

## TECHNICAL DATA SHEET FOR

**FLOORSHIELD 811 VAPOUR BARRIER**

**DESCRIPTION** : Floorshield 811 Vapour Barrier is a two component, water based, epoxy polyamide membrane/barrier coating that has been specifically designed for use in negative water pressure applications.

**TYPE** : 2-components water-based epoxy polyamide membrane coating

**USES** : Floorshield 811 Vapour Barrier is suited for the use in as a waterproof & vapour barrier in a wide spectrum of applications such as:

Flooring Application

- As a low water vapour transmission coating & damp proof membrane to prevent rising damp in floors.
- As a system together with Floorshield 851 SL Screed Underlayments to protect vinyl and other resilient flooring finishes.

As a primer/ barrier cum sealing coat

- For waterproofing membranes onto damp substrates and as the waterproofing system under vinyl and other resilient floor finishes.
- Over freshly laid, damp concrete or efflorescence producing concrete prior to over-coating with conventional building paints.

As a waterproofing membrane

- To resist positive and negative hydrostatic pressure. Prevents water seepage or damp penetration through the interior of walls and floors, in below grade surfaces such as basements, tunnels, lift wells, retaining walls and car parks.
- In tanking applications, including potable water containment.

**FEATURES** :

- Withstands 250kPa hydrostatic pressure (25 metre head of water) ; when primed the cured membrane will withstand 400kPa pressure (40 metre head of water).
- Can be readily applied to damp surfaces (in saturated surface dry condition).
- Can be applied to freshly laid hardened (green) concrete.
- No maximum recoat time required (note: surface must be clean & contaminant free).
- Versatile in use - can be over-coated using almost any decorative or industrial finishing paint and excellent adhesion to most substrates including brick, masonry, concrete, stone & timber.
- Environmentally friendly - safe to use in sensitive locations (e.g. around food or habitable areas) and easy clean-up using water. Non-flammable & negligible odour.
- Prevents rising damp and the formation of efflorescence.

**FLOORSHIELD 811 VAPOUR BARRIER****APPLICATION DATA**

- METHOD** : Roller
- THEORETICAL COVERAGE** : Floorshield 811 Vapour Barrier must be applied rate of 0.66 ltr / m<sup>2</sup> in 2 coats to achieve min DFT of 300 microns for it to function as an effective waterproofing membrane.
- SURFACE PREPARATION** :
- All surfaces to be treated must be structurally sound; and existing coatings, adhesives, efflorescence etc should be removed to achieve maximum bond strength and resistance to hydrostatic pressure.
  - Surfaces must be cleaned from dirt, grease, oil and all other surface contaminants. Concrete floors should be lightly sand blasted to remove surface laitance.
  - Holes, non structural cracks or other surfaces deformities: Filled with Floorshield 811 Vapour Barrier epoxy mortar and allowed to cure for 2- 3 hours before coating is applied. Prime with 10% diluted Floorshield 811 Vapour Barrier or use a slurry bonding coat; the slurry coat is prepared by mixing equal volumes of Floorshield 811 Vapour Barrier and cement with a small quantity of sand to form a thick brushable consistency. A high strength concrete repair mortar is prepared by mixing equal volumes of Floorshield 811 Vapour Barrier with cement and then adding 2 to 3 volumes of sand to achieve the desired consistency. Work the prime coat or slurry bonding coat into the substrate and apply the repair mortar whilst the slurry coating remains wet.
- DIRECTION OF USE** : **Priming**  
When Floorshield 811 Vapour Barrier is to be applied to dry concrete, the surface must be dampened with water before application, followed by priming with Floorshield 811 Vapour Barrier diluted with 10% clean water. It is critical to obtain a dry film thickness (D.F.T.) of 300 microns and priming with diluted Floorshield 811 Vapour Barrier can assist to achieve this; Floorshield 811 Vapour Barrier will not perform as defined above unless a minimum D.F.T. of 300 microns is obtained in the final membrane.
- Mixing**  
Stir the Components A & B of Floorshield 811 Vapour Barrier individually to ensure uniformity prior to mixing together. Once premixed, add the full contents of both components (in the ratio of 1:1 by volume) in a large 30 litre bucket and mechanically mix until a homogenous blend is obtained.
- Application**  
Apply Floorshield 811 Vapour Barrier onto the prepared surface at spread rate of 0.3 litre per m<sup>2</sup> per coat.
- At up-stands and direction changes, pretreat the surface by first priming the concrete, followed by applying the first layer of Floorshield 811 Vapour Barrier. Whilst the coating is still wet, immediately embed with fiber mesh into Floorshield 811 Vapour Barrier by pressing strongly & evenly down into the membrane using a steel roller. Allow an approximate time interval of 4 hours before applying the second coat of Floorshield 811 Vapour Barrier.

