

# THOROSEAL<sup>®</sup> PM

Smooth Finish Waterproof Render for Internal and External Use on Concrete and Masonry  
DWI approved for use in contact with potable water

## Description of Product

THOROSEAL<sup>®</sup> PM when mixed with clean water or a THORO<sup>®</sup> ACRYL 60/water blend to a plaster consistency produces a waterproof render. THOROSEAL<sup>®</sup> PM is suitable for trowel application in layers of 3mm - 6mm in thickness.

## Fields of Application

THOROSEAL<sup>®</sup> PM is used for interior and exterior waterproofing of concrete and masonry, above and below ground level, where a smooth or textured finish is required. Typical applications include:

- Water reservoirs
- Tunnels
- Walls and floors of showers
- External renders for structures in a harsh-weather environment

THOROSEAL<sup>®</sup> PM is not suitable for retaining water with a low calcium hardness of 140 mg/l expressed as calcium carbonate content and/or a pH value lower than 7.2 (THOROSEAL<sup>®</sup> FX100 may be used for this application).

## Features and Benefits

- Totally waterproofs whilst providing a decorative finish
- Cement-based for extreme durability
- Capable of withstanding both positive and negative pressure
- Can be maintained to a high standard by high-pressure water or steam cleaning
- Solvent free

## Typical Properties/ Technical Data <sup>(a)</sup>

Wet Density, kg/m <sup>3</sup>	2170
Pot life, minutes	90
Final setting time, minutes	345
Water vapour permeability, $\mu$	80 – 120
Compressive strength (28 days), N/mm <sup>2</sup>	27
Tensile strength (28 days), N/mm <sup>2</sup>	3.5
Flexural strength (28 days), N/mm <sup>2</sup>	6.5
Adhesive strength (28 days), N/mm <sup>2</sup>	2.0

<sup>(a)</sup> Typical values at 20°C

## Colours

THOROSEAL<sup>®</sup> PM: is available in Grey



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#### Test and approvals

Approved by the Secretary of State for the Environment under Regulation 25(1)(a) for use with potable water. Specific instruction for use available upon request.

#### Application Procedure

##### Preparation of Substrate

Before applying THOROSEAL® PM it is necessary to apply a key coat of THOROSEAL® PM slurry.

##### Substrate quality

Substrates to be treated must be completely clean, structurally sound and mechanically keyed. All surface coatings, defective renders, foreign matter, formwork treatments and other contaminants that may affect the bond adversely should be removed

##### Substrate Preparation

Substrates should be prepared by abrasive blasting or high-pressure water treatment. *Do not* use scabbling or any other aggressive method.

All mortar joints to be flush-pointed.

Repair with WATERPLUG and/or THORO® STRUCTURITE as required.

#### Mixing

##### Liquid Requirement

1 part THORO ACRYL 60 / 3 parts clean water.

3.6 - 4.0 litres per 25 kg powder.  
Typically 3.8 litres per bag.

In applications where the THOROSEAL PM is expected to be in contact with hydrocarbons (such as diesel oil, petrol, etc.), potable water only should be used as mixing liquid. When mixing with water only, the liquid demand is:

4.15 - 4.95 litres per 25 kg powder.  
Typically 4.5 litres per bag.

##### Mechanical mixing

Gradually blend the powder into the mixing liquid using a suitable mixing paddle in a slow-speed drill (400-600rpm). Mix until a lump-free cohesive mass is obtained. Leave to stand for 10 minutes to allow full saturation to take place. Re-mix, adding a small quantity of liquid if required, to restore the consistency.

##### Hand mixing

Gradually add the liquid consisting to the powder whilst stirring with a trowel or paddle. Mix until a lump-free cohesive mass is obtained. Leave to stand for 20 minutes to allow full saturation to take place. Re-mix, adding a small amount of liquid if required, to restore the consistency.

#### Application

*Do not apply to frozen surfaces or if the ambient temperature is below 5°C or expected to fall below 5°C within 24 hours.*

The key-coat surface must be damp. The application of the THOROSEAL® PM can take place after the key coat has reached its final set, usually overnight. This period may be extended in areas where the humidity is high, or the temperature is low, or the ventilation is poor. To prevent shadowing from substrates of varying absorption rates, it will be necessary to leave the key coat for a minimum of 5 days, but never longer than 7 days.

#### THOROSEAL® PM

Apply a thin scratch coat by trowel, approximately 1 mm in thickness, using firm pressure to force the material into the substrate. Immediately follow on with a trowel coat to give an overall thickness of 3 - 6 mm. *Do not over trowel.* Allow the THOROSEAL PM to stiffen sufficiently before floating to a finish.

The time between application and finishing will vary dependant upon substrate absorption and ambient drying conditions.

Leave the placed material until it is sufficiently stiff to allow finishing with a wood, plastic or sponge float. Dependent upon which type of float is used, a variety of finishes can be obtained. Do not use water. THOROSEAL® PM must be used within 90 minutes of mixing or sooner in hot conditions. Clean all equipment immediately with water.

#### Curing

Fog-spray all applications with clean water after the initial set has taken place for as long as practicable.

In cold, humid or unventilated areas it may be necessary to leave the application for a longer curing period or to introduce forced air movement.

*Never* use dehumidifiers during curing periods or within 28 days of completion.

Protect from rain until the product has set.

#### Coverage

11kg of powder/ m<sup>2</sup> at 6mm thickness.  
14m<sup>2</sup> per bag at 1 mm thickness.

#### Cleaning

Wash all equipment with clean water before hardening occurs.

#### Packaging

THOROSEAL® PM is supplied in 25kg bags. THORO® ACRYL 60 is available in 5 and 20 litre plastic containers.



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### Storage

All materials should be stored under cover, clear of the ground and stacked not more than 6 bags high. Protect the materials from all sources of moisture and frost.

### Shelf Life

Rotate the stock in order not to exceed the shelf life of 6 months for THOROSEAL<sup>®</sup> PM and 12 months for THORO<sup>®</sup> ACRYL 60.

### Additional Information

If THOROSEAL<sup>®</sup> PM is used to waterproof fish tanks or swimming pools, it should be washed down after curing is complete with salt water and rinsed with clean water. Repeat the rinsing until the required pH conditions are obtained. Failure to do this and to monitor the pH of the water until stable can lead to the death of fish.

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### Health and Safety

\*For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapour until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

### Powder Products

Should be handled to minimise dust formation; use light mask if excessive dust unavoidable. Cement powders when wet or moistened can cause burns to skin and eyes, which should be protected during use.

### Resin Products

Can cause irritation, dermatitis or allergic reaction. Use protective equipment particularly for skin and eyes. Use only in well ventilated areas.

### Spillage

Chemical products can cause damage; clean spillage immediately.

### Disclaimer:

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