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# ARDEX WPM 300

## (HydrEpoxy 300)

Water Based Epoxy Membrane

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Water resistant, prevents rising damp, efflorescence and withstands hydrostatic pressure

Excellent adhesive to most substrates including damp surfaces and freshly laid green concrete

Safe to use in moisture sensitive locations

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# ARDEX WPM 300

(HydrEpoxy 300)

## Water Based Epoxy Membrane

### Description:

ARDEX WPM300(HydrEpoxy 300) is a two component water based epoxy polyamide membrane/barrier coating.

Approved for use with potable (drinking) water, independent testing confirms conformity with the requirements of:-

### Features/ Benefits:

- Non-flammable & negligible odour.
- Can be applied to damp surfaces.
- Can be safely applied to freshly laid hardened (green) concrete.
- Conforms to requirements of the:-  
**Australian Building Code**  
as a waterproofing membrane.
- Conforms to the requirements of AS4020 and BS6920 for use in contact with potable water.  
**Australian standard 4020 -2000 and British Standard 6920**
- When applied directly to the substrate the cured membrane will withstand 250kPa hydrostatic pressure which is equivalent to a 25 metre head of water.
- When used wet on wet over Ardex WPM 200 (HydrEpoxy 200) the cured membrane will withstand 400kPa pressure which is equivalent to 40 metre head of water.
- No maximum recoat time provided surface is clean and free from surface contaminants.
- Can be overcoated using almost any decorative or industrial finishing paint.
- Safe to use in sensitive locations (e.g. around food or habitable areas) and environmentally friendly.
- Prevents rising damp and the formation of efflorescence when used as a single coat barrier coat.
- Has excellent adhesion to most substrates including brick, masonry, concrete block, concrete, stone and timber.
- Easy clean-up using water.

### Typical Applications:

- As a low water vapour transmission coating in the building and construction industries and as a barrier / seal coating over freshly laid or damp concrete.

- As a hydrostatic pressure resistant waterproofing membrane to prevent water seepage or dampness penetration through to the interior of walls and floors.
- As a waterproofing barrier on the negative side in below grade surfaces such as basements, tunnels, liftwells, retaining walls and carparks.
- As a waterproofing membrane or barrier coating over freshly laid hardened (green) concrete, prior to the application of conventional carpet and tile adhesives.
- As a waterproofing membrane in tanking applications, including potable water containment.
- As a barrier seal coating over damp, green or efflorescence producing concrete prior to over coating with conventional building paints.

### Packaging/ Shelf life:

20L Kit (10 L part A + 10 L part B) plastic pail

12 months when stored in the original unopened packaging, in a dry place at 23°C and 50% relative humidity.

### Basic Application Instructions:

#### Surface Preparation:

All surfaces to be treated must be structurally sound; and existing coatings, adhesives, efflorescence should be removed to achieve maximum bond strength and resistance to hydrostatic pressure. Surfaces must be cleaned from dirt, grease, oil, or other surface contaminants.

Holes, non-structural cracks or other surface deformities should be filled with either an Ardex WPM 405 (Sheltercrete Additives) or epoxy mortar and allowed to cure for 2-3 hours before coating is applied.

#### Installation

##### Mixing:

1. Each component should be individually mixed to form a homogenous component.
2. Thoroughly mix the two components in the ratio of 1:1 by volume until a homogeneous blend is obtained.
3. Only mix as much as may be used within the pot life and avoid excessive aeration during mixing.
4. When the product is to be applied to dry concrete it is advisable to wet the surface with a fine mist of water before application.

### Installation:

Floors-Spread the material using a squeegee or stiff nylon broom to achieve coverage and finish using a long nap roller.

Walls-Applied the product by roller or spray taking care to achieve required coverage.

Care must be taken to work the material into the surface to fill voids and avoid pinholes. A minimum of two coats is recommended and care should be taken to ensure uniformity of material and the required coverage is maintained. When finishing it is necessary to lay the material onto the surface and lightly finish to achieve the required dry film thickness per coat.

The coverage rate for all surfaces should be a total of 2.0 square metres per litre (4.0 square metres per litre per coat) to achieve optimum waterproofing properties.

Allow to cure for 24 hours before applying adhesives, mortars, decorative coatings or other surface treatments. Care is necessary to ensure the waterproofing membrane coating is not damaged in any way during subsequent treatments.

