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# ARDEX WPM 300

**(HydrEpoxy 300)**

**Water Based Epoxy Moisture Barrier**

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

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

Safe to use in potable water situations

Approved for use with potable (drinking) water - independent testing confirms conformity with the requirements of AS4020.2005

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# ARDEX WPM 300

## (HydrEpoxy 300) Water Based Epoxy Moisture Barrier

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### PRODUCT DESCRIPTION

ARDEX WPM 300 (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 AS4020.2005 and SS375-2001.

### FEATURES/BENEFITS

- Non-flammable and negligible odour.
- Can be applied to damp surfaces.
- Can be safely applied to freshly laid hardened (green) concrete.
- Conforms to the requirements of Australian Standard AS4020.2005
- When applied directly to the substrate the cured membrane will withstand 250kPa of hydrostatic pressure which is equivalent to a 25 metre head of water.
- Can be overcoated using almost any decorative or industrial finishing paint.
- 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 moisture barrier or barrier coating over freshly laid hardened (green) concrete, prior to the application of conventional levelling compounds, 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 overcoating with conventional building paints.

- As a primer for ARDEX liquid applied waterproof membranes and also tile adhesives in special applications.

### LIMITATIONS

Tiling can commence after 24 hours cure of ARDEX WPM 300 although should not exceed a maximum of five days. Installer is to ensure that there is no surface contamination during this period. Sand blinding of the wet ARDEX WPM 300 surface with ARDEX primer sand eliminates these timing issues and is good practice for external tiling jobs.

The product should be applied whilst the surface temperature is between 10–35°C. The product will cease to cure below 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 WPM 300 (HydrEpoxy 300) and floor coverings to ensure the water vapour transmission of the covering is sufficient to allow the solvent to escape.

ARDEX WPM 300 (HydrEpoxy 300) is not classified as a trafficable membrane.

### BASIC APPLICATION INSTRUCTIONS

#### Surface Preparation

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

Holes, non-structural cracks or other surface deformities should be filled with an ARDEX WPM 405 (Sheltercrete Additive) sand/cement mortar, WPM 300 epoxy mortar or ARDEX concrete repair systems and allowed to cure for 2–3 hours before coating is applied.

#### Installation

Each component should be individually mixed to form a homogenous component.

Thoroughly mix the two components in the ratio of 1:1 by volume until a homogeneous blend is obtained. Only mix as much as may be used within the pot life and avoid excessive aeration during mixing.

When the product is to be applied to dry concrete it is advisable to wet the surface with a fine mist of water

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before application and allow to just surface dry.

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

Walls – Apply 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 pinholing. A minimum of one coat for efflorescence and rising damp, two coats for general waterproofing as a moisture barrier and waterproofing negative side walls is recommended. Care should be taken to ensure uniformity of material and the required coverage and wet film thickness of 0.3mm per coat 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 final coverage rate for all surfaces should be a total of 1.5m<sup>2</sup>/L (which is equal to 3.0m<sup>2</sup>/L wet applied for each coat) to achieve optimum properties and a final dry film thickness of 0.3mm (300 microns). In the event that this coverage rate is not achieved in two coats, further coats should be applied to achieve a total uniform coverage rate of 1.5m<sup>2</sup>/L.

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

### **TILING APPLICATIONS**

Substrates such as screeds and renders should be normally allowed to dry for 7 days prior to the fixing of ceramic tiles. Alternatively ARDEX WPM 300 can be applied in one coat by brush or roller application at a coverage rate of 3m<sup>2</sup>/L. Whilst the coat is wet, clean dry sand of 0.5mm diameter shall be broadcast over the surface at a rate of 700g/m<sup>2</sup> to achieve at least 90% coverage. After overnight cure the excess sand shall be swept and vacuumed from the surface.

### **FLOORING APPLICATIONS**

Where concrete subfloors are damp (as defined in AS1884-2012 as exceeding 75% relative humidity when measured using ASTM F2170 methodology for resilient flooring, or exceeding 5% for other installations such as tiling and liquid applied membrane application) ARDEX WPM 300 can be applied as a

moisture barrier. Two coats are applied at 3.0m<sup>2</sup>/L per coat. The second coat can be sand seeded as is done for tile applications, or left neat and ARDEX P 82 primer applied before the smoothing cement. A single coat of ARDEX WPM 300 applied at 2.5m<sup>2</sup>/L per coat acts as a moisture stop for 'green concrete' not subject to rising damp or permanent moisture.

### **PACKAGING**

4L kit (2L Part A & 2L Part B)

20L kit (10L Part A & 10L Part B)

### **SAFETY PRECAUTIONS**

ARDEX WPM 300 is hazardous and may cause sensitisation by skin contact. Keep containers in a well ventilated place and tightly closed. Take off immediately all contaminated clothing. In case of eye contact, rinse with plenty of water and contact Doctor or Poisons Information Centre. If swallowed immediately contact Doctor or Poisons Information Centre. Avoid release to the environment.

ADDITIONAL INFORMATION IS LISTED IN THE SDS.

### **THINNING AND CLEAN UP**

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. Thinning of the second coat should be avoided since this increases the difficulty in achieving the required dry film thickness. A third coat can be applied as required. Wash all equipment in water or water/detergent immediately on completion.

### **SHELF LIFE**

ARDEX WPM 300 has a shelf life of 24 months when stored in the original, unopened packaging in a dry place at 23°C and 50% relative humidity.

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### TECHNICAL PERFORMANCE DATA

|                           |  |
|---------------------------|--|
| <b>Colour</b>             | Grey, Black  |
| <b>Finish</b>             | Semi-gloss going to matt with aging  |
| <b>Volume solids</b>      | 44%  |
| <b>Mixing ratio</b>       | 1:1 (Part A:/Part B) by volume   |
| <b>Coverage</b>           | Must be applied at a rate of 1.5m <sup>2</sup> /L in total (equivalent to two coats at 3.0m <sup>2</sup> /L per coat) to achieve an effective moisture barrier |
| <b>Wet film thickness</b> | 300 micrometers (0.3mm) per coat   |
| <b>Recoat time</b>        | 4 hours @ 25°C and 50% R.H.  |
| <b>Full cure</b>          | 7 days @ 25°C and 50% R.H.   |
| <b>Pot life</b>           | 2 hours @ 25°C<br>1 hour @ 35°C  |
| <b>VOC content</b>        | 26g/L  |

The recommended wet film thickness specified produces a nominal dry film thickness of 150 micrometers (0.15mm) per coat or 300 micrometers (0.3mm) for two coats on the surface. The apparent dry film thickness will reduce depending on the porosity of the substrate, however the product absorbed by the substrate still forms part of the waterproofing function.

### DISCLAIMER

The technical details, recommendations and other information contained in this data sheet are given in good faith and represent the best of our knowledge and experience at the time of printing. It is your responsibility to ensure that our products are used and handled correctly and in accordance with any applicable Australian Standard, our instructions and recommendations and only for the uses they are intended. We also reserve the right to update information without prior notice to you to reflect our ongoing research and development program. Country specific recommendations, depending on local standards, codes of practice, building regulations or industry guidelines, may effect specific installation recommendations. The supply of our products and services is also subject to certain terms, warranties and exclusions, which may have already been disclosed to you in prior dealings or are otherwise available to you on request. You should make yourself familiar with them.

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