

DPM **PRIMER MEMBRANE** Dual purpose damp proof membrane for flooring applications

Classification: SR- $\geq$  B2,0 at 7d

# **TECHNICAL DATASHEET**

- Surface DPM
- Two-part epoxy resin system
- Primer for bonded screed applications
- · Fast cure system
- Dual chamber packaging
- 98%RH floor moisture tolerance
- 45-75 minutes pot life
- 5 hours cure time
- Internal floors



## INFORMATION

UltraFloor DPM IT rapid curing primer membrane is a two component, solvent free epoxy resin system for use as a surface damp proof membrane (DPM) and as a screed bonding aid (primer) for industrial flooring applications. It is supplied in a twin pack dual chamber to enable ease of transport and mixing. The product performs by a reaction between the resin and hardener components to give a durable continuous membrane. When mixed the product is a black colour enabling easy identification of applied areas.

## USES

It is suitable for use as a DPM to suppress residual moisture in concrete and sand/cement screeds where the moisture levels are 98% RH or less, when tested with a properly calibrated surface hygrometer in accordance with BS 8203. As a two-coat application it may be used on subfloors where there is an absence of a constructional base DPM, provided there is no hydrostatic pressure. In some circumstances it may be used over cementitious screeds incorporating warm water underfloor heating systems. It is also ideal for use as a primer/screed bonding agent for installations of polymer modified and proprietary cementitious screeds.

NOTE: UltraFloor DPM IT should not be used in projects where hydrostatic pressure is a concern. In such cases the use of pressure relief drainage and/or external tanking systems must be the primary method of protection against moisture.

#### SUBFLOOR PREPARATION

All substrates must be prepared to leave a sound, clean and surface dry subfloor. Oils, grease and other contaminants that may hinder adhesion must be removed. This includes release agents used in concrete curing processes as well as laitance, contamination and any weak surface materials.

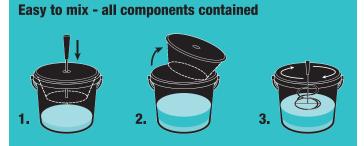
Joints in Subfloors: The nature of joints in the subfloor must be ascertained. If joints are designed to allow movement at perimeters, between bays of subfloor or between differently heated underfloor heating zones they must not be overcoated with UltraFloor DPM IT. If joints are considered stable they may be infilled with UltraFloor DPM IT bulked out with clean sharp sand to a slump resistant viscosity. Similarly hairline

cracks and hollows may be infilled in the same manner.

### MIXING AND APPLICATION

Air temperature should be a minimum of 10°C throughout application and curing. Floor temperature should be a minimum of 3°C above the dew point to ensure there is no moisture present at the subfloor surface which will hinder adhesion. Dew point is linked to atmospheric humidity and temperature. Most modern electronic moisture testing kits provide this function.

The product should be stored at temperatures between 10°C and 25°C overnight, prior to use. This ensures that the product will be at a suitable viscosity for mixing and will have optimum pot life.



**1.** Pierce the centre of the lid on the top chamber and push through to pierce the centre of the base also. Allow the material (hardener) to fully drain from the top container into the base. This will normally take between 3 and 5 minutes.

**2.** Replace lid on the top chamber and remove the top chamber from the twin pack.

**3.** Using a power whisk at slow speed gradually mix the two components (resin + hardener) together. Keep the whisk below the surface to avoid entrapping air. Continue mixing for between 3 and 5 minutes until a totally uniform consistent colour product is attained. DO NOT OVERMIX as this can generate heat. If required use a flat implement to scrape materials



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from the side of the container to ensure they are fully mixed. UltraFloor DPM IT has a pot life of up to 60 minutes but for best flow characteristics it is recommended to apply as soon as mixing has been completed.

Apply UltraFloor DPM IT to the substrate by pouring it onto the floor area to be treated. Always begin at the far point of the floor to ensure you do not need to walk over it after application. For use as a DPM the product should be spread using a suitable notched trowel to determine the correct coverage rate. Over roll the serrations using a short pile roller pre-wetted in UltraFloor DPM IT to ensure a uniform coating is achieved. This should be done immediately following trowelling.

It is recommended that UltraFloor DPM IT is carried up the perimeter walls to the level of the damp proof course (DPC) provided that the substrate is stable to moisture. This can be done by brush or small roller to give an overall coating. Priming or broadcasting with sand will be required before further flooring materials are applied.

When using as an adhesion aid/primer in industrial applications the product may be applied by roller. Allow UltraFloor DPM IT to tack off before installing the screed. This will enable thinner sections of screed than normal as well as giving the added benefits of a bonded screed system.

For any other scenarios please contact UltraFloor for advice.

Coverage will be subject to subfloor absorbency and texture as well as the specification. See coverage guidance opposite.

Product performance is directly linked to coverage rate and film thickness. Throughout the project keep a check that the coverage rates recommended are not being exceeded.

#### SUBSTRATES

UltraFloor DPM IT is suitable for use on most cement based subfloors. UltraFloor recommend consultation with subfloor preparation equipment suppliers to ensure correct equipment for the substrates is selected. Substrates should be of a minimum 25N/mm<sup>2</sup> and free from any laitance, dust or other contaminants.

