



ARDEX WPM 172

Rapid Cure Rubber Waterproofing Membrane

Rapid curing – designed for fast track installations

Spray applied – seamless application

Chemical resistance – for a wide range of chemicals

Water based – safe to use, low VOC

Contains root inhibitors that repel most root growth
without killing the plant

ARDEX Australia Pty Ltd
20 Powers Road
Seven Hills NSW 2147
Ph: +61 2 9851 9199
Email: techinfo@ardexaustralia.com
Internet: www.ardex.com

ARDEX New Zealand Ltd
32 Lane Street, Woolston
Christchurch, New Zealand
Ph: (03) 373 6900
Email: techinfo@ardexaustralia.com
Internet: www.ardex.com

ARDEX WPM 172

Rapid Cure Rubber Waterproofing Membrane

DESCRIPTION

ARDEX WPM 172 is a two component liquid polymer waterproofing membrane. The rubber modified bitumen emulsion reacts instantly with catalyst on a dual spray application. This specialist spray equipment allows the material to atomize mid air and start to cure before coming in contact with the substrate. ARDEX WPM 172 is designed to achieve a seamless monolithic membrane that provides excellent adhesion to a wide range of substrates.

FEATURES/BENEFITS

- Easy to apply – use of dual spray gun.
- Rapid drying – providing quicker installation times, especially at low temperatures and high humidity.
- Excellent adhesion to substrates.
- High elongation – excellent crack bridging capabilities.
- Retains flexibility at low temperatures.
- Water based – environmentally friendly and safe to use.
- Excellent chemical resistance properties.
- Excellent cohesion allowing for overhead applications and thick wall applications.
- Contains an effective root inhibitor that repels most root growth without killing the plant.

ACCEPTABLE SUBSTRATES

- Concrete structures and concrete formwork.
- Cement/sand screeds/renders – cured for a min 28 days and 14 days respectively. Alternatively apply a barrier coat of ARDEX WPM 300 (HydrEpoxy 300) as a barrier coating to fresh or wet substrates.
- Masonry and concrete blocks – voids filled, sharp edges and protrusions should be removed to give a flush finish.
- Steel.

TYPICAL APPLICATIONS

- Below ground tanking, basements and retaining walls (not negative hydrostatic situations).
- Bridge decks and concrete structures.
- Planter boxes.
- Terraces/balconies (protected, not for undertile applications).
- Concrete protection from chemicals and water ingress.
- Corrosion protection of metal roofs and structures.
- Steel tanks, steel bridge decks.
- Waterproof liners for sewage and containment ponds, dams and tanks.
- Underground structures.
- Tunnel lining.

BASIC APPLICATION INSTRUCTIONS

SURFACE PREPARATION

The surface to be coated should be clean, sound and free from oils, greases and flaking paint. New concrete should be cured for 28 days (or a barrier coat of ARDEX WPM 300 (HydrEpoxy 300)

applied) prior to application of membrane. All cracks or holes are to be repaired before application commences. Surface to which the coating is to be applied should be smooth with no sharp edges to ensure a uniform film thickness is achieved.

PRIMING

ARDEX WPM 172 is self-priming on most surfaces and a primer is therefore not necessary. Wet or freshly placed concrete surfaces should be sealed with ARDEX WPM 300 (HydrEpoxy 300) in one coat at a coverage rate of 3.0 square metres per litre. Porous substrates such as aerated concrete should be sprayed with ARDEX WPM 172 Part A only.

DETAILING

Fillets (minimum of 25mm) are required for any internal corners. ARDEX waterproofing detail tape should then be applied over the fillet. Thoroughly wet out the detail tape with ARDEX WPM 172 Part A only before proper spraying is to commence.

APPLICATION AND MIXING RATIO

ARDEX WPM 172 is applied by approved installers and with specialist spray equipment. Each component must be mixed prior to and during its application to ensure proper disbursement of all the elastomeric components added. Depending on the spray equipment used, the mixing ratio between Component A and Component B is approximately 8 parts to 1 part by volume.

