

GUIDE TO WATERPROOFING LIQUID APPLIED MEMBRANES



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www.ardex.com



About ARDEX

ARDEX specialises in high-quality construction materials for substrate preparation, levelling floors, waterproofing, the fixing of natural stones & ceramic tiles and other surfacing materials. ARDEX offers innovative products of outstanding quality and optimal environmental friendliness, as well as providing training and support services for their application. The ARDEX Group comprises of 28 subsidiaries and some 1,400 employees active in offices and branches in more than 50 countries.

The history of ARDEX can be traced back over 50 years to Witten, Germany where ARDEX Chemie GmbH was founded by Herr and Frau Fortmann and Dr. Kraft. Products such as **Ardurit Z8** and **Ardur K15** are firmly established as benchmarks for flooring products worldwide.

In December 2001 ARDEX acquired Norcros Building Products (NBP) Australia. The latter has a similar heritage in the Australasian market with **ABA tile adhesives** – renowned for their quality and technical excellence, a reputation built over 30 years. Innovations such as Abaflex are unique in the market until this day. Other brands offered by NBP Australia include **Superflex** under-tile waterproofing systems, **Shelter (previously Dunlop)** sheet membrane systems and **Hydrepoxy** coatings. In 2002 **Vibro Products Pty Ltd**, manufacturers under licence of ARDEX floor levelling and adhesives, was acquired and integrated into ARDEX Australia.

These brands, leaders in their respective fields, come together under the ARDEX Australia umbrella, offering you expert solutions. In addition, sharing of resources and technology within our extensive network enables us to provide you with a broader range of world benchmarked products and services.

Make ARDEX your single point of contact for all your flooring, tiling and waterproofing needs.

ALSO AVAILABLE FROM ARDEX AUSTRALIA:



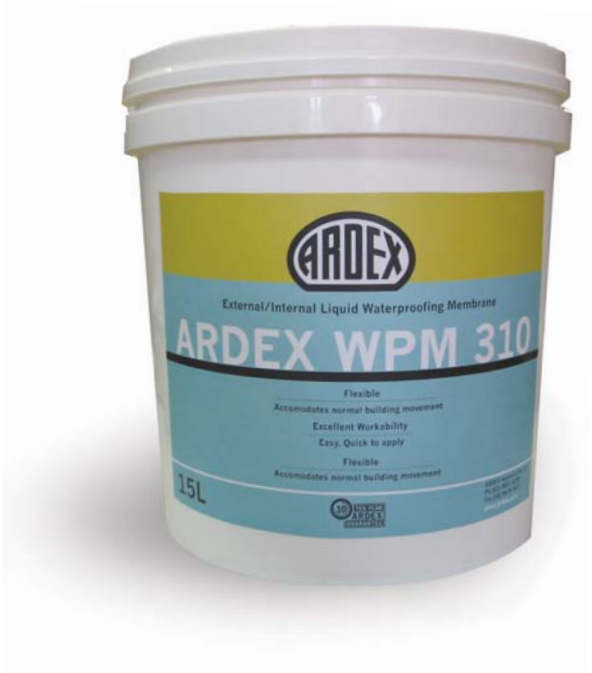
Comprehensive range of tiling solutions for various internal and external applications including: kitchens, bathrooms, floors, wall, balconies etc. Encompasses adhesives, grouts, soundproofing and silicones.



Comprehensive range of specialist, fast track substrate preparation solutions with a focus on patch and repair mortars and self levelling compounds including ARDEX K15.

For technical advice contact 1800 224 070

A NEW LOOK



Example of new packaging

ARDEX has a formidable reputation around the world for technical excellence and we wish to build on that reputation in Australia. Eventually, all our professional and trade products will carry the ARDEX brand.

Despite the fact that we have a number of well-known brands such as Shelter and Superflex, it is clear that we are better able to maximise the opportunities available to us and simplify our offering to our customers by consolidating our various product ranges under a central ARDEX brand.

Over time, the whole waterproofing range will change to ARDEX. This includes all the Shelter products (Shelterbit, Hydrepoxy) and Superflex. Also, to provide commonality across the entire ARDEX group and within ARDEX Australia range, we will be adopting an Alpha Numeric naming system (eg ARDEX WPM 390).

As you will see, we have started to use the new naming system (combined with the old) throughout this manual to help with the transition. Above is an example of the new look packaging with a unique secondary colour used to easily identify the individual products.



Guide to Waterproofing Liquid Applied Membranes

ARDEX Product Property Guide 2

DATASHEETS

NEW NAME	OLD NAME	NEW NAME	OLD NAME
ARDEX WPM 001	Superflex Bathroom & Balcony Premixed	ARDEX WPM 310	Shelterguard
ARDEX WPM 002	Superflex Bathroom & Balcony Two Part	ARDEX WPM 320	Sheltercoat Retaining Wall – 1 Part
ARDEX WPM 155	Undertile PU Acrylic Hybrid Membrane	ARDEX WPM 330	Sheltercoat Façade Membrane
ARDEX WPM 157	Polyurethane DPM 157	ARDEX WPM 350	Sheltercoat Roof & Deck – 2 Part
ARDEX WPM 163	Sheltercoat DPM 163 Penetrative Sealer	ARDEX WPM 355	Sheltercoat Protective Finish
ARDEX WPM 256	HydrEpoxy 256 Bonding Bridge	ARDEX WPM 390	Undertile PU Membrane
ARDEX WPM 265	Sheltercoat Water Based Primer	ARDEX WPM 405	Sheltercrete Additive
ARDEX WPM 270	Sheltercoat Solvent Based Primer	ARDEX WPM 501	HydrEpoxy 501 Adhesive
ARDEX WPM 300	HydrEpoxy 300	ARDEX WPM 900	HydrEpoxy 900 Enamel

The information contained herein is to the best of our knowledge true and accurate. No warranty is implied or given as to its completeness or accuracy in describing the performance or suitability of the product for a particular application. Users are asked to check that the literature in their possession is the latest issue.

* “Guide to waterproofing sheet membranes” available separately.

ARDEX Product Property Guide

Product		Kit Size	Use Description	No. of Parts	No. of Coats	W.F.T. Per coat (mm)	D.F.T. Per Coat (mm)	Total Coverage /Kit (Sq. m)	Recoat Time Minimum	Recoat Time Maximum	Hard Dry Time	Thinning & Clean Up
New Name	Old Name											
LIQUID MEMBRANES												
ARDEX WPM 001	Superflex Premixed Bathroom & Balcony	15L	Waterproof Membrane for Walls	1	2	0.5	0.25	15	2 hrs	indef.	3 days	water
			Waterproof Membrane for Floors			1.0	0.5	7.5				
ARDEX WPM 002	Superflex Two Part Bathroom & Balcony	20L + 20K	Waterproof Membrane for Walls	2	2	0.6	0.4	24	2 hrs	indef.	3 days	water
			Waterproof Membrane for floors			0.9	0.6	16				
ARDEX WPM 155		15L	Waterproof PU Membrane for walls	1	2	0.5	0.25	16	2 hrs	indef.	3 days	water
			Waterproof PU Membrane for floors			1.0	0.5	8				
ARDEX WPM 157	ARDEX WPM 157	20K	Moisture Cured Polyurethane	1	1-2	1.0	1.0	15	1 hr	16 hrs	8 hrs	Xylene
ARDEX WPM 163	ARDEX DPM 163	20L	Semi Permeable UV Stable Sealer	1	2-4	n/a	n/a	300 per coat	20 min.	indef.	7 days	water
ARDEX WPM 256	HydrEpoxy 256	4L	Bonding Bridge/ Admixture/ Penetrating Sealer	2	1	n/a	n/a	28	n/a	12 hrs	7 days	water
		20L						140				
ARDEX WPM 265	Sheltercoat Primer Water based	20L	Water based primer for Sheltercoat Membranes	1	1	n/a	n/a	120	1 hr	Indef.	7 days	water
ARDEX WPM 270	Sheltercoat Primer Solvent based	20L	Solvent based primer for Sheltercoat	1	1	n/a	n/a	120	30 min.	Indef.	7 days	Xylene
ARDEX WPM 300	HydrEpoxy 300	4L	Water Stop	2	1	0.3	0.15	12	4 hrs	Indef.	7 days	water
		20L						60				
ARDEX WPM 300	HydrEpoxy 300	4L	Waterproof Membrane	2	2	0.3	0.15	6	4 hrs	7 days	7 days	water
		20L						30				

Product		Kit Size	Use Description	No. of Parts	No. of Coats	W.F.T. Per coat (mm)	D.F.T. Per Coat (mm)	Total Coverage/ Kit (Sq. m)	Recoat Time Minimum	Recoat Time Maximum	Hard Dry Time	Thinning & Clean Up
New Name	Old Name											
SEALERS, ADHESIVES & ADDITIVES												
ARDEX WPM 310		15L	Semi Permeable Façade Membrane	1	2	0.3	0.15	24	4 hrs	indef.	7 days	water
			Low Permeability Roof Membrane			1.0	0.5	7				
ARDEX WPM 320	Retaining Wall One Part	20L	Waterproof membrane for Retaining Walls	1	2	1.0	0.5	10	4 hrs	indef.	7 days	water
ARDEX WPM 330	Facade Membrane	15L	Semi Permeable Façade Membrane	1	2	0.35	0.175	20	2 hrs	indef.	7 days	water
ARDEX WPM 350	Roof & Deck Two Part	20L + 20K	Waterproof Membrane for roofs and floors	2	2	1.0	0.6	20	4 hrs	24 hrs	7 days	water
					3	1.0	0.6	13				
ARDEX WPM 355	Protective Finish	15L	Wear Coating	1	2	0.34	0.17	22	4 hrs	indef.	7 days	water
ARDEX WPM 390		15L	Waterproof PU Membrane for Walls	1	2	0.5	0.25	16	2 hrs	indef.	3 days	water
			Waterproof PU Membrane for Floors			1.0	0.5	8				
ARDEX WPM 405	Sheltercrete Additive	20L	Slurry Coat	1	1	2.0	n/a	100		Before surface drying	24 hrs	water
			Screed or Render		1	2 to 30	n/a	1.3/mm	16 hrs	n/a	24 hrs	water
			Temp. Waterproofing		2	1.0	n/a	24	16 hrs	21 days	24 hrs	water
ARDEX WPM 501	HydrEpoxy 501	4L	Structural Adhesive	2	1	n/a	n/a	8	n/a	n/a	24 hrs	water
ARDEX WPM 900	HydrEpoxy 900	5L	Enamel Wear Coating	2	2	2	0.075	11.5	16 hrs	4 days	7 days	methylated spirits and water for clean up
		20L						47				



ARDEX WPM 001

(Superflex Bathroom & Balcony Premixed)

Single Component Undertile Waterproofing Membrane

Low VOC content – meets Green Building Council of Australia Green Star IEQ-13 requirements

Fast drying one part acrylic membrane

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ARDEX WPM 001

(Superflex Bathroom & Balcony Premixed)

Single Component Undertile Waterproofing Membrane

PRODUCT DESCRIPTION

ARDEX WPM 001 (Superflex Premixed) is a tough, ready to use waterproofing membrane specifically designed for use under tiles. ARDEX WPM 001 has been uniquely formulated with synthetic microfibres to increase its strength and eliminate the need for a separate reinforcement mat. ARDEX WPM 001 is based on the most advanced acrylic polymer technology, and is totally resistant to re-emulsification once cured.

ARDEX WPM 001 is flexible, safe to use, low in odour, and is fully compatible with polymer modified tile adhesives. ARDEX WPM 001 is one of the fastest drying one part acrylic membranes on the market – normally ready to tile in 48 hours @ 23°C.

WPM 001 meets the Green Building Council of Australia Green Star IEQ-13 requirements for Architectural Sealant when tested in accordance with SCAQMD Method 304-91 Determination of Volatile Organic Compounds (VOC) in Various Materials as referenced by South Coast Air Quality Management Division (SCAQMD) Rule 1168.

FEATURES/BENEFITS

- Fast drying ARDEX WPM 001 can be tiled over in 48 hours in non critical areas*
- Liquid reinforced: Excellent strength, eliminates need for reinforcing mat
- Flexible: Accommodates normal building movement class 3 membrane as per AS 4858: 2004 Wet Area Membranes
- Advanced acrylic: Will not re-emulsify once cured
- Designed for tiling - Fully compatible with ARDEX tile adhesive systems
- Water based, safe to use, low odour & easy cleaning
- CSIRO Appraisal #91 for undertile waterproofing in shower recesses
- Conforms to the requirements of Australian Standards 4858: 2004 Wet Area Membranes. (Ref: CSIRO Report 3779)

*Critical areas include areas where the membrane is applied at greater than 0.5mm or over impermeable substances such as over bond breakers or incorporating other reinforcement. Longer drying times are necessary in these areas.

APPLICATION RANGE

Performance Levels

Commercial and residential

Location

Internal wet areas, balconies, decks, and other areas that will be tiled or otherwise protected from regular foot traffic.

Surfaces

Walls & floors.

Substrates

Concrete	Cured for min. 28 days or sealed when set with one coat of ARDEX HydrEpoxy WPM 300 at a coverage rate of 3.0 square metres per litre and allowed to cure overnight. External wet concrete should be allowed to dry thoroughly or sealed with one coat of ARDEX HydrEpoxy WPM 300 as above.
Renderers and screeds	Cured for min. 7 days or sealed when set with one coat of ARDEX HydrEpoxy WPM 300 at a coverage rate of 3.0 square metres per litre and allowed to cure overnight. Wet render should be allowed to dry thoroughly or sealed with one coat of ARDEX HydrEpoxy WPM 300 as above.
Fibre cement	Suitable for wet area grade fibre cement.
Plasterboard	Wet area grade only.
Plywood	Structural plywood (PAA branded), marine grade or other wet area grade only.
Particleboard	Wet area grade, internal use only (special preparation is required – contact ARDEX).
Permanent Immersion	In conditions of permanent immersion, it is recommended that ARDEX WPM 002 (Superflex Two Part) is used. Must be covered with tiles for full immersion.

Contact ARDEX for use over existing membranes, covering materials, and any other substrates not listed.

SPECIFICATION CLAUSE

ARDEX WPM 001 (Superflex Premixed)

The waterproofing membrane shall be ARDEX WPM 001: a one part acrylic modified fibre reinforced membrane formulated to provide a tough, long lasting water barrier under tiling systems.

PACKAGING

Single component: 20kg (approx 15 litres) or 6.5kg (approx 5 litres).

SHELF LIFE

12 months when stored in the original unopened packaging, in a dry place at 23°C. Do not store in direct sunlight. Replace lid tightly after use. Use remaining contents from part used containers within 3 months.

TABLE 1

	Thickness per Coat		Total Dry Film Thickness (2 coats)	Theoretical Coverage		Per Unit
	Dry Film	Wet Film		Per coat	For 2 coats	
FLOORS	0.5mm	1.0mm	1.0mm	15m ²	7.5m ²	20kg(15L) unit
WALLS	0.25mm	0.5mm	0.5mm	30m ²	15m ²	20kg(15L) unit

COVERAGE

Two coats are recommended for an effective waterproof membrane.

Coverage will vary depending on the porosity of the surface.

One 20kg (15 litre) unit will cover approximately 7.5-15m² (based on two coats) depending on area requirements between wall and floor surfaces to be treated. Refer Table 1.

DRYING TIMES

Recoat time

1-2 hours (at 23°C/50% RH) between first and second coats. Alternatively, if a polyester mat is used between coats then the second coat can be applied whilst the first coat is still wet.

Dry through

The slowest drying areas are those where the membrane has been applied over a silicone bond breaker, eg. wall and floor junctions. The membrane cannot be tiled over until these critical areas are completely dry. ARDEX WPM 001 is totally dry in 48 hours at 23°C/50% RH, but can take up to 72 hours at 10°C/50% RH in corners or for thick films.

Fully cured

The shower should not be used until the membrane has reached its full strength. ARDEX WPM 001 membrane is fully cured after 3 days at 23°C, or after 5 days at 10°C.

Drying times will vary depending on humidity, surface temperature and surface porosity.

Do not apply on substrates where the surface temperature is below 10°C or above 35°C.

CLEANING

Wash hands, brushes, rollers, etc, with water while the membrane is still fresh. Remove cured material with mineral turpentine.

SAFETY PRECAUTIONS

Do not use the product in the following situations:

- Areas subject to negative hydrostatic pressure or rising damp, unless treated with ARDEX HydrEpoxy WPM 300.
- Where the substrate is wet – wet surfaces can be sealed with one coat of ARDEX HydrEpoxy WPM 300 at a coverage rate of 3.0 square metres per litre and allowed to cure overnight.
- Where rain is imminent.
- Where the membrane will be left exposed and subjected to regular foot traffic.
- On glazed, glass or other totally impervious surfaces (eg. areas pre-treated with water repellants).
- Where the surface temperature is below 10°C or greater than 35°C.
- All floor areas must have adequate falls either built into the substrate or achieved with a sand/cement screed prior to application of the ARDEX WPM 001.

For substrates or situations other than those listed contact ARDEX.

SAFETY DATA

ARDEX WPM 001 is non-hazardous and non dangerous. It may produce discomfort of the eyes, respiratory tract and skin. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin. Wear eye/face protection. In case of contact with eyes, rinse with plenty of water and seek medical advice.

ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.

QUALITY PRODUCT

ARDEX WPM 001 is manufactured and tested to ARDEX procedures which are maintained in accordance with Quality System Standard ISO 9001.

ARDEX WPM 001

(Superflex Bathroom & Balcony Premixed)

Single Component Undertile Waterproofing Membrane

USER NOTES

The technical details and recommendations 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 the responsibility of the user to ensure that the product is used in accordance with ARDEX instructions and in applications for which they are intended.

