

# Planiseal 288



## Flexible, cementitious mortar for waterproofing

### WHERE TO USE

- Repairing and waterproofing underground masonry subject to water and moisture seepage in situations with a counter-pressure up to 1 atmosphere.
- Waterproofing basins, reservoirs, concrete or masonry tanks.
- As smoothing and waterproofing compound for underground walls before laying bituminous membrane.

### Some application examples

Waterproofing:

- interior and exterior cellar walls;
- internal damp areas, examples - kitchens, pantries, drying yards;
- bathrooms, balconies and terraces;
- lift-rooms;
- underground passages;
- foundation walls.

### TECHNICAL CHARACTERISTICS

**Planiseal 288** 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 the two components are mixed together, **Planiseal 288** becomes a fluid mortar that can be applied by trowel or hard-bristled brush/broom with excellent adhesion to the substrate for a complete waterproofing, even in the presence of slight counter-pressure.

### RECOMMENDATIONS

- Do not use **Planiseal 288** for solving internal condensation problems (use dehumidifying renders, improve ventilation to the area or provide adequate insulation).
- Do not use on surfaces of gypsum, plasterboard, painted walls, plywood, chipboard, asbestos cement.
- Do not mix **Planiseal 288** with additives, cement or aggregates.
- Do not use on flexible or unstable surfaces.
- In no case should **Planiseal 288** be applied to a surface which has standing water.
- Do not dilute **Planiseal 288** with more Component B or water than is specified.
- Do not use the product if the packing is damaged.

### APPLICATION PROCEDURE

#### Preparing the substrate

The surface to be waterproofed must be perfectly clean and sound. Remove crumbly or loose parts, dust, cement laitance, form release agents, varnishes and paint by mechanical brushing, sanding or high water pressure.

Renders must be perfectly anchored to the substrate. Seal cracks in the substrate and repair damaged parts with products from the **Mapegrout** range.

All corners must be filled with 25mm angle fillets prepared with a mortar mix of sand, cement and **Planicrete** additive and allowed to cure. Alternatively, corners may be treated with **Mapeband** tape during application of **Planiseal 288**.

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Completely prewet the substrate to saturated surface dry condition (no standing water).

## 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 288** 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. Leave the mortar to stand for approximately 5 minutes, remix and apply.

## Applying the mortar

Apply **Planiseal 288** with a trowel or hard-bristled brush/broom.

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 (generally 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. Pay particular care to corners and coves. When application is by trowel, it is recommended to treat the substrate with **Planiseal 288** using a brush for the first coat. The properties of the hardened layer of **Planiseal 288** are such that it shall not be used where live cracks are anticipated. **Planiseal 288** cannot be exposed to any type of traffic and must be protected by a screed.

## Precautions to be observed during application

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

## Cleaning

**Planiseal 288** can be removed from tools with water before it hardens. Once hardened, cleaning becomes difficult and can be carried out only mechanically.

## CONSUMPTION

Apply a minimum of 2 coats.

- For wet areas not subject to hydrostatic pressure : 1.0 kg/m<sup>2</sup> per coat
- For areas subject to max. 1m water-head : 1.5 kg/m<sup>2</sup> per coat

For water-containing structures subject to more than 1.0 m water-head, we would recommend the use of **Mapelastic**.

## PACKAGING

Units of 25 kg -  
Component A: 20 kg bag  
Component B: 5 kg drum.

## STORAGE

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

Component A: 12 months;

Component B: 24 months.

## SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

**Planiseal 288** Component A contains cement that when in contact with sweat or other body fluids causes irritant alkaline reactions and allergic reactions to those predisposed. It may cause damage to the eyes.

**Planiseal 288** Component B is not considered as dangerous according to the current regulation regarding the classification of mixtures.

It is recommended to use protective gloves and goggles and to take the usual precautions for handling chemicals.

If the product comes in contact with the eyes or skin, wash immediately with plenty of water and seek medical attention.

For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.

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](http://www.mapei.com)

## 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 or replace requirements per the TDS in force at the time of the MAPEI product installation. The most up-to-date TDS can be downloaded from our website [www.mapei.com](http://www.mapei.com). ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.***

**All relevant references for the product are available upon request and from [www.mapei.com](http://www.mapei.com)**

## TECHNICAL DATA (typical values)

### PRODUCT IDENTITY

	Component A	Component B
Consistency:	powder	liquid
Colour:	grey	white
Specific gravity (kg/m <sup>3</sup> ):	1.3	1.0
Dry solid content (%):	100	25

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

Colour of mix:	grey
Mixing ratio:	component A : component B = 4 : 1
Consistency:	fluid
Density of mix (kg/m <sup>3</sup> ):	1800
pH of mix:	approx. 12
Minimum and maximum temperature for application (°C):	from +5 to +35
Pot life at +20°C (hrs):	2
Application of following coats at 20°C (hrs):	after 5 but not more than 24
Ready for use (days):	7

### FINAL PERFORMANCES

Compressive strength 28 days EN 12190 (MPa):	20
Flexural strength 28 days EN 196-1 (MPa):	9
Capillary absorption and permeability to water EN 1062-3 (kg/m <sup>2</sup> .h <sup>0.5</sup> )	W ≤ 0.1

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## SIRIM TEST RESULTS

Pull-off strength, ASTM D4541-2002 (N/mm <sup>2</sup> ):	> 0.69 (mean)
Tensile strength, ASTM D 412:13 (N/mm <sup>2</sup> ):	2.6
Elongation at break, ASTM D 412:13 (%):	12.2
Initial surface absorption, BS 1881 : Part 208 : 1996 (ml/m <sup>2</sup> .s):	Treated with Planiseal 288 : Nil Untreated control : 0.21
Water vapour transmission, ASTM E96/E96M-05 (Water Method)(g/h.m <sup>2</sup> ):	10.45
Suitability of non-metallic product for use in contact with water intended for human consumption with regard to their effect on the quality of the water, BS 6920 : Part 1 : 2014 - Clause 4, odour - Clause 4, flavour - Clause 5, colour - Clause 5, turbidity - Clause 6, growth of aquatic micro-organisms - Clause 8, extraction of metals	complies complies complies complies complies complies

## CERTIFICATION

SPAN (Suruhanjaya Perkhidmatan Air Negara)	Registration No. SPAN/PPI/300-10/530/B/W-2
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