PROTECTION

Once the membrane has cured, and prior to backfilling a suitable protection material must be applied over the membrane. ARDEX Protection Boards or Geotextile Fabric covered drainage cell boards are recommended. The protection boards should be installed using duct tape or other suitable means without puncturing the membrane.

REPAIR

In cases where the membrane has been damaged by subsequent work it can easily be repaired by applying another coat directly over the damaged area or by patching the damaged area with a single part ARDEX WPM 179 Rubber Waterproof Membrane. The surface to be repaired should be cleaned with warm water and soap.

COVERAGE AND THICKNESS

Coverage rates will vary depending on the porosity of the substrate and the desired film thickness.

Estimated coverage rates are:

0.3–0.4m²/L @ 2mm (7.5m²/pail)

0.25–0.3m²/L @ 3mm (5m²/pail)

ARDEX WPM 172 can be installed in any thickness in one application step according to the specification requirements. Typically for tanking applications and on smooth substrates a thickness of 2–4mm is recommended.

DETAILING OF PETRUSIONS AND EXPANSION JOINTS

ARDEX WPM 172 can be directly applied onto penetrating PVC pipes, re-bars and metal fixings providing a seamless waterproofing layer. Alternatively ARDEX WPM 179 Single Component Rubber Membrane brush applied can be used. Expansion joints and corners should be covered using ARDEX Waterproofing Detail Tape.

DRYING TIME

When sprayed with proper specialist equipment, ARDEX WPM 172 will touch dry almost immediately at 1mm thick and will reach full cure within 24–48 hours at 25°C and 50% relative humidity. After which it should be protected with ARDEX protection boards or geotextile coated drainage cell. Backfilling can commence after full cure of WPM 172.

SAFETY DATA

ARDEX WPM 172 is non-hazardous and non-dangerous. Do not breathe gas/fumes/vapour/spray. Wear eye/face protection. Use only in well ventilated areas. Keep container tightly closed and in a well ventilated place. In case of contact with eyes, rinse with plenty of water. In event of irritation seek medical advice. ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.

STORAGE

Both ARDEX WPM 172 Part A and B is sold in 20 litre pails. Shelf life is 12 months when stored in the original unopened container, in a dry place at 25°C. Do not store in direct sunlight. Replace lid tightly after use.

CLEAN UP AND DISPOSAL

Clean all equipment with mineral turpentine immediately after use. Remove cured material with mineral turpentine or white spirits. Dispose of containers in compliance with all relevant local authorities, state, and federal regulations.

TECHNICAL PERFORMANCE DATA

Spray mix ratio	8:1 (A:B) by volume
Specific gravity	Approx 1.1
VOC content	< 50g per litre
Non volatile content	Approx 60%
Application temperature	0°C–40°C
Service temperature	-10°C–60°C
Recoat time	Instant @1mm thick
Hard dry	24–48 hours (@ 23°C, 50% RH)
Water absorption	0.8g
Water vapour transmission	0.53g/m ² /24hrs
Elongation at break	500%
Crack bridging	no failure at 3mm at cracks developed after installation
Tensile strength	0.8–1.0 MPa
Hardness shore A	60
Adhesion to concrete	> 1 MPa
Adhesion between coats	> 2 MPa