APPLICATION

Apply ARDEX WPM 001 by brush or roller. A medium nap (12-15mm pile) paint roller is recommended. New rollers should be dampened with water before being used for the first time.

For best results with a paint brush use a good quality, 50mm long bristle variety.

To achieve the required dry film thickness per coat, application must consist of laying the product onto the surface and light finish the surface. Do not try to apply in the same manner as a building paint. A conventional building paint is normally applied at 25-40 micrometers wet film thickness while ARDEX WPM 001 needs to be applied at between 0.5 and 1.0 millimeters per coat depending on product and application (Refer Table 1).

Critical Areas:

INTERNAL WET AREAS

1. Construction should be in accordance with Australian 3740 - 2004 Waterproofing of wet areas within residential buildings.
2. All render and tile bed requirements should be completed before application of the membrane and tiles or other floor coverings should be direct bonded to the membrane.
3. Ensure wall & floor sheets are installed as per sheet manufacturer's recommendations.

4. Ensure suitable brick/concrete hobs are used (do not use timber).
5. Ensure that falls to the waste are min 1:60 (ie. approx. 30mm in 2mtr) before waterproofing. Ensure outlet pipes are fixed securely and that the waste or drainage flanges are recessed into the floor.
6. Avoid sheet joints in shower recess floor. Ensure that sheets are securely fixed to the wall at the bottom edge, and sheet joints are sealed with a neutral cure silicone sealant spread approximately 6mm on either side of the joint.
7. Treat nail and screw holes with neutral cure silicone sealant.
8. Seal the perimeters of taps, shower outlets and waste outlets with neutral cure silicone sealant.
9. Apply a bead of neutral cure silicone sealant to all horizontal and vertical corners.
10. Apply a bead of neutral cure silicone sealant to the junction of the hob or angle and walls. Spreading the sealant to 6mm on either side of the joint.
11. Waste outlets shall incorporate a puddle flange or similar in accordance with AS3740 & the top surface shall be set flush with the surface to which the membrane is to be applied. A bead of neutral cure silicone shall be applied across the intersection of the puddle flange and the screed/floor.
12. Apply the membrane to the entire shower recess floor and down into waste or drainage flange. Apply the membrane over the hob and at least 150mm beyond the outside edge of the hob (ideally to entire wet area floor).
13. Apply the membrane 1800mm up the walls or to the height of the shower rose within the shower recess.
14. Install the shower screen to inside edge of the hob.

Fig.1 – Shower Recess – Critical Areas

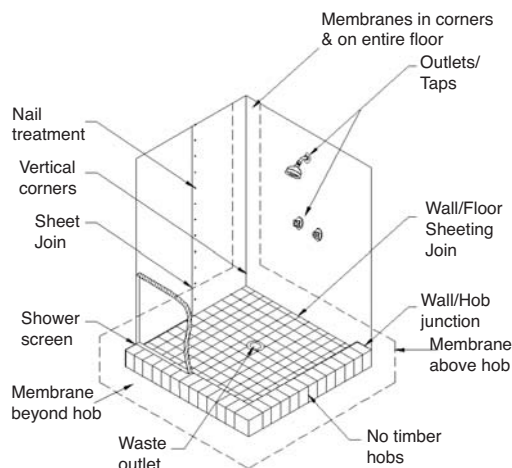
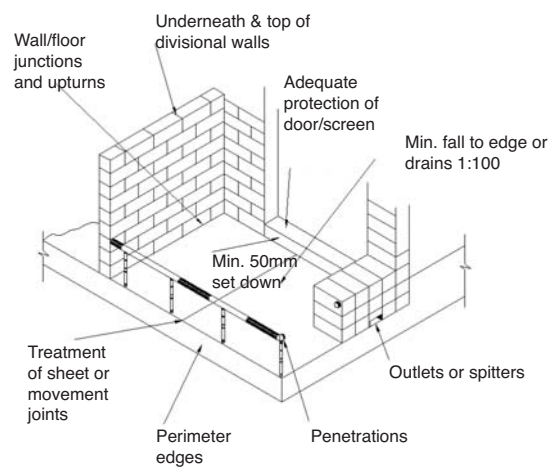


Fig.2 – Balcony – Critical Areas



BALCONIES AND DECKS

1. Ensure that the deck is constructed with falls to edge/drains of min 1:100 (ie. 20mm in 2mtr) or else achieve the fall with a sand/cement screed.
2. Ensure a min set down (step down) of 50mm to the finished floor level (ie. top of tiles).
3. Ensure suitable flashing is installed, ideally prior to the installation of the balcony screen/ sliding door.
4. Treat any sheet joints with a neutral cure silicone prior to waterproofing.
5. Prepare and seal all wall/floor junctions with a bead of neutral cure silicone.
6. Apply the membrane up the step down and as far up underneath the screen door flashing as possible (ideally waterproof prior to installing door).
7. Where possible, apply the membrane prior to building divisional walls, or other items such as planter boxes.
8. Apply the membrane to the entire balcony floor and at least 50mm up the wall above the top surface of the finished tiles and finished below the wall drainage vents.
9. Apply the membrane to the top of the parapets and divisional walls, or else install suitable metal capping.
10. Apply the membrane down over the front edge of the balcony onto the drip rail.
11. Carefully seal any gaps around balcony penetrations prior to applying the membrane.
12. Apply the membrane down into outlets and drains, ensuring excess material is removed.
13. Ensure all weep holes are above the membrane application area.

APPLICATION NOTES

Surface preparation

- Ensure all surfaces are structurally sound and totally dry. The pores of concrete surfaces should be open (absorbent surface). All sheet substrates must be securely fixed in accordance with the manufacturers instructions.
- Falls to outlets of at least 1:60 or approx. 30mm in 2mtr (wet areas) or 1:100 externally, must be achieved prior to tiling.
- The surface to be coated should be free from dust, oil, paint, curing compounds and any other contaminating materials.
- Damaged concrete should be repaired (leveled) and surface defects including all cracks and sharp protrusions should be treated prior to the application of the membrane.

- Remove laitance on concrete or screeds by mechanical means.
- Highly dense (>40MPa) or steel trowelled concrete should be roughened by suitable mechanical means (shot blasting, grinding, etc).

Priming

The primer is a critical part of the waterproofing system. Apply one coat of ARDEX WPM 265 water based primer by brush or roller to all areas to be waterproofed including the floor waste. Allow the primer to completely dry prior to the application of the ARDEX WPM 001 membrane. This will take around 20-30 minutes depending upon weather conditions and porosity of the substrate. Coverage is approximately 6m² per litre. Plastic (eg. PVC) pipes should be primed with a solvent based plumbers pink primer. Prime metal surfaces with a suitable metal primer such as epoxy polyamide primer.

GENERAL APPLICATION

Crack preparation

Cracks <2mm:

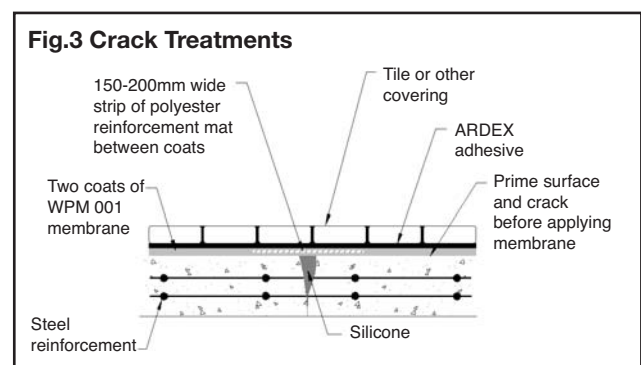
Clean and remove any loose particles in the crack. Prime the crack and adjacent area carefully with ARDEX WPM 265 water based primer and allow to dry before applying two coats of ARDEX WPM 001 membrane in a band at least 200mm wide equidistantly across the crack, along the length of the crack.

Cracks 2-6mm:

(Refer Fig. 3) Prepare and prime the crack as above. Apply a bead of neutral cure silicone into the crack and extend it 6mm either side. Apply a 300mm wide band of ARDEX WPM 001 equidistantly across the crack along the entire length of the crack. Place a 190mm wide band of ARDEX "Deckweb" polyester woven cloth reinforcement over the applied membrane. Thoroughly wet out the cloth preferably using a fluted roller, and remove all creases in, or air pockets under the mat. Immediately apply a second coat to completely fill the mat.

Cracks >6mm:

Contact your local ARDEX representative.



ARDEX WPM 001

(Superflex Bathroom & Balcony Premixed)

Single Component Undertile Waterproofing Membrane

Movement/construction joints

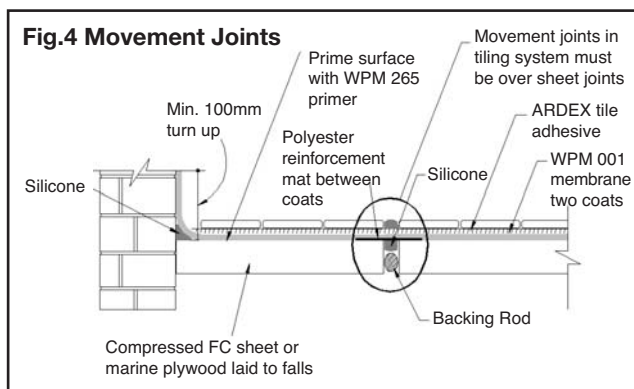
Movement joints (<6mm)

Use same procedure as in crack preparation.

Clean and prime the joint before filling it with a bead of neutral cure silicone and extending it 6mm each side of joint. Apply a 300mm wide band of ARDEX WPM 001 equidistantly across the crack along the entire length of the crack. Place a 190mm wide band of ARDEX "Deckweb" polyester woven cloth reinforcement over the applied membrane. Thoroughly wet out the mat and remove all creases in, or air pockets under the mat. Immediately apply a second coat to completely fill the mat.

Construction joints (>6mm)

Use the same procedure as above, but replace the reinforcing mat with 120mm of ARDEX Coving Bandage. Note: if tiling, movement joints should be taken to the surface of the tiles. Fill the joints between the tiles immediately above the movement joints with an appropriate joint sealant. (Refer Fig.4)



Corners & coving areas

After priming with ARDEX WPM 265 water based primer and allowing to dry, apply a generous bead (12mm) of neutral cure silicone sealant to seal all junctions between two substrates in coving areas and corners. Smooth over the silicone so that it extends 6mm up the wall and 6mm over the floor and allow to touch dry.

Apply a first coat of ARDEX WPM 001 to the area and allow the membrane to dry.

Apply a second coat ensuring that excess product is removed from the junction (the final dry film thickness should be minimum of 1.0mm). Alternatively, if a polyester reinforcement mat is used between coats then the second coat can be applied as soon as the mat is fully bedded into the first coat.

WALL/FLOOR JUNCTION

After priming with ARDEX WPM 265 water based primer and allowing to dry, apply a generous bead (12mm) of neutral cure silicone sealant to seal all junctions between two substrates. Smooth over the silicone so that it extends 6mm up the wall and 6mm over the floor and allow to touch dry. Place a 190mm wide band of ARDEX "Deckweb" polyester woven mat reinforcement over the applied membrane. Thoroughly wet out the cloth and remove all creases in, or air pockets under the mat. Immediately apply a second coat to completely fill the mat. The ARDEX WPM 001 should be applied to at least 100 mm up the wall surfaces as per the recommendations for the application of ARDEX WPM 001 to floors.

Walls

Two coats of ARDEX WPM 001 are required to achieve a minimum total dry film thickness of 0.5mm.

After priming with ARDEX WPM 265 water based primer and allowing to dry, apply two coats of ARDEX WPM 001 (to achieve a minimum dry film thickness of 0.5mm) in two opposite directions. Wall sheet joints should be treated with a neutral cure silicone, PVC duct tape or base jointing compound. In balcony situations take the membrane up underneath any existing cover flashing or install appropriate flashing. Allow the first coat to dry before applying the second coat.

Floors

Two coats of ARDEX WPM 001 are required to achieve a minimum total dry film thickness of 1.0mm. The flooring recommendations should be extended at least 150 mm up all perimeter walls.

Prime the surface with ARDEX WPM 265 water based primer and allow to dry.

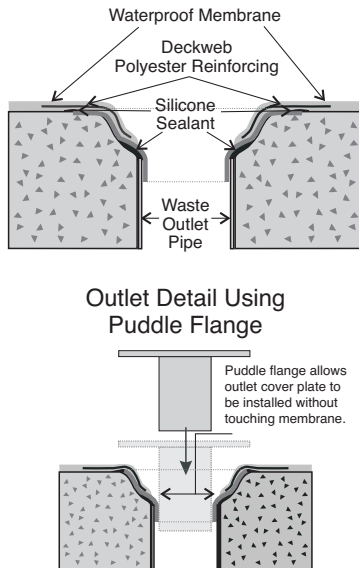
Apply the first coat over the primed surface and allow it to dry (1-2 hours at 23°C, 50%RH) before applying a second coat in an opposite direction. In shower recesses a drainage flange must be installed on all timber/sheeted floors, and are strongly recommended on all other substrates. Where possible rebate the flange into the floor. Seal the perimeter of the flange with neutral cure silicone treatment. If a flange is not installed the membrane must be applied down into the pipe. (Refer Fig.5) Allow the membrane to dry completely before tiling. Refer drying times above.

Waste Outlet

Prime the surface with ARDEX WPM 265 water based primer and allow to dry. Surfaces of the outlet flange must be primed with an appropriate primer.

Apply ARDEX WPM 001 over the adjacent floor surface extending down into the waste outlet flange overlapping the edge of flange by at least 30 mm. Place ARDEX "Deckweb" polyester woven mat reinforcement over the applied membrane. Thoroughly wet out the cloth and remove all creases in, or air pockets under the mat. Immediately apply a second coat to completely fill the mat. (Refer Fig. 5)

Fig.5 – Waste outlet



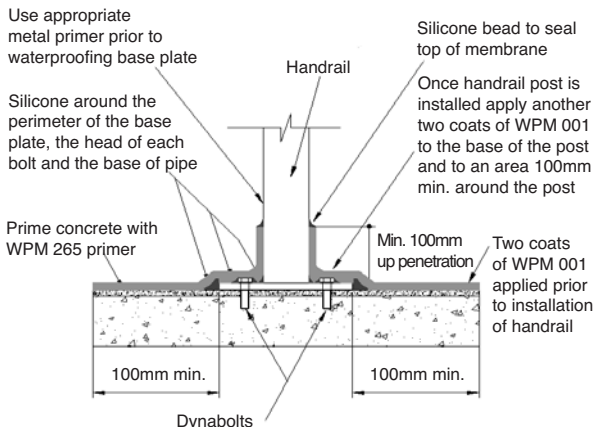
Balcony penetrations (Refer Fig.6)

All upstands are to be mechanically fixed through the membrane, which must be fabricated with a base plate flange.

Prime the metal with an appropriate metal primer such as an epoxy polyamide primer and allow to dry. Apply a 10mm bead of neutral cure silicone around the perimeter of the penetration. Apply the first coat of ARDEX WPM 001 on the substrate and the flanged metal.

Allow first coat to dry before applying a second coat ensuring a finished dry film thickness of no less than 1.0mm is achieved. Place a suitable flashing collar around the penetration sealing it with a suitable sealant.

Fig.6 – Balcony Penetration



Tiling systems

It is advisable to conduct a flood test of the shower once the membrane has cured (normally after 72 hours), and before the tiling commences. A broad range of ARDEX tile adhesives can be used over ARDEX membranes. Contact ARDEX or your nearest ARDEX stockist for advice on the most suitable system.

TECHNICAL DATA

**ARDEX WPM 001 (Superflex Premixed)
Characteristics of liquid**

Form & Colour	Blue viscous paste
Type	Single part
Specific Gravity	Approx. 1.34kg/litre
pH of Liquid	8.5
Viscosity of Liquid (RVT Brookfield, spindle 7 speed 10)	52,000cps
Non Volatile Matter (volume) AS1321.10	50.3%±1
Tensile Strength 7 days dry AS1145	1.04 MPa
Full Cure	1.92 MPa
Elongation at Break 7 days dry AS1145	780%

**Conforms to requirements of class 3 membrane
of AS/NZ 4858: 2004 Wet Area Membranes.**

NOTE: Most of the tests have been carried out in the ARDEX laboratory under standard conditions (23±2°C, 50±5% R.H)

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 Standard, our instructions and recommendations and only for the uses they are intended. 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 effect 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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Technical Services Toll Free: 1800 224 070

Date: July 2007



ARDEX WPM 002

(Superflex Bathroom and Balcony Two Part)

Rapid Drying Time

Two Component Undertile Waterproofing Membrane

Advanced acrylic – will not re-emulsify

Liquid reinforced – eliminates the need for reinforcing mat

Water based – safe to use, low odour and easy cleaning

Meets class III category for AS4858 Wet Area Membranes

Low VOC content – meets Green Building Council of Australia
Green Star IEQ-13 requirements

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ARDEX WPM 002

(Superflex Bathroom and Balcony Two Part)

Two Component Undertile Waterproofing Membrane

PRODUCT DESCRIPTION

ARDEX WPM 002 (Superflex Two Part) is a tough, fast drying two component waterproofing membrane specifically designed for use under tiles. The product has been uniquely formulated with synthetic microfibres to increase its strength and eliminate the need for a separate reinforcement mat. ARDEX WPM 002 is based on the most advanced acrylic polymer technology, and is totally resistant to re-emulsification.

ARDEX WPM 002 is flexible, safe to use, low in odour, and is fully compatible with polymer modified tile adhesives. ARDEX WPM 002 is one of the fastest drying acrylic membranes on the market – normally ready to tile in 16-24 hours @ 23°C.

