

MaxProof® 460

Elastomeric, cement-based waterproofing coat

Description

MaxProof 460 is two component, cement-based, acrylic polymer modified waterproofing coat for concrete and masonry. After drying, it forms an elastomeric, durable, hardwearing, seamless waterproof coating.

Features and benefits

- Non-toxic. Suitable for use in contact with potable water.
- Elastomeric and remain flexible when submerged in water.
- Simple method of treating cracks.
- Can be applied to damp substrates.
- Breathable.
- Excellent bond to many building materials.
- Resist occasional foot traffic.

Recommended for

MaxProof 460 is effective against positive and negative water pressure. The main application areas include:

- Water retaining structures which may be subjected to movement.
- Retaining water of a low pH or soft quality
- Waterproofing of new structures where movement is expected.
- Wet areas such as showers, bathrooms, toilets, kitchens, balconies and roofs.
- Swimming pools and water tanks.
- Basements, foundations & retaining walls.
- Protection of reinforced concrete elements against carbonation and chloride attack.

Composition

MaxProof 460 Powder is blend of high strength Portland cement, well-graded sands and modifying agents.

MaxProof 460 Liquid is based on acrylic polymer emulsion.

Packaging

MaxProof 460 is available in 35 kg double pack (25 kg/bag powder + 10 kg/pail liquid).

Coverage

Damp-proofing: 1.8 kg/m² (one coat only).
Waterproofing: 2.25 kg/m²/two coats.
Additional 0.8 - 1.0 kg/m² may be required where reinforcing mesh is used.

Note:

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

Technical data

Wet density	1.79 kg/liter
Compressive strength ASTM C109	>20 N/mm ²
Bond strength (Slant-Shear) ASTM C882	>2.5 N/mm ²
Flexural Strength ASTM C348	>8 N/mm ²
Pot life	Approx. 60 minutes at 20°C
Elongation ASTM D412	>45%
Crack bridging ASTM C1305	1 mm movement (With mesh reinforcement)
Application thickness: 2 mm	0.5 mm movement (Without mesh reinforcement)
Water permeability (EN 12390-8) Positive pressure	4 bar
Water permeability (EN 12390-8) Negative pressure	1 bar
Time between coats	6 hours minimum @ 20°C
Color	Grey - White

Surface preparation

Substrates to be waterproofed should be clean, sound, and free from any contamination. Remove any traces of curing compound, laitance, organic growth or any other loose materials. This is best obtained by using high pressure water or light grit blasting.

Surface should be roughened and open-pored.

Static surface cracks, pin holes and blowholes should be filled with **MaxProof 460** in trowelable consistency.

Defected concrete should be cut back and repaired using suitable repair mortar or site mix sand / cement mortar modified with **UniBond LX**. Ensure that all cavities in the substrate are filled.

Ensure that the substrate to be waterproofed is leveled and as flat as possible.

Wall to floor intersection should be cut 20 X 20 mm along the junction and filled with sand / cement mortar modified with **UniBond LX** and round out to 40 mm minimum radius.

Wash the substrate with clean water. Ensure that the substrate to be treated is damp but not wet at the time of application.

Mixing

	Slurry consistency	Trowelable consistency
MaxProof 460 Powder	25 kg	25 kg
MaxProof 460 Liquid	10 kg	6.75 kg

To ensure proper mixing, a mechanically powered mixer or slow speed drill fitted with suitable paddle should be used.

Add the **MaxProof 460 Liquid** component into clean container, and then add the **MaxProof 460 Powder** component slowly while mixing. Mixing time should be continued for 3 minutes until a uniform consistency is obtained.

MIX AND USE. Mix material that can be applied within 60 minutes (pot life).

Partial small amounts may be mixed manually using suitable hand tools.

Application

Reinforcing with UniFiber Roll

MaxProof 460 must be reinforced with **UniFiber Roll** mesh across cracks and

construction joints. The approved mesh is either alkali resistance fiber glass or polypropylene.

The recommended mesh weight is between 60 and 80 gm/m². The mesh opens should be 2X2 mm and its width is approx. 20 cm.

Apply a thin layer of **MaxProof 460** at approximate thickness of 0.5 mm.

The mesh should be embedded into the thin layer while it is still wet and should be covered with the first coat at 1.00 – 1.25 kg/m² while it is still wet.

Ensure that the mesh is fully adhered to the substrate and leave it to dry for 6 hours.

First coat

Apply the first coat of **MaxProof 460** uniformly at application rate of 1.00 - 1.25 kg/m² using stiff brush onto the prepared substrate.

Do not spread the material too thin. Brush it well into the surface and finish it in one direction for neat appearance.

Leave the first coat to dry for 6 hours minimum before applying the second coat.

Second coat

Dampen the first coat and remove excess moisture prior to applying the second coat. Apply the second coat exactly as mentioned above onto the first coat and finish it in one direction preferably at right angle to the previous coat.

Curing

Air-dry circumstance is recommended for curing **MaxProof 460**. In hot weather, provide suitable protection against weather conditions while setting. In cold, humid or unventilated areas, it may be necessary to leave the application for a longer curing period or to provide adequate ventilation.

Never use curing compounds or de-humidifiers.

Finishing

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In case that paints will be applied on top of **MaxProof 460**, it should be left to cure for at least 7 days. Do not use solvent base paints. Where sand-cement plaster finish is required, it is essential to apply a rough coat (spatter dash coat) of sand / cement mortar modified with **UniBond LX** onto the final coat of **MaxProof 460** while it is still tacky.

In areas where ceramic tiles will be installed on top of **MaxProof 460** such as wet areas, use **UniFix 303** or **UniFix 308**.

Important notes

- 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.
- The maximum application thickness is 2 mm/coat. In areas of excessive water pressure, increase the overall application thickness to 3.0 mm.
- 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.
- Do not apply **MaxProof 460** 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.
- Setting time/strength may be accelerated at higher temperatures or retarded at lower temperatures
- For underground structures, backfilling can be carried out 3 days after completion of the **MaxProof 460** treatment.
- 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.

- For water retaining structures, careful cleaning and disinfection is essential prior to the first operation. Follow national laws and regulations.

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

MaxProof 460 Powder 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. **MaxProof 460** Liquid is not considered dangerous according to the current regulation regarding the classification of mixtures. 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.