

# PermaSEAL Damp Proof Paint



## Description

PermaSEAL Damp Proof Paint is a high performance styrene butadiene based, single pack, liquid applied waterproofing and vapour proofing membrane.

The product is supplied ready to use straight from the bucket. The consistency is similar to that of thick emulsion paint, the standard product being supplied as a black or white membrane coating. The membrane is flexible, elastic and is resistant to light abrasion and UV light.

PermaSEAL Damp Proof Paint is water based and safe to apply onto damp substrates by brush, roller or spray. Membranes are typically touch dry in one hour.

## Standards

PermaSEAL Damp Proof Paint has been tested in accordance with appropriate parts of the following standards:

BS 3177, Determination of water vapour permeability for flexible sheet materials.

BS 8204, Code of practice for polymer modified wearing surfaces.

Code of Practice 102:1973, Code of practice for protection of buildings against water from the ground.

## Uses include:

- Basements: as part of a waterproofing system.
- Floors: above and below screeds to provide a damp proof membrane.
- Walls: can be used under a render as a waterproof layer.
- Tiling: under tiled areas as a secondary protection for wet areas such as bathrooms.
- Bunds, silage and sewage tanks: protects concrete from silage attack.
- Gas Barrier: protection against methane and radon penetration.
- Externally: below ground a primary waterproofing membrane behind a cavity drain membrane.
- Timber: joist ends can be waterproofed before installation into damp walls.

## Preparation

The substrate must be load-bearing, sound, free of loose material, dust, oil, grease, rubber marks and other substances with a parting effect. All contact surfaces must be smooth with a trowelled or brushed finish.

## Priming

No priming is necessary. To assist the membrane in fully wetting out the substrate the background may be dampened. There should not be any standing water or water droplets on the surface.

## Coating

Stir well before use. The membrane may be applied by brush, roller or airless spray. If necessary the liquid compound may be diluted with a little water (max 5% by vol.) to reduce the viscosity. Care should be taken to ensure that the correct dry coat application thickness is achieved and that the drying time is not unacceptably extended.

A minimum dry film thickness of 0.6mm is required to provide a water/ vapour barrier. Typical coverage value, depending on substrate, is 1 litre /m<sup>2</sup>. This should be applied in a minimum of two coats, each of 0.5 litres /m<sup>2</sup>, in order to comply with CP102: 1973, Code of Practice for the protection of buildings against water from the ground.

For the dry film thickness to be 0.6mm, the wet film thickness needs to be 1.1mm. This will be achieved at a coverage rate of 1 litre/m<sup>2</sup> applied in two coats each of 0.5 litres /m<sup>2</sup>. For the application of a dry film thickness of greater than 0.3mm in a single coat it is recommended that the membrane is applied by airless spray. Using airless spray, a single application dry coat thickness up to 1mm may be achieved.

When applying two or more coats it is recommended that subsequent coats are applied at right angles to the previous coat. Before applying a second coat it is necessary to allow the first coat to become touch dry, typically one hour. The second coat should be applied within 24 hours of applying the first coat.

If applying a subsequent screed to PermaSEAL Damp Proof Paint, the second coat may be used as a primer for the screed. If subsequent renders are to be applied a third coat of PermaSEAL Damp Proof Paint should be applied to the substrate once tacky the render should be applied.

In some situations e.g. at high stress points such as wall floor junctions it is beneficial to use fabric (scrim) reinforcement. Such fabric as polypropylene or polyester is suggested. **Fabric made from natural fibres should be avoided.** By choosing a suitable fabric it is possible to achieve a good control of thickness i.e. by choosing a fabric approximately 0.5mm thick and ensuring that the mesh is completely covered the minimum coating thickness of 0.6mm will be automatically achieved. The incorporation of fabric usually increases the tensile strength but decreases the extensibility. The fabric is rolled into the first wet coat after it has been allowed to go tacky and then coated with additional coat of PermaSEAL Damp Proof Paint.

## Curing

No special curing is required. Application of the membrane should not be undertaken if rain or water ingress is expected before the coating can fully dry. Do not apply in temperatures below 5°C or falling. After all coats have been applied the membrane should be left for at least 4 days before attempting any ponding tests. Under unfavourable conditions this period may need to be extended.

## Coverage

For the membrane to give maximum water/vapour protection the thickness of the dried material should be 0.6mm. To achieve this, apply two coats each at a coverage rate of 0.5 litres /m<sup>2</sup>. The required quantity of material may vary depending on the substrate texture and absorption.

**Do not use/apply if the temperature of the material, air or substrate is below +5°C or above +25 °C.**

## Technical & Packaging

Packaging:	5 litre buckets
Colour:	Black, White - semi gloss finish
Coverage:	1m <sup>2</sup> per litre dependent on porosity of surface. Applied in two coats of 0.5 litres.
Storage:	A storage temperature within a range of + 7 to + 25°C, protect from frost.
Shelf Life:	12 months in original unopened container, will be reduced once opened. Re-seal after use.
Tools:	Clean with warm soapy water.

## Typical Membrane Properties

### Resistance to Pressurised Water Penetration

0.6mm thick dry film of the membrane will resist a water pressure of 0.2N/mm<sup>2</sup> (equivalent to 20 metres head of water)

### Water Vapour Permeability

0.6mm thick dry film of the membrane conditioned at room temperature for 7 days prior to test gave a water vapour permeability <4g/m<sup>2</sup>/24hours at 25°C/75%RH (BS 3177)

### Carbon Dioxide Permeability

On the basis that the carbon dioxide permeability of a coating is ten times less than its water vapour permeability, 0.6mm thick dry film of the membrane will have a carbon dioxide resistance of 100 metres of still air. (Recommendation for anti CO<sub>2</sub> coatings at least 50m)

### Methane Permeability

0.6mm thick dry film of the membrane conditioned until a steady state is achieved prior to test gave a gas transmission rate of 79mL/m<sup>2</sup>/24hours at 23°C/1bar (BS 903)

### Accelerated Ageing

Ageing in "Xenotest" equipment showed that an exposure equivalent to two years of Arizona sunlight did not embrittle the film.

## Specification Outline

PermaSEAL Damp Proof Paint as manufactured by Permagard Products Ltd should be used to form liquid or vapour membranes required for waterproofing or vapour proofing purposes. The product must be stored, handled and applied strictly in accordance with the manufacturer's instructions.