It is recommended that the final coating applied to floor surfaces should be allowed to cure for at least 3 days before further treatment to minimize the risks of mechanical damage.

### Thinning:

1. The first coat should be thinned with water, as required depending on the porosity of the surface to be coated (up to 20% for dense surface to 5% for more porous surfaces) to ensure optimum penetration.
2. Thinning of the second coat should be avoided since this reduces the required dry film thickness, or mixed with cement for achieving stronger UV resistance and well appearance.

### Safety Data:

- N/A 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.

### Clean:

Clean up tools with water before the compound dries.

### Product Limitation:

The product should be applied whilst the surface temperature is between 10-35°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 curing cycle to enable adequate evaporation of the water.

Care should be taken when sandwiching adhesives between Ardex WPM300 (HydrEpoxy 300) and floor coverings to ensure the water vapour transmission of the covering is sufficient to allow the solvent to escape.

Ardex WPM300 (HydrEpoxy 300) is not classified as a trafficable membrane.

### Technical Data:

|                                                                                                                                                                                                                                                                                                                                      |                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>Colour:</b>                                                                                                                                                                                                                                                                                                                       | Grey                                                                                                                    |
| <b>Finish:</b>                                                                                                                                                                                                                                                                                                                       | Semi-gloss going to matt with aging                                                                                     |
| <b>Volume solids:</b>                                                                                                                                                                                                                                                                                                                | 54%±1%                                                                                                                  |
| <b>Mixing ratio:</b>                                                                                                                                                                                                                                                                                                                 | 1:1 (Part A:Part B) by volume                                                                                           |
| <b>Coverage:</b>                                                                                                                                                                                                                                                                                                                     | 4.0 square metres per litre per coat, Minimum two coats are recommended to achieve an effective waterproofing membrane. |
| <b>Recoat time:</b>                                                                                                                                                                                                                                                                                                                  | 2 hours (25 °C and 50% RH)                                                                                              |
| <b>Full cure:</b>                                                                                                                                                                                                                                                                                                                    | 7 days (25 °C and 50% RH)                                                                                               |
| <b>Pot life:</b>                                                                                                                                                                                                                                                                                                                     | 2 hours @25 °C ; 1 hour @35 °C                                                                                          |
| The recommended wet film thickness specified produces a nominal dry film thickness of 150 micrometers per coat of 250~300 micrometers for two coats. The apparent dry film thickness will reduce depending on the porosity of the substrate, however the product absorbed by the substrate forms part of the waterproofing function. |                                                                                                                         |

## Technical Data:

| Technical Data:                                                                                                |                              |
|----------------------------------------------------------------------------------------------------------------|------------------------------|
| Testing Methods                                                                                                | WPM 300 ( 14 days dry)       |
| Adhesion strength:<br>ASTM D4541                                                                               | >20.00 kg/cm <sup>2</sup>    |
| Adhesion strength: (dry)<br>CNS 10639                                                                          | >12 kg/cm <sup>2</sup>       |
| Adhesion strength: (wet)<br>CNS 10639                                                                          | >10 kg/cm <sup>2</sup>       |
| Ardex WPM300<br>As waterproofing primer<br>for fixing tile (Use Ardex<br>flexible tile adhesives)<br>CNS 12611 | >15.00 kg/cm <sup>2</sup>    |
| Water absorption:<br>CSN 3763                                                                                  | < 0.5 %                      |
| Water penetration:<br>CSN 3763                                                                                 | 3 kg/cm <sup>2</sup><br>pass |
| Water Vapor<br>Transmission: ASTM E96                                                                          | 7.2 g/m <sup>2</sup> /24 hrs |
| Alkali resistance: CNS<br>8012<br>2% NaOH x 120 hrs                                                            | Non Deteriorated             |
| Acid resistance: CNS 8012<br>10% H <sub>2</sub> SO <sub>4</sub> x 120 hrs                                      | Non Deteriorated             |
| QUV weathering test:<br>ASTM G154<br>After 168 hours                                                           | Non Deteriorated             |
| Flexibility test: ASTM<br>D522                                                                                 | 3 " pass                     |
| Surface Hardness: Shore D<br>ASTM D2240                                                                        | >40                          |