WPM 002 meets the Green Building Council of Australia Green Star IEQ-13 requirements for Architectural Sealant when tested in accordance with SCAQMD Method 304-91 Determination of Volatile Organic Compounds (VOC) in Various Materials as referenced by South Coast Air Quality Management Division (SCAQMD) Rule 1168.

FEATURES/BENEFITS

Fast drying ARDEX WPM 002 can be tiled over in 16-24 hours, or 4 hours @ 23°C/50% RH in non critical areas*.

Features benefits

- Liquid reinforced: Excellent strength, eliminates need for reinforcing mat.
- Flexible: Accommodates normal building movement.
- Advanced acrylic: Will not re-emulsify.
- Designed for tiling: Fully compatible with ABA/ARDEX tile systems adhesives.
- Water based, safe to use, low odour and easy cleaning for undertile waterproofing in shower recesses by independent testing authority.
- Excellent exterior.
- Conforms to the requirements of AS/NZ 4858:2004 Wet Area Membranes (Ref: CSIRO Report 3879)

*Critical areas include areas where the membrane is applied at greater than 0.5mm or over impermeable substances such as over bond breakers or incorporating other reinforcement. Longer drying times are necessary in these areas.

APPLICATION RANGE

Performance levels

Commercial and residential.

Location

Internal and external wet areas, balconies, decks, and other areas that will be tiled or otherwise protected from regular foot traffic.

Surfaces

Walls and floors.

Substrates

Concrete	Cured for min. 28 days or sealed when set with one coat ARDEX HydrEpoxy WPM 300 at a coverage rate of 3.0 square metres per litre and allowed to cure overnight. Wet concrete should be allowed to dry thoroughly or sealed with one coat of ARDEX HydrEpoxy WPM 300 as above.
Renders and screeds	Cured for min. 7 days or sealed when set with one coat ARDEX HydrEpoxy WPM 300 at a coverage rate of 3.0 square metres per litre and allowed to cure overnight. Wet render should be allowed to dry thoroughly or sealed with one coat of ARDEX HydrEpoxy WPM 300 as above.
Fibre cement	Wet area grade only.
Plasterboard	Wet area grade only.
Plywood	Structural plywood (PAA branded) or marine grade or other wet area grade only. Not recommended for external use (refer ARDEX).
Particleboard	Wet area grade, internal use only (special preparation is required – contact ARDEX). Not recommended for external use (refer ARDEX).
Permanent Immersion	In conditions of permanent immersion, it is recommended that WPM 002 must be covered with tiles for full immersion applications.
Contact ARDEX for use over existing membranes, covering materials, and any other substrates not listed.	

SPECIFICATION CLAUSE

ARDEX WPM 002 (Superflex Two Part)

The waterproofing membrane shall be ARDEX WPM 002, a two component cementitious acrylic modified fibre reinforced membrane formulated to provide a tough, long lasting water barrier under tiling systems.

PACKAGING

Two component: 20kg (approx 20 litres) liquid pail/
2 x 10kg bags powder.

SHELF LIFE

12 months when stored in the original unopened packaging, in a dry place at 23°C. Do not store in direct sunlight. Replace lid tightly after use. Use remaining contents from part used containers within 3 months.

TABLE 1

	Thickness per coat		Total dry film thickness (2 coats)	Theoretical coverage		Per unit
	Dry film	Wet film		Per coat	For 2 coats	
FLOORS	0.6mm	0.9mm	1.2mm	32m ²	16m ²	40kg kit
WALLS	0.4mm	0.6mm	0.8mm	48m ²	24m ²	40kg kit

COVERAGE

Two coats are recommended for an effective waterproof membrane.

Coverage will vary depending on the porosity of the surface.

One 40kg kit will cover approximately 16-24m (based on two coats) depending on area requirements between wall and floor surfaces to be treated.

DRYING TIMES

Curing time will vary depending on temperature and humidity.

Recoat time

1-2 hours (23°C/50% RH) between first and second coats. Alternatively, if a polyester mat is used between coats then the second coat can be applied whilst the first coat is still wet.

Dry through

The slowest drying areas are those where the membrane has been applied over a silicone bond breaker, eg. wall and floor junctions. The membrane cannot be tiled over until these critical areas are completely dry.

ARDEX WPM 002 membrane is totally dry in 16 hours at 23°C/50% RH but can take up to 24 hours at 10°C / 50% RH in corners or for thick films.

In areas where bond breakers or additional reinforcement are not used, ARDEX WPM 002 can be tiled over after 4 hours at 23°C / 50% RH.

Fully cured

The shower should not be used until the membrane has reached its full strength. Normally ARDEX WPM 002 membranes are fully cured after 3 days at 23°C, or after 5 days at 10°C.

Drying times will vary depending on humidity, surface temperature and surface porosity.

Do not apply on substrates where the surface temperature is below 10°C or above 35°C.

CLEANING

Wash hands, brushes, rollers, etc, with water while the membrane is still fresh. Remove cured material with mineral turpentine.

SAFETY PRECAUTIONS

Do not use the product in the following situations:

- Areas subject to negative hydrostatic pressure or rising damp, unless treated with ARDEX HydrEpoxy WPM 300.
- Where the substrate is wet – wet surfaces can be sealed with one coat of ARDEX HydrEpoxy WPM 300 at a coverage rate of 3.0 square metres per litre and allowed to cure overnight.
- Where rain is imminent.
- Where the membrane will be left exposed and subjected to regular foot traffic.
- On glazed, glass or other totally impervious surfaces (eg. areas pre-treated with water repellants).
- Where the surface temperature is below 10°C or greater than 35°C.
- All floor areas must have adequate falls either built into the substrate or achieved with a sand/cement screed prior to application of the ARDEX WPM 002.

For substrates or situations other than those listed contact ARDEX.

SAFETY DATA

ARDEX WPM 002 Part A is non-hazardous. It may produce discomfort of the eyes, respiratory tract and skin. It should not be swallowed or inhaled. Avoid contact with skin and wear eye/face protection. In case of contact with eyes, rinse with plenty of water and contact a doctor or Poisons Information Centre.

ARDEXWPM 002 Part B contains cement and is therefore hazardous. It may cause burns and serious damage to eyes. Do not breathe dust and avoid contact with eyes. Wear dust masks, goggles and gloves when handling. Keep container locked up and in a well ventilated place.

ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.

ARDEX WPM 002

(Superflex Bathroom and Balcony Two Part)

Two Component Undertile Waterproofing Membrane

APPLICATION

Apply ARDEX WPM 002 by brush or roller. A medium nap (12–15mm pile) paint roller is recommended. New rollers should be dampened with water before being used for the first time.

For best results with a paint brush use a good quality, 50mm long bristle variety.

To achieve the required dry film thickness per coat application must consist of laying the product onto the surface and light finish the surface. Do not try to apply in the same manner as a building paint. A conventional building paint is normally applied at 25–40 micrometers wet film thickness while ARDEX WPM 002 needs to be applied at between 0.6 and 0.9 millimeters per coat depending on product and application (Refer Table 1).

Critical areas:

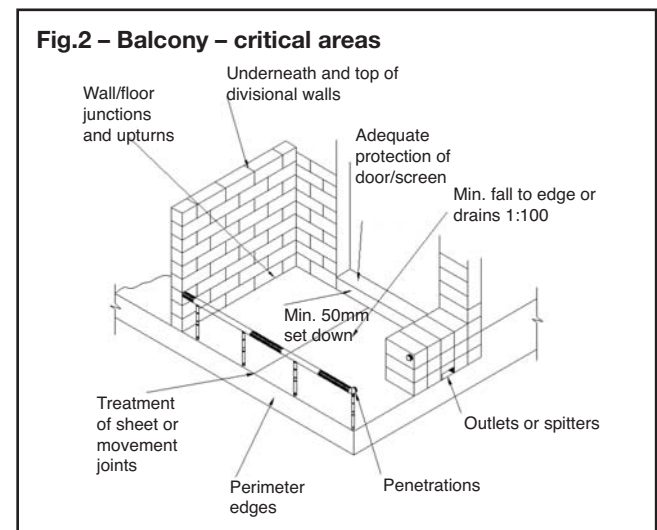
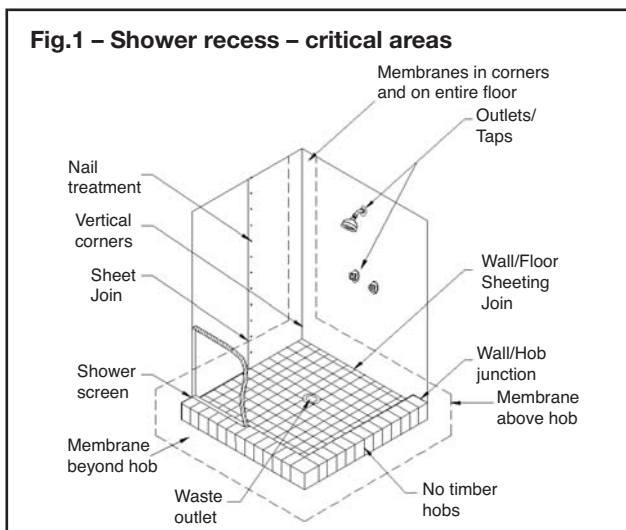
INTERNAL WET AREAS

1. Construction should be in accordance with Australian 3740 - 2004 Waterproofing of wet areas within residential buildings.
2. All render and tile bed requirements should be completed before application of the membrane and tiles or other floor coverings should be direct bonded to the membrane.
3. Ensure wall and floor sheets are installed as per sheet manufacturer's recommendations.
4. Ensure suitable brick/concrete hobs are used (do not use timber), and that the top of the hob does not slope outwards.
5. Ensure that falls to the waste are min 1:60 (ie. approx. 30mm in 2mtr) before waterproofing. Ensure outlet pipes are fixed securely and that the waste or drainage flanges are recessed into the floor.
6. Avoid sheet joints in shower recess floor. Ensure that sheets are securely fixed to the wall at the bottom edge, and sheet joints are sealed with a neutral cured silicone sealant spread approximately 8mm on either side of the joint.

7. Treat nail and screw holes with neutral cure silicone sealant.
8. Seal the perimeters of taps, shower outlets and waste outlets with neutral cure silicone sealant.
9. Apply a bead of neutral cure silicone sealant to all horizontal and vertical corners, and spread to 8mm on either side of joint.
10. Apply a bead of neutral cure silicone sealant to the junction of the hob or angle and walls, and spread to 8mm on either side of joint.
11. Waste outlets shall incorporate a puddle flange or similar in accordance with AS3740 and the top surface shall be set flush with the surface to which the membrane is to be applied. A bead of neutral cure silicone shall be applied across the intersection of the puddle flange and the screed/floor.
12. Apply the membrane to the entire shower recess floor and down into waste or drainage flange. Apply the membrane over the hob and at least 150mm beyond the outside edge of the hob (ideally to entire wet area floor).
13. Apply the membrane 1800mm up the walls or to the height of the shower rose within the shower recess.
14. Install the shower screen to inside edge of the hob.

BALCONIES AND DECKS

1. Ensure that the deck is constructed with falls to edge/drains of min 1:100 (ie. 20mm in 2mtr) or else achieve the fall with a sand/cement screed.
2. Ensure a min set down (step down) of 50mm to the finished floor level (ie. top of tiles).
3. Ensure suitable flashing is installed, ideally prior to the installation of the balcony screen/sliding door.
4. Treat any sheet joints with a neutral cure silicone prior to waterproofing.
5. Prepare and seal all wall/floor junctions with a bead of neutral cure silicone.



6. Apply the membrane up the step down and as far up underneath the screen door flashing as possible (ideally waterproof prior to installing door).
7. Where possible, apply the membrane prior to building divisional walls.
8. Apply the membrane to the entire balcony floor and at least 50mm up the wall above the top surface of the finished tiles and finished below the wall drainage vents.
9. Apply the membrane to the top of the parapets and divisional walls, or else install suitable metal capping.
10. Apply the membrane down over the front edge of the balcony onto the drip rail.
11. Carefully seal any gaps around balcony penetrations prior to applying the membrane.
12. Apply the membrane down into outlets and drains, ensuring excess material is removed.
13. Ensure all weep holes are above the membrane application area.

APPLICATION NOTES

Surface preparation

- Ensure all surfaces are structurally sound and totally dry. The pores of concrete surfaces should be open (absorbent surface). All sheet substrates must be securely fixed in accordance with the manufacturers instructions.
- Falls to outlets of at least 1:60 or approx. 30mm in 2m (wet areas) or 1:100 externally, must be achieved prior to tiling.
- The surface to be coated should be free from dust, oil, paint, curing compounds and any other contaminating materials.
- Damaged concrete should be repaired (leveled) and surface defects including all cracks and sharp protrusions should be treated prior to the application of the membrane.
- Remove laitance on concrete or screeds by mechanical means.
- Highly dense (>40MPa) or steel trowelled concrete should be roughened by suitable mechanical means (shot blasting, grinding, etc).

Priming

The primer is a critical part of the waterproofing system. Apply one coat of ARDEX WPM 265 water based primer by brush or roller to all areas to be waterproofed including the floor waste. Allow the primer to be completely dry prior to the application of the ARDEX WPM 002 membrane. This will take around 20-30 minutes depending upon weather conditions and porosity of the substrate. Coverage is approximately 6m² per litre. Plastic (eg. PVC) pipes should be primed with a solvent based plumbers pink primer. Prime metal surfaces with a suitable metal primer such as epoxy polyamide primer.

GENERAL APPLICATION

Crack preparation

Cracks <2mm:

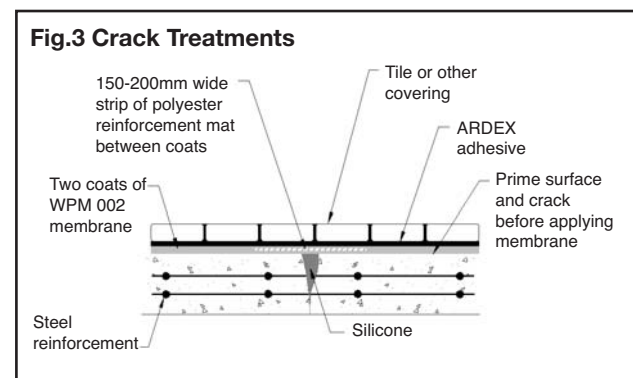
Clean and remove any loose particles in the crack. Prime the crack and adjacent area carefully with ARDEX WPM 265 water based primer and allow to dry before applying two coats of ARDEX WPM 002 membrane, in a band at least 200mm wide equidistantly across the crack, along the length of the crack.

Cracks 2-6mm:

(Refer Fig. 3) prepare and prime the crack as above. Apply a bead of neutral cure silicone into the crack and extend it 6mm either side. Apply a 300mm wide band of ARDEX WPM 002 equidistantly across the crack along the entire length of the crack. Place a 190mm wide band of ARDEX "Deckweb" polyester woven cloth reinforcement over the applied membrane. Thoroughly wet out the cloth and remove all creases in, or air pockets under the mat. Immediately apply a second coat to completely fill the mat.

Cracks >6mm:

Contact your local ARDEX representative.



ARDEX WPM 002

(Superflex Bathroom and Balcony Two Part)

Two Component Undertile Waterproofing Membrane

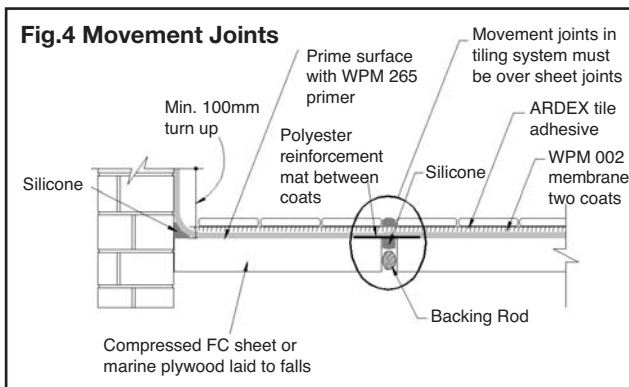
Movement/construction joints

Movement joints (<6mm)

Clean and prime the joint before filling it with a bead of neutral cure silicone and extending it 6mm each side of joint. Apply a 300mm wide band of ARDEX WPM 002 (Superflex Two Part) equidistantly across the crack along the entire length of the crack. Place a 190mm wide band of ARDEX "Deckweb" polyester woven cloth reinforcement over the applied membrane. Thoroughly wet out the cloth and remove all creases in, or air pockets under the mat. Immediately apply a second coat to completely fill the mat.

Construction joints (>6mm)

Use the same procedure as above, but replace the reinforcing mat with 120mm of ARDEX Coving Bandage. Note: if tiling, movement joints should be taken to the surface of the tiles. Fill the joints between the tiles immediately above the movement joints with an appropriate joint sealant. (Refer Fig.4)



Corners and coving areas

After priming with ARDEX WPM 265 water based primer and allowing to dry, apply a generous bead (16mm) of neutral cure silicone sealant in coving areas and corners. (Refer Fig.5) Smooth over the silicone so that it extends 8mm up the wall and 8mm over the floor and allow to touch dry.

Apply a first coat of ARDEX WPM 002 to the area and allow the membrane to dry.

Apply a second coat ensuring that excess product is removed from the junction (the final dry film thickness should be around 1.2mm) Alternatively, if a polyester reinforcement mat is used between coats then the second coat can be applied as soon as the mat is fully bedded into the first coat.

