	59 to 67 sq. ft. (5,48 to 6,22 m <sup>2</sup> )
3/16" (4,5 mm)	38 to 44 sq. ft. (3,53 to 4,09 m <sup>2</sup> )

\* 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](http://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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### Customer Service

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For the most current product data and BEST-BACKED<sup>SM</sup> warranty information,  
visit [www.mapei.com](http://www.mapei.com).

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