

PermaSEAL PRO One Coat Epoxy DPM

Fast Curing Damp Proof Membrane



Description

PermaSEAL PRO One Coat Epoxy DPM is a professional fast curing, two-component, solvent free, epoxy resin damp proof membrane. One coat creates a barrier against residual moisture in concrete floors and acts as a damp proof membrane in the absence of a structural DPM, for hygrometer readings up to 98%. With rapid curing and one coat application, the high quality PermaSEAL PRO One Coat Epoxy DPM enables earlier access onto the floor for the application of screeds, coatings and other floor coverings including tiles, vinyl, wood and carpets. It is designed to be overcoated with appropriate chemical resistant epoxy resin finishes when used in chemical environments but has good resistance to mild chemical attack.

PermaSEAL PRO One Coat Epoxy DPM can be used on concrete floors and sand/cement screeds, of not less than 50mm thick in the case of unbonded screeds. The surface should be of sufficient quality and mechanical strength to ensure an even coating.

The product can also be applied to polymer screeds and self-levelling compounds provided these are well bonded. These must be stable to the effects of water. If not, then the concrete floor must contain an integral damp proof membrane to prevent further ingress of water from the ground.

Where the product is laid onto a concrete surface where there is no damp proof membrane or where damage may have rendered the damp proof membrane ineffective, you should give due consideration to the possible presence of hydrostatic pressure and the consequences of creating a barrier layer resulting in the pressure/water flow being directed elsewhere.

Note: For areas with hygrometer readings over 98%, two coats should be applied.

Benefits

- Rapid curing and short overcoat time
- Quick and easy application
- Solvent free
- Low odour
- One coat application onto surfaces with hygrometer readings of up to 98%
- Excellent adhesion to concrete
- Good adhesion to non-porous substrates
- Compatible with underfloor heating
- Can be subjected to mechanical loads
- Can be subjected to chemical loads
- Excellent resistance to water, grease, oil, aqueous salt solution and dilute mineral and organic acids
- Conforms to BS EN 13813:2002

Preparation

New Concrete Floors: New concrete must be clean, sound, dry and fully cured and surface laitance removed preferably by enclosed shot blasting, mechanical grinding or in some cases by acid etching. A minimum strength of 25N/mm² is required.

Existing Concrete Floors: Remove all dirt, oil, grease and other surface contaminants by enclosed shot blasting, scarification or mechanical grinding. Fats, oils or greases must be removed by mechanical means and detergent washing. Local repairs should be carried out using floor repair compounds.

All traces of concrete hardeners or other contaminants must be removed. The surface must be thoroughly vacuumed to remove concrete dust and then protected against further contamination by suitable means. Surfaces must be free from liquid water and the atmosphere must not be condensing.

The system is selected on the basis of hygrometer readings in accordance with BS 8203. The number of coats to be applied is chosen in accordance with the following table.

RH Reading %	Required Coats	Thickness/ Coat
<97	1 coat	350µ / 0.35mm
≥98	2 coats	350µ / 0.35mm

Mixing

Carefully separate the base and hardener containers and remove the lids. Add the contents of the small container to the large container and mix thoroughly with a slow-speed electric mixer (approx. 300 - 400 rpm) for a minimum of 2 minutes until product is homogenous and streak free. Streak formation in the resin indicates insufficient mixing. Once mixed, the product should be poured into a large roller tray or directly onto the substrate to be coated.

Application

Apply the mixed material immediately with a squeegee, roller or brush. All areas should be finished by cross-rolling to ensure even application and to minimise roller marks. Once mixed the product has a working life of up to 20 minutes, if the product is not laid in this period the product will become unusable and will have to be disposed of.

If applying further bonded coatings for example, self-levelling compounds or adhering tiles, a second coat of PermaSEAL PRO One Coat Epoxy DPM should be applied but at a thickness of 175 microns or 0.18mm, rather than 350 microns. After approximately 20-30 minutes this can be blinded with Permagard Fine Quartz Aggregate at a rate of 1.5kg – 2kg/m². Once dry (4-6 hours approximately) brush and or vacuum away any loose aggregate then further coverings can be applied. Where multiple coats are required, the system should be built up allowing not less than 4-6 hours and no more than 24 hours between coats.

Coverage

Apply at a rate of 0.5kg/m² (2.5kg = 5m²) (5kg = 10m²) depending on substrate condition.

Drying Time

Working time (+20 °C): Approx. 20 minutes max. temperature dependent. Waiting times between working operations (+20 °C): min. 4-6 hours and max. 24 hours. If waiting times are longer due to site conditions, the surface of the previous working operation must be sanded back until stress-whitening begins to occur before proceeding to the next step. As a general principle, higher temperatures will reduce and lower temperatures will increase the times stated. Please note all timings are for guidance only.

After Use

Clean tools, equipment and splashed material immediately while fresh with solvent thinner. If stored unopened in its original container in a cool, dry place and protected against frost, the product will keep for at least 24 months. Containers should be disposed of in accordance with local environmental legislation.

Application Notes

Temperature of material, surroundings and substrate: min. +5 °C - max. +25 °C. During the curing process, the applied material should be protected from moisture which could impair the surface and impair the adhesion. Relative humidity should not exceed 80%. The temperature of the substrate must be at least 3°C above the dew point temperature during application and curing.

General Information & Precautions

Safety data sheet available on request. If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Wear eye protection, protective clothing and protective nitrile gloves.

Product Information

Thickness (Dry)	350 Microns 0.35mm (Per Coat)
Solids Content by weight	100%
Pack Size	2.5kg & 5kg
Shelf Life	12 months minimum
Storage	Keep out of direct sunlight. Store above 15°C
Packaging	Metal Tin
Colour	Black

Drying Times & Coverage Rates

Coverage Rate	@0.5kg/m ² 2.5kg tin = 5m ² 5kg tin = 10m ²
Pot Life	Approx. 20 mins @ 20°C
Recoat Time	Min. 4-6hrs - Max. 24hrs
Light Traffic	24-48hrs
Heavy Traffic	72 hours
Full Chemical Cure	Up to 7 days

Note: As a general principle, higher temperatures will reduce and lower temperatures will increase the times stated.

Technical Information

Abrasion Resistance	n/a
Temperature Resistance	Tolerant of sustained temperatures up to 60°C
Chemical Resistance	Resistance to specific materials
Compressive Strength	Approx. 20 N/mm ²
Flexural Tensile Strength	Approx. 20 N/mm ²

Health & Safety

PermaSEAL PRO One Coat Epoxy DPM is formulated from materials designed to achieve the highest level of performance as safely as possible. However, specific components require correct handling and suitable equipment, this information is given in the relevant safety data sheets. In all cases, spillages or skin contamination should be cleaned as soon as practically possible, by dry wiping of the affected area, and thorough washing with soap and water.