WALL/FLOOR JUNCTION

After priming with ARDEX Superflex WPM 265 water based primer and allowing to dry, apply a generous bead (16mm) of neutral cure silicone sealant to seal all junctions between two substrates. Smooth over the silicone so that it extends 8mm up the wall and 8mm over the floor and allow to touch dry. Place a 190mm wide band of ARDEX "Deckweb" polyester woven cloth reinforcement over the applied membrane. Thoroughly wet out the cloth and remove all creases in, or air pockets under the mat. Immediately apply a second coat to completely fill the mat. The ARDEX WPM 002 should be applied to at least 150mm up the wall surfaces as per the recommendations for the application of ARDEX WPM 002 to floors.

Walls

Two coats of ARDEX WPM 002 are required to achieve a minimum total dry film thickness of 0.8mm.

After priming with ARDEX Superflex WPM 265 water based primer and allowing to dry, apply two coats of ARDEX WPM 002 (to achieve a minimum dry film thickness of 0.8mm) in two opposite directions. Wall sheets joints should be treated with a neutral cure silicone, PVC duct tape or base jointing compound. In balcony situations take the membrane up underneath any existing cover flashing or install appropriate flashing. Allow the first coat to dry before applying the second coat.

Floors

Two coats of ARDEX WPM 002 are required to achieve a minimum total dry film thickness of 1.2mm. The flooring recommendations should be extended at least 150mm up all perimeter walls.

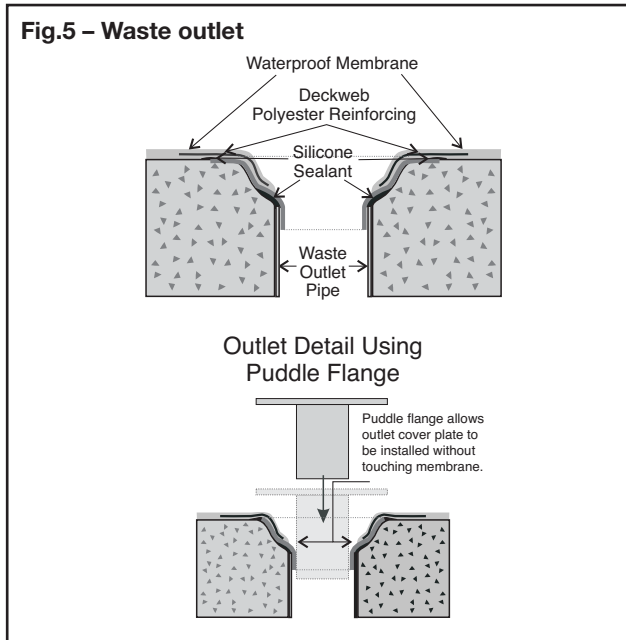
Prime the surface with ARDEX WPM 265 water based primer and allow to dry.

Apply the first coat over the primed surface and allow it to dry (1-2 hours at 23°C, 50% RH) before applying a second coat in an opposite direction. In shower recesses a drainage flange must be installed on all timber/sheeted floors, and are strongly recommended on all other substrates. Where possible rebate the flange into the floor. Seal the perimeter of the flange with neutral cure silicone treatment. If a flange is not installed the membrane must be applied down into the pipe. (Refer Fig.5) Allow the membrane to dry completely before tiling. Refer drying times above.

Waste outlet

Prime the surface with ARDEX WPM 265 water based primer and allow to dry. Surfaces of outlet flange must be primed with an appropriate primer.

Apply ARDEX WPM 002 (Superflex Two Part) over the adjacent floor surface extending down into the waste outlet pipe overlapping the pipe surfaces by at least 30mm. Place ARDEX "Deckweb" polyester woven cloth reinforcement over the applied membrane. Thoroughly wet out the cloth and remove all creases in, or air pockets under the mat. Immediately apply a second coat to completely fill the mat. (Refer Fig. 5).

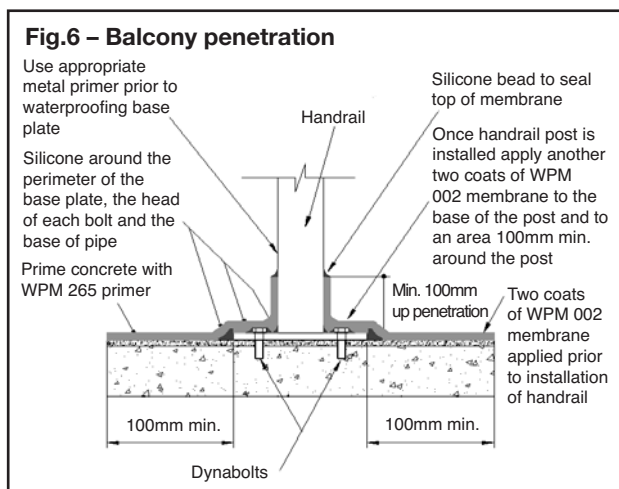


Balcony penetrations (Refer Fig.6)

All upstands are to be mechanically fixed through the membrane, which must be fabricated with a base plate flange.

Prime the metal with an appropriate metal primer such as an epoxy polyamide primer and allow to dry. Apply a 10mm bead of neutral cure silicone around the perimeter of the penetration. Apply the first coat of ARDEX WPM 002 on the substrate and the flanged metal.

Allow first coat to dry before applying a second coat ensuring a finished dry film thickness of no less than 1.2mm is achieved. Place a suitable flashing collar around the penetration sealing it with a suitable sealant.



Tiling systems

It is advisable to conduct a flood test of the shower once the membrane has cured (normally after 48 hours), and before the tiling commences. A broad range of ARDEX tile adhesives can be used over ARDEX Superflex membranes. Contact ARDEX or your nearest ARDEX stockist for advice on the most suitable system.

QUALITY PRODUCT

ARDEX WPM 002 is manufactured and tested to ARDEX procedures which are maintained in accordance with Quality System Standard ISO 9001.

USER NOTES

The technical details and recommendations 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 the responsibility of the user to ensure that the product is used in accordance with ARDEX instructions and in applications for which they are intended.

TECHNICAL DATA

ARDEX WPM 002

Characteristics of components

Form & Colour Liquid: white, medium viscosity
Powder: off white

Characteristics of mixed product

Mixing Ratio 1:1 by weight
SG of mixed product 1.44kg/litre
Non Volatile Matter 77±1%
Colour light grey/green

Characteristics of cured membrane

Shore A hardness ASTM D2240

– dry film 85 – 90
– wet film 75 – 80

Tensile Strength

7 days dry AS1145 1.7 MPa

Full Cure 28 days: 2.9 MPa

Elongation at Break

7 days dry AS1145 332%

NOTE: Most of the tests have been carried out in the ARDEX laboratory under standard conditions (23±2°C, 50±5% RH)

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 Standard, our instructions and recommendations and only for the uses they are intended. 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 effect 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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Technical Services Toll Free: 1800 224 070

Date: July 2007



ARDEX WPM 155

(Undertile PU Acrylic Hybrid Membrane)

Modified Polyurethane Waterproof Membrane

Can be tiled over – excellent adhesion with ARDEX tile adhesives

Environmentally friendly – solvent free, suitable for confined areas

Class III Membrane – as per AS4858 Wet Area Membranes

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ARDEX WPM 155

(Undertile PU Acrylic Hybrid Membrane)

Modified Polyurethane Waterproof Membrane

DESCRIPTION

Water-based polyurethane-acrylic waterproofing membrane developed for high performance under-tile waterproofing.

- Tough flexible film
- UV stable when left exposed (non trafficable)
- Long shelf life
- Environmentally friendly – solvent free – suitable for confined areas
- Can be tiled over – good adhesion with ARDEX tile adhesives
- Excellent adhesion to a wide range of substrates
- Fast drying
- Class III Membrane, as per AS4858 Wet Area Membranes

RANGE OF APPLICATIONS

For commercial and residential internal/external wet areas, balconies, decks and other areas that will be tiled or otherwise protected from regular foot traffic. Not suitable for permanent immersed conditions. For conditions of permanent immersion, it is recommended that Ardex WPM 002 (Superflex Two Part) is used. For further information please call ARDEX Technical Services.

SUBSTRATES

Concrete

Cured for minimum 28 days, wet concrete should be allowed to dry thoroughly or sealed with one coat of ARDEX WPM 300 at coverage rate of 3.0m² per litre.

Renders and Screeds

Cured for min 7 days. Wet render should be allowed to dry thoroughly or sealed with one coat of WPM 300 at coverage rate of 3.0m² per litre and allowed to cure overnight.

Fibre cement sheets

Wet area grades only.

Plasterboard

Wet area grades only.

Plywood

Structural plywood (PAA branded) or marine grade.

PRIMERS

ARDEX WPM 155 is suitable to use over ARDEX WPM 300, ARDEX WPM 350 or WPM 270 or WPM 265 or ARDEX Multiprime.

APPLICATION:

ARDEX WPM 155 should be thoroughly mixed to a uniform mix and ensure the coating is applied evenly at recommended coverage rates. Mobile joints should be reinforced using Deckweb and the membrane must be lapped to intrusions such as waste outlets in accordance with the instructions. Apply ARDEX WPM 155 by brush or roller or spray. A medium nap (8-12mm pile) or 50mm long bristle paint brush is recommended.

COVERAGE

This will vary with the porosity of the substrates. Two coats are recommended to get optimum performance.

For floors

A dry film thickness of 1.0mm is required. A 20kg unit (15 Litres) will cover approximately 8.6m² (based on two coats).

For walls

A dry film thickness of 0.5mm is required. A 20kg unit (15 Litres) will cover approximately 17.2m².

DRYING TIME

Recoat time is 1-2 hours in between first and second coats. Drying time on flat surfaces under standard conditions is 4 hours. However, dry through time will be slowest in areas where ARDEX WPM 155 is applied over silicone bond breaker, or is reinforced. Make sure these areas are dry before tiling. In some cases, this can vary from 24 hours to 48 hours.

Full cure of the product is 3 days after application at 23°C. Drying times will vary depending on humidity, surface temperature and porosity of substrates.

PACKAGING

20kg (approximately 15 litres).

SHELF LIFE

12 months when stored in the original unopened packaging in a dry place at 23°C.

CLEANING

Wash hands, brushes, rollers with water while product is still fresh. For cured material, use mineral turpentine.

SAFETY PRECAUTIONS

All surfaces must be structurally sound, dry and free from all surface contaminants.

Do not use ARDEX WPM 155 under the following conditions:

- Areas subject to negative hydrostatic pressure or rising damp.
- Wet substrates or green screeds/concrete – need to be sealed with one coat ARDEX WPM 300 as described earlier.
- Surface temperature is below 10°C or greater than 35°C.

SAFETY DATA

ARDEX WPM 155 is a non-hazardous and non-dangerous product. Wear protective clothing when handling. Wash off splashes with clean water. In case of eye contamination, rinse thoroughly with clean water. If irritation persists, seek medical advice.

Additional information is listed in the Material Safety Data Sheet.

QUALITY PRODUCT

ARDEX WPM 155 is manufactured and tested to ARDEX procedures which are maintained in accordance with Quality System Standard ISO 9001.

TECHNICAL DATA

Properties of Liquid Material

Appearance	Blue/Grey
Viscosity (6/20/25°C) AS 1580:1990	30,000 cps
Density (kg/L) AS 4459:1999	1.36
Solids, by mass AS1580:1992	66-69%
Volume solids AS1580-	57%

Properties of the Cured Membrane

Tensile Strength, MPa AS 1145	1.2 MPa
% Elongation	>350%
Shore A Hardness	65-75
Water Vapor Transmission (AS4858/ASTME96)	1.2g/24hrs.m ²

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Technical Services Toll Free: 1800 224 070

November 2007



ARDEX WPM 157

(Polyurethane DPM 157)

One Part Moisture Cured Polyurethane Membrane

Good adhesion to a wide range of substrates

Excellent chemical resistance

Can be applied as a single coat finish

Ideal for plaster box internals

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ARDEX WPM 157

(Polyurethane DPM 157)

One Part Moisture Cured Polyurethane Membrane

DESCRIPTION

ARDEX WPM 157 (Polyurethane Membrane) is one component moisture cured polyurethane system for waterproofing and flooring.

FEATURES

- Excellent flexibility
- One component
- Good adhesion to a wide range of substrate
- Excellent chemical resistance
- Decrease of construction cost and time
- Can be applied as a single coat finish

TYPICAL APPLICATIONS

- Planter box internals.
- Roof and Deck areas that are to be paved over sand bed, ballasted or otherwise covered without bonding.
- Landscaped Decks.

APPLICATION

Application by squeegee, brush or roller (spray application only with adequate protective gear).

ARDEX WPM 157 must be applied to dry surfaces with a moisture content of less than 7%. If doubt exists regarding the moisture content of the substrate, surface should be primed with ARDEX WPM 300 (HydrEpoxy 300) and allowed to cure overnight before application of the ARDEX WPM 157.

ARDEX WPM 157 should be applied at the required coverage rate. In the event that this coverage rate is not achieved in one coat a second coat must be applied within a maximum of 16 hours to achieve an intercoat bond.

Priming

Prime wet or damp surfaces and concrete less than 28 days old with ARDEX WPM 300 (HydrEpoxy 300) at a coverage rate of not more than 3.0 square metres per litre.

Prime dry porous surfaces with ARDEX WPM 270 (Solvent Based Primer) at a coverage rate of approximately 6 square metres per litre.

Application Method

It is preferred that ARDEX WPM 157 is applied over a primed surface.

Apply the ARDEX WPM 157 in one application to achieve an overall dry film thickness of:-

- 1.0mm for non-trafficable surfaces
- 3.0mm for trafficable surfaces

Application using a squeegee, roller or brush (multiple coating in two direction application) is recommended. Subsequent coats must be applied within 16 hours of the preceding coat.

During application full suitable protective clothing should be employed. If using in areas of low ventilation full external breathing apparatus should be used.

LIMITATIONS

Bonding of ceramic tiles or other hard coverings is not recommended.

Topping screeds should be self supporting (ie reinforced), should be at least 40mm thick and applied over a suitable slip sheet.

ARDEX WPM 157 must be applied to completely dry surfaces.

ARDEX WPM 157 should not be applied without the necessary protective clothing – refer safety data.

This product is very sensitive to air, therefore containers cannot be resealed for future use once they have been opened.

THINNING AND CLEAN UP

Thinning of ARDEX WPM 157 is not required since this will inhibit the ability to achieve the dry film thickness. If thinning is required the addition of up to 10% of xylene should be used.

Roller sleeves and brushes should be considered as consumables and disposed of following application. Other clean up may be done using xylene or other high aromatic hydrocarbon solvent.

SAFETY PRECAUTIONS

ARDEX WPM 157 is hazardous and a dangerous goods. It is flammable and is irritating to the eyes. Keep away from sources of ignition. No smoking. Keep container in a well ventilated place. Do not empty into drains. Appropriate protective clothing must be worn during application. In case of contact with eyes, rinse with plenty of water and contact a doctor or Poisons Information Centre. If swallowed, IMMEDIATELY contact a doctor or Poisons Information Centre (show the container or label).

ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.

TECHNICAL PERFORMANCE DATA

Appearance	Colored viscous liquid
Viscosity	5,000±2,000 cps/25°C
Density	1.4±0.1 (g/cm ³)
Solid Content (%)	92±2
Tack Free Time (hrs at 25°/60%RH)	max 3
Curing Time (hrs at 25°/60%RH)	
Coating Thickness 1.0mm	max 24
Coating Thickness 3.0mm	24 – 48
Properties of Film	
Hardness (Shore A)	70±10
Tensile Strength (kgf/cm²)	over 35 (3.43 MPa)
Elongation (%)	over 500
Tear Strength (kgf/cm)	over 20 (1.96 MPa)

HANDLING & STORAGE

ARDEX WPM 157 can be stored for 6 months at below 25°C. Avoid prolonged exposure to humidity or temperature above 50°C. Avoid contamination with water or alcohols.

PACKING

20kgs (nominal 14.91 litres) in a metal container.

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ARDEX WPM 163

(Sheltercoat DPM 163 Penetrative Sealer)

Single Component Polyurethane Dispersion Sealer

Requires only a short downtime for application. Trafficable within 24 hours

Penetrates and cures within the pores of the surface providing a seal for extended service life

Good flexibility properties to withstand substrate expansion and contraction

Can be applied to damp surfaces and freshly laid concrete

Non-flammable and very low odour

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ARDEX WPM 163

(Sheltercoat DPM 163 Penetrative Sealer)

Single Component Polyurethane Dispersion Sealer

PRODUCT DESCRIPTION

ARDEX WPM 163 (Sheltercoat DPM163) is a one component water based urethane modified acrylic water resistant protective sealer that penetrates and cures within the pores of the surface being sealed. ARDEX WPM 163 is semi permeable allowing the surface to breathe and is not a waterproof membrane that will resist ponding water.

FEATURES/BENEFITS

- Interior or exterior use.
- Used as an Incontinence barrier for concrete floors in health care institutions.
- Water white and is stable to ultra violet exposure.
- Requires only short downtime for application. Four coats can be applied within the same day allowing light trafficking within 24 hours.
- Penetrates and cures within the pores of the surface being sealed to provide extended service life.
- Provides high abrasion resistance since the wear properties are dependent on the base substrate.
- Can be recoated at any time.
- Good flexibility properties to withstand substrate expansion and contraction.
- Non-flammable and very low odour.
- Surface tolerant and flexible.

TYPICAL USES

- As an economical single component sealer and dust suppressant for warehouse and showroom concrete floors to suppress dust formation and dirt collection with minimum down-time.
- As a water resistant sealer for external concrete or masonry walls to prevent water ingress while allowing the substrate to breathe to prevent internal surface condensation.
- As a grease and oil resistant sealer for concrete and masonry paths, paved areas, pool surrounds, etc.
- As an easily applied water resisting sealer for concrete, roof tiles, brick, stone, slate and masonry to inhibit water penetration
- As a protective sealer for sandstone to minimize dirt and atmospheric grime to develop while allowing the sandstone to breathe.
- As a sealer for timber wall paneling.

