

### Weldtec™ Internal Undertile Sheet Membrane

Compliant to AS/NZS 4858

Excellent resistance to tearing, cracking, bubbling, and absorption

Excellent flexibility & elongation - no requirement for fillet or bond breaker

Flood testing / tiling / screeding can begin 1 hour after membrane installation

Fully compatible with selected ARDEX Tiling systems and ARDEX Water-Based Liquid Applied Membranes



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### Weldtec™ Internal Undertile Sheet Membrane

#### PRODUCT DESCRIPTION

ARDEX WPM 750 Weldable Waterproofing Membrane is a fleece-lined waterproofing sheet membrane specially designed for the direct adhesion of tiles and screeds within internal wet areas, such as showers and bathrooms. The ARDEX WPM 750 is heat-welded at the laps and seams to create a superior sheet membrane with a consistent membrane thickness, that allows for quick installation.

#### **FEATURES**

- Compliant to AS/NZS 4858
- Compatible with ARDEX recommended tile adhesives
- Compatible with ARDEX water-based liquid applied membranes
- Commence flood testing, tiling or screed application 1 hour after installation completion
- Excellent flexibility & elongation no fillet or bond breaker required

#### **USES**

ARDEX WPM 750 is suitable for waterproofing internal wet areas such as showers and bathrooms. ARDEX WPM 750 can be used on internal waterproofing membrane installations such as directly under adhered tiled and or screed applications.

#### SUBSTRATE PREPARATION

Suitable substrates include concrete, standard FC wall, plywood, CFC sheet, timber, and paper-faced plasterboard. NOTE: The use of LOSP (Light Organic Solvent Preservative) treated plywood must NOT be used under ARDEX WPM 750 in any circumstances.

By way of mechanical methods and vacuum cleaning as necessary, remove all dirt, dust, curing compounds, oils, grease, surface sealers, 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.

#### **NEW CONCRETE**

To be cured for a minimum of 28 days. All dirt, dust, curing compounds, surface protrusions, and any other contaminants must be removed prior to membrane installation.

#### **COMPRESSED FIBRE CEMENT SHEETING**

Compressed fibre cement sheet must be installed as per manufacturer's instructions. Substrate to be primed with ARDEX CA 750 Adhesive.

Application to James Hardie Scyon™ Secura™ Internal Flooring sheets, please refer to the ARDEX Technical Bulletin.

#### **UNDERFLOOR HEATING**

ARDEX WPM 750 is suitable for use with underfloor heating systems. For electric underfloor heating systems, ensure the wires are encapsulated with an appropriate ARDEX screed/levelling compound under the ARDEX WPM 750. For further information please contact ARDEX Technical Services (technicalservices@ardexaustralia.com).

#### SUBSTRATE ADHESIVE

ARDEX CA 750 is a ready to use water-based internal contact adhesive for bonding ARDEX Wedltec<sup>™</sup> membranes such as ARDEX WPM 750 and ARDEX WPM 1000.

With a brush or roller apply ARDEX CA 750 to both the sheet underside and the prepared substrate at a rate of 10m2/litre, and allow approximately the same drying time before embedding the membrane. Drying times will vary depending on substrate temperature and ambient air conditions.

ARDEX Catalyst Spray can be used to greatly increase the drying time of ARDEX CA 750, and in certain situations it is recommended to use ARDEX Catalyst Spray. ARDEX CA 750 must be wet prior to using the ARDEX Catalyst Spray. Apply a light mist over the ARDEX CA 750 - onto one surface only. The bonding adhesive is immediately ready to be bedded. Start at the fold and roll the previously coated portion of the sheet into the coated substrate slowly and evenly to avoid wrinkles. To ensure proper adhesion, compress the bonded portion of the sheet to the substrate with a pressure roller.

Ensure not to apply ARDEX CA 750 over an area that will later be heat welded to another sheet or flashing as you will not be able to weld glued laps and seams. ARDEX CA 750 is for internal use only.

#### SUBSTRATE DETAILING

Prior to installation of ARDEX WPM 750, the ARDEX STB/STA Tape should be installed. It is a self adhesive uncured Butyl tape with a fleece layer that provides a waterproofing seal between surface joints, seals the drainage PVC pipe outlets and other penetrations found within internal wet areas.

All surfaces must be clean, sound, dry, and free from all contaminating materials. ARDEX recommends using the ARDEX Brass Roller and or ARDEX Small Hand Roller to ensure adhesion to the substrate is smooth and all edges are removed. Once correctly installed, the ARDEX WPM 750 can be carefully heat-welded to the ARDEX STB/STA Tape to create a seamless waterproofing membrane system within and around critical areas.

