

UniBond 820

Multi-purpose PVA bonding agent & mortar admixture

Description

UniBond 820 is a PVA-based liquid polymer. It is specially formulated for use as a multi-purpose bonding agent, primer, sealer and admixture for cement-based mixes.

Features and benefits

- Improves durability and reduces drying shrinkage cracks.
- Enhances adhesion and other physical mortar properties.
- Bonds to many types of construction materials.
- Cost effective.

Recommended for

UniBond 820 is ideally designed for use in the following applications:

- As an admixture for thrown coat and base coat renders.
- As an admixture for floor screeds and floor patching mortars.
- As an admixture for tile adhesive mortars.
- As a primer and sealer on common porous substrates such as plaster, block and concrete for the subsequent application of coating.
- As a primer & bonding agent for gypsum mixes for difficult substrates or situations requiring additional adhesion.

Composition

UniBond 820 is composed of aqueous polyvinyl acetate polymer with sticky and viscous appearance.

Packaging

UniBond 820 is available in 5, 20 and 125 liters packs.

Coverage

Bonding agent: 16 m²/liter (diluted 1:1).

Sealer coat: 25 m²/liter (diluted 1:4).

Mortar admixture: 10 - 15 liters/50 kg cement.

Note:

Coverage rate takes no account of wastage and may vary according to surface condition and application method.

Technical data

Appearance	White liquid slightly opaque
pH value	4 - 6
Density	1.04 ± 0.01 kg/liter
Film forming	Tacky film
Mini. temperature film forming	15°C
Particle size	0.4 µm

Surface preparation

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

Application

Bonding coat

Porous substrates should be sealed using 1 part **UniBond 820** diluted with 4 parts of water. Brush it well into the prepared substrate making sure to fill all pores and voids. Leave it to dry. Apply bonding coat of 1 part **UniBond 820** diluted with 1 part of water. Make sure to apply the following layer of mortar whilst the applied bonding coat is still tacky.

Thrown coat render (key coat)

UniBond 820 can be diluted between 1:1 and 1:3 with water. The proposed mix design is 400 – 450 kg cement + 1 m³ of sand. The dry components should be mixed together. Add enough diluted **UniBond 820** till a thick slurry consistency is obtained. Apply it manually onto the prepared surface ensuring that the final

surface is rough enough to bond the following cement-based plaster.

Base coat render

UniBond 820 can be diluted between 1:2 and 1:4 with water. The proposed mix design is 250 – 300 kg cement + 1 m³ of sand. The dry components should be mixed together.

Add enough diluted **UniBond 820** till a mortar consistency is obtained. Apply it manually onto the thrown coat render. Compact it well to ensure maximum contact with the substrate. Finish it with trowel till you get a smooth finish. Do not over trowel.

Floor screed

Cement-based jointless floor screeds modified with **UniBond 820** can be laid at 10-20 mm application thickness. The proposed mix design for both light traffic and heavy traffic areas are:

	OPC	Sharp sand	Crushed basalt	UniBond 820
Light traffic	50	150	0	7
Heavy traffic	50	100	50	10

Follow the above-mentioned instructions for preparation, sealing & bonding the substrate. The dry components should be mixed together. Add water to the mix to achieve a semi-dry mix and then add the **UniBond 820**. Thoroughly mix the mortar to a semi-dry consistency. Lay the mix on the tacky bonding coat surface. Compact it well to ensure maximum contact with the substrate. Finish it with trowel till you get a smooth finish. Do not over trowel.

Surface sealer coat

Porous construction materials and dusty concrete floors may be sealed using **UniBond 820**. Apply the first coat of 1 part **UniBond 820** diluted with 4 parts of water. Brush it well into the prepared substrate making sure to fill all

pores and voids. Leave it to dry. Apply the second coat of 1 part **UniBond 820** diluted with 3 parts of water.

Curing

All cementitious surfaces must be effectively cured. The use of polyethylene sheet laid over the surface supported by battens to prevent marking the surface is recommended. Tape down the edges to prevent air movement under the sheeting. Keep in place for a minimum of 3 days.

Important notes

- **UniBond 820** is compatible with all types of OPC, SRC Type II and V and gypsum.
- **UniBond 820** is not suitable where damping condition is likely to occur.
- Using **UniBond 820** will reduce the amount of water needed to achieve a given workability.
- Do not use when ambient temperature is less than 5°C.
- In general, **UniBond 820** 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 troweled 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

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If stored unopened in a dry place at a temperature between +5°C and +30°C away from sources of heat and moisture, shelf life is 12 months from the date of manufacture printed on the pack.

Health and Safety

This product should not be ingested as it is based on PVA 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.

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