CHEMICAL RESISTANCE AND GAS PERMEABILITY

Salt Water	Pass
Diluted Mineral Acids	Pass
Hydraulic Fluids	Pass
Oil	Pass

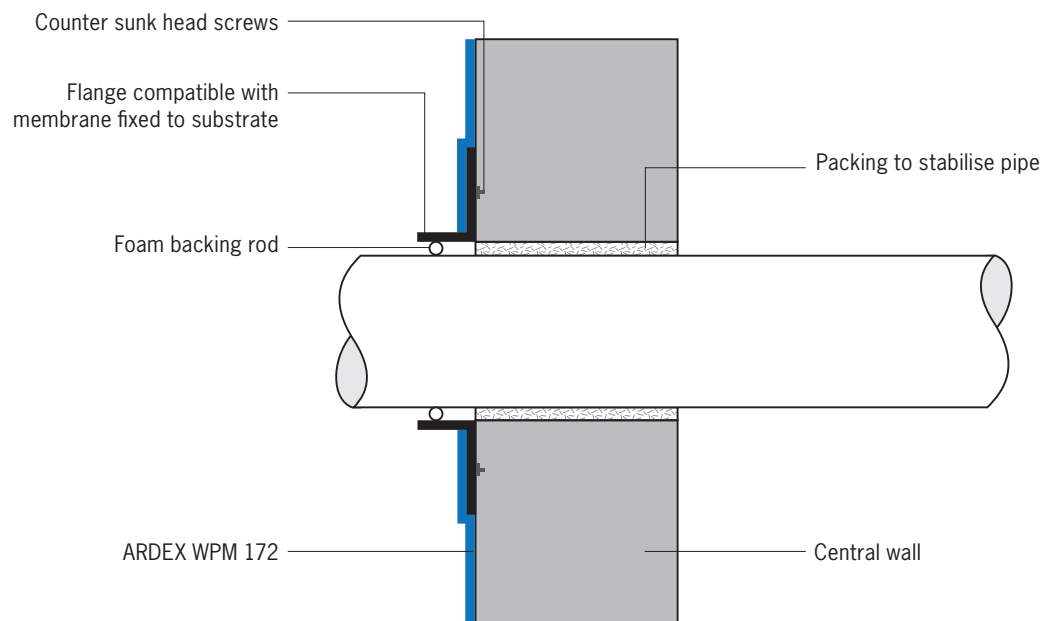
NOTE: A complete chemical resistance summary chart is available from ARDEX Technical Services upon request.

Chemicals	Formula	Concentration	Acceptability
Copper (II) Sulfate	CuSO ₄	Saturated	Suitable
Glycerol – Glycerine	C ₃ H ₈ O ₃	100%	Splash, Intermittent
Hydrochloric Acid	HCl	35% w/w	Suitable
Hydrogen Peroxide	H ₂ O ₂	20% w/w	Suitable
Methanol	CH ₃ OH	100%	Splash, Intermittent
Calcium Carbonate	CaCO ₃	All concentrations	Suitable
Sodium Chloride	NaCl	All concentrations	Suitable
Calcium Chloride	CaCl ₂	All concentrations	Suitable
Calcium Hydroxide	Ca(OH) ₂	All concentrations	Suitable
Calcium Sulfate	CaSO ₄	All concentrations	Suitable
Nitric Acid	HN ₃	All concentrations	Splash, Intermittent
Sodium Hydroxide	NaOH	All concentrations	Suitable
Sulfuric Acid	H ₂ SO ₄	50% w/w	Suitable
Urea	CO(NH ₂) ₂	All concentrations	Suitable

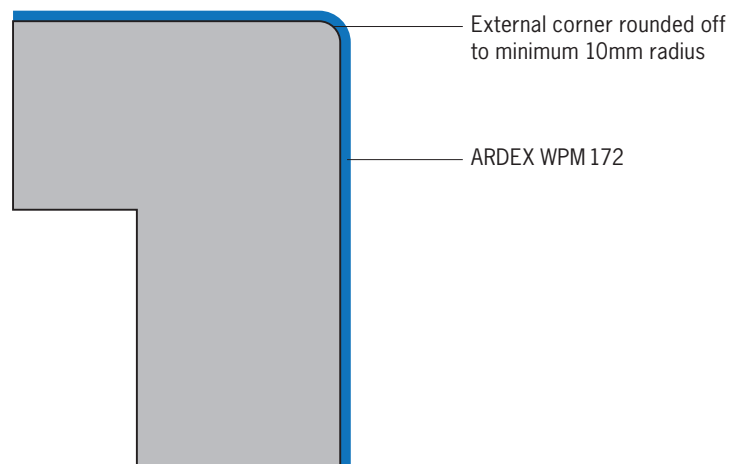
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Installation Drawings

