



ARDEX WPM 002

Two Component Waterproofing Membrane

Low VOC and solvent free

Compliant to AS4858 & AS4654

Suitable for internal and external applications

Excellent durability and elongation performance

Advanced formulation - will not re-emulsify once cured

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ARDEX WPM 002

Two Component Waterproofing Membrane

DESCRIPTION

ARDEX WPM 002 is a two component, fast drying, modified cementitious waterproofing membrane designed for both internal and external applications. ARDEX WPM 002 has been designed to be applied under tiles, screed, and paver/decking systems.

FEATURES

- Low VOC and solvent free
- Compliant to AS4858 & AS4654
- Suitable for internal and external applications
- Excellent durability and elongation performance
- Advanced formulation - will not re-emulsify once cured

USES

- Podiums
- Terraces
- Balconies
- Swimming pools & spas (tiled)
- Wet areas (bathroom & shower)
- Under paver / decking systems

For other types of environments please contact ARDEX Technical Services (technicalservices@ardexaustralia.com).

SUBSTRATE PREPARATION

By way of mechanical methods and vacuum cleaning as necessary, remove all dirt, dust, curing compounds, oils, grease, surface sealers, existing coatings, and any other contaminants prior to membrane installation. Prepare surface to leave sound, clean, dry, free from sharp edges, loose or other materials which may damage the membrane.

Damaged concrete between 2mm - 30mm can be treated with ARDEX A 46. Spalling concrete must be treated accordingly with the ARDEX Concrete Repair range such as ARDEX BR 345, please review the respective product data sheets on treating spalling concrete.

SUBSTRATE PRIMING

The below ARDEX primers can be applied to the prepared substrate prior to ARDEX WPM 002 application:

- ARDEX WPM 300
- ARDEX WPM 265
- ARDEX WPM 368
- ARDEX Multiprime

When masonry or concrete substrate moisture content is measured at greater than 80% relative humidity (ASTM F2170) or exceeds 15g/m²/24hrs (ASTM F1869), a minimum two coats of ARDEX WPM 300 (HydrEpoxy) must be the

nominated primer. This is typically equivalent to 5% or greater moisture content from a digital non-destructive moisture meter, however Australian Standards must be followed.

DETAILING

Option 1:

Install ARDEX STB/STA Tape to seal around drains, penetrations, floor/wall junctions, wall/wall junctions, joints, and change of substrate type before the application of ARDEX WPM 002. The self-adhesive underside of the ARDEX STB/STA Tape creates superior adhesion to multiple substrates, and the fleeced surface creates optimal adhesion for ARDEX WPM 002.

Within all change of directions/junctions, remove the release paper and centrally install the ARDEX STB/STA Tape onto the prepared substrate. ARDEX recommends using the ARDEX Brass Roller and the ARDEX Small Hand Roller to ensure uniform adhesion to the prepared substrate and all edges are removed. Overlapping of tape end to end must be 50mm (minimum).

Bond breaking methods must be in accordance with Australian Waterproofing Standards.

Option 2:

Apply a bead of ARDEX Neutral Cure Silicone or ARDEX ST Silicone to seal around drains, penetrations, floor/wall junctions, wall/wall junctions, and joints before the application of ARDEX WPM 002.

For wet area applications, a bead size of 12mm (6mm x 6mm) must be used for all change of directions/junctions. For external applications, a bead size of 15mm x 15mm must be used for all change of directions/junctions.

Within all change of directions/junctions, smooth the silicone and apply one coat of ARDEX WPM 002. Whilst wet, centrally place and embed ARDEX Deckweb ensuring to remove all creases and air pockets. Apply a second coat of ARDEX WPM 002 to encapsulate the ARDEX Deckweb and allow to dry. Apply ARDEX WPM 002 to remaining areas accordingly.

Bond breaking methods must be in accordance with Australian Waterproofing Standards.

