



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

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 coarse 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 DATA

	Bonding Repair		Curing
	Bridge	Mortar	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.



ARDEX WPM 300

HydrEpoxy 300

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

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 (HydrEpoxy 256) 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 Ardex 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 an 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.

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.

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.

CLEAN UP

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

TECHNICAL 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% RH
Full cure	7 days @ 25°C, 50% RH
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.



ARDEX WPM 501

HydrEpoxy 501

Water Based Epoxy Structural Adhesive

Can be applied to freshly laid (green) concrete

Excellent adhesion to most substrates

ARDEX WPM 501

HydrEpoxy 501

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 Ardex WPM 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

Ardex WPM 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.

TECHNICAL DATA

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

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.

ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.



ARDEX WPM 900

HydrEpoxy 900

Epoxy Acrylic Enamel

Excellent bacteria, mould and fungal resistance

Will withstand steam or high pressure water washing

ARDEX WPM 900

HydrEpoxy 900

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 WPM 300 (HydrEpoxy 300) prior to coating application.

For poorly prepared surfaces, first prime with Ardex WPM 256 (HydrEpoxy 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 WPM 256 thinned, followed by one coat of Ardex WPM 300. Allow the Ardex WPM 256 to penetrate before applying the Ardex WPM 300. In any event the Ardex WPM 300 should be applied during the same day as the Ardex WPM 256 (thinned).

When applying over fresh or green concrete, it is necessary to prime the surface with Ardex 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.

TECHNICAL DATA

Colour	White, grey and selected standard colours
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 ² /ltr @ 50 µm dry film thickness per coat (for walls and ceilings) 4.7 m ² /ltr @ 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% RH
Recoat time	16 hours @ 25°C, 50% RH
Full cure	7 days @ 25°C, 50% RH
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.

ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.