



# Planiseal MR

**Two component water based epoxy primer and moisture barrier suitable for green concrete and damp substrates**



## WHERE TO USE

**Planiseal MR** is an extremely versatile water based epoxy resin compound for use as a primer and protective coating to resist and prevent moisture transmission through mineral substrates. Suitable for applications directly over damp surfaces and freshly installed green concrete, screeds / cementitious toppings. **Planiseal MR** exhibits excellent positive and negative hydrostatic pressure resistance. Once cured, subsequent waterproofing membranes, adhesives and other finish coats can be applied.

**Planiseal MR** can be used on the following:

- Concrete, render, cementitious toppings, masonry surfaces, aerated concrete, fibre-cement sheeting and timber substrates.
- For further information on suitable surfaces and substrates, please contact Mapei Technical Services on Freecall 1800 652666.

## Some application examples

- Moisture regulator / primer over green concrete and damp substrates prior to the application of waterproofing membranes, coatings, levelling compounds and adhesives.
- As a barrier coating on substrates prone to efflorescence prior to finish coatings.
- As a waterproofing barrier on the negative side in below grade surfaces of basements, tunnels, lift wells, retaining walls and car parks etc.

## ADVANTAGES

- Can be applied to damp substrates;
- Excellent adhesion properties even on damp concrete;
- Excellent resistance to negative hydrostatic pressure;
- Solvent free and odourless;
- Suitable for internal and external applications;
- Compatible with Mapei membranes, adhesives, levelling compounds and coatings;
- Easy clean up in water.

## TECHNICAL CHARACTERISTICS

**Planiseal MR** is a versatile solvent-free two component 1:1 mix ratio water-based epoxy resin coating.

**Planiseal MR** has an excellent resistance to hydrostatic pressure in a positive and negative situation.

**Planiseal MR** cures to form an extremely low moisture vapour permeable coating.

**Planiseal MR** can be safely applied to freshly placed hardened "green" concrete.

**Planiseal MR** forms a hard non sticky coating and can be applied in multiple coats to provide further reduction in moisture vapour transmission rates.

**Planiseal MR** can be used to expedite the application of proposed membranes, coatings or finishes on green / damp surfaces.

**Planiseal MR** provides protection against efflorescence.

## RECOMMENDATION

- Do not apply **Planiseal MR** if the temperature is lower than +10°C or above +35°C.
- Only mix the required amount of product that can be used within the 1 – 2 hour pot life.
- If applying over damp surfaces, the areas must be free from surface water.
- Do not apply **Planiseal MR** on bitumen or asphalt membranes.
- Do not use **Planiseal MR** to cover cracks which are subject to movements.
- Do not apply **Planiseal MR** on crumbly cementitious substrates, old floors which are not well bonded to the substrate or surface treatments which impede a good bond.
- **Planiseal MR** is suitable for light foot traffic however it must be protected from abrasion caused by heavier traffic by installing an appropriate trafficable surface protection.

## APPLICATION PROCEDURE

### Preparing the substrate

Substrates must be sound, clean and free of oil, grease, old paintwork or any other material which could compromise bonding. Thoroughly clean any mould or loose material etc. from existing surfaces to be coated (existing flooring, old bitumen membranes, asphalt, metallic surfaces, etc.) by washing and brushing them down, or by spraying water and steam.

Based on surface porosity, the first coat of **Planiseal MR** can be diluted with water. 5% dilution is recommended over porous surfaces and up to 10% for denser surfaces. The dilution with water is only recommended on the first coat. All subsequent coats to be applied in a neat state.

**Planiseal MR** can be applied to damp surfaces however it cannot be applied over standing water.

### APPLICATION OF THE PRODUCT

Lightly stir parts A and B to ensure homogenous consistency before mixing commences.

Measuring by volume, add equal parts of part A and part B into a clean mixing container and using an electric stirrer with appropriate mixing attachment thoroughly mix the 2 components at low speed for approximately 3 minutes. Allow the product to stand for 5 – 10 minutes before use.

**Planiseal MR** must be applied in one or more even coats (approx. 0.3 – 0.4 mm per coat) to the prepared substrate with a long-haired roller or brush. If a second coat is required, wait until the first coat is dry (approx. 2 - 4 hours) before applying the second coat diagonally to the first.

It is important to ensure that any flow of water is treated with **Lamposilex** to plug any water transmission and that no surface water is visible prior to the application of **Planiseal MR**.

Allow a minimum of 24 hours curing before the application of membranes, adhesives, mortars, levelling compounds and coatings.

If applying the **Aquaflex WPU** or other liquid membranes over **Planiseal MR**, then these should be applied within 72 hours of the dried film. If it exceeds 72 hours, clean **Planiseal MR** surface and apply one further coat and then apply product within 72 hours.

When applying levelling compounds, tile adhesives, or screeds over **Planiseal MR** we recommend to sand cast the second coat to assist the keying of toppings directly to the barrier coating. Ensure all loose sand is removed prior to application of subsequent products.

### Cleaning

**Planiseal MR** may be easily removed while still fresh from tools and surfaces with water.

### CONSUMPTION

The consumption of **Planiseal MR** is approximately 300 – 400 ml/m<sup>2</sup> per coat at a wet film thickness (WFT) of 300 – 400 microns/coat.

As a vapour block / primer or efflorescence prevention apply the mixed **Planiseal MR** in a single coat at the rate of 300 – 400 ml / m<sup>2</sup>.

As a moisture barrier apply 2 coats of the mixed **Planiseal MR** at the rate of 300-400ml /m<sup>2</sup> / coat.

### PACKAGING

**Planiseal MR** is available in light grey 20 litre kit (10 litre A + 10 litre B) and 10 litre kit (5 litre A + 5 litre B).

### STORAGE

- Store at room temperature.
- Avoid freezing.
- Store in a dry elevated area.
- Do not store in direct sunlight.
- Shelf life 12 months.

## TECHNICAL DATA (typical values)

### APPLICATION DATA

<b>Form:</b>	liquid
<b>Colour:</b>	light grey semi gloss when dry, matt when aged
<b>Drying time:</b> Based on ambient temperatures of 23°C and 50% Relative Humidity *Drying/curing times may be prolonged in cooler temperatures	recoat: 2-4 hours applying finishes over: 24 hours full cure: 7 days
<b>Application temperature:</b>	+10°C - +35°C
<b>Pot life:</b>	1-2 hours
<b>Volume solids:</b>	48%
<b>Mixing ratio:</b>	1:1 by volume (Part A + Part B)
<b>Wet film thickness:</b>	300 micron (0.3mm) per coat
<b>Water vapour transmission : ASTM E96</b>	1.5g/m <sup>2</sup> /24hrs 1 x coat and 0.9g/m <sup>2</sup> /24hrs - 2 x coats 300 micron (0.3mm) DFT
<b>Adhesion to concrete (N/mm<sup>2</sup>): ASTM 4541</b>	>1.00

### SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

**Planiseal MR** component A is irritant for eyes. **Planiseal MR** component B may cause damage to eyes. Both components A and B may cause sensitisation if they come into contact with those predisposed and are irritant for the skin. The product contains low molecular weight epoxy resins that may cause sensitisation if cross-contamination occurs with other epoxy compounds.

During use, wear protective gloves and goggles and 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. Work in well ventilated areas, in case of poor ventilation, we recommend wearing the mask with filters.

**Planiseal MR** component A is also hazardous for aquatic life. Do not dispose of this product in the environment.

For further and complete information about the safe use of our product please refer to our latest version of the 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.*

# Planiseal MR

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

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