Option 3:

ARDEX Sealants such as ARDEX CA 20 P PLUS or ARDEX RA 050 can be used to seal around drains, penetrations, floor/wall junctions, wall/wall junctions, and joints before the application of ARDEX WPM 002. Ensure three sided adhesion does not occur.

For external applications, a bead size of 15mm x 15mm must be used for all change of directions/junctions.

Coving/fillet methods must be in accordance with Australian Waterproofing Standards.

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JOINT PREPARATION

All joints must be prepared accordingly with all dirt, dust, curing compounds, oils, grease, surface sealers, existing sealant, and any other contaminants removed prior to ARDEX STB/STA Tape or ARDEX Sealant application.

When ARDEX STB Tape is used, apply suitable ARDEX primer to the prepared substrate (primer not to be applied within prepared joint) and allow primer to fully dry/cure. A suitable backing rod should be inserted into the prepared joint prior to ARDEX STB Tape installation. Remove the release paper and centrally install the ARDEX STB/STA Tape over the prepared joint. ARDEX recommends using the ARDEX Brass Roller and the ARDEX Small Hand Roller to ensure uniform adhesion to the prepared substrate is sound and all edges are removed. Overlapping of tape end to end must be 50mm (minimum).

When ARDEX CA 20 P PLUS or ARDEX RA 050 are used, do not bond sealant directly to the bottom of the prepared joint. Use appropriate backer rod or self-adhesive bond breaker tape prior to sealant application to avoid three sided adhesion and to control sealant depth. Extrude the ARDEX CA 20 P PLUS or ARDEX RA 050 into the prepared joint, ensuring complete adhesion to the joint sides and avoiding air entrapment. Tool the sealant flush with the finished surface.

Allow 1 - 2 hours (minimum) drying time of the ARDEX CA 20 P PLUS or ARDEX RA 050 prior to application of ARDEX WPM 002.

ARDEX CA 20 P PLUS joint capabilities:
Minimum/maximum width: 5mm/25mm.
Minimum/maximum depth: 5mm/15mm.

ARDEX RA 050 joint capabilities:
Minimum/maximum width: 5mm/30mm.
Minimum/maximum depth: 5mm/15mm.

CRACK PREPARATION

During preparation all loose debris, dirt, dust, curing compounds, oils, grease, surface sealers, existing coatings, and any other contaminants must be completely removed. Allow all pre-treated crack(s) to fully cure before general application of ARDEX WPM 002.

Static cracks <2.0mm wide

Apply suitable ARDEX primer within prepared crack and 200mm equidistantly across and along the crack length. Once primer has dried/cured, apply two coats of ARDEX WPM 002.

Static cracks >2.0mm wide

When using ARDEX STB Tape, apply suitable ARDEX primer 200mm equidistantly across and along the crack length. Once primer has dried/cured, centrally place ARDEX STB Tape over prepared crack. ARDEX recommends using the ARDEX Brass Roller and the ARDEX Small Hand Roller to ensure uniform adhesion to the prepared substrate and all edges are removed. Apply two coats of ARDEX WPM 002 to

encapsulate ARDEX STB Tape. Overlapping of tape to tape must be 50mm (minimum).

When using ARDEX CA 20 P PLUS or ARDEX RA 050, grind out crack (6mm wide x 6mm depth minimum). Use appropriate backer rod or self-adhesive bond breaker tape prior to ARDEX Sealant application to avoid three sided adhesion and to control sealant depth. Tool sealant flush with surface before covering with a suitable bond breaker tape, then apply two coats of ARDEX WPM 002. Allow 1 - 2 hours (minimum) drying time of the ARDEX CA 20 P PLUS or ARDEX RA 050 prior to application of ARDEX WPM 002.

Other ARDEX crack rectification methods may include:

- ARDEX RA 56
- ARDEX RA 142
- ARDEX RA 144
- ARDEX Concrete Crack Lock

All suggested methods must be applied in accordance to their product data sheet found at www.ardexaustralia.com.au.

MIXING

Part A (liquid) is mixed with Part B (powder) in a ratio at 1:1 by weight.