**Power Floated Concrete:** Mechanically abrade (shotblast or scarify) to remove surface hardeners and expose the cement/aggregate. Make dust free.

**Cementitious Screeds:** Lightly abrade to remove any contamination from other trades and to remove any weak upper surface materials. Make dust free.

**Heated Cementitious Screeds:** For applications onto heated screeds it is essential that the underfloor heating system has been fully commissioned and brought up to full working temperature for a minimum of 7 days, after which it should be brought down to give a stable ambient floor temperature over 48 hours of no greater than 15°C. There must be an intact base DPM below the screed. UltraFloor DPM IT is only suitable for heated screeds with moisture content less than 90%RH.

For other subfloors or for buildings where there is an absence of a base DPM, please consult the UltraFloor technical department.

TECHNICAL DATA		
Specification	BS EN 13813:2002	
DPM Classification	SR- <u>&gt;</u> B2, 0 at 7d	
Working time at 20°C	45-75 minutes pot life	
Walk on hardness time at 20°C	5 hours	
Ready to receive floor coverings	n/a	
Compressive Strength (N/mm <sup>2</sup> ): (to BS EN 13892-2)	n/a	
Flexural Strength (N/mm <sup>2</sup> ): (to BS EN 13892-2)	n/a	
Packaging:	5kg bucket	

#### **CURING AND DRYING**

Cure time will be subject to ambient conditions. UltraFloor DPM IT contains an inbuilt accelerator and under good ambient conditions will cure within 5 hours. Colder temperatures will delay the curing. Keep the floor completely clear of other trades and foot traffic until cured.

The product should cure to give a glossy black film. Inspect to ensure a pinhole free film has been attained.

#### PRIMING

When using as a DPM: For commercial flooring projects where floor coverings are to be installed always allow UltraFloor DPM IT to fully cure. When applying an UltraFloor smoothing underlayment the UltraFloor DPM IT should first be primed with UltraFloor Prime IT Multi-surface Primer. Allow primer to dry. Some flooring adhesives may be applied directly to UltraFloor DPM IT, such as carpet tile tackifiers, contact adhesives and epoxy resin adhesives. Consult the adhesive and floor covering manufacturers prior to application.

For industrial floor projects apply two coats of UltraFloor DPM IT. Allow the first to fully cure. The second coat should be broadcast with dry quartz silica sand, graded between 1 and 2mm. The rate of broadcast will depend on the final floor finish.

For a cementitious levelling system or a screed, the rate should be approximately 2.75m<sup>2</sup>/kg. When resin flooring is to be applied the coverage should be reduced to 0.5kg/m<sup>2</sup> to ensure more exposure of resin to bond to. Once UltraFloor DPM IT is fully cured, excess unbounded sand should be brushed away with a soft bristled brush/broom or carefully vacuumed prior to appication of further materials.

When using UltraFloor DPM IT as a primer/bonding aid: In industrial flooring applications it is recommended that the screed be laid into the primer whilst it is still in the tacky phase. Do not leave the product to fully cure and harden.

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COVERAGE RATES		
Substrate	Up to 98% RH	Up to 90% RH
Power floated concrete	13.75m <sup>2</sup>	15m <sup>2</sup>
Cementitious screed	9m²	12m <sup>2</sup>
Cementitious screed (incorporating commissioned warm water underfloor heating)	n/a	9m²

Rates are per 5kg unit based on a prepared lightly textured surface. Trowel notches recommended are for guidance only. Typically a  $1.5 \times 5$ mm notched trowel is recommended for power floated concrete and sand/cements screed up to 98%RH and for heated cementitious screeds up to 90%RH. Select a suitable trowel to achieve the required coverage and mainatin the notch size.

When using as a single coat surface DPM: 9m<sup>2</sup> - 12m<sup>2</sup>.

Two-coat UltraFloor DPM IT applications where applicable, should each be applied at a coverage rate of between  $13.75 - 15m^2$  per unit, depending on surface regularity.

#### CLEANING

UltraFloor DPM IT will cure on any tools and equipment. Clean tools before the product cures using a suitable cleaning solution. Product is normally left to cure on rollers which can then be disposed of as inert materials.

## STORAGE

UltraFloor DPM IT should be stored between 5°C and 30°C.

#### SHELF LIFE

Under good storage conditions UltraFloor DPM IT has an 18 months shelf life.

## DISPOSAL

Once mixed up the product will cure to give an inert material and does not require special disposal. Uncured material should be disposed of accordingly (see MSDS).

#### HEALTH, SAFETY AND ENVIRONMENTAL

Please ensure that appropriate PPE is used when preparing, mixing and applying products. Always wash your hands before consuming food and make sure that materials are kept safely out of reach of children and animals. Please dispose of packaging and waste responsibly and in accordance with local authority requirements. A full material datasheet relating to this product is available from instarmac.co.uk.

#### QUALITY ASSURANCE

All products are manufactured in a plant whose quality management system is certified/registered as being in conformity with BS EN ISO 9001, ISO 14001, and OHSAS 18001. Our products are guaranteed against defective materials and manufacture and will be replaced or money refunded if the goods do not comply with our promotional literature. We cannot however accept responsibility arising from the application or use of our products because we have no direct or continuous control over where and how projects are used. All products are sold subject to our conditions of sales, copies of which may be obtained upon request.

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