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# **ARDEX BONDING & ANTI-CORROSION AGENT™**

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**Portland cement/epoxy-based coating**

**Two component system for easy field batching**

**Exceptional bond strength for concrete repairs**

**Protects reinforcing steel against rust and corrosion**

**Long open time**

**Allows concrete to breathe, can be applied above, on or below grade**

**Clean up with water only**

**Low VOC's, non-flammable**

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# ARDEX BONDING & ANTI-CORROSION AGENT

## Description and Usage

ARDEX BONDING & ANTI-CORROSION AGENT™ is a two-component, brush or spray applied coating used as an anti-corrosion agent for reinforcing steel, as well as a bonding agent for fresh concrete or mortar to existing concrete surfaces that have been prepared for repair.

Use ARDEX BONDING & ANTI-CORROSION AGENT as a bonding slurry on properly prepared concrete patches or apply it directly to reinforcing steel in concrete to protect against corrosion and rust once embedded. Used in all types of horizontal or vertical concrete repairs and shotcrete installations, ARDEX BONDING & ANTI-CORROSION AGENT is recommended for all types of applications.

## Substrate Preparation

**Bonding Agent:** Prior to proceeding with any repair, please refer to the International Concrete Repair Institute's ICRI 03730 Guide for Surface Preparation for the Repair of Deteriorated Concrete Resulting from Reinforcing Steel Corrosion; ICRI 03732 Guideline for Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays; and the American Concrete Institute's ACI 546R-04 Concrete Repair Guide for general guidelines for concrete repair. Please also refer to the mortar or repair manufacturer's specific recommendations for substrate preparation.

All substrates must be solid, thoroughly clean and free of oil, wax, grease, asphalt, existing patching materials, curing and sealing compounds, and any contaminant that might act as a bond breaker. Over watered, frozen or otherwise weak concrete surfaces must also be cleaned down to sound, solid concrete by mechanical methods such as scarifying or similar in accordance with ICRI 03732 to create an exposed aggregate surface with a minimum surface profile of approximately 1/16" (1.6 mm). Acid etching, solvents, sweeping compounds and sanding are not acceptable means of preparing the substrate.

**Anti-Corrosion Agent:** When reinforcing steel is exposed for protection, prepare the concrete such that a minimum 3/4" (19 mm) clearance is achieved under the reinforcement to ensure sufficient placement of

anti-corrosion agent when brushed under steel. Remove all rust or active corrosion agents using sandblasting or mechanical wire brushing to produce a white metal finish. Make sure surfaces are clean, dry and free of all contaminants. Apply immediately to clean metal to avoid new corrosion.

## Recommended Tools

A 1/2" to 3/4" (12 to 19 mm) low speed heavy-duty mixing drill, heavy gauge square box (butterfly) mixing paddle, mixing buckets, stiff bristle brush, hopper gun and margin trowel

## Mixing

Thoroughly shake the 1 gallon (3.78 L) container of the liquid component "A" and pour into a clean mixing container. Slowly add one-third of the 28 lb (12.7 kg) bag of component "B" powder while mixing at low speed with a drill and mixing paddle. Once this is blended in, add the next third and so on until all of the material is added. Once this is done, continue to mix for approximately 3 minutes to a uniform, lump-free consistency.

## Application as a Bonding Agent

As a bonding agent, a single 20 mil (500 micron) coat is required. Dampen the concrete to be repaired so that the pores are filled with water. Remove excess water on the surface (SSD - Saturated Surface Dry). Apply one 20 mil (50 micron) thick coat of mixed bonding agent with hopper gun or with a stiff bristle brush. Once applied, ARDEX BONDING & ANTI-CORROSION AGENT has an open time of 24 hours. Place the mortar or concrete while the bonding agent is still wet, or within 24 hours. If the mortar or concrete is not placed within 24 hours, apply an additional coat before placement.

## Application as an Anti-Corrosion Agent

As an anti-corrosion agent, two 10 mil (250 micron) coats are required. Brush on a 10 mil (250 micron) thick coat of the prepared slurry and allow it to dry for 30 to 45 minutes, then apply a second coat also 10 mils (250 microns) thick. The total thickness of the anti-corrosion agent must be at least 20 mils (500 microns). Allow the coating to dry to the touch before installing the freshly prepared repair mortar.

# CORROSION AGENT™

Once applied, ARDEX BONDING & ANTI-CORROSION AGENT has an open time of 24 hours. If the mortar or concrete is not placed within 24 hours, apply an additional coat and allow it to dry to the touch before placement.

## Curing

No special curing is required.

## Notes

The working time and pot life of ARDEX BONDING & ANTI-CORROSION AGENT are approximately 90 minutes at 70°F (21°C). Pot life and working time will vary with ambient temperatures.

ARDEX BONDING & ANTI-CORROSION AGENT is intended for use in all applications as recommended or required.

Always install an adequate number of properly located test areas, including the repair mortar, to determine the suitability of the products for the intended use.

Never mix with cement or additives other than ARDEX approved products. Observe the basic rules of concrete work. Do not install below 50°F (10°C) surface and air temperatures. These temperatures must also be maintained during and for 48 hours after the installation of ARDEX BONDING & ANTI-CORROSION AGENT.

## Precautions

ARDEX BONDING & ANTI-CORROSION AGENT contains Portland cement and silica. Avoid eye and skin contact. Mix in a well-ventilated area and avoid breathing powder or dust. KEEP OUT OF REACH OF CHILDREN. Carefully read and follow all cautions and warnings on the product label. For complete safety information, please refer to the Material Safety Data Sheet or visit our website at [www.ardex.com](http://www.ardex.com).

## Technical Data According to ARDEX Quality Standards

Physical properties are typical values and not specifications. All data based on recommended mix ratios at 70°F (21°C)

<b>Mixing Ratio:</b>	1 gallon of Component "A" with 1 bag of powder. For smaller quantities, mix 1:1 by volume	
<b>Yield:</b>	70 to 80 sq. ft. per gallon 175 to 200 sq. ft. per unit	
<b>Bond Strength:</b>	2 hours	1800
<b>ASTM C882</b>	24 hours	2100
<b>Tensile Strength (psi)</b>	28 days	800
<b>ASTM C190</b>		
<b>Flexural Strength (psi):</b>	28 days	2000
<b>ASTM C78</b>		
<b>Rapid Chloride:</b>	28 days	< 150
<b>Permeability (Coulombs)</b>		
<b>AASHTO T277</b>		
<b>ASTM C1202</b>		
<b>VOC (g/L):</b>	<50 g/L, SCAQMD 1113 (US EPA 40 CFR 59)	
<b>Pot Life / Working Time</b>	90 minutes	
<b>Open Time:</b>	Up to 24 hours	
<b>Packaging:</b>	1 gallon (3.78 L) of liquid and 28 lb (12.7 kg) net weight bag	
<b>Storage:</b>	Store in a cool dry area. Do not leave bags exposed to sun. Protect liquid from freezing.	
<b>Shelf Life:</b>	One year if unopened	
<b>Warranty:</b>	ARDEX Engineered Cements Standard Limited Warranty Applies	

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