ARDEX WPM 300

Water-Based Epoxy Membrane

Water resistant, prevents rising damp and efflorescence

Withstands negative hydrostatic pressure

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

Safe to use in sensitive locations

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DESCRIPTION

ARDEX WPM 300 (HydrEpoxy 300) is a two-component water-based epoxy polyamide membrane/barrier coating.
Approved for the use with potable (drinking) water and independent testing confirms conformity with the requirements of AS 4020.2000 and BS 6920.

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 requirements of the Building Code of Australia as a waterproofing membrane
- Conforms to the requirement of the Australian standard 4020 - 2000 and British Standard 6920 for use in contact with potable water
- When applied directly to the substrate, the cured membrane will withstand 250kPa of hydrostatic pressure which is equivalent to 40 metres head of water
- Can be overcoated using almost any decorative or industrial finishing paint
- Prevents the formation of efflorescence when used as a single barrier coat
- Has excellent adhesion to most substrates including brick, masonry, concrete block, concrete, stone and timber
- Easy to clean-up, using water only

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 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

LIMITATIONS

Tiling can commence after 24 hours curing time of ARDEX WPM 300, although it should not exceed a maximum of five days. The installer has to ensure that there is no surface contamination during this period.

The product should be applied whilst the surface temperature is between 10 - 35°C. The product will also be adversely affected in situations where relative humidity is > 85%.

In closed 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 and floor coverings to ensure the water vapour transmission of the covering is sufficient to allow the solvent to escape.

ARDEX WPM 300 is not classified as a trafficable membrane.

SURFACE PREPARATION

All surfaces should be structurally sound and existing coatings, adhesives, efflorescence should be removed to achieve maximum bonding 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 ARDEX WPM 405 (Sheltercrete Additive), sand/cement

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mortar, WPM 300 epoxy mortar or ARDEX concrete repair systesms 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 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 prime with diluted ARDEX WPM 256 at a ratio of 1 : 1 : 1 (1L of water : 1L of part A : 1L of part B) before application and allow it to be touch dry before applying ARDEX WPM 300. The touch dry time of diluted ARDEX WPM 256 should not be more than 2 hours.

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 green concrete, two coats for waterproofing negative side walls 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. Minimum 2 coats are required.

The final coverage rate for all surfaces should be a total of 1.5 m^2 per litre (3 sqm per L wet applied per coat) to achieve optimum properties.
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^2 per litre; i.e. 300 micrometer dry film thickness.

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 fiixing of ceramic tiles. Alternatively, ARDEX WPM 300 can be applied in one coat by brush or roller application at a coverage rate of 3m^2/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^2 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, ARDEX WPM 300 can be applied as a moisture barier. Two coats are applied at 3m^2 per litre 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^2 per litre per coat acts as a moisture stop for green concrete not subject to rising damp or permanent moisture.

PACKAGING

4L kit
20L kit

STORAGE & SHELF LIFE

ARDEX WPM 300 has to be stored in dry, cool condition. With unopened packaging, the product has a shelf life of 12 months.

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TECHNICAL PROPERTIES

Colour	Grey
Finish	Semi-gloss going to matt with aging
Mixing ratio	1 : 1 (Part A / Part B) by volume
Coverage	must be applied at a rate of 1.5m^2 per litre (3m^2/L per coat) and minimum two coats are required to achieve an effective waterproofing membrane
Dry film thickness	150 micrometers per coat. 300 micrometers minimum with two coats application
Recoat time	4 hours @ 25°C and 50% RH
Pot Life	2 hours @ 25°C 1 hour @35°C
VOC content	26g / L

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

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 first and second coat is not allowed since this increases the difficulty in achieving the required dry film thickness. Wash all equipment in water or water/detergent immediately on completion.

SAFTEY 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 a doctor. If swallowed, immediately contact doctor or poisons information centre. Avoid release to the environment.
Additional information is in the Material Safety Datasheet (MSDS) available upon request or online at www.ardex.com.sg.

DISCLAIMER

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