## FLOORSHIELD 811 VAPOUR BARRIER

For floors- Spread the material using a squeegee to achieve the correct coverage and then finish using a long nap roller.

For walls- Apply the product by brush, roller or spray taking care to achieve the required coverage.

For floor/wall up-stands -i.e. walls, columns, ducts, pipework etc Incorporate fabric fibre reinforcing mesh into Floorshield 811 Vapour Barrier.

### Subsequent finishes

A range of subsequent finishes can be applied over Floorshield 811 Vapour Barrier; follow the following recommended curing times prior to application.

Product	Curing Period	Primer Required
Solvent-Based Epoxy	Apply after 4 days	No
Solvent free Epoxy	Apply after 3 days	No
Polyurethane	Apply after 7 days	No
MMA	Apply after 7 days	No
Cementitious SLC	Apply after 1 day	Yes
Decorative coatings	Apply after 2 days	No, if aqueous

In the presence of water pressure add 1 day to curing times. Epoxy or polyurethane screeds will require a solvent free epoxy primer to be installed prior to installation. Care is necessary to ensure the Floorshield 811 Vapour Barrier waterproofing membrane is not damaged in any way during the application of subsequent finishes.

### LIMITATION

- : The product should be applied whilst the surface temperature is between +10 to 35°C. The product will cease to cure below 10°C, but will recommence curing when the temperature rises above 10°C; curing time will also be adversely affected in situations where relative humidity is > 85%.

In enclosed areas, ventilation must be provided during the curing cycle to enable adequate evaporation of the water.

Care should be taken when sandwiching adhesives between Floorshield 811 Vapour Barrier and floor coverings to ensure the water vapour transmission of the covering is sufficient to allow the solvent to escape.

Floorshield 811 Vapour Barrier is not classified as trafficable membrane.

**FLOORSHIELD 811 VAPOUR BARRIER**

**TECHNICAL DATA**

<b>Mixing Ratio</b>	1:1 Part A: Part B by volume
<b>Standard Colour</b>	Grey (Colour upon request, min. quantities apply)
<b>Finish</b>	Smooth, dense, semi-gloss
<b>Resistance to Hydrostatic (ASTM C1306.95)</b>	Resistant to 250kPa (25m head pressure of water)
<b>Water Vapour Transmission Rate (ASTM E96 Section 12)</b>	10.5 g/m <sup>2</sup> /24 hrs
<b>Permeance Film</b>	Approx. 3.2 x 10 <sup>-8</sup> g/Pasm <sup>2</sup>
<b>Tensile Bond Strength</b>	>3.0 MPa (depending on strength of substrate)
<b>Pot Life</b>	1.5 hrs @ 25°C; 0.5 hrs @ 40°C
<b>Drying Time</b>	5.5 hrs @ 25°C; 3.5 hrs @ 40°C
<b>Specific Gravity</b>	1.30
<b>Wet Film Thickness</b>	300 microns per coat

**GENERAL INFORMATION**

**PACKING** : 20 Litre set

**SHELF LIFE** : 12 months in a cool and ventilated place in the original packing.

**PRECAUTION** : Non flammable and non explosive. Non toxic, irritating or flammable vapour when used according to the instructions. May be irritating and cause sensation by skin contact and be irritating to the eyes on contact. Wear suitable gloves and eye/face protection during mixing and application, avoid contact with skin and eyes. In the event of contact, wash immediately with soap and water.

The information given is intended to give a description of the product performance under specific test conditions. Nevertheless, we cannot assume any responsibility for the use of it since circumstances under which the products are applied in practice are subjected to many variations. We reserve the right to alter the given data without notice.

**Enquiries / Contact Details** : **Customer Service**  
**6265 5355 (Main Line)**  
**6264 1603 (Fax)**  
**[www.nipponpaint.com.sg](http://www.nipponpaint.com.sg)**