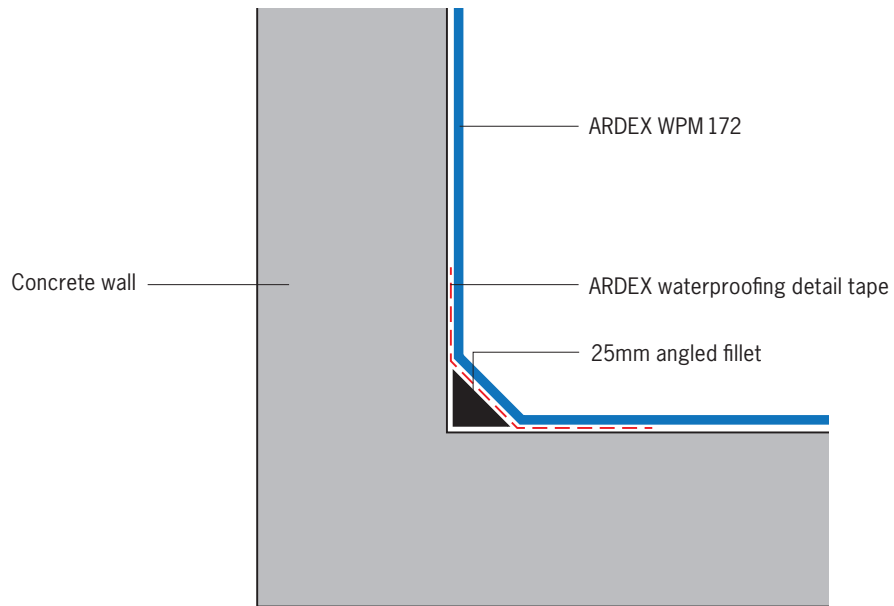
PIPE PENETRATION



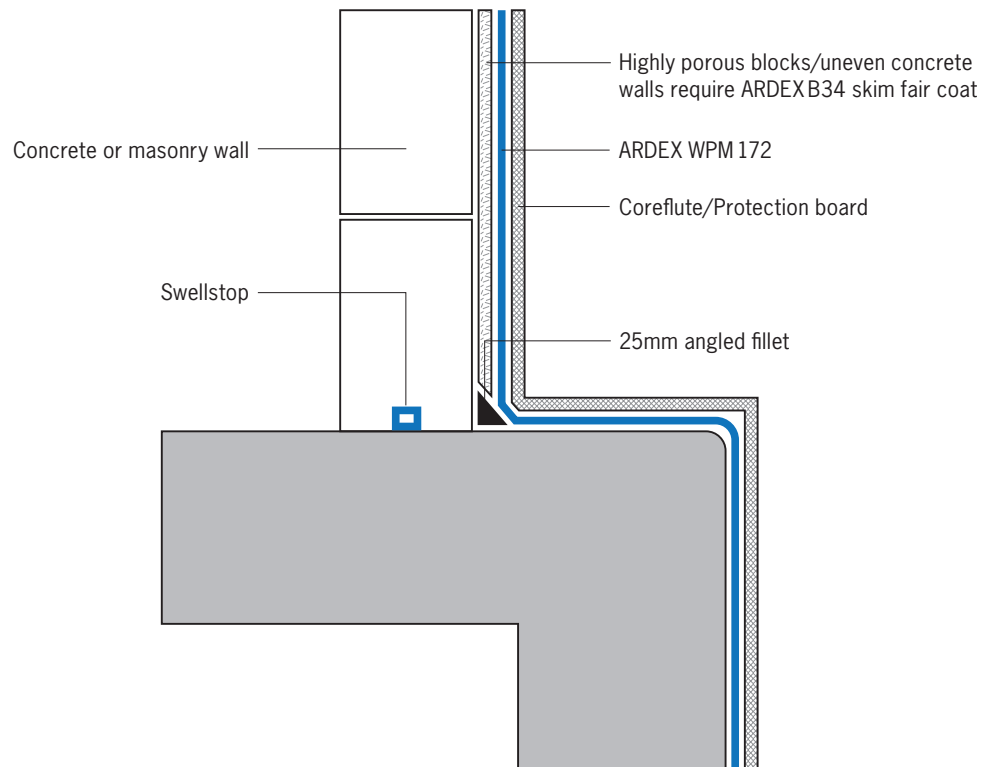
EXTERNAL CORNER DETAIL



INTERNAL CORNER DETAIL



