



GIVING YOU PEACE OF MIND WITH A GUARANTEED SYSTEM THAT WORKS

# ARDEX CONCRETE REPAIR AND COATING RANGE

Offering a complete range of products including **self-priming**, **anti-corrosive** patch mortars, a **high-flow** micro concrete, **zinc rich** primer and **façade membrane** coatings.

ARDEX Systems Façade is your solution to façade restoration.

**REPAIR MORTARS** 

### **ARDEX BR340**

### MICROTEC® Fibre-Reinforced, Polymer-Modified, Structural Concrete Patching and Repair Mortar

- Polymer modified & shrinkage compensated
- Medium weight with good adhesion to concrete
- Contains active corrosion inhibitor
- Low resistivity (<15,000Ω cm)
- Used in conjunction with ARDEX BRX 60 LO Low Output Anodes

### **ARDEX BR 345**

### MICROTEC® Fibre-Reinforced, High-Resistivity, Polymer-Modified, Structural Concrete Patching and Repair Mortar

- Polymer modified & shrinkage compensated
- Medium weight with excellent adhesion to concrete
- Contains active corrosion inhibitor
- High resistivity (>15,000Ω cm)
- Approved for use with potable (drinking) water independent testing confirms conformity with the requirements of AS4020.2005

### ARDEX BR460 FLOW

#### High-Performance, Flowable, Structural Micro Concrete

- Shrinkage compensated
- Excellent adhesion to concrete
- High early & final strength
- Contains active corrosion inhibitor
- Low resistivity (<15,000Ω cm)</p>
- Used in conjunction with ARDEX BRX 60 LO Low Output Anodes

### PRIMERS AND ACCESSORIES



ARDEX WR Prime Performance Enhancing Polymer Primer & Additive



**ARDEX BRP 30 EP** Solvent-free Structural Epoxy Bonding Agent



**ARDEX BRX 60 LO** Sacrificial Zinc Anodes for Cathodic Prevention









ARDEX BR 10 ZP Single-part, Zinc-rich Primer

### **CONSTRUCTION GROUTS**

### **ARDEX BG90GP**

### General-Purpose, High-Strength, Shrinkage-Compensated, Class-A-Type Construction Grout

- High strength
- Versatile dry pack, pourable and pumpable
- Positive expansion when the grout is in its plastic state
- Shrinkage compensated when the grout is in the hardened state

### **ARDEX BG140HP**

### High-Performance, High-Strength, Shrinkage-Compensated, Class-C-Type Construction Grout

- Superior strength with excellent flow
- Versatile flowable, trowelable and pumpable
- Positive expansion when the grout is in its plastic and hardened state
- Ideal for precision grouting applications
- Non-hydrogen gas forming

### **FAÇADE COATINGS**

### **ARDEX WPM 310**

### **External Façade And Roof Membrane**

- 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

### ARDEX WPM 330

### **External Anti-Carbonation Facade 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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### **Exclusively distributed in Australia by ARDEX**



**INTRODUCING THE ULTIMATE CRACK REPAIR PRODUCT** 

### **RHINO CARBON FIBRE CONCRETE CRACK LOCK™**

#### **ULTIMATE VERSATILITY**

The Concrete Crack Lock<sup>™</sup> is a revolutionary patent-pending product. It was engineered to permanently stop cracks in concrete slabs, poured walls, masonry, concrete block foundations, columns, industrial buildings, bridges, foundations, swimming pools, as well as in preparation for floor coatings. Introducing a revolutionary new concrete repair product designed to make crack reinforcement more efficient and less labour intensive.

#### **COST EFFECTIVE**

Less epoxy is used in the installation process as a result of the ultra thin profile. The Concrete Crack Lock<sup>™</sup> can be installed in minutes with just a diamond blade and drill. No special tools are required. The reduction in labour also means higher profits for the contractor.