LIMITATIONS

The product should be applied whilst the surface temperature is between 10- 35°C. Drying time is adversely affected by low temperature and in situations where relative humidity is >85%.

Apply only using multiple thin film application.

Do not apply if rain is imminent.

DO not leave containers open for long period of time.

NOTE: Sealing a surface will decrease slip resistance in wet conditions.

SURFACE PREPARATION

All surfaces must be cleaned free from dust, dirt, grease, oil, previous surface coatings or adhesive and other surface contaminants.

ARDEX WPM 163 is a clear sealer and any contamination, surface texture irregularities, or stains existing at the time of coating will be evident, and probably emphasised, in the final finish.

APPLICATION

Thoroughly mix the product before use. ARDEX WPM 163 may be applied by brush, roller or low volume spray application techniques and should be applied in multiple thin films only to allow for maximum penetration allowing 30 minutes to 1 hour at 25°C between coats.

Care should be taken not to apply excess material in each coat when using brush or roller. Application of excess material per coat will result in the product bridging the pores preventing penetration.

ARDEX WPM 163 should preferably be applied to damp or moist substrates that are surface dry and not wet. Excess water in the substrate will hinder the penetration of the product.

The number of coats required will vary depending on the porosity of the substrate. Apply sufficient material to fill all surface pores. Two coats are normally sufficient on steel trowelled concrete while clay pavers are likely to require four coats.

Allow 24 hours curing before subjecting to light pedestrian traffic, three days for rubber wheeled traffic, seven days for full cure and maximum traffic loading.

CLEANING & THINNING

ARDEX WPM 163 normally does not require thinning for application. For very fine grained substrates, thin with up to 10% of fresh clean water.

Wash all equipment in warm water or water/detergent immediately on completion of the work.

PROPERTY DATA

Colour	Clear/water white
Finish	Semi-gloss going to mat with external exposure aging
Typical coverage	15m ² /L/coat depending on the porosity of the substrate
Typical no. of coats	2-4 depending on the substrate porosity & surface finish desired
Recoat time	_ to 1 hr @ 25°C & 50% R.H.
Full cure	7 days @ 25°C & 50% R.H.
UV Exposure	Resistant

SAFETY PRECAUTIONS

ARDEX WPM 163 is non-hazardous; non-dangerous goods.

Avoid contact with skin and eyes and avoid breathing vapour or spray mist. Wear eye protection and protective gloves when mixing and using.

FIRST AID

If poisoning occurs, contact a doctor or the Poisons Information Centre. If swallowed, do NOT induce vomiting. Give a glass of water. If skin contact occurs, remove contaminated clothing and wash skin thoroughly. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

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Date: July 2007



ARDEX WPM 256

(HydrEpoxy 256 Bonding Bridge)

Water Based Epoxy Bonding Bridge

Penetrating Structural Sealer

Forms a structural bond between new and old concrete

Can be applied to damp surfaces

Is compatible with fresh cement or concrete products

Excellent adhesion to most substrates

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ARDEX WPM 256

(HydrEpoxy 256 Bonding Bridge)

Water Based Epoxy Bonding Bridge

PRODUCT DESCRIPTION

ARDEX WPM 256 (HydrEpoxy 256) is a two component water based epoxy polyamide unpigmented new to old concrete bonding bridge, admixture for cement based materials and structural penetrating sealer.

- Non-flammable and negligible odour.
- Convenient equal part-mixing ratio.
- Surface tolerant.
- Water thinned and clean up.

FEATURES/BENEFITS

A relatively high solids product specifically designed as a high strength bonding bridge for bonding new render or concrete to aged concrete substrates. ARDEX WPM 256 is also used as an epoxy admixture for cementitious products used for concrete repair. When thinned 50% with water it forms a structural penetrating sealer.

- Forms a structural bond between new and old concrete.
- Can be applied to damp surfaces.
- Is compatible with fresh cement or concrete products.
- Has excellent adhesion to most substrates including brick, masonry, concrete block, concrete, compressed fibreboard, stone and timber

TYPICAL APPLICATIONS

- As a new to old concrete bonding bridge to substantially improve the bonding characteristics.
- As an admixture to cement to produce variable strength repair mortars and waterproofing grouting material.
- As a concrete curing membrane to contain the water and as an aid to the curing of and sealing of concrete.

LIMITATIONS

The product should be applied whilst the surface temperature is between 10–35°C. The product will cease to cure below 10°C, but will recommence curing when the temperature rises above 10°C. Curing time will also be adversely affected in situations where relative humidity is >85%.

Good ventilation should be provided during curing cycle.

Will yellow when exposed to ultra violet light for extended periods.

The cured coating will form a glazed chemically resistant surface finish which must be well sanded to produce a course surface profile prior to adhering any product to the cured film. When used as a penetrative sealer the surface may darken slightly with age.

BASIC APPLICATION INSTRUCTIONS

Surface Preparation

All surfaces to be treated must be structurally sound, all previous coatings should be removed and the surface cleaned free from contaminants.

Installation

Each component should be individually mixed to form homogeneous components. Thoroughly mix the two components in the ratio of 1:1 by volume, preferably using a power stirrer, until a homogeneous mix is obtained. Only mix as much as may be used within the pot life of the product and avoid excessive aeration during mixing.

Application as a New to Old Concrete Bonding Bridge

Apply one coat by brush, roller or spray to a section of the area to be treated at a coverage rate of 7 square metres per litre.

Only apply the Bonding Bridge to an area to which the new render or concrete can be placed while the bonding bridge remains wet or tacky.

Immediately following application of the ARDEX WPM 256, place the new render or concrete and finish as required.

Repeat the process until the full area to be treated is complete.

Application as a Concrete Repair Mortar

After mixing the ARDEX WPM 256, mix with an equal volume of cement and add a fine particle grade river washed sand to achieve the desired working consistency (normally 2-3 times the volume of cement added).

During trowel finishing of the concrete repair mortar, use a wet trowel to avoid drag-up and to obtain a smooth finish.

Application as a Concrete Curing Membrane

Apply one coat by brush, roller or spray at a coverage rate of 3 square metres per litre.

Note that surfaces must be sanded in the event of application of coatings or adhesives after the film has cured.

SAFETY PRECAUTIONS

ARDEX WPM 256 Part A and Part B are hazardous goods and may cause sensitization by skin contact. They are harmful by inhalation, in contact with skin and if swallowed. Keep containers tightly closed and in a well ventilated place. Take off immediately all contaminated clothing. Avoid contact with skin and eyes. It is recommended that protective gloves be used during application.

ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.

CLEAN UP & DISPOSAL

Thinning is not recommended when using this product for the applications described.

Wash all equipment in water or water/detergent immediately on completion of work since ARDEX WPM 256 will cure underwater if equipment is left.

TECHNICAL PERFORMANCE DATA

	Bonding Bridge	Repair Mortar	Curing Membrane
No. of Coats	1	n/a	1
Coverage (m/L)	7	n/a	3
(m/L of 6mm topping)	n/a	0.6	n/a
Pot Life (hrs @ 25°C)	1	–	1
Cure Time (@ 25°C)			
Hard Dry (hrs)	24	24	24
Full Cure (days)	7	7	7
Bond Strength (MPa)	5	n/a	5

Note: The concrete repair mortar must be installed over the New to Old Concrete Bonding Bridge.

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ARDEX WPM 265

(Sheltercoat Water Based Primer)

Creates a positive bond between the substrate and most water based coatings

Can be used on substrates like new and old concrete, timber and compressed fibre boards

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ARDEX WPM 265

(Sheltercoat Water Based Primer)

DESCRIPTION

ARDEX WPM 265 (Sheltercoat Water Based Primer) is a red pigmented, acrylic primer system which creates a positive bond between the substrate and most water based coatings. Designed principally for internal use, ARDEX WPM 265 can also be used for external applications.

TYPICAL APPLICATIONS

- New and old concrete
- Timber
- Compressed fibreboards
- Primer for acrylic coatings

APPLICATION REQUIREMENTS

Substrate Preparation

The surface to be coated should be dry, clean, sound and free from oil, grease and flaking paint. New concrete should be left a minimum of 28 days and new render a minimum of 7 days before application commences. All cracks or holes exceeding 2mm are to be repaired before application commences.

Application

Apply with brush, long nap roller or conventional spray. Ensure that the coating is applied evenly at the recommended coverage rates. Allow a drying time of at least one hour.

LIMITATIONS

Do not apply ARDEX WPM 265 if the temperature is below 10°C or above 35°C.

Primed surfaces should preferably be overcoated within the same day of application to avoid intercoat contamination.

COVERAGE

Approximately 6 m²/litre. Coverage rate may vary depending on the porosity of the surface.

PACKAGING

20L plastic pails.

CLEAN UP

Clean all equipment in fresh water immediately after use.

SHELF LIFE

One year in unopened containers stored at 20°C.

STORAGE

ARDEX WPM 265 must be stored above 6°C.

SAFETY PRECAUTIONS

ARDEX WPM 265 is non-toxic goods. Avoid contact with skin and inhalation of the vapour. Wear protective eye/face protection and gloves when handling. Provide adequate ventilation. Wash off splashes with clean water. If irritation persists, seek medical advice.

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ARDEX WPM 270

(Sheltercoat Solvent Based Primer)

Excellent durability, low viscosity

Designed for external applications

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ARDEX WPM 270

(Sheltercoat Solvent Based Primer)

DESCRIPTION

ARDEX WPM 270 (Sheltercoat Primer Solvent Based) is a clear primer designed to lock particles on the substrate to achieve maximum adhesion for subsequent coatings. It has excellent durability and is a low viscosity binder that seals absorbent substrates and penetrates dust. Designed principally for external applications, care should be taken when using internally to ensure adequate ventilation exists during application.

TYPICAL APPLICATIONS

- New and old concrete
- Timber
- Compressed fibreboards
- Primer for acrylic coatings

BASIC APPLICATION REQUIREMENTS

Substrate preparation

The surface to be coated should be dry, clean, sound and free from oil, grease and flaking paint. New concrete should be left a minimum of 28 days and new render a minimum of 7 days before application commences. All cracks or holes exceeding 2mm are to be repaired before application commences.

Application

Apply with brush, long nap roller or conventional spray at a coverage rate of 6m²/litre. Ensure that the coating is applied evenly at the recommended coverage rates. Allow a drying time of at least one hour.

LIMITATIONS

Do not apply ARDEX WPM 270 if the surface temperature is below 5°C or above 35°C.

Surfaces must be dry prior to application.

Primed surfaces should preferably be overcoated within the same day of application to avoid intercoat contamination.

COVERAGE

Approximately 6 m²/litre. Coverage rate may vary depending on the porosity of the surface.

PACKAGING

20L Metal Pails.

CLEAN UP

Clean all equipment in general purpose thinners immediately after use.

STORAGE

ARDEX WPM 270 must be stored above 5°C.

SHELF LIFE

One year in unopened containers stored at 20°C.

SAFETY PRECAUTIONS

ARDEX WPM 270 is hazardous and a dangerous goods. It is harmful by inhalation and in contact with skin. It may cause lung damage if swallowed. It is irritating to the eyes and skin. Keep out of reach of children. Keep container tightly closed and in a well ventilated place. Take off immediately all contaminated clothing. In case of contact with eyes, rinse with plenty of water and contact a doctor or Poisons Information Centre.

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Date: July 2007



ARDEX WPM 300

(HydrEpoxy 300)

Water Based Epoxy Membrane

Water resistant, prevents rising damp, efflorescence and withstands hydrostatic pressure

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

Safe to use in sensitive locations

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ARDEX WPM 300

(HydrEpoxy 300)

Water Based Epoxy Membrane

PRODUCT DESCRIPTION

ARDEX WPM 300 (HydrEpoxy 300) is a two component water based epoxy polyamide membrane/barrier coating.

Approved for use with potable (drinking) water, independent testing confirms conformity with the requirements of AS4020.2000 & BS6920.

FEATURES/BENEFITS

- Non-flammable & 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 requirements of:
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 a 25 metre head of water.
- When used wet on wet over ARDEX WPM 256 Bonding Bridge the cured membrane will withstand 400kPa of pressure which is equivalent to 40 metre head of water.
- No maximum recoat time provided surface is clean and free from surface contaminants.
- Can be overcoated using almost any decorative or industrial finishing paint.
- Safe to use in sensitive locations (e.g. around food or habitable areas) and environmentally sound.
- Prevents rising damp and the formation of efflorescence when used as a single coat barrier coat.
- Has excellent adhesion to most substrates including brick, masonry, concrete block, concrete, stone and timber.
- Easy clean-up using water.

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

The product should be applied whilst the surface temperature is between 10–35°C. The product will cease to cure below 10°C, but will recommence curing when the temperature rises above 10°C. Curing time will also be adversely affected in situations where relative humidity is >85%.

In enclosed areas, ventilation must be provided during the 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.

BASIC APPLICATION INSTRUCTIONS

Surface Preparation

All surfaces to be treated must be structurally sound; and existing coatings, adhesives, efflorescence should be removed to achieve maximum bond 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 an ARDEX WPM 405 (Sheltercrete Additive), WPM 300 epoxy mortar or ARDEX concrete repair systems 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 homogeneous 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 wet the surface with a fine mist of water before application and allow to just surface dry.

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 two coats 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.

The coverage rate for all surfaces should be a total of 1.5 square metres per litre (3.0 square metres per litre 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 1.5 square metres per litre.

Allow to cure for 24 hours before applying 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.

It is recommended that the final coating applied to floor surfaces should be allowed to cure for at least 3 days before further treatment to minimize the risks of mechanical damage.

PACKAGING

4L kit

20L kit

SAFETY PRECAUTIONS

ARDEX WPM 300 Part A and Part B are hazardous goods and may cause sensitization by skin contact. They are harmful by inhalation, in contact with skin and if swallowed. Keep containers tightly closed in a well ventilated place. Avoid contact with skin and eyes. It is strongly recommended that protective clothing is worn at all times during use of epoxy material to prevent contact with skin.

ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.

THINNING & 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 second coat should be avoided since this increases the difficulty in achieving the required dry film thickness. Wash all equipment in water or water/detergent immediately on completion.

TECHNICAL PERFORMANCE DATA

Colour	Grey, Black
Finish	Semi-gloss going to matt with aging
Volume solids	44%
Mixing ratio	1:1 (Part A:/Part B) by volume
Coverage	Must be applied at a rate of 1.5 square metres per litre to achieve an effective waterproofing membrane. Minimum two coats are recommended to achieve uniform coverage.
Wet Film Thickness	300 micrometers per coat
Recoat time	4 hours @ 25°C & 50% R.H.
Full cure	7 days @ 25°C & 50% R.H.
Pot life	2 hours @ 25°C 1 hour @ 35°C

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

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ARDEX WPM 310

(Shelterguard)

External Façade & Roof Membrane

Semi-permeable membrane – allows wall surfaces to breathe

Provides excellent UV resistance and long term protection from elements

Water based – safe to use, low odour and easy cleaning

Decorative – choice of colours

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ARDEX WPM 310

(Shelterguard)

External Façade & Roof Membrane

PRODUCT DESCRIPTION

ARDEX WPM 310 is a tough, UV stable flexible premixed liquid applied waterproofing membrane. It has been specifically formulated as a general purpose membrane for exposed wall and roof waterproofing. ARDEX WPM 310 can be applied as an aesthetically attractive textured or semi-smooth finish for walls or a semi-smooth uniform finish for roofs. ARDEX WPM 310 is available in a range of standard colours.

FEATURES/BENEFITS

- Flexible – Accommodates normal building movement.
- Provides excellent UV resistance and long term protection from elements.
- Excellent workability – Easy, quick to apply.
- Decorative – Choice of colours.
- Water based – Safe to use, low odour and easy cleaning.
- Prevents carbon dioxide attack.

TYPICAL USES

- **At a dry film thickness of 0.35mm** the film formed is classified as semi-permeable and suitable for substrates than have to breathe.

As a decorative textured finish and waterproofing of external walls and facades.

- **At a dry film thickness of 1.0mm** the film forms a waterproof membrane.

As a waterproof membrane over concrete roofs, decks. Suitable for light (service) traffic when fully reinforced and overcoated with ARDEX WPM 355 Protective Finish. High traffic areas will require a protective cement screed over the membrane.

LIMITATIONS

Do not use the product in the following situations:

- Areas subject to traffic must be treated as follows:
 - Light (service) traffic – fully reinforce with ARDEX Deckweb and overcoat with ARDEX WPM 355 (Protective Finish).
 - Medium or Heavy traffic – apply a protective cementitious screed over the membrane to provide protection.
- Where solvent or petroleum based products could be spilled.
- Do not use the product under the following application conditions.

- When rain appears imminent.
- Where the surface temperature is below 10°C or greater than 35°C.
- On wet surfaces that have not been sealed with ARDEX WPM 300 (HydrEpoxy 300).
- Do not attempt to thin with water. For substrates or situations other than those listed, contact your ARDEX representative.

SURFACE PREPARATION

Ensure all surfaces are structurally sound or securely fixed and totally dry. The surface to be coated should be free from dust, oil, curing compounds and any other contaminating materials. When applying over existing coatings, ensure they are firmly bonded. Damaged or spalled concrete should be repaired (leveled) and surface defects including all cracks and sharp protrusions should be treated prior to the application of the membrane. Remove laitance by mechanical means and dense concrete should be mechanically roughened to open the pores of the concrete. New concrete should be left at least 28 days to cure or primed with ARDEX WPM 300 (HydrEpoxy 300). Wet, damp or new concrete substrate surfaces should be primed with ARDEX WPM 300 (HydrEpoxy 300) at 3.0 square metres per litre (0.3mm wet film thickness) and allowed to cure overnight.