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#### **INSTALLATION**

The application of ARDEX WPM 750 must be carried out by an ARDEX Accredited Applicator. Installation shall be in strict accordance with the manufacturer's recommendations.

#### Floor Installation

Roll out ARDEX WPM 750 and cut to the measured length. Smooth ARDEX WPM 750 on contact to minimise air entrapment beneath the membrane. Floor sheets of ARDEX WPM 750 must extend up the wall at least 150mm above the finished floor height, with all transition substrate gaps filled appropriately to adequately support the membrane.

Without over-stretching the membrane, ensure the ARDEX WPM 750 is laid tightly into all corners and transitions, this can be greatly assisted with the use of the ARDEX Brass Roller and the ARDEX Small Hand Roller.

Membrane shall be installed with a minimum 40mm overlap (both side laps and end laps) and heat welded using an approved hot-air welding unit. Using a probe, ensure all seams and laps are welded properly; re-weld if necessary.

#### **Wall Installation**

Roll out ARDEX WPM 750 and cut to the measured length. Smooth ARDEX WPM 750 on contact to minimise air entrapment beneath the membrane. Wall sheets of ARDEX WPM 750 should overlap the 150mm floor upturn and be heat welded by a minimum 40mm. Roll with the ARDEX Brass Roller and or ARDEX Small Hand Roller to ensure all seams and laps are firmly secure.

Apply the ARDEX WPM 750 membrane 1800mm above finished floor heights or to a minimum height of 50mm above the shower rose. Membrane to be installed with minimum 40mm overlaps (both side and end laps) and heat-welded using an approved hot-air welding unit. Using a probe, ensure all seams and laps are welded properly; re-weld if necessary.

#### **LIQUID MEMBRANE TRANSITION**

When transitioning from ARDEX WPM 750 to an ARDEX Water-Based Liquid Applied Membrane, the ARDEX STB Tape must be installed prior. There are two application options to consider:

1. Prime the substrate above the upturned ARDEX WPM 750 with the appropriate primer - please refer to the respective ARDEX water-based liquid membrane product data sheet for correct primer choice. Centrally place the ARDEX STB Tape along the top edge of the upturned ARDEX WPM 750. The ARDEX STB Tape can be carefully heat welded directly to the ARDEX WPM 750 membrane - the fleece on the ARDEX WPM 750 will be removed during this type

- of application method. Use the ARDEX Brass Roller and ARDEX Small Hand Roller to ensure adhesion to the ARDEX WPM 750 and prepared substrate is smooth and all edges are removed.
- 2. Prime the substrate above the upturned ARDEX WPM 750 with the appropriate primer please refer to the respective ARDEX water-based liquid membrane product data sheet for correct primer choice. Carefully remove the fleece on the ARDEX WPM 750 using the welding equipment and ensure all loose fleece is removed from the area before centrally placing the ARDEX STB Tape along the top edge of the upturned ARDEX WPM 750. Use the ARDEX Brass Roller and ARDEX Small Hand Roller to ensure adhesion to the ARDEX WPM 750 and prepared substrate is smooth and all edges are removed.

Once either method is correctly installed, apply the ARDEX water-based liquid membrane to encapsulate the ARDEX STB Tape and lapping onto the ARDEX WPM 750. Overlapping of ARDEX STB Tape end to end must be 50mm (minimum).

Approved ARDEX Water-Based Liquid Applied Membranes:

- ARDEX WPM 002
- ARDEX WPM 155 Rapid Plus
- ARDEX WPM 130 Builders Express

#### **TILING APPLICATION**

The ARDEX WPM 750 is specially designed for direct stick tile applications. With the ARDEX WPM 750 surface being totally sound, dry, and clean, tiling may commence 1 hour after the membrane system has been fully installed. Recommended ARDEX Tile Adhesives include:

- ARDEX X 18
- ARDEX X 56
- ARDEX X 77
- ARDEX Optima

For other ARDEX Tile Adhesives please contact ARDEX Technical Services (technicalservices@ardexaustralia.com).

#### **SCREED APPLICATION**

The ARDEX WPM 750 is suitable for screed applications. With the ARDEX WPM 750 surface being totally sound, dry, and clean, the screed mix may commence 1 hour after the membrane system has been fully installed.

