

MaxProof® 470

Cement-based waterproofing coat

Description

MaxProof 470 is a single component cement-based, durable, waterproofing coat for concrete, masonry and cement-based substrates.

Features and benefits

- High bond strength, becomes an integral part of the substrate.
- Penetrate through the concrete substrates and blocks the pores of concrete substrates.
- Resists positive and negative water pressure.
- Water vapor permeable.
- Resist occasional foot traffic.
- Non-toxic, suitable for potable water uses as well as domestic and waste water uses.
- Can be applied to damp substrates.

Recommended for

MaxProof 470 can be used for internal and external waterproofing applications, above and below ground level. The main application areas include:

- Wet areas such as showers, bathrooms, toilets, kitchens and balconies.
- Swimming pools and water tanks.
- Basements, foundations & retaining walls.
- Bridges decks and tunnels.
- Protection of reinforced concrete elements against carbonation and chloride attack.

Composition

MaxProof 470 is blend of high strength Portland cement, well-graded sands and additives to enhance workability, water-repellency and adhesion.

Packaging

MaxProof 470 is available in 25 kg bag.

Coverage

Damp-proofing: 1.8 kg/m² (one coat only).

Waterproofing: 2.25 kg/m²/two coats.

Note:

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

Technical data

Wet density	1.85 kg/liter
Resistant to water pressure	2 bar
Compressive strength	>45 N/mm ²
Tensile strength	>3.5 N/mm ²
Bond strength	>2.0 N/mm ²
Flexural strength	>7.5 N/mm ²
Pot life	45 minutes at 20°C.
Time between coats	6 hours minimum @ 20°C
Colors	Grey - white

Surface preparation

- Ensure the substrate is clean, sound, and free from contaminants such as curing compounds, laitance, organic growth, or loose materials.
- Use high-pressure water or light grit blasting for thorough removal.
- The substrate should be roughened and open-pored for optimal adhesion.
- Fill static surface cracks, pinholes, and blowholes using suitable repair mortar.
- Cut back and repair defective concrete using a suitable repair mortar or **UniBond LX**-modified sand/cement mortar, ensuring all cavities are filled.
- Surface should be roughened and open-pored to ensure good mechanical adhesion of **MaxProof 470**.
- At the wall-to-floor intersection, cut a 20 x 20 mm groove, fill it with **UniBond LX**-modified sand/cement mortar, and round it to a minimum 40 mm radius for better durability.
- Wash the substrate with clean water.

- Ensure the substrate is damp but not wet at the time of application.

Mixing

	Slurry consistency	Trowelable consistency
MaxProof 470	25 kg	25 kg
UniBond LX	1.25 liters	1.25 liters
Water	5±0.5 kg	4.5±0.5 kg

- If **MaxProof 470** is expected to be in contact with hydrocarbons (such as diesel oil, petrol, etc.), potable water only should be used as mixing liquid. In this case a maximum of 5.1 liters per 20 kg of powder may be used (for slurry consistency).
- Partial small amounts may be mixed manually using suitable hand tools.
- Add the mixing liquid into clean container, and then add the **MaxProof 470** while mixing using slow speed drill fitted with suitable mixing paddle.
- Mix until a thick consistency is achieved.
- Leave **MaxProof 470** to stand for 5 minutes. Re-mix again adding a small quantity of mixing liquid for 2 minutes to restore the consistency.
- MIX AND USE. Mix material that can be applied within 45 minutes (pot life).

Application

Apply **MaxProof 470** using a stiff brush on a properly prepared, damp substrate. High-suction substrates require more thorough dampening than denser ones. Before application, fully moisten the substrate with water, keeping it cool and damp without oversaturation. Ensure no standing water is present at the time of application.

First coat

Apply the first coat evenly, ensuring it fully fills and covers all voids, holes, and static cracks.

Avoid spreading the material too thin, work it thoroughly into the surface using a brush. For a clean, professional finish, brush in a single direction. Allow the first coat to dry overnight before proceeding with the second application.

Second coat

Before applying the second coat, lightly dampen the first coat and remove any excess moisture. Then, apply the second coat following the same technique as before, ensuring even coverage. For a smoother finish, brush in a single direction, preferably opposite to the previous coat.

Curing

- In hot weather, provide suitable protection against extreme conditions while the material sets.
- In cold, humid, or unventilated areas, allow a longer curing period or ensure adequate ventilation to facilitate proper drying.
- Never use curing compounds or dehumidifiers during the curing process.

Finishing

Paint Application:

- If paint will be applied over **MaxProof 470**, allow it to cure for at least 7 days before painting.
- Do not use solvent-based paints.

Sand-Cement Plaster Finish:

- When a sand-cement plaster finish is required, apply a rough coat (spatter dash) using **UniBond LX**-modified sand/cement mortar.
- Ensure the rough coat is applied while the final **MaxProof 470** coat is still tacky for proper adhesion.

Ceramic Tile Installation:

- For ceramic tiles, use **UniFix 303** or **UniFix 308** to securely adhere them to **MaxProof 470**.

Important notes

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- The quantity of mixing liquid may vary slightly depending on mixing method and weather conditions. If the material begins to drag, do not add any water, but dampen the surface again.
- If the consistency is right, it will just support the weight of the stiff brush. If the consistency is too thick, the material will drag. If it is too thin, the applied material will not hide the substrate.
- The maximum application thickness is 2 mm/coat. In areas of excessive water pressure, increase the overall coverage to 3.6 kg/m² for two coats application.
- If spray application should take place, spray through a 3 - 4 mm nozzle at 3 - 5 bar pressure. Apply the first layer in circular motion with the spray nozzle. Keep the nozzle at 90° angle to the substrate. Apply the second coat while the first coat is still damp but firm. The final layer can be left as a spray finish or treated to achieve the required finish.
- Setting time/strength may be accelerated at higher temperatures or retarded at lower temperatures.
- Do not apply **MaxProof 470** in direct sunlight or if the ambient temperature is below 5°C.
- When rain is anticipated within 24 hours after application, the surface should be protected.
- For underground structures, backfilling can be carried out 3 days after completion of the **MaxProof 470** treatment.
- Condensation may occur after waterproofing basement areas. This can be reduced by increasing ventilation.
- If **MaxProof 470** is used to waterproof potable water tank or swimming pool, it should be washed down after the curing is completed with a saline solution (salt brine), 12.5% of salts in water, and thoroughly rinsed with clean water.
- This process should be repeated until the required pH. conditions are obtained. Filling water retaining structures with water can take place usually not less than 14 days after application.
- If earlier filling is required, filling may be considered after not less than 7 days ensuring that the surface is thoroughly checked for hardness.

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

Health and Safety

This product contains cement which may cause skin irritation. It may cause allergic skin reaction and eye damage. Avoid breathing dust. 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.