All surfaces, other than those sealed with ARDEX WPM 300 (HydrEpoxy 300), must be primed with ARDEX WPM 270 solvent primer or ARDEX WPM 265 water based primer at a coverage rate of 6 square metres per litre. ARDEX WPM 270 solvent based primer is preferred for use in external applications. Hebel block or other highly porous surfaces may need two coats.

Allow the primer to dry for at least 30 minutes before applying the first coat of membrane. The primer should preferably be overcoated within the same day of application to avoid intercoat contamination.

APPLICATION

EXTERNAL WALL MEMBRANE APPLICATION

Apply using a nap or textured roller. Apply the coating in two coats ensuring a uniform coverage is achieved at an approximate wet film thickness of 0.3mm per coat to achieve an overall dry film thickness of 0.3mm. Allow the first coat to become hard dry (normally about 4 hours at 23°C/50% RH) before applying the second coat.

ROOF MEMBRANE APPLICATION

Apply the coating in two coats ensuring a uniform coverage is achieved at an approximate wet film thickness of 1.0mm per coat to achieve an overall dry film thickness of 1.0mm. Allow the first coat to become hard dry (normally about 4 hours at 23°C/50% RH) before applying the second coat.

Cold joints and mobile joints must incorporate a bond breaker and be reinforced using ARDEX Deckweb. Areas subject to light (service) traffic should be fully reinforced using ARDEX Deckweb and overcoated with ARDEX WPM 355 (Sheltercoat Protective Finish). Areas subject to heavy traffic should have a protective cementitious screed applied over the membrane.

Surface Finish

The surface finish achieved can be varied by selection of method of application. Prior to the commencement of any project it is recommended that a sample of the finish be prepared for approval and that finish shall act as the standard.

Surface Finish Profile	Roller Type	
	1 st Coat	2 nd Coat
High Texture	Med. Texture	Med. Texture
Medium Texture	Nap	Med. Texture
Low Texture	Med. Texture	Nap
Ripple Texture	Nap	Nap

The length of the roller nap will vary the profile of the texture although the nap length must suit the substrate. A 12–15mm nap produces a low surface profile while a 15–24mm nap produces a higher surface profile.

COVERAGE

EXTERNAL WALL MEMBRANE APPLICATION

1 x 15 litre unit will cover approximately 24 square metres in two coats at a total dry film thickness of 0.3mm.

ROOF MEMBRANE APPLICATION

1 x 15 litre unit will cover approximately 7 square metres in two coats at a total dry film thickness of 1.0mm.

Coverage will vary depending on the condition of the surface and film thickness.

CLEANING & THINNING

Thinning is not necessary or recommended. Clean up with water before material has set and remove cured material with mineral turps.

PROPERTY DATA

Characteristics of liquid

Form & colour	Viscous Liquid in standard colours. Special colours on request at a premium
Specific gravity	Approx. 1.3 g/cm ³

Characteristics of cured membrane

Water Vapour Transmission (ASTM E96) at 1.0mm 21.9 g/m²/24hrs

Tensile strength AS1145

After 28 days dry	2.1 MPa
After 14 days UV exposure	3.0 MPa
After 2,500 hrs QUV	5.9 MPa

Elongation at break AS1145

After 28 days dry	460%
After 14 days UV exposure	315%
After 2,500 hrs QUV	180%

Application Details

Application method

- Textured roller, medium nap roller or brush for external wall membrane.
- Long nap roller or brush for roof membrane application.

Overcoat time 4 hrs @ 23°C 50% RH

Dry through (2nd coat) 24 hrs @ 23°C 50% RH

Application temperature 10°C – 35°C (surface temp)

Service temperature 0°C – 60°C

NOTE: Most of the tests have been carried under standard conditions (23±2 °C, 50±5% R.H)

SAFETY PRECAUTIONS

ARDEX WPM 310 is non-hazardous and non-dangerous goods. It is recommended that protective gloves be used during application. If product comes in contact with eyes, rinse thoroughly with water. In the event of irritation, seek medical advice.

ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.

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Date: July 2007



ARDEX WPM 320

(Sheltercoat Retaining Wall – 1 Part)

Bitumen Emulsion Waterproofing Membrane

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

Excellent adhesion – can be applied to damp or dry substrates

Compatible with ARDEX bitumen torch applied membranes

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ARDEX WPM 320

(Sheltercoat Retaining Wall – 1 Part)

Bitumin Emulsion Waterproofing Membrane

PRODUCT DESCRIPTION

ARDEX WPM 320 (Sheltercoat Retaining Wall) is a one component liquid applied, latex modified, bituminous elastomeric waterproofing membrane. When cured it forms a permanently flexible waterproof lining to most building surfaces. It is tough, economical and easy to use. Specially formulated ARDEX WPM 320 contains a premium root inhibitor that repels root growth without killing the root.

Designed primarily for areas covered or exposed to soil, it has excellent adhesion properties, can be applied to damp substrates. ARDEX WPM 320 is waterbased, has almost no odour and is safe to use.

Where used externally, ARDEX WPM 320 should be protected from Ultra Violet light.

FEATURES/BENEFITS

- Water based: safe, low odour.
- Easily applied: single pack, high build, long pot life.
- Tough/durable: provides long term protection.
- Contains an effective root inhibitor that repels most root growth that may damage the membrane without killing the plant.
- Excellent adhesion: can be applied to damp or dry substrates.
- Compatible with ARDEX bitumen torch applied membranes.

ACCEPTABLE SUBSTRATES

- Concrete, 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 & concrete blocks – voids filled, sharp edges and protrusions should be removed to give flush finish.

TYPICAL APPLICATIONS

- Below ground tanking (not hydrostatic situations).
- Planter boxes.
- Retaining walls.
- Lapping ARDEX acrylic façade membrane to ARDEX bitumen torch applied membranes.

The product should not be used under tiles. Membranes containing bitumen can cause discolouration and disbonding of tiled surfaces over time.

LIMITATIONS

ARDEX WPM 320 will not resist root growth from large trees or other plants placed in close proximity.

ARDEX WPM 320 coated surfaces must not be backfilled until the coating is totally dry and cured, as the coating will fail to cure altogether.

Do not apply ARDEX WPM 320 if the surface temperature is below 8°C or above 32°C. Do not apply if rain is imminent. Do not leave membrane exposed to direct UV rays for more than 3 weeks. Do not use solvent-based adhesive or sealers on top of membrane.

BASIC APPLICATION INSTRUCTIONS

Surface Preparation

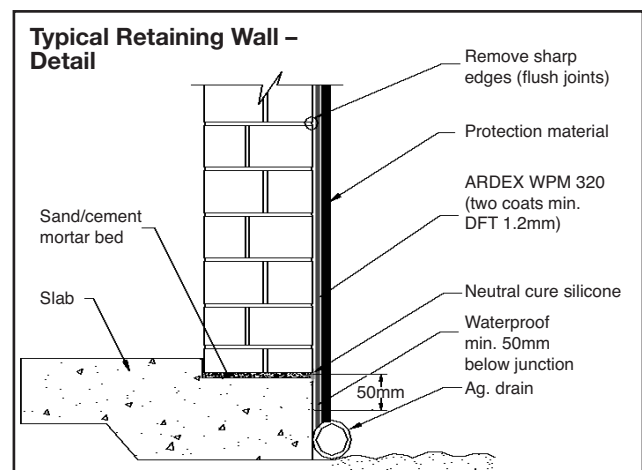
The surface to be coated should be clean, sound and free from oils, greases and flaking paint. New concrete should be cured for 28 days (or a barrier coat of ARDEX WPM 300 (HydrEpoxy 300) applied) prior to application of membrane and the surface pores must be open. All cracks or holes exceeding 2mm are to be repaired before application commences. Surface may be slightly damp but must be free from seeping moisture. 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 320 is self-priming on most surfaces. 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 primed with ARDEX WPM 320 mixed with 50% water.

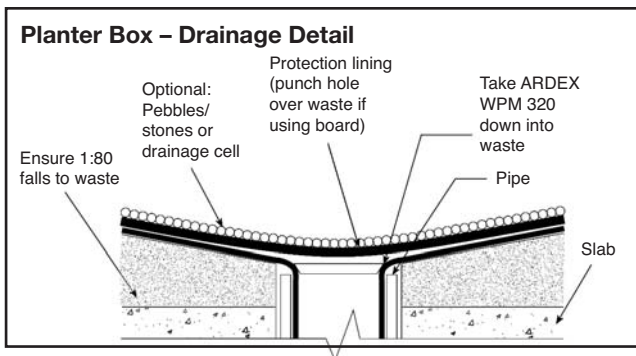
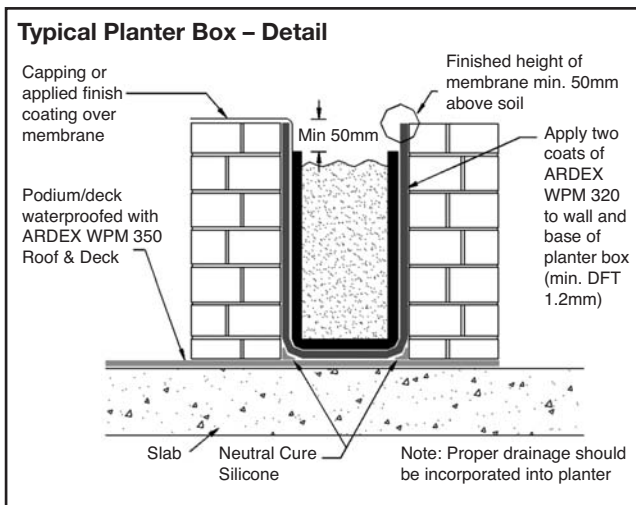
Application

Apply a bead of elastomeric sealant to all expansion joints, corners, wall to floor/footing junctions and where movement will occur.



Apply 2 coats of ARDEX WPM 320 at a total rate of 2.0 litres per m², and ensure full coverage with brush or roller. A reinforcing fabric should be used between coats in all vertical and horizontal corners or other possible movement joints. ARDEX WPM 320 may be fully reinforced if required such as over concrete block walls.

When dry, check for pinholes and rectify if necessary.



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 are recommended. The protection boards should be installed using duct tape or other suitable means without puncturing the membrane.

COVERAGE

1 x 20 litre unit will cover approximately 10m² after two coats (recommended total dry film thickness minimum 1.0mm).

DRYING TIME

Allow 1-2 hours between coats, unless a reinforcement material is used between coats. In this case, the second coat can be applied immediately after the mat has been installed in the wet first coat.

The membrane is fully dry in 24 hours, after which it should be protected with ARDEX Protection Boards or Geotextile Fabric coated drainage cell. Backfilling should not be carried out until full cure is achieved after 7 days.

SAFETY DATA

ARDEX WPM 320 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

ARDEX WPM 320 is sold in 20 litre PVC 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 & DISPOSAL

Clean all equipment in fresh water 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

Appearance & Odour Thick black fluid, slight odour

Specific Gravity Approx. 1.03 g/cm³

Application temperature 10°C - 35°C

Drying Time: (@ 23°C, 50% RH)

Recoat 2 – 4 hours

Hard Dry 24 – 48 hours

Tensile Strength: 6 days @ 23°C/50% RH plus 24 hrs at 70°C 1.8MPa

Elongation of break: 6 days @ 23°C/50% RH plus 24 hrs at 70°C 220%

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Technical Services Toll Free: 1800 224 070

Date: July 2007



ARDEX WPM 330

(Sheltercoat Façade Membrane)

External Anti-Carbonation Façade Membrane

Semi-permeable membrane – allows wall surface to breathe

Contains fungi and algae growth inhibitors

Provides excellent UV resistance and long term protection from elements

Water based, safe to use, low odour and easy cleaning

Decorative – choice of colours

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ARDEX WPM 330

(Sheltercoat Façade Membrane)

External Anti-Carbonation Façade Membrane

PRODUCT DESCRIPTION

ARDEX WPM 330 is an extremely weather resistant water based acrylic waterproofing membrane. Specially designed as an exposed facade membrane, ARDEX WPM 330 prevents moisture, salt and carbon dioxide entering and damaging the building structure while still allowing the substrate to breathe.

ARDEX WPM 330 is also highly resistant to dirt retention, as well as containing fungi and algae growth inhibitors. The product's flexibility and high build qualities allow it to be applied over hairline cracks.

ARDEX WPM 330 is water based, low in odour and is available in a range of decorative colours.

FEATURES/BENEFITS

- Highly flexible & durable
- Self cleaning, low dirt retention
- Resists fungi & algae growth
- Large range of durable colours
- Vapour permeable (allows facade substrate to breath)
- Prevents salt and carbon dioxide attack

ACCEPTABLE SUBSTRATES

After appropriate surface preparation:-

- Rendered walls
- Brick/masonry walls
- Fibre cement sheets
- Tilt up and pre-cast concrete
- Light weight aerated concrete blocks (eg CSR Hebel)

TYPICAL APPLICATIONS

- Building facades & external walls
- Roof parapets
- Silos, lighthouses & other external structures

Particularly important in coastal areas, high traffic density areas for application over concrete and brick surfaces.

LIMITATIONS

Product should not be used in trafficable areas. Other ARDEX products are more suitable for this application. Do not apply ARDEX WPM 330 if the surface temperature is below 10°C or above 35°C. Do not apply if rain is imminent.

BASIC APPLICATION INSTRUCTIONS

Surface preparation

The surface to be coated should be clean, sound, and free from oil, grease, form release agents or bondbreakers and other contaminants. All areas of loose or flaking paint must be removed to a firmly bonded substrate. Concrete surface pores must be open to enable good adhesion.

Cracks and voids

ARDEX WPM 330 can be applied directly over hairline cracks. All other cracks should be treated with a neutral cure silicone. Other deep surface imperfections should be repaired using ARDEX concrete repair mortar and allowed to cure for 7 days before applying the membrane. Refer to ARDEX for advice regarding areas of concrete spalling. Irregular surfaces resulting from peeled paint should be smoothed using Adrex concrete repair systems.

Priming

All prepared surfaces should be primed with one coat of ARDEX WPM 270 Solvent Based Primer at a rate of 6m² per litre. AAC (Hebel) or other highly porous surfaces may require two coats. Allow primer to be dry before applying the membrane (approx. 30 minutes).

Application of ARDEX WPM 330

Apply with nap roller, textured roller or paint brush. Ensure that the coating is applied evenly at the recommended coverage rates.

Apply the first coat of WPM 330 at a rate of 1 litre per 2.8m² to achieve a wet film thickness of 0.35mm, and allow it to dry.

Apply the second coat at approximately the same rate to achieve a final dry film thickness of around 0.35mm.

Surface Finish

The surface finish achieved can be varied by selection of method of application. Prior to the commencement of any project it is recommended that a sample of the finish be prepared for approval and that finish shall act as the standard.

Surface Finish Profile	Roller Type	
	1 st Coat	2 nd Coat
High Texture	Med. Texture	Med. Texture
Medium Texture	Nap	Med. Texture
Low Texture	Med. Texture	Nap
Ripple Texture	Nap	Nap

The length of the roller nap will vary the profile of the texture although the nap length must suit the substrate. A 12-15mm nap produces a low surface profile while a 15-24mm nap produces a higher surface profile.

COVERAGE

Coverage: 1 x 15 litre unit of ARDEX WPM 330 will cover approximately 20m² (at a dry film thickness, after two coats, of 0.35mm).

SAFETY PRECAUTIONS

ARDEX WPM 330 is non-hazardous; non-dangerous goods. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin. If contact with eyes, rinse thoroughly with water.

STORAGE

The shelf life of ARDEX WPM 330 is 12 months in the original unopened packaging when stored in a cool, dry and well ventilated area. Keep containers securely sealed. DO NOT allow to freeze. Do not store in direct sunlight. Replace lid tightly after use. Product should be used within 6 months of the container being opened.

ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.

CLEAN UP & DISPOSAL

Clean all equipment with water prior to the product drying. Dispose of containers in compliance with all relevant local authorities, state and federal laws and regulations.

TECHNICAL PERFORMANCE DATA

Colour	Available in selected colour range
Specific Gravity	1.26g/cm ³
Viscosity	60,000 cps
Volume Solids	49%
Application Temperature	10°C - 35°C
Drying time: (25°C/50% RH)	
Surface Dry	2 hours
Recoat	4 hours
Hard Dry	7 days

Lower temperature and higher humidity will prolong drying.

Carbon Dioxide diffusion resistance

**Kopfler criterion
(min reqd. R> 50 m)** 124 m

**Water vapour transmission
(ASTM E96-94)** 39.8 g/m²/24 hrs

**Kopfler criterion
(max reqd Sd< 4m)** 1.1 m

**Chloride ion diffusion resistance
(as per TEL procedures)** 7.7 x 10⁻¹⁴ m³/sec

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Technical Services Toll Free: 1800 224 070

Date: July 2007



ARDEX WPM 350

(Sheltercoat Roof & Deck – 2 part)

Roof & Deck Waterproofing Membrane

Specifically designed for exposed situations

Reinforced liquid component eliminates the need for reinforcement mat in most situations

UV and fungus resistant

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ARDEX WPM 350

(Sheltercoat Roof & Deck – 2 part)

Roof & Deck Waterproofing Membrane

PRODUCT DESCRIPTION

Ardex WPM 350 (Sheltercoat Roof & Deck 2 Part) is a tough, UV stable, mildew resistant and flexible liquid applied waterproofing membrane. It has been specifically formulated for exposed situations, and is available in a range of colours. The reinforced liquid component eliminates the need for reinforcement mat in most situations.