Part A (liquid) must be mixed separately to ensure uniform consistency before adding Part B (powder). Gradually add approximately half of Part B (powder) whilst mixing Part A (liquid) and wet out well, then add the remaining Part B (powder) and continue to mix at a higher speed. Mix until a smooth lump free consistency is achieved. Scrape the sides of the pail to avoid dry areas, and avoid aeration during the mixing process.

Allow the mixed material to stand for 3 - 4 minutes, and then lightly re-mix for 1 minute before application. ARDEX WPM 002 must never be mixed by hand. Pot life (mixed) is approximately 1 hour @ 23°C / 50% R.H.

APPLICATION

ARDEX WPM 002 is to be applied by brush or roller, and is designed to be applied as a minimum two coat application.

ARDEX WPM 002 must be applied between 0.6mm - 0.9mm per coat depending on application environment, refer to below table.

ENVIRONMENT	WFT	DFT	Total DFT (2 coats)
Floors	0.9mm	0.6mm	1.2mm
Walls	0.6mm	0.4mm	0.8mm

Recoat time between coats is generally 1 - 2 hours (@ 23°C / 50% R.H.) with the second coat being applied at 90 degrees to the previous coat.

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Both ambient temperature and or substrate temperature will affect the drying/curing process.

COVERAGE

ENVIRONMENT	Total DFT (2 coats)	Per coat	2 coats	Per unit
Floors	1.2mm	32m ²	16m ²	40kg kit
Walls	0.8mm	48m ²	24m ²	40kg kit

Coverage rate may vary depending on application technique.

CURING

ARDEX WPM 002 is totally dry between 16 - 24 hours (@ 23°C / 50% R.H). Immersed areas (i.e. showers, swimming pools etc) should not be used until membrane has reached full cure after 72 hours (@ 23°C / 50% R.H) from final coat application. Both ambient temperature and or substrate temperature will affect the drying/curing process.

The slowest drying areas are those where the membrane has been applied over ARDEX STB Tape, ARDEX Sealant, or ARDEX Silicone. The membrane must not be tiled or screeded until these critical areas are completely dry.

FLOOD TESTING

Flood testing may commence 48 hours after final coat application, based on ambient conditions of 23°C / 50% R.H. Both ambient temperature and or substrate temperature will affect the drying/curing process.

A final membrane inspection should be conducted prior to flood testing to ensure no membrane damage has occurred. An additional coat of ARDEX WPM 002 may be required if damage, imperfections, or pinholes are present. Membrane surface must be clean, sound, dry, and free from any surface contamination prior to any additional coat(s).

TILING OR SCREED APPLICATION

Direct tiling or screeding may commence 24 hours after final coat application, based on ambient conditions of 23°C / 50% R.H. Both ambient temperature and or substrate temperature will affect the drying/curing process.

ARDEX offer an extensive range of suitable tile adhesives, for more information please contact ARDEX Technical Services (technicalservices@ardexaustralia.com).

SWIMMING POOLS & SPAS

ARDEX WPM 002 is suitable as the waterproofing membrane within tiled pools and spas. For more information on the complete membrane application please refer to the ARDEX Technical Bulletin found at ardexaustralia.com.au.

PAVER PAD INSTALLATION

Paver pads (tiling pedestals) can be used over ARDEX WPM 002 and are to be installed as per manufactures recommendations. When installing the paver pads (tiling

pedestals) onto the waterproofing membrane, rubber matting under each paver pad must be placed prior to greatly reduce potential damage to the waterproofing membrane and prolong the service life of the waterproofing membrane.

BOSS Tiling Pedestals from DTA Australia are an approved system to be used with ARDEX WPM 002. Visit www.dta-us.com.au for more information.

