

MaxProof® 445

Flexible, cement-based waterproofing coat

Description

MaxProof 445 is a high-performance, two-component, cement-base, acrylic-modified waterproofing coating. With simple on-site mixing, it provides an ideal solution for protecting concrete, masonry, and various construction materials.

Designed for easy application, **MaxProof 445** can be applied effortlessly with a stiff brush, roller, trowel, or spray, forming a durable, waterproof, and flexible protective layer.

It effectively shields surfaces from waterborne salts and atmospheric gases, preventing carbonation and deterioration.

Features and benefits

- Non-toxic. Safe for use in contact with potable water, ensuring environmental compatibility.
- Slight Flexibility. Accommodates minor substrate movements without compromising performance.
- Can be applied to concrete just 24 hours after placement, providing immediate protection and minimizing delays.
- Superior Adhesion. Bonds effectively to both porous and non-porous surfaces for reliable protection.
- Suitable for light pedestrian traffic, ensuring durability in walkable areas.
- Breathable. Repels water while allowing the substrate to breathe, preventing moisture buildup.

Recommended for

- Wet Areas. Provides reliable protection in showers, bathrooms, toilets and kitchens.
- Provides robust protection for foundations and retaining walls, preventing water and moisture infiltration.
- Ideal for water-retaining structures such as tanks, pools, and reservoirs.
- Seawater protection: Provides a durable coating for seawater channels.

- Brackish water resistance. Offers reliable waterproofing and protection in brackish water environments.
- Shields concrete surfaces from carbonation and chloride attack.
- Smooths and evens out variations in concrete surfaces.

Packaging

MaxProof 445 is available in 25 kg double pack (20 kg/bag powder + 5 kg/jerrycan liquid).

Coverage

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

Waterproofing: 2.25 kg/m²/two coats.

Depending on the condition of the surface and method of application.

Note:

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

Technical data

Wet density	1.8 kg/liter
Compressive strength ASTM C109	>25 N/mm ²
Bond strength (Slant-Shear) ASTM C882	>5 N/mm ²
Pot life	Approx. 60 minutes at 20°C
Water permeability (EN 12390-8) Application thickness: 3 mm. Positive pressure.	Water penetration at 2 bar: Approx. 20.7 mm.
	Water penetration at 3 bar: Approx. 22.3 mm.
Time between coats	6 hours minimum @ 20°C
Color	Grey - White

Composition

MaxProof 445 powder is a specialized blend of high-quality cements, fine silica sand, and reactive fillers in powder form. This dry mixture is paired with **MaxProof 445** liquid component.

It is formulated with advanced acrylic copolymers and optimized wetting agents.

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.
- Ensure the substrate is leveled and as flat as possible before application.
- 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 445 powder	20 kg	20 kg
MaxProof 445 liquid	5 kg	4.5 kg

- Use a mechanically powered mixer or a slow-speed drill fitted with a suitable paddle for proper blending.
- Pour the liquid component into a clean container.
- Gradually add the powder component while mixing to ensure smooth incorporation.

- Continue mixing for 3 minutes until a uniform consistency is achieved.
- Mix only what can be used within 60 minutes (pot life).
- **MIX AND USE**, avoid excessive delays between mixing and application.
- Partial amounts can be mixed manually using suitable hand tools if necessary.

Application

First coat

- Apply **MaxProof 445** uniformly at a rate of 1.00 - 1.25 kg/m² using a stiff brush on the prepared substrate.
- Thoroughly brush the mixed material into the surface.
- Finish by striking off with the brush in one direction for a neat appearance.
- Avoid spreading the material too thin.
- If the material begins to drag, do not add water. Instead, dampen the surface again.
- Allow the first coat to cure overnight before applying the second coat.
- If the first coat is left for more than one day or becomes very dry, pre-soaking with clean water is necessary before applying the second coat.

Second Coat Application:

- Apply the second coat using a brush in the same manner as the first.
- For improved bonding and coverage, apply in a direction perpendicular to the previous layer.

Spray Application:

- If needed, add a maximum of 1 liter of water to the mix, depending on the type of spray machine used.

Curing

Air-dry circumstance is recommended for curing **MaxProof 445**. 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

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provide adequate ventilation. Never use curing compounds or de-humidifiers.

Finishing

Paint Application:

- If paint will be applied over **MaxProof 445**, 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 445** 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 445**.

Important notes

- The quantity of mixing liquid may vary slightly depending on mixing method and weather conditions.
- The maximum application thickness is 2 mm/coat. 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 445** 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

- In closed areas and deep pits, suitable air circulation should be provided for 24 hours after application.
- For underground structures, backfilling can be carried out 3 days after completion of the **MaxProof 445** treatment.

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 445 Powder contains cement. When it comes in contact with sweat or other body fluids causes irritant alkaline reaction and allergic reactions to those predisposed. It can cause damage to eyes. In case of contact with eyes or skin wash immediately with plenty of water and seek medical attention.

MaxProof 445 Liquid is not considered dangerous according to the current regulation regarding the classification of mixtures. It is recommended to wear gloves and goggles and to take the usual precautions taken for the handling of chemicals. Keep product 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.