#### **UNPARALLELED STRENGTH**

The patent-pending Concrete Crack Lock<sup>™</sup> permanently locks both sides of the crack together, preventing any further movement. Due to the shape of the Concrete Crack Lock<sup>™</sup>, the tensile strength of the carbon fibre is maximised permanently holding both sides of the crack together. The Concrete Crack Lock<sup>™</sup> eliminates any potential for corrosion, warranty claims, and reduces callbacks.

#### **FAST INSTALLATION**

The Concrete Crack Lock<sup>™</sup> is installed by making a single blade saw cut in the concrete across the crack and then drilling two small holes at each end. The cut is then filled with any of the recommended ARDEX RA-Epoxies, and the Concrete Crack Lock<sup>™</sup> is inserted. The Concrete Crack Lock<sup>™</sup> requires less concrete removal and epoxy than other similar crack repair products, thus saving time on installation. 1 Kings Cross Road, Darlinghurst, Sydney

## THE ELAN

### **Case Study**



20 years after it was built, The Elan required There were a large number of joints that a complete façade overhaul that included crack and joint repairs, she-blot repairs, spalling concrete, render repair, concrete crack injection, balustrade post repairs and façade coating systems. Furthermore, several balconies required re-waterproofing. ARDEX Australia, in conjunction with the consultant, specified a holistic solution that included a complete, fully warrantable SystemARDEX approach.

Before work on the façade coating could start, concrete repairs were essential on parts of the building. Spalling concrete and she-bolt hole repairs were rectified with ARDEX BR 345 MICROTEC® Fibre-Reinforced, High-Resistivity, Polymer-Modified, Structural Concrete Patching and Repair Mortar.

needed to be repaired and re-sealed. Throughout the project, a range of ARDEX sealants were used including ARDEX CA 20 P Multipurpose Construction Adhesive and Sealant, ARDEX RA 030 One Component, Moisture-Curing Expansion Joint Sealant and ARDEX RA 040 Polyurethane Joint Sealant.

The specified facade coating system included the use of two coats of ARDEX WPM 300, a two-component water based epoxy polyamide membrane/barrier coating, followed by two coats of ARDEX WPM 330 External Anti-Carbonation Facade Membrane

### SHELTERCOAT FAÇADE MEMBRANE

### **ARDEX WPM 330 CRITERIA FOR SELECTING** A PROTECTIVE COATING

#### Effective anti-carbonation coating

An effective anti-carbonation coating is a protective membrane that resists the ingress of carbon dioxide while allowing the outward flow of water vapour (i.e. allows the coating to breathe).

#### Carbon Dioxide Diffusion Resistance, Rc>50m ARDEX WPM 330 Rc=124m

Rc is the measure of the resistance of a coating to carbon dioxide diffusion. It is expressed in metres and represents the thickness of a layer of air with equivalent resistance. Klopfer's criterion for protective coatings for concrete is Rc greater than 50m. Coatings such as ARDEX WPM 330 that have a resistance greater than 100m, are considered to be very effective barriers against the infiltration of acid gases (carbon and sulphur dioxide).

By reducing the passage of these gases, protective coatings help maintain the pH of concrete, thereby maintaining the passive environment around the steel and preventing corrosion. (Independent test conducted Taywood Engineering).

#### Water Vapour Transmission Sd<4m ARDEX WPM 330 Sd = 1.1m

In order to prevent blistering, protective coatings must allow excess water in the concrete to escape in the form of vapour as to prevent condensation development internally due to internal/external temperature differentials, external walls must be allowed to breathe to allow this moisture to escape to the atmosphere and not accumulate on internal surfaces.

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FACADE WPM 330

Therefore, protective coatings allow the passage of water vapour, not resist it. This is reflected in Klopfer's resistance criterion requiring less than 4 metres. ARDEX WPM 330 with Sd of 1.1m, falls well within this limit. (Tested by Taywood Engineering to ASTM E96-94, section 12).

#### **Chloride Ion Diffusion Resistant** ARDEX WPM 330 = 7.7 x 10-14 m<sup>2</sup>/sec

A protective coating must also restrict the ingress of chloride ions. The principle entry into concrete of these ions is through saline solutions e.g. salt spray or underground water. (Independent test conducted Taywood Engineering).

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