# **Planiseal 288**

Flexible, Cementitious Waterproofing Mortar



# DESCRIPTION

*Planiseal<sup>®</sup> 288* is a slightly flexible, two-component, polymer-modified, cementitious waterproofing and protective mortar for concrete and masonry.

### FEATURES AND BENEFITS

- Protects against water and moisture seepage, but is water-vapor-permeable
- Can be mixed to a trowelable or sprayable consistency
- Protects against carbonation when application thickness is at least 80 mils
- Can bridge fine cracks

### WHERE TO USE

- Interior and exterior applications
- Waterproofing of vertical walls and floors in concrete tanks and reservoirs
- Waterproofing and dampproofing of concrete, masonry block and brickwork
- Horizontal surfaces subject to light foot traffic, such as balconies and terraces

### SUITABLE SUBSTRATES

 Properly prepared, structurally sound and stable, and fully cured concrete and masonry substrates at least 28 days old

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



# SURFACE PREPARATION

- Thoroughly clean the 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.
- Concrete surfaces must be mechanically profiled and prepared by engineer-approved methods, to achieve an open-textured International Concrete Repair Institute (ICRI) concrete surface profile (CSP) of #3.
- Surfaces must be saturated surface-dry (SSD), with no standing water at the time of application.
- Seal cracks and spalled areas with appropriate MAPEI repair products.

### MIXING

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

- 1. Mix complete units of Parts A and B. To achieve a thicker consistency, use 90% of Part B liquid.
- 2. Pour the desired amount of Part B liquid into a clean, suitable container. Slowly add Part A powder while mixing with a low-speed mixer.
- 3. Mix thoroughly for 2 to 3 minutes until a homogeneous mixture is obtained. Ensure that all dry Part A powder on the sides and bottom of the mixing container is blended into the mix.
- 4. Allow the mixture to stand for about 5 minutes. Then remix and apply.

### **PRODUCT APPLICATION**

Read all installation instructions thoroughly before installation.

- 1. *Planiseal 288* can be applied by trowel, stiff bristle brush or spray equipment. Ensure that the material is thoroughly worked into the substrate to fill all pores and voids.
- 2. Application of 2 to 3 coats will be required. Ensure that the previous coat is sufficiently dry before applying the next coat (typically after 5 to 6 hours, depending on the substrate temperature and absorbability). The second coat should be applied perpendicular to the first coat.
- 3. <u>For trowelable application</u>: Use a stiff bristle brush or trowel for the first coat. Allow to harden for 5 to 6 hours and apply the second coat with a flat trowel.
- 4. <u>For spray application</u>: Apply the first coat using the brush or trowel method. Use a hopper gun spray equipment, textured sprayer or rotor/stator pump. Allow 5 to 6 hours between coats. After the final layer, rub the surface with a fine sponge to create a uniform surface texture.
- 5. Ensure that each additional coat is applied within a 24-hour timeframe. If 24 hours is exceeded, employ light-grit mechanical abrasion before the next application.
- 6. <u>For waterproofing balconies</u>: Fill in all spalls with an appropriate MAPEI product and apply a polyurethane sealant to wall-to-slab transitions. After the material has dried, apply a 1/16" (about 62 mils) layer of *Planiseal 288* over the entire balcony. While *Planiseal 288* is still wet, apply *Mapetex*<sup>™</sup> *Sel* or a fiberglass mesh along all static hairline cracks, wall-to-slab transitions and patched areas to reinforce the first layer. Embed the mesh, remove any wrinkles, and cover with an additional coat of *Planiseal 288* at 40 mils in thickness.
- 7. Three coats may be required for certain application.



# CURING

- After applying *Planiseal 288*, wait 5 to 24 hours before applying a subsequent finish.
- Protect the applied material from direct sunlight, wind, rain and frost.

# CLEANUP

• Clean tools and equipment with water before the material hardens.

### LIMITATIONS

- Use only when ambient and surface temperatures are at least 45°F (7°C) and rising.
- Protect the surface if rain is expected within 2 days of application.
- Do not use on structures subject to movement, on unstable surfaces or on surfaces that have standing water.
- Do not dilute *Planiseal 288* with additional Part B material or water.
- Do not install over gypsum or asbestos substrates, painted walls or plywood.
- Do not mix *Planiseal 288* with chemical additives, aggregates or cement.
- Allow 7 days of air curing before subjecting *Planiseal 288* to submersion.
- A water-based acrylic sealer or stain should be used to limit color variations due to exposure to the elements.

### **Product Performance Properties**

Laboratory Tests	Results
Compressive strength – ASTM D695	
At 28 days	> 3,400 psi (23,4 MPa)
Tensile strength – ASTM C307	
At 28 days	> 725 psi (5 MPa)
Adhesion tensile strength – ASTM C1583	
At 28 days	> 145 psi (1 MPa)
Resistance to hydrostatic pressure	Up to 1 bar (33.9 ft. or 10,3 m) of water head pressure, positive side
Watertightness under hydrostatic pressure (DIN 1048 mod)	Meets requirements
Vapor permeability – ASTM E96	4.8 perms
VOCs (Rule #1113 of California's SCAQMD)	0 g per L



### Shelf Life and Product Characteristics

before mixing

Shelf life	l year when stored in original, unopened packaging at 73°F (23°C)
Physical state	Part A: Powder Part B: Liquid
Color	Concrete 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**

Mixing ratio	1 Part A to 1 Part B
Application temperature range	45°F to 95°F (7°C to 35°C)
Working time at 73°F (23°C)	1 hour
Open to foot traffic at 73°F (23°C)	After 24 hours

### **CSI Division Classification**

Cementitious Waterproofing	07 16 00

### Packaging

Size			
Kit: 44.3 lbs. (20,1 kg)			
Dart A bag: 35.5 lbs $(161 \text{ kg})$			

Part A, bag: 35.5 lbs. (16,1 kg) Part B, jug: 1 U.S. gal. (3,79 L)



#### Approximate Coverage\*

per 44.3-lb. (20,1-kg) kit

Laboratory Tests	Results
39 mils	115 sq. ft. (10,7 m <sup>2</sup> )
62 mils	72 sq. ft. (6,69 m <sup>2</sup> )
78 mils	57 sq. ft. (5,30 m <sup>2</sup> )
118 mils	37 sq. ft. (3,44 m <sup>2</sup> )

#### Yield

0.38 cu. ft. (0,0108 m<sup>3</sup>)

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

### **RELATED DOCUMENTS**

 ICRI – Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair 310.2r-2013

### 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).



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### **CONTACT INFORMATION**

#### **MAPEI Headquarters of North America**

1144 East Newport Center Drive Deerfield Beach, Florida 33442 1-888-US-MAPEI (1-888-876-2734) / (954) 246-8888

#### **Technical Services**

<u>U.S. and Puerto Rico:</u> Flooring: 1-800-992-6273 Concrete and heavy construction: 1-888-365-0614 <u>Canada:</u> 1-800-361-9309

Customer Service 1-800-42-MAPEI (1-800-426-2734)

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