When directly bonding to the ARDEX WPM 750, a minimum screed thickness of 15mm is recommended when using diluted ARDEX WPM 405 instead of water. For unbonded screeds or a screed thickness greater than 40mm, reinforcing mesh is required.

Admix for slurry coat: 1 part ARDEX WPM 405: 1 part clean water: 4 parts cement (by volume).

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Admix for screed: Mix 1 part ARDEX WPM 405 with 4 parts clean water and use as the guaging mix (mixing water) with a 3:1 or 4:1 sand/cement mix.

Mix a thin slurry and spread the mix over the surface with a brush, roller, or soft bristle broom (2mm maximum thickness). The screed mix must be applied whilst the slurry coat is still wet. A wood float finish is recommended to create a key for subsequent tiling and waterproofing. Do not lay the reinforcing mesh directly onto the membrane, the reinforcing mesh must be installed between the screed layers.

For epoxy-based screeds, the minimum thickness is 10mm. Please refer to the ARDEX EG 800 F product datasheet regarding mix ratios, and application recommendations.

#### **SEALANT & EPOXY ADHESIVE APPLICATION**

Prior to use of the ARDEX products below, carefully remove the fleece on the ARDEX WPM 750 using the welding equipment and ensure all loose fleece is totally removed from the area. The below products may be used in situations such as pipe penetration detailing, membrane termination applications, and more.

- ARDEX RA 040
- ARDEX CA 20 P
- ARDEX RA 88 PLUS

For other compatible ARDEX Products please contact ARDEX Technical Services (technicalservices@ardexaustralia.com).

#### **PACKAGING**

ARDEX WPM 750

Roll size: 1.4m wide x 20m long Approximate weight per roll: 16kg

ARDEX CA 750 - 15L pail ARDEX WPM 405 - 20L pail

ARDEX Catalyst Spray - 500ml spray bottle

ARDEX Flashing Tape - 100mm x 4.7m (roll)

ARDEX STA Tape - 40cm x 2.4m (sheet)

ARDEX STB Tape - 75mm x 15m (roll)

ARDEX Weldtec™ Corners - Pack of 10

ARDEX Undertile Butynol Flashing (L Section) - 220mm x 9m (roll)

#### **STORAGE**

ARDEX WPM 750 has an indefinite shelf life when stored in good conditions, between 5°C and 30°C. Rolls must be stored horizontally, out of direct sunlight, away from sources of puncture and physical damage, away from ignition sources and open flame.

#### **TECHNICAL DATA**

| CHARACTERISTICS  | TEST<br>METHOD | NOMINAL VALUES                 |
|--|----------------|--------------------------------|
| Membrane Gauge   |                | 0.75mm                         |
| Cyclic Movement  | AS/NZS 4858    | Pass<br>(no fatigue exhibited) |
| Service Temperature  |                | -30°C - 80°C                   |
| Tensile Strength (MPa)<br>Min                              | ASTM D412      | 5.0 MPa                        |
| Elongation at Break  | AS/NZS 4858    | >300%                          |
| Tear Die (kN/m) Min  | ASTM D624      | 26.5 kN/m                      |
| Hardness (°IRHD)   | ASTM D1415     | 70 ± 5                         |
| Tensile Retained (%) Min                                   | ASTM D412      | 70%                            |
| Elongation after<br>delonised water<br>immersion (56 days) | AS/NZS 4858    | Pass                           |
| Elongation after bleach immersion (56 days)                | AS/NZS 4858    | Pass                           |
| Elongation after<br>detergent immersion<br>(56 days)       | AS/NZS 4858    | Pass                           |
| Water Vapour<br>Transmission                               | ASTM E96       | 0.21g/m²/24 hours              |
| Water Absorption<br>(maximum)                              | AS3558.1       | 1.88%                          |

#### **LIMITATIONS**

The application of ARDEX WPM 750 must be carried out by an ARDEX Accredited Applicator. ARDEX WPM 750 waterproofing membrane is not suitable as a trafficable surface or to be left UV exposed for long periods of time. Do not apply any ARDEX engineered screeds directly to ARDEX WPM 750. It is the responsibility of the main building contractor to ensure all sub-trades likely to be working in the vicinity of the ARDEX WPM 750 membrane are aware that a waterproofing membrane has been installed and all care must be taken to protect the membrane from damage. The tiler must lay tiles in accordance with Australian best practice guidelines.

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.

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#### **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 20 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, 20 Powers Road Seven Hills NSW 2147; 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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