

## UniBond XX

### Acrylic bonding agent and mortar admixture

#### Description

**UniBond XX** is an acrylic polymer-based liquid. It is specially formulated to be used as a bonding agent and admixture for cement-based mixes.

#### Features and benefits

- Non-toxic. Ideal for use in contact with potable water.
- Improves waterproofing, durability, flexibility, and reduces shrinkage.
- Excellent bonding properties to steel reinforcement, concrete and most construction materials.
- Suitable for internal, external and submerged applications.
- Improves all physical characteristics of cement-based mixes.
- Ideal for sealing dynamic cracks between 100 microns and 4 mm width.

#### Recommended for

##### Bonding coat

Bond new concrete to old, thin polymer screeds or toppings to concrete substrate and bond screeds to MaxProof product range.

##### Mortar admixture

- Waterproof mortars.
- Floor screeds & floor patching mortars.
- Flexible tile adhesive mortars.
- Concrete repair mortars.
- Thrown coat & base coat renders.

#### Composition

**UniBond XX** is composed of modified acrylic polymer.

#### Packaging

**UniBond XX** is available in 5 and 20 kg packs.

#### Coverage

Coverage rate varies according to application. Proposed mix design and coverage rates are listed below.

#### Technical data

Appearance	White liquid
Solid content %	55±1%
pH value	8.5±0.5
Density	1.04 kg/liter
Particle size	0.3 µm

#### Materials for UniBond XX modified mortars

##### Cement

**UniBond XX** is compatible with all types of OPC, SRC Type II and V.

##### Sand

Use sharp, washed, well graded sand free from excessive fines.

##### Water

Clean potable water.

#### Surface preparation

Surface preparation is very important on the final result of the bonding properties.

All surfaces must be sound, clean, dry and free of any material which may impair adhesion. Surface laitance should be removed using suitable mechanical method. including high pressure water jetting, grit blasting or grinding. Surface should be roughened and open-pored.

For patch repair, cut back the edges of the repair areas to a minimum depth of 10 mm. Loose and damaged concrete should be chased out.

Exposed steel reinforcements should be grit blasted or wired brushed to a bright finish to ensure it is clean of all surface contaminants. Then it should be protected by applying **UniGuard 606**.

High suction substrates should be evenly dampened with clean water. Remove any excess water at the time of application.

#### Application

##### Bonding coat

**UniBond XX** can be used concentrated or diluted between 1:1 and 1:3 with water.

Apply a bonding coat of **UniBond XX** by stiff brush and work it well to the prepared substrate to fill all pores and voids.

Apply the **UniBond XX** modified mortar while the bonding coat is still tacky using normal application techniques.

#### Thrown coat render (key coat)

**UniBond XX** can be diluted between 1:1 and 1:5 with water. The proposed mix design is 400 – 450 kg cement + 1 m<sup>3</sup> of sand.

The dry components should be mixed together.

Add the diluted **UniBond XX** until a thick slurry consistency is obtained. Do not overmix.

Apply the slurry manually onto the prepared surface ensuring that the final surface is rough enough to bond the following cement-based render.

#### Base coat renders & modified mortars

The following table shows the proposed mix designs to produce polymer modified mortars:

	Thin sections 6 - 12 mm	Thick sections 12 - 40 mm
Cement	50 kg	50 kg
Sand	150 kg	75 kg
3 – 6 mm aggregate	-	75 kg
<b>UniBond XX</b>	5 kg	5 kg
Water	12 – 15 liters	12 – 15 liters

The previous mixes will yield approximately 0.1 – 0.11 m<sup>3</sup>.

Apply the modified mortar to the tacky bonding coat at the desired thickness.

Compact it well using wooden trowel to ensure maximum contact with the substrate.

Finish it with steel trowel till you get a smooth finish. Do not over trowel.

If greater thickness is required, apply it in several layers within 20 to 30 minutes of the application of the previous layer.

In case of delaying of the application of the following layer, leave the first layer to dry overnight and apply another bonding coat before applying the following layer of render.

#### Curing

The best results are obtained from mortars modified with **UniBond XX** if they are damp-cured for 24 hours and allowed to dry out gradually. Do not use curing compounds.

#### Important notes

- Do not use when ambient temperature is less than 5°C.
- In general, **UniBond XX** should be added and mixed with the clean water prior to dry materials for better dispersion.
- Mix mechanically in a suitable batch mixer. A slow speed drill fitted with suitable mixing paddle can also be used.
- Hand mixing is only allowed if the total weight of the mix is not more than 25 kg.
- Always use fresh & cool cement. Keep mixing time to the minimum.
- The correct consistency may appear to be too dry. However, it can be compacted and trowelled easily.
- Do not use excessive water. Do not over trowel.

#### Cleaning

Clean tools with water immediately after use. Hardened materials should be cleaned mechanically.

#### Storage and shelf life

To maintain its quality and suitability for use, the product should be stored in its unopened packaging, off the ground on pallets or similar structures, in a cool and dry environment. When stored under these recommended conditions, the product remains suitable for

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use for 12 months from the manufacturing date stated on the packaging.

#### Health and Safety

This product should not be ingested as it is based on acrylic polymers. Wear protective gloves, eye goggles and clothing. In case of skin contact, wash with plenty of water. In case of eye contact, rinse continuously with water for several minutes and seek medical attention. Dispose excess material to special waste collection point in accordance with local & national regulation. Keep out of reach of children.

For further information, please ask for Safety Data Sheet for this product.

***The most up-to-date TDS can be obtained from ACC Customer Service Department, or downloaded from our website: [www.acc.com.eg](http://www.acc.com.eg).***

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