SYSTEM

Light foot traffic areas (ie. service traffic)

Ardex WPM 265 water based Primer or Ardex WPM 270 solvent based Primer

Ardex WPM 350
(first coat)

Ardex WPM 350
(second coat)

Optional: Ardex WPM 355
(Protective Finish) (2 coats)

Medium foot traffic areas (ie. not public areas)

Ardex WPM 265 water based Primer or Ardex WPM 270 solvent based Primer

Ardex WPM 350
(first coat)

Ardex WPM 350 with
(second coat)

Ardex WPM 350
(third coat)

Ardex WPM 355 (Protective
Finish) (2 coats)

FEATURES/BENEFITS

- Provides tough, hardwearing surface
- Flexible
- UV & fungus resistant
- Easy, quick to apply
- Choice of colours
- Optional protective coat
- Safe to use, low odour & easy cleaning

Ardex WPM 355 (Protective Finish) is a tough protective coating available in a range of decorative colours. When applied over Ardex WPM 350, the Ardex WPM 355 (Protective Finish) greatly improves wear resistance, ease of cleaning and surface appearance.

ACCEPTABLE SUBSTRATES

- Concrete, renders and screeds
- Masonry, concrete & AAC blocks
- Fibre cement sheets (external grade only)
- Preprimed metal

For use over existing paints, membranes, covering materials, and any other substrates contact Ardex for advice.

TYPICAL APPLICATIONS

External decks & floors, rooftops (new & existing), podiums, parapets.

Ardex WPM 350 is also ideal for areas that will be subjected to light foot traffic before being tiled.

LIMITATIONS

Do not use the product in the following situations:

- Areas subject to vehicular traffic
- External timber decks should be waterproofed with Ardex Butynol membrane
- When rain appears imminent
- Where solvent or petroleum based products could be spilled
- Where the surface temperature during application is below 5°C or greater than 35°C

Do not attempt to thin down the mix with water or mix with other products such as cement etc. Decks or balconies must have adequate falls. For substrates or situations other than those listed contact Ardex.

BASIC APPLICATION INSTRUCTIONS

Surface preparation

- Ensure all surfaces are structurally sound and totally dry. All sheet substrates must be securely fixed in accordance with the manufacturers instructions.
- All areas to be waterproofed must have sufficient provision for drainage and falls of at least 1:80 or 25mm in 2m.
- The surface to be coated should be free from dust, oil, paint, curing compounds and any other contaminating materials.
- Damaged concrete should be repaired (leveled) and surface defects including all cracks and sharp protrusions should be treated prior to the application of the membrane.

- Remove laitance on concrete or screeds by mechanical means.
- Dense concrete (refer Priming) should be roughened by mechanical means.

MIXING

Mixing ratio is 1:1 by weight (ie. 10kg liquid to 10kg powder). Mix with a slow speed mechanical stirrer until there are no lumps in the mixture. Allow to stand for 5 minutes, then re-stir before use.

PRIMING

To achieve proper adhesion it is critical to select the appropriate primer. Dense or steel trowelled concrete, or concrete that has been treated with an additive will normally require the use of Ardex WPM 270 solvent based primer to achieve proper adhesion. Ardex WPM 270 solvent based primer is also recommended for external applications.

Check the density of the substrate by pouring a small amount of water onto the substrate. If the substrate absorbs the water then Ardex WPM 265 water based primer can be used. If however, the water beads on the surface of the substrate or is absorbed slowly the solvent based primer is recommended. Dense concrete must be mechanically roughened to open the concrete pores before priming.

Apply one coat of Ardex WPM 270 solvent based primer or Ardex WPM 265 water based primer by brush or roller to all areas to be waterproofed. Two coats are required when priming AAC or other highly porous substrates. Allow the primer to be completely dry prior to the application of Ardex WPM 350. This will take around 20-30 minutes depending upon weather conditions and porosity of the substrate.

Where there is a risk of the existence of substrate moisture surfaces may be primed with Ardex WPM 300 (HydrEpoxy 300) at a coverage rate of 3.0 square metres per litre to minimize the risks of the Ardex WPM 350 forming blisters during drying and curing.

Prime metal surfaces with a suitable metal primer. Plastic (eg. PVC) pipes should be primed with a solvent based PVC primer.

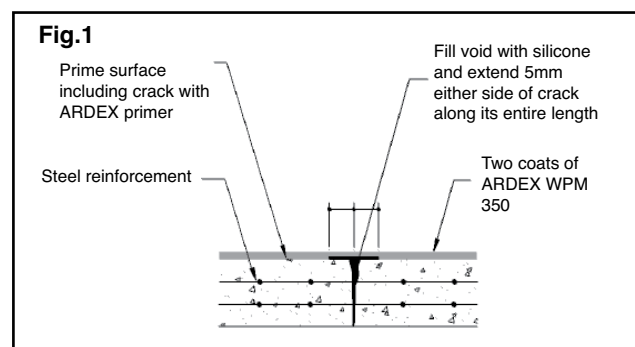
APPLICATION

Ardex recommends using a medium pile roller (10-15mm) for applying Ardex WPM 350 to achieve the best results. Ensure the roller is fully saturated and do not press hard on the roller when applying.

Crack preparation

Cracks <2mm (refer Fig. 1)

Clean and remove any loose particles in the crack. Prime the area carefully before patching the crack with neutral cure silicone sealant. Extend the silicone 5mm either side of the crack along its entire length. Apply two coats of Ardex WPM 350 over the crack to achieve a minimum dry film thickness of 1.2mm.



Cracks 2-6mm

Prepare the crack and apply the silicone as described above. Apply a 300mm wide band of mixed Ardex WPM 350 along the entire length of the crack. Place a 190mm wide band of polyester reinforcement mat into the wet membrane. Remove any creases or air pockets in the mat. Immediately apply a second coat to completely fill the mat.

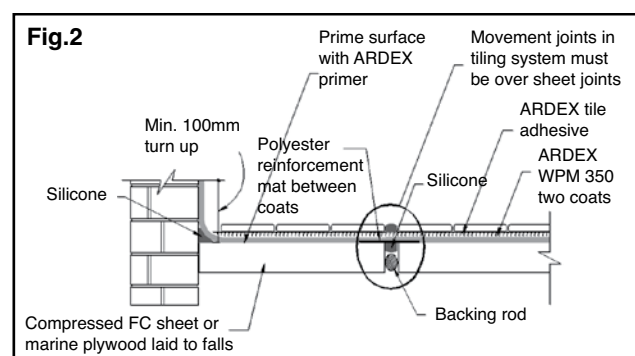
Cracks >6mm

Contact your local Ardex representative.

Movement/construction joints

Movement joints (<6mm)

Clean and prime the joint before filling it with a bead of neutral cure silicone and extending it 5mm each side of joint. Apply a 300mm wide band of mixed Ardex WPM 350 along the entire length of the joint and use ARDEX Deckweb as a slip membrane over the joint. Thoroughly wet out the cloth preferably using a fluted roller, and remove all creases in, or air pockets under the mat. Immediately apply a second coat to completely fill the mat. Sheet joints should be treated similarly (refer Fig.2).



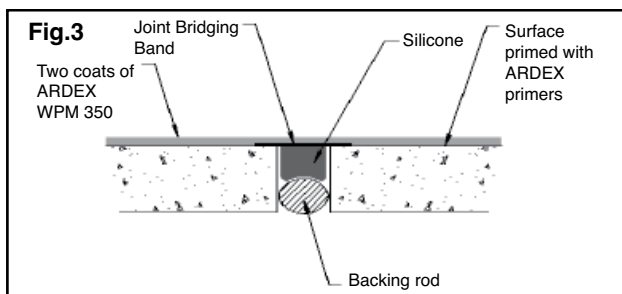
ARDEX WPM 350

(Sheltercoat Roof & Deck – 2 part)

Roof & Deck Waterproofing Membrane

Construction joints (>6mm)

Clean and prime the joint before filling it with a bead of neutral cure silicone and extending it 5mm each side of joint. Apply a 300mm wide band of mixed Ardex WPM 350 along the entire length of the joint and use ARDEX Coving Bandage as a slip membrane over the joint. Thoroughly wet out the cloth preferably using a fluted roller, and remove all creases in, or air pockets under the band. Immediately apply a second coat to completely fill the band. (refer Fig. 3)

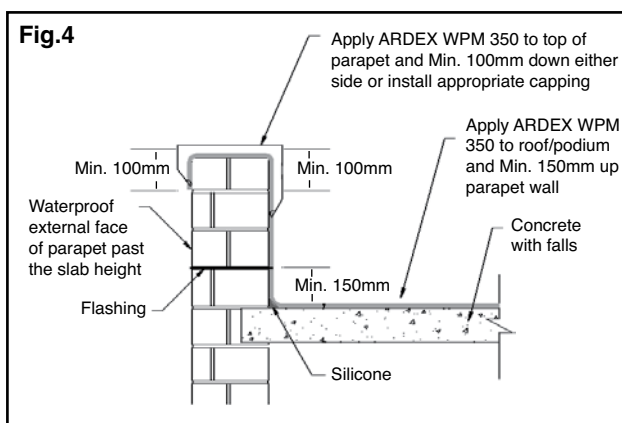


Corners & coving areas

After priming apply a generous bead (12mm) of neutral cured silicone sealant in coving areas and corners. Smooth over the silicone so that it extends 6mm up the wall and 6mm over the floor. Apply a first coat of Ardex WPM 350 to the area and allow the membrane to dry. Apply a second coat ensuring that excess product is removed from the junction (the final dry film thickness should be around 1.2-1.5mm).

Vertical surfaces

After priming apply two coats of Ardex WPM 350 in opposite directions on vertical surfaces. Take the membrane up underneath any existing cover flashing or install appropriate flashing. Allow the first coat to dry before applying the second coat. The top of parapets should be waterproofed with Ardex WPM 310 or Ardex WPM 330 or covered with suitable metal capping, render or protective coating (refer Fig.4).



Horizontal surfaces

Light (occasional) foot traffic areas

Two coats of Ardex WPM 350 are required to achieve the correct dry film thickness of 1.2-1.5mm. Apply the first coat over the primed surface and allow it to dry (4 hours at 23°C, 50%RH) before applying a second coat in an opposite direction.

Optional

The application of Ardex WPM 355 (Protective Finish) is recommended as it will greatly improve the durability and cleanability of the surface. Apply one coat of Ardex WPM 355 (Protective Finish) to the entire area once the top coat of the membrane is dry (approximately 24 hours).

Medium (regular) foot traffic areas

In medium foot traffic areas, three coats of Ardex WPM 350 are required and two coats of Ardex WPM 355 (Protective Finish) are required to achieve the correct dry film thickness of 2-2.5mm.

Apply a first coat of Ardex WPM 350 over the primed surface.

Allow the first coat to dry (approx. 24 hours at 23°C, 50%RH) before applying a second coat of Ardex WPM 350. Allow to dry and apply a third coat of Ardex WPM 350. Finally apply two coats of Ardex WPM 355 (Sheltercoat Protective Finish) to the surface once the third coat of the membrane is dry (approx 24 hrs at 23°C, 50%RH). Allow the membrane to fully cure before being subjected to full service foot traffic. This will take approximately 7 days at 23°C and 50% RH.

Roof & balcony penetrations

Place a suitable flanged metal upstand around the penetration. Prime the metal with an appropriate metal primer and allow to dry. Apply a 10mm bead of silicone around the perimeter of the penetration. Apply the first coat of Ardex WPM 350 on the substrate and the flanged metal. Allow first coat to dry before applying a second coat ensuring a finished dry film thickness of no less than 1.2mm is achieved. Place a suitable flashing collar around the penetration sealing it with a suitable sealant.

COVERAGE

2 coat system (light traffic): 20m² per unit of 20kg liquid/2x10kg powder at a dry film thickness of 1.2mm.

3 coat/ system (medium traffic): 13m² per unit of 20kg liquid/2x10kg powder at a dry film thickness of 2.5mm.

Coverage will vary depending on the condition of the surface and film thickness.

DRYING TIME

Allow 4 hours between coats (at 23°C and 50% RH). When using a reinforcing material it should be embedded in the wet membrane and immediately overcoated. The membrane is fully dry within 24 hours (at 23°C and 50% RH), after which it can be subjected to light foot traffic. Avoid full service foot traffic until the membrane is fully cured (7 days at 23°C, 50% RH). Pot life is approximately 3 hrs at 23°C and 50% RH.

Drying time will vary depending on humidity, temperature and surface porosity.

Do not apply on substrates where the surface temperature is below 5°C or above 35°C.

SAFETY PRECAUTIONS

Ardex WPM 350 Part A is non-hazardous; nondangerous goods. ARDEX WPM 350 Part B is hazardous, but non-dangerous. As it contains cement it can cause burns and serious damage to eyes. Do not breathe dust. Wear eye/face protection and use only in well ventilated areas. Wash off splashes of material with clean water. In event of irritation, see medical advice.

ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.

PACKAGING/STORAGE

Product sold as two components: Part A 20kg bucket liquid, Part B 20kg bucket containing 2 x 10kg bags of powder.

CLEAN UP & DISPOSAL

Wash hands, brushes, rollers, etc, with water while the membrane is still fresh. remove cured material with mineral turpentine. Remove any food or drink stains immediately with warm water and a mild household detergent.

Dispose of containers in compliance with all relevant local, state, and federal regulations.

TECHNICAL PERFORMANCE DATA

Characteristics of liquid

Form & Colour	Slightly viscous white liquid
Specific Gravity	Approx. 1.06kg/L

Characteristics of powder

Form & Colour	Off white to grey powder
Bulk Density	Approx. 1.4kg/L

Characteristics of mix

Product Identity	2 part, cementitious acrylic modified
Mixing Ratio	1:1 by Weight (10kg of Powder: 10kg of Liquid)
Specific Gravity	Approx. 1.3kg/L

Characteristics of cured membrane

Water absorption	AS A121 App K 5%
Tensile Strength – AS1145	
28 days dry	1.97 MPa
after UV exposure	2.32 MPa
Elongation at Break – AS1145	
28 days dry	208%
after UV exposure	155%
Movement joint test – CSIRO	Pass

Application Details

Application method	Roller (medium 8-12mm pile nap), brush
Overcoat time	4 hrs @ 23°C 50% RH
Pot life	3 hrs @ 23°C 50% RH
Dry through (2nd coat)	Overnight @ 23°C 50% RH
Application temperature	5°C-35°C (surface temp)
Service temperature	0-80°C
Coverage	Approx 20m ² per 20kg liquid/2x10kg powder at 1.2mm DFT

NOTE: Most of the tests have been carried out in a Ardex laboratory under standard conditions (23±2°C, 50±5% R.H).

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Technical Services Toll Free: 1800 224 070

Date: December 2007



ARDEX WPM 355

(Sheltercoat Protective Finish)

High Wearing Acrylic Protective Finish

Hard wearing, flexible coating

Excellent UV and fungi resistance

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ARDEX WPM 355

(Sheltercoat Protective Finish)

High Wearing Acrylic Protective Finish

PRODUCT DESCRIPTION

ARDEX WPM 355 (Sheltercoat Protective Finish) is a single part acrylic based pigmented sealer. It has been specifically developed for use over ARDEX Roof & Deck membranes in exposed medium-high (regular) foot traffic situations.

FEATURES/BENEFITS

- Hard wearing, flexible coating.
- Water based, environmentally friendly.
- Easy to apply, tack free.
- Smooth semi-gloss appearance.
- Excellent UV & fungi resistance.
- Improves cleanability of ARDEX WPM 350 (Roof & Deck) system.

ACCEPTABLE SUBSTRATES

- ARDEX WPM 350 (Roof & Deck) acrylic membranes.
- ARDEX WPM 185 (Shelterbit Mineral) torch-on membrane.
- ARDEX Butynol rubber membranes.

LIMITATIONS

ARDEX WPM 355 should be used in conjunction with a high build, liquid membrane or sheet membrane. It is not intended to be used as a waterproofing membrane in its own right.

BASIC APPLICATION INSTRUCTIONS

Surface Preparation:

Make sure the membrane to be coated is sound, clean and free from contaminating material. Liquid membranes must also be thoroughly dry. If rain is imminent do not apply the coating. Stir the contents before use to ensure the colour is consistent.

Application over freshly applied liquid membranes:

Wait until the last coat of the ARDEX WPM 350 (Roof & Deck) membrane is completely dry (24 hrs @23°C, 50% RH). Apply one heavy coat (wet film thickness 0.35mm) of ARDEX WPM 355 (Protective Finish) with a medium-long pile (12-20mm) roller. Saturate the roller to achieve a substantial and consistent film. Do not overwork the coating as this can cause excess air to build-up in the film. In areas subject to the heaviest traffic/abrasion, eg. balcony step-downs, two coats of ARDEX WPM 355 are recommended.

Application to old liquid membranes & recoating:

If ARDEX WPM 355 is to be applied on a liquid membrane which has already been exposed to foot traffic the entire surface should be cleaned with warm water. A mild household detergent can be used if necessary. Wait for the substrate to be completely dry before priming the membrane with one light coat of ARDEX WPM 270 (Solvent Based Primer). Once the primer is completely dry apply one heavy coat of ARDEX WPM 355 to the entire surface.

It may be necessary to re-coat the ARDEX WPM 355 over time depending upon the frequency and nature of foot traffic. Before recoating ARDEX WPM 355 thoroughly clean the area to be recoated with water and allow to dry. Apply a heavy coat of ARDEX WPM 355 and allow it to cure to its full strength (7 days) before subjecting it to foot traffic.

Application over ARDEX Shelterbit Mineral

Note that ARDEX WPM 355 is not designed for application over other than ARDEX WPM 185 Mineral.

Lightly broom clean the surface to remove excess loose mineral before applying 2 liberal coats of ARDEX WPM 355.

