

# PLANISEAL 388

Two-component, polymer-modified, highly flexible, cementitious waterproofing membrane



## WHERE TO USE

Applied in slurry form to waterproof concrete and cement mortar surfaces. Also used as a smoothing and waterproofing compound for underground walls before laying pre-formed membranes.

### Some application examples

Waterproofing:

- internal wet areas, eg: bathrooms, showers, kitchens, laundry areas;
- balconies and terraces before tiling;
- basins, reservoirs, concrete or masonry tanks;
- swimming pools and water features;

## ADVANTAGES

- Vapour-permeable; can be applied on damp substrates.
- Easy application by brush, roller or trowel.
- Highly flexible with good crack-bridging properties.
- Compatible with ceramic, mosaic and natural stone coverings.
- Reduces carbon dioxide penetration.
- Non-toxic.

## TECHNICAL CHARACTERISTICS

**Planiseal 388** is a two-component mortar, composed of a cement-based compound, selected graded aggregates, special additives and synthetic polymers in water dispersion, blended according to a formula developed in the MAPEI research laboratories. When mixed, **Planiseal 388** becomes a fluid mortar that can be applied by brush, roller, trowel or by spray machine on horizontal and vertical surfaces. **Planiseal 388** cures to form a waterproofing membrane with excellent adhesion to the substrate.

## RECOMMENDATIONS

- Do not use **Planiseal 388** for solving internal condensation problems (use dehumidifying renders, improve ventilation to the area or provide adequate insulation).
- Do not mix **Planiseal 388** with additives, cement or aggregates.
- Do not apply **Planiseal 388** to surfaces with standing water.
- Do not use the product if the packaging is damaged.

## APPLICATION PROCEDURE

### Preparing the substrate

The surface to be waterproofed must be clean and sound. Remove crumbly or loose parts, dust, cement laitance, form release agents, varnishes and paint by mechanical means or by high pressure water jetting. Renders must be perfectly anchored to the substrate. Seal cracks in the substrate with **Eporip** and repair damaged parts or low spots with **Mapegrout Patch 218**. Fill all corners with 25 mm angle fillets prepared with a mortar mix of sand and cement or **Mapegrout Patch 218**. Alternatively, corners may be treated with tape (see section below on treatment of details). Completely pre-wet absorbent substrates before application. Treat plasterboards and cement boards with **Primer G** and allow to dry before applying **Planiseal 388**.

### Treatment of details

In the waterproofing sector, more than in any other sector, it is essential to pay particular attention to details, which alone are capable of making a difference. This is why it is essential to use products from the **Mapeband** and **Drain** lines in combination with **Mapelastic Smart**.

**Mapeband TPE** is used to seal structural joints, gaps and interruptions subject to high dynamic stress, while **Mapeband**, **Mapeband Easy** and **Mapeband SA** are used to waterproof fillet joints between horizontal and vertical surfaces and check joints. Special kits are also available from the **Drain** range to seal drainage points. It is absolutely imperative that special care is in these critical areas after evening out and cleaning the substrate and before applying the cementitious waterproofing mortar.

### Preparing the mortar

Pour Component B (liquid) into a suitable, clean container. Then slowly add Component A (powder) while stirring with a low-speed mechanical mixer. Carefully mix **Planiseal 388** thoroughly for a few minutes, taking care to blend in all the unmixed powder deposited on the sides and bottom of the bucket, until a perfectly homogeneous mix is obtained (free from lumps). Do not prepare the mix by hand.

### Applying the mortar

- For surface enhancement, skim the prepared surface to a feather edge with a thin layer of **Planiseal 388** with a smooth trowel. Apply the first coat with roller after the skim is touch-dry. Apply **Planiseal 388** with a brush, roller or trowel.
- Always apply a minimum of 2 coats. Make sure the previous coat is sufficiently dry before applying the next in a direction perpendicular to the first.
- In general, the waiting time is 5 - 6 hours depending on the temperature and the absorption of the substrate. In order to have good adhesion, it is recommended not to exceed 24 hours between coats.
- For protecting substrates which have hairline cracks or elements which are particularly stressed for example terraces, balconies and swimming pool, we recommend to embed **Mapenet 150** alkali-resistant glass fibre mesh in the first layer of fresh **Planiseal 388**, to act as a reinforcement. After the mesh has been laid, finish the surface with a flat trowel and apply a second layer of **Planiseal 388** when the first one is set.
- **Planiseal 388** cannot be exposed to any type of traffic, wait for curing before over-laying with a protection screed or with floor tiles.

## PRECAUTIONS TO BE OBSERVED DURING AND AFTER APPLICATION

In areas exposed to wind or direct sun, protect from rapid drying by covering with plastic sheets, properly secured.

## CLEANING

**Planiseal 388** can be removed from tools with water before it hardens. Once hardened, cleaning becomes difficult and can be carried out only mechanically.

## TECHNICAL DATA (typical values)

### PRODUCT IDENTITY

|  | Component A | Component B |
|--|-------------|-------------|
| Consistency:                           | powder      | liquid      |
| Colour:                                | grey        | white       |
| Specific gravity (kg/m <sup>3</sup> ): | 1.30        | 1.04        |

### APPLICATION DATA (at 23°C at 50% R.H.)

|   |                                   |
|---|-----------------------------------|
| Colour of mix:                                | grey                              |
| Mixing ratio:                                 | component A : component B = 2 : 1 |
| Consistency:                                  | fluid                             |
| Viscosity of mix (mPa·s):                     | 2.2                               |
| Density of mix (kg/m <sup>3</sup> ):          | approx. 1560                      |
| pH of mix:                                    | approx. 12                        |
| Application temperature (°C):                 | from +5 to +35                    |
| Pot life at 20°C (mins):                      | 60                                |
| Application of following coats at 20°C (hrs): | after 5 but not more than 24      |
| Ready for over-lay (days):                    | 3 days                            |

### FINAL PERFORMANCES

|  |     |
|--|-----|
| Adhesion to concrete 28 days (EN1542) (MPa): | 0.8 |
| Crack-bridging ability (MGE 49) (mm):        | > 1 |
| Tensile strength (ASTM D412:2013) (MPa):     | 1.5 |
| Elongation at break (ASTM D412:2013) (%):    | 102 |

## CONSUMPTION

- For wet areas not subject to hydrostatic pressure, for example bathroom & kitchen: 1.0 kg/m<sup>2</sup> per coat x 2 coats.
- For areas subject to hydrostatic pressure: 1.5kg/m<sup>2</sup> x 2 coats
- For areas requiring insertion of **Mapenet 150**: 1.5 kg/m<sup>2</sup> x 2 coats

## PACKAGING

Units of 30 kg:

- Component A: 20 kg bag;
- Component B: 10 kg drum.

## STORAGE

Store the product components in their original unopened packaging in a cool dry place.

- Component A: 12 months;
- Component B: 12 months.

## SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the SDS available from our website [www.mapei.com.my](http://www.mapei.com.my)

PRODUCT FOR PROFESSIONAL USE

## WARNING

*Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.*

Please refer to the current version of the Technical Data Sheet, available from our website [www.mapei.com.my](http://www.mapei.com.my)


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