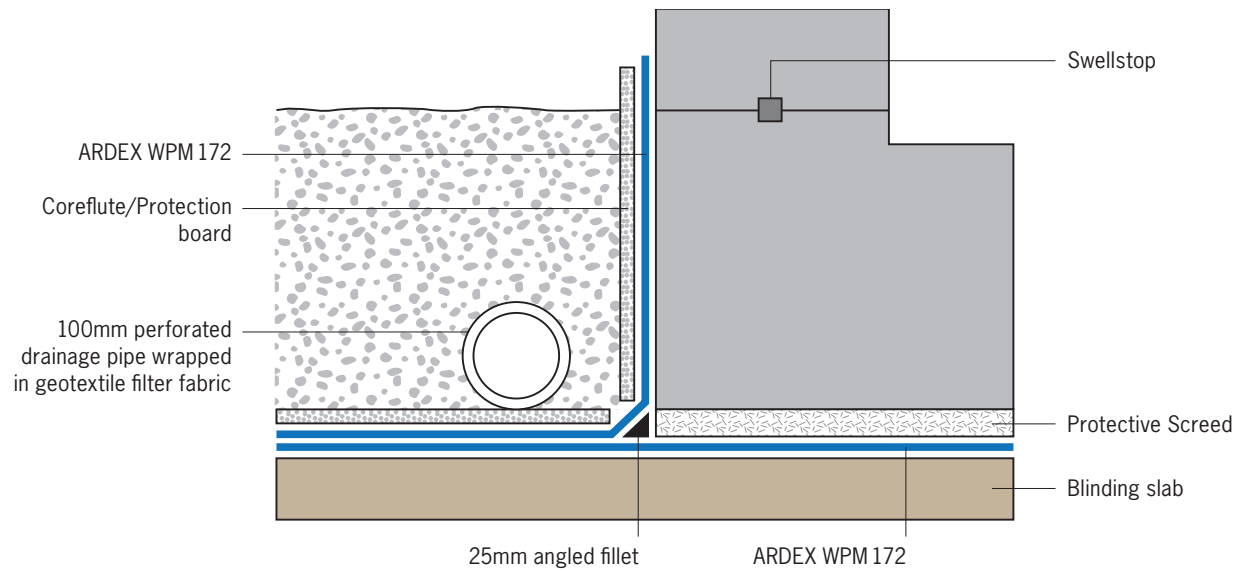
WALL TO FOOTING DETAIL



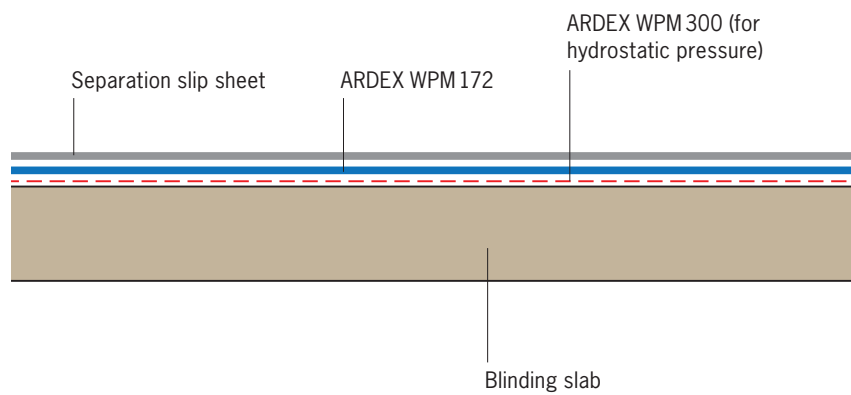
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Installation Drawings

