

MaxProof® 460

Elastomeric, cement-based waterproofing coat

Description

MaxProof 460 is a high-performance, two-component waterproofing coat designed for concrete and masonry. It is cement-based modified with acrylic polymer to enhance durability and flexibility. Once fully dried, it forms an elastomeric, seamless, and hardwearing waterproofing coat.

Features and benefits

- Non-toxic. Safe for use in direct contact with potable water.
- Elastomeric. Maintains flexibility even when submerged.
- Effective crack repair. Simplifies waterproofing solutions.
- Can be applied to damp substrates without requiring a completely dry substrate.
- Breathable.
- Bonds well to a variety of building materials.
- Durable. Resists occasional pedestrian movement.
- Shields concrete against carbonation and chloride attack, preserving durability.

Recommended for

MaxProof 460 is a high-performance waterproofing solution designed to withstand both positive and negative water pressure, making it ideal for various applications, including:

- **Waterproof lining.** Perfect for water-retaining structures such as tanks, pools, and reservoirs. Suitable for structures that may experience movement, ensuring long-lasting protection.
- **Water-excluding structures.** Provides effective waterproofing for basements and underground areas.
- **Wet areas.** Ideal for showers, bathrooms, toilets, and kitchens.
- **Foundation & retaining wall.** Shields against moisture infiltration, enhancing structural durability.

- **Roofs & balconies waterproofing.** Creates a seamless, weather-resistant barrier, ensuring long-term performance.
- **Low pH or soft water environments:** Effectively retains water in chemically demanding conditions.
- **New constructions:** Provides reliable waterproofing for new structures where movement is anticipated.

Composition

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

MaxProof 460 liquid is acrylic polymer emulsion.

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 Application thickness: 2 mm	1 mm movement (With mesh reinforcement)
	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

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.

Surface preparation

- Remove dirt, laitance, curing compounds, and organic growth.
- Use high-pressure water or light grit blasting for thorough cleaning.
- Ensure the substrate is structurally sound, roughened, and open-pored for optimal adhesion.
- Fill static cracks, pinholes, and cavities using **MaxProof 460** (trowelable consistency).
- Repair large defects with suitable repair mortar or **UniBond LX**-modified sand/cement mortar.
- Ensure the substrate is leveled and flat before application.
- Cut a 20 x 20 mm groove at wall-to-floor intersections.
- Fill the groove with **UniBond LX**-modified sand/cement mortar and round it to a minimum 40 mm radius to improve durability.
- Wash the substrate with clean water.
- Ensure the substrate is damp but not wet before applying **MaxProof 460**.

Mixing

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

- Use a mechanically powered mixer or a slow-speed drill (400–600 rpm) fitted with a paddle attachment for proper blending.
- Ensure the mixing container is clean, dust-free, and suitable for cement-based materials.
- Pour the liquid component into the mixing container first.
- Gradually add the powder component while continuously mixing to ensure smooth incorporation.
- Mix for at least 3 minutes until achieving a uniform, lump-free consistency.
- Prepare only what can be used within 60 minutes (pot life).
- MIX AND APPLY immediately for best results.
- If needed, small partial amounts can be mixed manually using hand tools, but mechanical mixing is preferred for consistency.

Application

If fiber mesh reinforcement is required for MaxProof 460, follow these guidelines:

Reinforcement with UniFiber Roll

- Use **UniFiber Roll** mesh to reinforce cracks and construction joints.
- Approved mesh type: alkali-resistant fiberglass or polypropylene.
- Mesh Specifications:
 - Weight: 60–80 gm/m²
 - Opening size: 2 x 2 mm
 - Width: ~20 cm
- Apply a thin layer (0.5 mm) of **MaxProof 460** onto the prepared substrate.
- Embed the mesh fully into the wet layer, using a trowel or roller to eliminate air gaps, ensuring a continuous waterproof barrier.
- Immediately apply the first coat (1.00–1.25 kg/m²) while the mesh layer is still wet, ensuring seamless bonding.
- Ensure the mesh is fully bonded to the surface.
- Allow to dry for 6 hours before applying the next coat.

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- Apply the second coat following the same technique as the first coat for consistency.
- For best coverage, finish in one direction, preferably perpendicular to the previous layer.

For applications without fiber mesh reinforcement, follow these standard guidelines:

First Coat

- Apply **MaxProof 460** evenly (1.00–1.25 kg/m²) using a stiff brush.
- DO NOT spread too thin—ensure full coverage for waterproofing effectiveness.
- Brush in one direction for a neat finish.
- Allow to dry for at least 6 hours before applying the second coat.

Second Coat

- Dampen the first coat before applying the second to improve bonding.
- Remove any excess moisture to avoid improper adhesion.
- Apply the second coat following the same technique as the first coat for consistency.
- For best coverage, finish in one direction, preferably perpendicular to the previous layer.

Curing

- Air-dry conditions are recommended for curing **MaxProof 460**.
- 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 460**, 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 460** 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 460**.

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.

Packaging

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

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.

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