

Solvent-free, liquid applied surface damp-proof membrane

Uses

Nitoflor DPM has been designed for use as a primer/coating on cementitious surfaces which possess high levels of residual moisture. Nitoflor DPM can be used where an integral damp-proof membrane is either not present or not effective (see Limitations).

Advantages

- Permits early overlaying with vinyls, carpets and resin based products without the conventional “drying out” period being observed
- Provides an alternative priming system for damp tolerant applications of Fosroc resin flooring systems

Description

Nitoflor DPM is a two-component, solvent-free liquid applied surface damp proof membrane and residual moisture suppressant. After curing, Nitoflor DPM provides a surface membrane with excellent adhesion to damp concrete. Hygrometer readings up to 98% RH within the substrate can be accommodated. This practice should only be adopted subject to a survey confirming adequate underlying ground stability. Moisture testing should be carried out in accordance with BS 8203.

Nitoflor DPM is available in red and yellow as a visual aid for application and coverage.

Thickness

- Minimum 500 microns (two coats of 250 microns) for damp-proof system
- Typically one coat of 250 microns for priming only where a below slab or integral membrane is present.

Cure Schedule at 20°C

Working life of full pack *	25 minutes
Minimum overcoat time	12 hours
Maximum overcoat time	48 hours
Cure time to light pedestrian traffic	12 hours

* Usable working life of material following mixing and immediate spreading as per the application instructions.

Note: The above times are approximate and given as a guide only. These times can vary due to prevailing site conditions.

Application Conditions

Ideal ambient and substrate temperature range is 12-30°C to achieve best results. Localised heating or cooling equipment may be required outside this range, to achieve the ideal temperature condition.

The substrate and uncured floor must be kept at least 3°C

above the dew point to reduce the risk of condensation or blooming. These conditions must remain for at least 12 hours after application of Nitoflor DPM.

Surface Preparation

Inadequate preparation will lead to loss of adhesion and failure. In coatings or flow-applied systems, there is a tendency for the finish to mirror imperfections in the substrate.

Grinding or light vacuum contained shot-blasting is therefore preferred over planing. Percussive scabbling or acid etching is not recommended.

New concrete floors

The base should be a minimum of Grade RC30 of BS 8500-2: 2002 and should not contain a water repellent admixture. The compressive strength must be above 25 MPa, or the surface tensile strength should exceed 1.5 MPa.

Laitance and any surface sealer or curing membrane must be removed by mechanical means such as shot-blasting or grinding to expose the coarse aggregate. After surface preparation all loose debris and dirt must be removed by vacuum equipment.

Old concrete floors

All laitance and surface contamination, e.g. oil, paint and rubber, must be removed by mechanical means such as shot-blasting or grinding to expose the coarse aggregate. After surface preparation all loose debris and dirt must be removed by vacuum equipment. For heavy oil or grease deposits consult your local Fosroc office for information.

A close visual examination should be made to verify cleanliness and soundness. Any weak or suspect areas should be repaired.

Movement Joints

Movement joints and cracks cannot be bridged using Fosroc Nitoflor DPM and should be filled with a flexible jointing material. Contact your local Fosroc office for advice.

Hydrostatic Pressure

Where hydrostatic pressure is present contact your local Fosroc office for advice.

Application Instructions

Pour and drain the full contents of the hardener container into the base container and mix thoroughly with a slow speed electric stirrer fitted with an appropriate paddle, for a minimum of 3 minutes until homogeneous.

Spread immediately onto the substrate and apply evenly using a notched trowel (1.5 mm x 5 mm V shaped) and flatten out the ridges with a short pile roller whilst still wet. Do not exceed the coverage rate of 4 m²/kg under any circumstances. It is essential that each coat should be no less than 250 microns in thickness, which should be

Fosroc® Nitoflor DPM

checked using a wet film thickness gauge. Records of these measurements should be kept.

When using Nitoflor DPM as a damp tolerant primer, only one coat of 250 microns is required. Apply as above, to the damp-affected areas and extend 100mm beyond.

For a damp proof system apply a second coat at 90° (right angle) in a different colour to the previous cured coat.

For each coat it is essential that Nitoflor DPM is pinhole free and continuous, with absolutely no gaps or cavities. If this is not the case, an additional coat should be applied.

If a mechanical key is required, (normally if applying a screed or where application of a subsequent topping may be delayed) an additional coat of Nitoflor DPM should be applied with anti-slip grains.

Whilst wet, immediately apply Nitoflor FC anti-slip grains by scatter (broadcast) at a consistent coverage of 0.3 to 0.5kg/m².

Supply

Nitoflor DPM	5 kg, 10 kg packs
Colours	Red, Yellow
Solvent 102	5 and 25 litres
Nitoflor FC anti-slip grains	25kg pack

Coverage

Nitoflor DPM	4m ² /kg at 250 microns 2m ² /kg coats at 500 microns
Nitoflor FC anti-slip grains	50m ² per 25kg pack

Note: Coverage rate and related film build, will in practice, depend upon the porosity and profile of the floor surface being treated.

Cleaning

Clean wet Nitoflor DPM from tools with Fosroc Solvent 102 immediately after use. Cured Nitoflor DPM can only be removed mechanically.

Limitations

Fosroc Nitoflor DPM is not suitable for use over under-floor heating systems.

Do not proceed with application if atmospheric relative humidity is, or is anticipated to be, >90% or if the surface temperature is <3°C above the dew point.

Application should not commence when the substrate temperature or the ambient temperature is, or is anticipated to be, <5°C during the application or within the tack-free period.

The design strength of concrete surfaces must be a minimum of 25 MPa compressive strength at 28 days.

Fosroc Nitoflor DPM is not colour fast and may yellow over time.

It is important to assess the performance of Nitoflor DPM prior to applying high build polymer based systems. Contact your local Fosroc office for advice.

Storage

Fosroc Nitoflor DPM has a shelf life of 18 months if stored in unopened packs between 10°C and 30°C. Storage outside this range, or repeated fluctuations in storage temperature can reduce the storage life. Protect from frost.

Health and Safety

For information refer to the appropriate safety data sheets available at www.fosroc.com.

Fire

Fosroc Nitoflor DPM is non-flammable.

Solvent 102 is flammable. Keep away from sources of ignition. No smoking. In the event of fire, extinguish with CO₂ or foam. Do not use a water jet.

Flash point

Fosroc Solvent 102	33°C
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