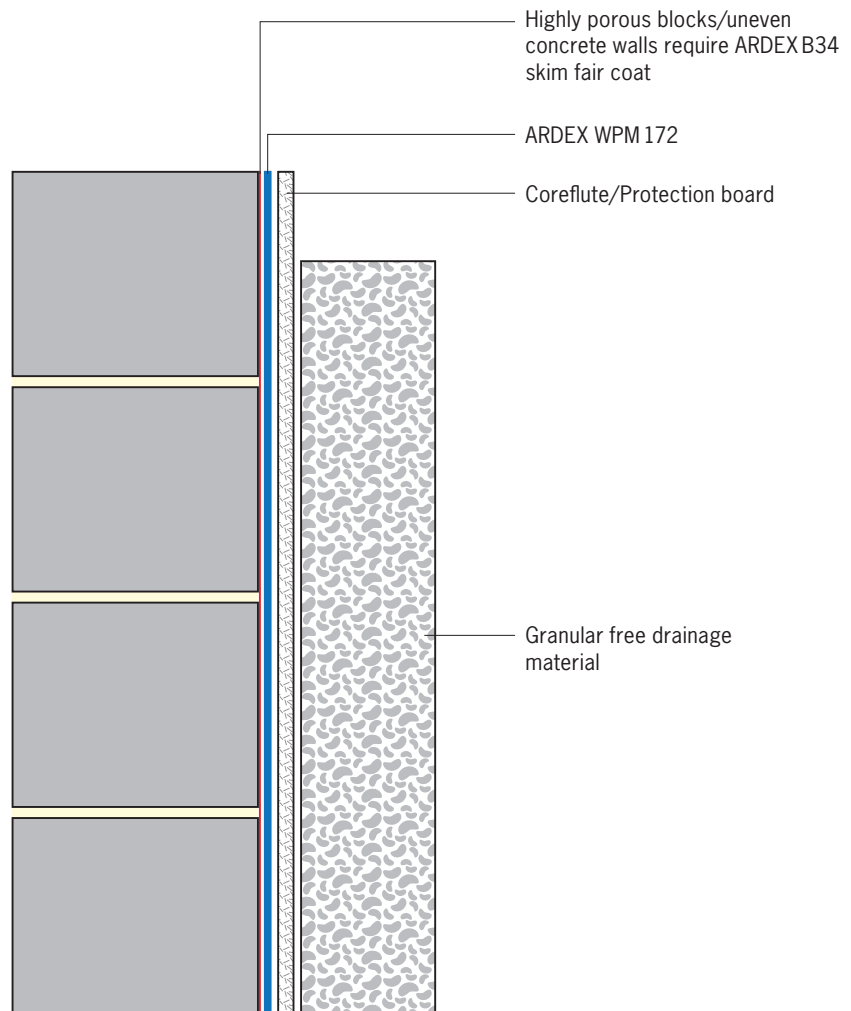
CONCRETE WALL TO FLOOR SLAB



BLINDING SLAB DETAIL



COVERED WALL APPLICATION



DISCLAIMER

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ARDEX Australia Pty Ltd

Technical Services Toll Free: 1800 224 070

New South Wales	Ph (02) 9851 9100
Queensland	Ph (07) 3817 6000
Victoria/Tasmania	Ph (03) 8339 3100
South Australia	Ph (08) 8406 2500
Western Australia	Ph (08) 9256 8600

ARDEX New Zealand Ltd

Technical Services Toll Free: 0800 227 339

Auckland	Ph (09) 580 0005
Wellington	Ph (04) 568 5949
Christchurch	Ph (03) 373 6900

ARDEX Hong Kong Ltd

Technical Services Toll Free: (852) 2529 6325

Hong Kong	Ph (852) 2529 6325
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ARDEX Singapore Pte Ltd

Technical Services Toll Free: (65) 6861 7700

Singapore	Ph (65) 6861 7700
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ARDEX China (Shanghai) Co. Ltd

Shanghai	Ph (862) 1 6404 6033
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