

# MC-Proof C200

Crystalline capillary waterproofing for concrete substrates.

- PRODUCT DESCRIPTION:**
- **MC-Proof C200** crystalline capillary waterproofing system is a blend of proprietary Portland cements, quartz aggregates and specialised chemicals. In the presence of moisture, the active chemical additives in **MC-Proof C200** penetrate concrete and react chemically with free lime to produce insoluble crystals.
  - This crystalline growth reduces concrete porosity by blocking capillaries and filling hairline cracks caused by shrinkage or expansion. Unlike membrane types of waterproofing which only provide a surface barrier, **MC-Proof C200** continues to produce crystals in the presence of water therefore providing long lasting impermeability.

- PRODUCT PROPERTIES:**
- Penetrates concrete, seals capillary tracts and hairline cracks.
  - Contains no chlorides.
  - Easy to apply, cost effective in use.
  - Can be applied to new or old concrete in both interior and exterior locations.
  - Suitable above or below ground.
  - Surface damage will not affect the system.

- AREAS OF APPLICATION:**
- **MC-Proof C200** is a cementitious coating system designed for waterproofing concrete against low (less than 1 bar) positive or negative hydrostatic water pressure in a wide variety of structures such as: Diaphragm wall; Sewage treatment and water treatment plants; Water tanks; Concrete pipes; Manholes,...

- APPLICATION NOTES:**
- **Preparation:**
    - **Old concrete:** Concrete surfaces must be clean, sound and free from any contamination. Cleaning can be achieved by high pressure water jetting. High pressure water jetting is the preferred method of surface preparation because mechanical cleaning, surface saturation and substrate roughening are simultaneously achieved. All surfaces to receive **MC-Proof C200** must be pre-dampened.
    - **New concrete:** Following stripping of formwork, water jet or acid etch as above to remove all traces of form oil and surface laitance. Remove all debris from the work area before proceeding with thorough saturation (with clean potable water) of the area prior to the next stage of the works.
  - **Mixing: For mortar consistency:** Add clean potable water to **MC-Proof C200** at the rate of 6-7 litres per 25 kg bag. Mix thoroughly using low speed mixer (300 to 500 rpm) until the mixture is homogeneous. Do not mix more material than can be safely used in 30 minutes at 25°C @ 50% RH. If the mixture thickens, re-stir to reduce consistency, do not add water.
  - **Application:**
    - 1/ **Dry shake for newly poured concrete:**
      - Use **MC-Proof C200** directly from the bag. Wearing rubber gloves, distribute the powder evenly by hand over freshly poured concrete at the rate of 1.2 to 1.5kg/m<sup>2</sup> per application, before final trowelling works. It is recommended to evenly distribute 50% of the powder in one direction with the remaining 50% at right angles to the first application.
      - Release the powder as close to the wet concrete as possible, this will minimise powder loss during windy conditions. For large areas, a rotary type spreader may prove beneficial.
      - Two applications are recommended, with a roughened finish on the first application providing adequate adhesion of the second application. Finally, trowel finish to the desired profile.

**2/ Slurry coat for existing concrete:**

- **MC-Proof C200** slurry coat can be applied with a soft brush, broom, or plaster sprayer. Ensure the slurry is worked well into openings, rough surfaces, joints and routed out areas. Make the second application when the first coat has reached initial set (usually within one hour dependent upon temperature). If the first coat has dried out, moisten the surface prior to applying the second coat.
- Active water leaks should be pre-sealed by using injection product to stop leaking, prior to application of **MC-Proof C200**.
- **Curing and protection:**
  - **MC-Proof C200** applications must be kept moist for a minimum of 48 hours therefore following initial set, curing by water spraying is recommended. The treated surface shall be 'fog' sprayed a minimum of 3 to 4 times daily for the 48 hours period.
  - In warmer climates, it is recommended to spray more frequently whereby the treated surface is kept constantly moist. It is important to keep the treated substrate moist to allow crystal formation to occur. Protect surfaces from foot traffic for 48 hours or heavy traffic for 7 days.
  - Freshly applied **MC-Proof C200** must be protected from extreme weather conditions such as strong winds, high temperatures, rain and freezing for a period of not less than 48 hours following application.
- **Cleaning:** Immediately following the application of **MC-Proof C200**, clean all tools and equipment with clean water. Cured material can only be removed mechanically.
- **Limitations:**
  - **MC-Proof C200** should not be used when the temperature is 5°C and falling.
  - Full activation and effectiveness of **MC-Proof C200** may require 2-3 weeks following application.
  - **MC-Proof C200** is not to be used to seal leaking cracks in a structure. Refer to MC injection range product to repair.

**TECHNICAL DATA:**

Characteristic	Unit	Value	Comments
<b>Coverage</b>	kg/m <sup>2</sup>	1 - 1.5 (*)	per application (brush)
		1.2 - 1.5	per application (dry shake)
<b>PH Value</b>		11 ± 2	
<b>Drying time</b>	hour	1	
<b>Recoating time</b>	hour	> 2	

(\*): Actual coverage rates will depend upon the profile and porosity of the substrate.

**PRODUCT CHARACTERISTICS:**

<b>Packaging</b>	20kg/bag; 25 kg/bag.
<b>Component</b>	1 component
<b>Shelf-life and storage</b>	The shelf life of <b>MC-Proof C200</b> is 08 months if in original unopened packs stored below 35°C in a shaded, dry environment.
<b>Precautions Health and safety</b>	<b>MC-Proof C200</b> contains chemicals which may cause irritation to the eyes, respiratory system and skin. Goggles, rubber gloves and long sleeved garments are strongly recommended when using <b>MC Proof C200</b> . Avoid inhalation of dust.

**Note:** The information provided here is based on our experience and correct to the best of our knowledge. It is, however, not binding. It will need to be adapted to the requirements of the individual building projects, to the specific application and to non-standard local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. Given these preconditions we shall be liable for the accuracy of the information given as outlined in our sales and delivery terms and conditions. Recommendations by our employees that deviate from this information are only binding for us if they have been confirmed in writing. In all cases, the generally accepted rules and practices reflecting the current state of the art must be adhered.

Edition **01/2025**. Some technical changes have been made to this print medium. Older editions are invalid and may not be used.