TECHNICAL DATA

AS4858 SUMMARY		
CHARACTERISTICS	TEST METHOD	NOMINAL VALUES
Colour		Light Grey
Specific Gravity (mixed)		1.35kg/L
Solids content		74%
Cyclic Movement	AS4858 Appendix B	Pass
Elongation	AS1145.3	Class III
Tensile Strength	AS1145.3	1.02 MPa
Durability Immersion	AS4858 Table A1	Pass
Durability Heat Aging	AS4858 Table A1	Pass
Water Absorption	AS3558.1	4.78%
Moisture Vapour Transmission Rate	ASTM E96	2.17g/m ² /24 hours

AS4654.1 SUMMARY		
CHARACTERISTICS	TEST METHOD	NOMINAL VALUES
Colour		Light Grey
Specific Gravity (mixed)		1.35kg/L
Solids content		74%
Cyclic Movement	AS4654.1 Appendix B	Pass
Abrasion Resistance	AS1580.403.2	Pass
Bond Strength	ASTM C794	56.34 N
Elongation	AS1145.3	Class III
Tensile Strength	AS1145.3	0.93 MPa
Durability Immersion	AS4654.1 Appendix A	Pass
Durability Heat Aging	AS4654 Table A4	Pass
Moisture Vapour Transmission Rate	ASTM E96	2.17g/m ² /24 hours
UV Resistance	AS4654.1 Table A4 Appendix A	Pass

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SHELF LIFE

ARDEX WPM 002 has a shelf life of 12 months when stored in original unopened packaging, in a dry place at 23°C and 50% R.H.

PACKAGING

Part A liquid - 20kg Pail

Part B powder - 20kg bag

CLEAN UP

Clean all equipment with water and detergent prior to the product drying. Once product has been allowed to cure, removal may require mechanical methods.

LIMITATIONS

Do not apply ARDEX WPM 002 if ambient temperature and or substrate temperature is below 10°C or above 35°C. Do not add solvent or water to product. Do not apply if rain is imminent. ARDEX WPM 002 must not be left exposed for longer than 5 days before recoating, tiling, screed, or paver/decking system applications. Depending on environment application and or period of exposure the cured ARDEX WPM 002 may need to be cleaned with mild detergent and water, and allowed to fully dry prior to overcoating, tiling, or screeding. ARDEX WPM 002 is not designed as a stand alone UV exposed and / or permanent trafficable membrane.

Before any substrate preparation, installation or finishing methods relating to ARDEX product are undertaken, please be aware of any potential risks and use appropriate PPE (personal protective equipment). This may involve contacting substrate manufacturers for Safety Data Sheets.

SAFETY DATA

Part A Liquid Component

May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing mist/vapours/spray. Avoid release to the environment. Contaminated work clothing should not be allowed out of the workplace. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

Part B Powder Component

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation. May cause cancer. Causes damage to organs through prolonged and repeated exposure. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. Immediately call a POISON CENTER or doctor/physician.

Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

GUARANTEE

ARDEX Australia Pty Ltd ("we" or "us") guarantees this product ("our goods") is free from manufacturing defects and will perform to any applicable specification published by us for 10 years from the date of purchase. Our liability under this guarantee is limited at our option to replacement of the product, repair of any damage to the immediate surface or area of application of the product, or compensation, in each case if we are satisfied loss or damage was due to a breach of this guarantee. This guarantee does not apply if damage or loss is due to failure to follow published instructions or any act or circumstance beyond our control, including shade variations and efflorescence. If you wish to make a claim under this guarantee you must notify us (ARDEX Australia Pty Ltd, 10 Giba Drive, Kemps Creek, NSW 2178; Toll Free: 1800 224 070; Email: technicalservices@ardexaustralia.com) and provide evidence of your purchase of the product within 30 days of any alleged loss or damage occurring. We reserve the right to ask you for satisfactory evidence of any alleged loss or damage. Any claim under this guarantee is at your cost. This guarantee is in addition to any rights or remedies you may have as a "consumer" under the Australian Consumer Law and to that extent you need to be aware that: "Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss of damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure".

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 Standards. Our instructions and recommendations are only for the uses they are intended. Users are advised to confirm that this product is suitable for their application and conforms with the specifications of the system. 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 affect 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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