



ARDEX WPM 157

Polyurethane Waterproofing Membrane

Compliant to AS4654 & AS4858

Single component moisture cured

Excellent elongation & durability performance

Superior anti-sag performance for vertical applications

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DESCRIPTION

ARDEX WPM 157 is a single component, moisture cured, durable polyurethane waterproofing membrane designed for a wide range of both internal and external applications.

FEATURES

- Compliant to AS4654 & AS4858
- Single component moisture cured
- Excellent elongation & durability performance
- Superior anti-sag performance for vertical applications

USES

- Podiums
- Terraces
- Balconies
- Green roofs
- Planter boxes
- Retaining walls
- Wet areas (bathroom & shower)

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

SURFACE 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

ARDEX WPM 270 to be used on porous substrates such as concrete, masonry, blockwork, and brick. Allow to fully dry (generally 1 hour @ 23°C / 50% R.H) before applying ARDEX WPM 157. The ARDEX WPM 270 should be overcoated within 24 hours of application to avoid potential intercoat contamination.

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 157. 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 157.

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 ARDEX STB Tape end to end must be 50mm (minimum).

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

Option 2:

ARDEX RA 040 can be used to seal around drains, penetrations, floor/wall junctions, wall/wall junctions, and joints before the application of ARDEX WPM 157. 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.

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 RA 040 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 must 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 uniform and all edges are removed. Overlapping of tape end to end must be 50mm (minimum).

When ARDEX RA 040 is 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 RA 040 into the prepared joint, ensuring complete adhesion to the joint sides and avoiding air entrapment. Tool the sealant flush with the finished surface.

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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 157.

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 157.

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 before applying two coats of ARDEX WPM 157 to encapsulate ARDEX STB Tape. Overlapping of ARDEX STB Tape end to end must be 50mm (minimum).

When using ARDEX RA 040, 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 applying two coats of ARDEX WPM 157.

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.

APPLICATION

ARDEX WPM 157 is to be applied by brush or roller, and is designed to be applied as a minimum two coat application to achieve a total dry film thickness (DFT) of 1.2mm.

WFT (per coat)	DFT (per coat)	Total DFT (2 coats)
0.8mm	0.6mm	1.2mm

Recoat time between coats is generally 4 – 6 hours (@ 23°C / 50% R.H.). Recoating must be achieved within 24 hours of first coat being applied. Ensure initial coat is free from water or condensation prior to overcoating. Both ambient temperature and or substrate temperature will affect the drying/curing process.

For dry highly porous substrates, ARDEX WPM 157 can be diluted with up to 10% Xylene per drum for the first coat

application. During colder months to allow for ease of product workability, ARDEX WPM 157 can be diluted with up to 10% Xylene per drum. Do not under any circumstance exceed the recommended 10% dilution rate as this may negatively impact the products performance.

COVERAGE

9m² - 10m² @ 1.2mm total DFT.

1.04kg/m² (0.8L/m²).

Coverage rate may vary depending on application technique.

CURING

ARDEX WPM 157 must be cured for a minimum 24 hours from final coat application, based on ambient conditions of 23°C / 50% R.H, before placement of protection / covering of membrane.

The slowest drying areas are those where the membrane has been applied over ARDEX STB Tape or ARDEX RA 040 sealant. The membrane must not be covered until these critical areas are completely dry. Both ambient temperature and or substrate temperature will affect the drying/curing process.

SCREED TOPPING

A double slip sheet shall be laid over the cured ARDEX WPM 157 membrane with an unbonded self supporting screed (minimum 50mm thick) then poured in place. Do not place the screed topping directly onto ARDEX WPM 157 under any circumstance. ARDEX Australia offer a wide range of alternative waterproofing membrane solutions designed for direct screed topping applications. For more information please contact ARDEX Technical Services (technicalservices@ardexaustralia.com).

TILING

Do not direct stick tile onto ARDEX WPM 157 under any circumstance. ARDEX Australia offer a wide range of alternative waterproofing membrane solutions designed for direct stick tiling applications. For more information please contact ARDEX Technical Services (technicalservices@ardexaustralia.com).

BACKFILLING AND DRAINAGE APPLICATION

The membrane must be protected against potential damage by the placement of protection material between the membrane and granular backfill. A suitable protection board and drainage system should be used for effective drainage and membrane protection requirements.

FLOOD TESTING

Flood testing 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.

A final membrane inspection should be conducted prior to flood testing to ensure no membrane damage has occurred during the curing process.

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TECHNICAL DATA

AS4858 SUMMARY		
CHARACTERISTICS	TEST METHOD	NOMINAL VALUES
Colour		Grey
Solids content		80%
Density (cured)	AS1683.4	1.4 - 1.45g/cm ³
Cyclic Movement	AS4858 Appendix B	Pass
Elongation	AS1145.3	Class III
Durability Immersion	AS4858 Table A1	Pass
Durability Heat Aging	AS4858 Table A1	Pass
Water Absorption	AS3558.1	1.88%
Moisture Vapour Transmission Rate	ASTM E96	7.79g/m ² /24 hours
VOC Content	ASTM D2369-10	250g/L

AS4654.1 SUMMARY		
CHARACTERISTICS	TEST METHOD	NOMINAL VALUES
Colour		Grey
Solids content		80%
Density (cured)	AS1683.4	1.4 - 1.45g/cm ³
Cyclic Movement	AS4654.1 Appendix B	Pass
Abrasion Resistance	AS1580.403.2	Pass
Bond Strength (concrete)	ASTM C794	105.02N
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
UV Resistance	AS4654.1 Appendix A	Pass
Temperature Resistance	AS4654.2 Sect. 2.4.2 (c)	-15°C to +85°C
Moisture Vapour Transmission Rate	ASTM E96	7.79g/m ² /24 hours
VOC Content	ASTM D2369-10	250g/L

PAVER PAD INSTALLATION

Paver pads (tiling pedestals) can be used over ARDEX WPM 157 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 157. Visit www.dta-aus.com.au for more information.

PACKAGING

20kg pail (15.4L)

STORAGE

ARDEX WPM 157 has a shelf life of 9 months when stored in original unopened packaging, in a dry place at 23°C and 50% R.H.

CLEAN UP

Clean all equipment with ARDEX WA 98 Solvent prior to the product drying. Once product has been allowed to cure, removal may require mechanical methods.

LIMITATIONS

Do not apply ARDEX WPM 157 if ambient temperature and or substrate temperature is below 10°C or above 35°C. Do not apply if rain is imminent. ARDEX WPM 157 must not come in direct contact with bitumen surfaces. Applying ARDEX WPM 157 greater than the recommended wet film thickness, or within windy conditions, or a substrate containing high moisture content, or previous coat applied is uncured may cause product to pinhole and or blister. Exceeding the recommended dilution rate of 10% Xylene per drum may negatively impact the products performance such as curing/drying times, cause product cracking/splitting etc. Do not direct stick tile or direct screed topping to ARDEX WPM 157 under any circumstance.

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

Combustible liquid. Harmful if inhaled. Causes skin irritation. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only outdoors or in a well-ventilated area. Avoid breathing mist/vapours/spray. Wear protective gloves/protective clothing/eye protection/face protection. Store in a well-ventilated place. Keep cool. Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. For additional information and to ensure you have the most current technical and safety information please consult the latest safety data

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sheets (SDS) and technical data sheets found on the product page at www.ardexaustralia.com.

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, Kemp's 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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This data sheet was issued in October 2024 and is valid for 3 years, in some instances a newer version may be published. Always refer to www.ardexaustralia.com for the latest technical data from ARDEX Australia Pty Ltd.