Application over Butynol:

Clean old Butynol surface thoroughly with sugar soap (trafficable areas need a further wipe using WPM 290 solvent). Apply one coat of ARDEX WPM 299 (Seam Primer) to the cleaned Butynol surface at an approximate rate of 6m²/litre. Apply with brush or roller. Wait for the primer to dry before applying two coats of ARDEX WPM 355 to the entire area.

Application Hints:

For best results choose a light coloured ARDEX WPM 350 (Sheltercoat Roof & Deck) underneath ARDEX WPM 355. Apply ARDEX WPM 355 with a medium-long (10-20mm) nap roller.

COVERAGE

One (1) unit of 15L will cover approximately 45m² when applied at the correct film thickness in one coat.

DRYING TIME

Re-coat time:	2hours @ 23°C and 50% RH
Dry through time:	overnight @ 23°C and 50% RH
Full cure time:	7 days @ 23°C and 50% RH

SAFETY PRECAUTIONS

ARDEX WPM 355 is non-hazardous; non-dangerous goods. Do not swallow or inhale contents. Protect eyes where there is a risk of splashing. If product comes in contact with eyes, rinse thoroughly with water. In the event of irritation, seek medical advice.

ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.

PACKAGING/STORAGE

One component: 15 litre bucket liquid (18.6kg).

CLEAN UP & DISPOSAL

Wash hands, brushes, rollers, etc, with water while the membrane is still fresh. Remove cured material with mineral turpentine. Remove any food or drink stains immediately with warm water and a mild household detergent. Dispose of containers in compliance with all relevant local authorities, state, and federal regulations.

TECHNICAL PERFORMANCE DATA

Form & Colour Medium viscosity coloured liquid

Specific Gravity Approx. 1.24 g/cm³

Application Temperature

Surface temperature 10-30°C

Service Temperature 0-80°C

Tensile Strength

(28 days dry): AS1145 3.6 MPa

Elongation at Break

(28 days dry): AS1145 280%

Adhesion to membrane:

ASTM D4541 >0.7 MPa

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Technical Services Toll Free: 1800 224 070

Date: July 2007



ARDEX WPM 405

(Sheltercrete Additive)

High Performance Polymer Additive for Cement and Concrete Mixes

Water resistant – used as a temporary waterproofing sealer on rooftops

High strength – ideal for patching, can be feathered out with minimal cracks

Non-toxic – Does not cause Occupational Health & Safety concerns

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ARDEX WPM 405

(Sheltercrete Additive)

High Performance Polymer Additive for Cement and Concrete Mixes

PRODUCT DESCRIPTION

ARDEX WPM 405 (Sheltercrete Additive) is an SBR, multipurpose, concentrated, liquid polymer additive which when used with sand/cement greatly improves the bond strength and flexibility. Being water resistant, ARDEX WPM 405 mixed with cement can be used as a temporary waterproofing sealer. It can also be used as an admix for renders/screeds imparting high bond strength and flexibility. ARDEX WPM 405 can be applied to damp surfaces (not wet) and can be rendered or painted over.

FEATURES/BENEFITS

- Water resistant: used as a temporary waterproofing sealer on rooftops etc
- High strength: ideal for patching as it can be feathered out with minimal cracks, and also for use in coving areas.
- Non-toxic: does not cause Occupational Health & Safety concerns

TYPICAL APPLICATIONS

- As a temporary waterproofing sealer in high exposure areas such as rooftops, while new waterproofing membrane is being installed. When used under sheet membranes, it limits gassing.
- As a slurry coat prior to applying renders or toppings.
- As an admix for sand/cement mixes especially in repair mortars, fillets, covings, renders and screeds.

LIMITATIONS

- Do not use ARDEX WPM 405 mortar to tile over concrete slabs subject to rising damp or hydrostatic pressure without first priming with ARDEX WPM 300 (HydrEpoxy 300) in two coats at a coverage rate of 3 square metres per litre per coat. Refer to the ARDEX WPM 300 (HydrEpoxy 300) data sheet for screed installation details.
- Protect ARDEX WPM 405 liquid from frost – do not allow to freeze.
- Do not apply ARDEX WPM 405 as a temporary waterproofing sealer if rain is imminent.
- Do not apply if the surface temperature is below 10°C or above 35°C.

BASIC APPLICATION INSTRUCTIONS

Surface Preparation

The surface to be treated should be clean and sound, free from oil, grease, laitance etc. New concrete should be allowed to cure for at least 28 days prior to application of ARDEX WPM 405 temporary waterproofing or slurry coat. New brickwork walls, sand/cement render or screeds

should be left for at least 7 days before application of the ARDEX WPM 405 temporary waterproofing or slurry coat.

Mixing

- Temporary waterproofing: 1 part ARDEX WPM 405: 2 parts cement, (by volume).
- Admix for render/screed/ coving: Mix 1 Part ARDEX WPM 405 with 3 parts water and use as the gauging mix (mixing water) with a 3:1 or 4:1 sand/cement mix.
- Slurry coat: 1 part ARDEX WPM 405: 1 part water: 4 parts cement (by volume).

Application

- Temporary Waterproofing:
Mix ARDEX WPM 405 with fine cement to a lump free consistency. Pre-moisten the concrete then apply a first coat using a brush or roller to achieve 1mm wet bed thickness. Allow first coat to set, then apply second coat at right angles to the first application to ensure no pin-holing occurs.
- Slurry coat:
Mix to a thin slurry and spread the mix over the surface with brush or roller, or small broom. Maximum thickness recommended is 2mm. While the slurry coat is still wet, apply render or screed over it.
- Render/ Coving:
Apply slurry coat on the prepared surface. While the slurry coat is wet apply the ARDEX WPM 405 mortar mix with a wood float trowel, ensuring firm pressure on the trowel to work the render into good contact with the surface.
- Screed:
A minimum thickness of 15mm is recommended when using diluted ARDEX WPM 405 instead of water. For a thickness greater than 40mm, reinforcing mesh is required.

Using a roller, brush or a flat trowel, coat the prepared area with a slurry coat of ARDEX WPM 405 to improve adhesion to the substrate.

Apply the screed mix whilst the slurry coat is still wet using a straight edge, trowel or timber batten to level the screed.

Achieve falls in shower recesses to a minimum 1:60; internal wet areas (eg bathrooms) to a minimum of 1:80; and external areas to a minimum of 1:100.

Screeds should be left with a wood float finish to create a key for tiling and waterproofing. When reinforcing the screed with mesh, apply first layer of screed, lay in the mesh and apply the second layer of the screed. Do not lay the mesh directly onto the substrate.

DRYING TIME

Approximately 16 hours (overnight) at 23°C and 50% relative humidity when used for temporary waterproofing or render/screed.

CLEANING

Clean tools with water before the mortar dries.

COVERAGE

Temporary Waterproofing 20L covers 12m²
(2 coats at 1mm/coat)

Slurry coat 1 litre – 10m²

As a render (15mm thick) 1 litre cover 2m²

TECHNICAL DATA

Form Thin, white liquid

Specific Gravity 1.02kg/litre

pH 9 - 10

As a temporary waterproofing sealer

Resistance to water penetration (DIN 1048) 0mm

Tensile adhesion over concrete (7 days) 1.5 MPa

Hydrostatic pressure resistance 50 psi (0.34MPa)

As additive to screed

Flexural strength 3.3MPa

SAFETY PRECAUTIONS

ARDEX WPM 405 is non-hazardous and non-dangerous goods. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin. Wear eye/face protection. In case of contact with eyes, rinse with plenty of water and seek medical advice. When used with mortar (which is alkaline) skin contact should be avoided. Wear gloves and protective clothing.

ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.

STORAGE & HANDLING

Shelf life is approx. 12 months when stored in the original unopened packaging in a dry place at 30°C and 50% relative humidity. Protect liquid from frost, do not allow to freeze.

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Technical Services Toll Free: 1800 224 070

Date: July 2007



ARDEX WPM 501

(HydrEpoxy 501 Adhesive)

Water Based Epoxy Structural Adhesive

Can be applied to freshly laid (green) concrete

Excellent adhesion to most substrates

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ARDEX WPM 501

(HydrEpoxy 501 Adhesive)

Water Based Epoxy Structural Adhesive

PRODUCT DESCRIPTION

ARDEX WPM 501 (HydrEpoxy 501) is a two component water based epoxy high-bodied polyamide environmentally friendly structural adhesive.

FEATURES/BENEFITS

- Easy clean up using water.
- Can be applied to damp surfaces.
- Cures underwater in fresh, chlorinated and salt waters.
- Resistant to fresh, chlorinated or salt waters.
- Can be applied to freshly laid (green) concrete.
- Non-flammable, very low odour and toxicity.
- Can be applied to interior or exterior surfaces.
- May be used as an admixture with cement to form a patching mortar.
- Has excellent adhesion to most substrates including brick, masonry, concrete block, concrete, compressed fibre board, PVC, rubber, surface wallboards and timber, including parquetry.

TYPICAL USES

- As a waterproof structural adhesive for wet areas.
- As a waterproof adhesive in the bonding of floor and wall coverings such as Versilux or Hardiflex.
- As a waterproof adhesive in the bonding of flashings such as hypalon or butyl rubber, fibre cement, rigid PVC or galvanised surfaces.
- As a waterproof high strength adhesive in the wet or damp, edge or face bonding of Compressed Fibre Board or Sheet.
- As a sandable filler over recessed fixing screws or surface imperfections.

LIMITATIONS

Do not use in contact with uncoated steel – Consult ARDEX in regard to other metals and alloys.

The product should be applied whilst the surface temperature is between 10-35°C. The product will cease to cure below 10°C, but will recommence curing when the temperature rises above 10°C. Curing time will also be adversely affected in situations where relative humidity is >85%.

The addition of cement will significantly reduce the working pot life.

ARDEX WPM 501 is a semi rigid adhesive and should not be used where expansion and contraction is expected.

SURFACE PREPARATION

All surfaces to be treated must be structurally sound, existing coatings, adhesives, efflorescence should be removed. Surfaces must be cleaned from dirt, grease, oil, or other surface contaminants.

Holes, non-structural cracks or other surface deformities should be primed with Structural Adhesive 501 thinned with water. The defects should then be filled with a mortar prepared from 1 part cement, 2 parts sand and 1 part Structural Adhesive 501 and allowed to cure for 2-3 hours (pot life is reduced when mixed with cement).

APPLICATION

Each component should be mixed to redisperse any liquid and to form a smooth uniform paste.

Thoroughly mix the two components in the ratio of 1:1 by volume until a homogeneous paste is obtained. Only mix as much as may be used within the pot life of the product.

When bonding compressed sheet, butter the adhesive onto both edges and push together gently until the glue line thickness is 1mm (i.e. the edges of the board are separated by 1mm of adhesive).

For bonding wall coverings and other broad span surfaces, apply the ARDEX WPM 501 using a medium saw tooth notched trowel to the substrate only and press the covering material into the adhesive. Ensure the entire surface is coated with the adhesive to ensure maximum bond strength.

The size of the notch trowel will depend on substrate and the profile of the material to be bonded. Peaks of adhesive should be able to be compressed by 2-3mm when bonding.

When bonding flashings apply ARDEX WPM 501 with a notched trowel or glue spreader to the substrate surface only.

Lay the flashing immediately onto the adhesive and press firmly into position. Remove all excess with a damp sponge.

CLEANING & THINNING

Structural Adhesive 501 should not be thinned when used as an adhesive.

Wash all equipment in warm water or water/detergent immediately on completion of the work.

PROPERTY DATA

Colour	Grey
Volume solids	52%
Mixing ratio	1:1 (Part A/Part B) by volume
Pot life	2 hours @ 25°C 1 hour @ 35°C
Coverage	Full cover (with notched trowel) 2m ² /litre (note: coverage will vary depending on substrate)
Hard time	24 hours @ 25°C & 50% R.H.
Full cure	7 days @ 25°C & 50% R.H.

SAFETY PRECAUTIONS

ARDEX WPM 501 is hazardous; non-dangerous goods. It is harmful by inhalation, in contact with skin and if swallowed. It is irritating to eyes and skin and may cause sensitization by skin contact. Keep containers tightly closed and in a well ventilated place. Avoid contact with skin and eyes. Use suitable protective clothing.

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ARDEX WPM 900

(HydrEpoxy 900 Enamel)

Epoxy Acrylic Enamel

Excellent bacteria, mould and fungal resistance

Will withstand steam or high pressure water washing

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ARDEX WPM 900

(HydrEpoxy 900 Enamel) Epoxy Acrylic Enamel

PRODUCT DESCRIPTION

ARDEX WPM 900 (HydrEpoxy 900) is a two component acrylic modified epoxy high performance enamel with excellent wear properties and chemical resistance.

FEATURES/BENEFITS

A decorative, hard wearing impermeable finish coating that can be applied to damp surfaces and is subsequently easily recoated. Safe to use in sensitive locations (e.g. around food areas).

- Long pot life.
- Easy clean up using water/detergent.
- Will withstand cleaning using steam or high pressure water washing.
- Has excellent bacteria, mould and fungal, resistance.
- Can be used successfully as a wall, ceiling and floor surface coating.
- Can be applied over most existing coatings.
- Aged coating may be recoated with minimal surface preparation.
- Has excellent adhesion to most substrates including brick, masonry, concrete block, concrete compressed fibreboard, stone and timber.

TYPICAL USES

- As a low odour very hard wearing and chemically resistant finish coating for industry, commercial and hygiene areas subjected to rigorous cleaning or high wear.
- As an abrasion and chemical resistant floor coating with or without non-skid properties.
- As a mould and bacteria resistant hard finish for wash rooms, shower cubicles, canteen areas and food preparation areas.
- As a high performance new construction or maintenance coating in food processing industries such as abattoirs, dairies, canneries, wineries.

LIMITATIONS

The product should be applied whilst the surface temperature is between 10-35°C. The product will cease to cure below 10°C, but will recommence curing when the temperature rises above 10°C. Curing time will also be adversely affected in situations where relative humidity is >85%.

In enclosed areas ventilation should be provided during the application and curing cycle to enable adequate evaporation of the water.

Do not apply to alkaline surfaces or thin with alkaline water.

SURFACE PREPARATION

All surfaces to be treated must be thoroughly cleaned free from all loose or flaking paint and must be free of grease, oil, dirt, dust or other surface contaminants.

Any efflorescence or laitance must be removed from new concrete by abrasive blast cleaning, high pressure water washing or mechanical scrubbing. Acid etching should be avoided due to the risk of chlorine penetration and should only be used on overworked steel trowelled finishes where a cement rich surface has been obtained or where other forms of surface preparation are not permitted. Note new concrete should be allowed to cure for 28 days or primed with ARDEX HydrEpoxy WPM 300 prior to coating application.

For poorly prepared surfaces, first prime with ARDEX HydrEpoxy WPM 256 thinned down (see application).

APPLICATION

Each component should be thoroughly mixed ensuring the mixer tools are clean prior to use with each component.

For best results the ARDEX WPM 900 should be thinned with 5-10% methylated spirits (or 15% with water if solvents not permitted) before use.

Thoroughly mix the two components in the ratio of 4:1 (A:B) by volume using a power stirrer until a homogeneous mix is obtained.

Apply using a brush, roller or spray. A minimum of two coats is recommended for optimum results.

To improve the surface finish, reduce the amount of ARDEX WPM 900 absorbed into the substrate. Adhesion to poorly prepared substrates, can be improved by priming the surface using one coat of ARDEX HydrEpoxy WPM 256 thinned, followed by one coat of ARDEX HydrEpoxy WPM 300. Allow the ARDEX HydrEpoxy WPM 256 to penetrate before applying the ARDEX HydrEpoxy WPM 300. In any event the ARDEX HydrEpoxy WPM 300 should be applied during the same day as the ARDEX HydrEpoxy WPM 256 (thinned).

When applying over fresh or green concrete, it is necessary to prime the surface with ARDEX HydrEpoxy WPM 300 before applying the ARDEX WPM 900.

When applying ARDEX WPM 900 over cured ARDEX WPM 900 it is necessary to thoroughly roughen the surface using coarse sand disks before overcoating.

CLEANING & THINNING

Thinning may be carried out using up to 20% water or 10% methylated spirits as described above. Methylated spirits are recommended for brush and roller application if circumstances permit. Methylated spirits has improved thinning capabilities with minimum reduction in the volume solids of the coating material.

Wash all equipment in water or water/detergent immediately on completion of the work.

PROPERTY DATA

Colour	White and grey
Finish	Gloss, which reduces with aging.
Volume solids	35 ± 2%
Mixing ratio	4:1 (Part A/Part B) by volume
Typical coverage	7.0 m/L @ 50 µm dry film thickness per coat (for walls & ceilings) 4.7 m/L @ 75 µm dry film thickness per coat (for floors)

Note: Two coats are recommended for optimum results.

Touch dry time	4-6 hours @ 25°C & 50% R.H.
Recoat time	16 hours @ 25°C & 50% R.H.
Full cure	7 days @ 25°C & 50% R.H.

Note that curing will be accelerated at higher temperatures and that the rate of cure is exponentially related to temperature.

Pot life	8 hours @ 25°C, 6 hours @ 35°C
Fire Rating	(AS 25.30.3.1989)
Ignitability index	0
Spread of flame index	0
Heat evolved index	0
Smoke developed index	3

SAFETY PRECAUTIONS

ARDEX WPM 900 Part A is hazardous and a dangerous goods. It is flammable and is harmful by inhalation, in contact with skin and if swallowed. It causes burns and can cause serious damage to eyes.

ARDEX WPM 900 Part B is hazardous but non-dangerous. It is harmful by inhalation, in contact with skin and if swallowed. It is irritating to eyes and skin and may cause sensitisation by skin contact.

Keep containers tightly closed. In case of contact with eyes, rinse with plenty of water and contact a doctor or Poisons Information Centre.

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