

# TEKNOCEM AQ

## Anti-Washout Structural Mortar

### DESCRIPTION

TEKNOCEM AQ is a fast setting and fast curing mortar with rapid strength gain that is resistant to chloride penetration, consisting of a blend of potable water approved cement binder, specially selected dried aggregates all passing a 2mm sieve and retarders.

### USES

TEKNOCEM AQ is used as a waterproof render and as a concrete repair mortar in both overhead and horizontal applications, work in and around sewers and the sea and basement tanking. It is used for fast repairs and can be used in contact with Potable water.

### ADVANTAGES

- Excellent resistance to pure water and sulphated water
- Excellent chemical resistance
- Fast Setting
- Excellent Adhesion
- Low Shrinkage
- Can be used under water
- High Strength
- Material only requires mixing on site

Property	Value
Working Life	20 mins @ 20°C
Compressive Strength	9 MPa @ 1hr 29 MPa @ 7 Days 50 MPa @ 28 Days
Density	1980 Kg/ M <sup>3</sup>
Flexural Strength	20 MPa @ 2hrs
Tensile Strength	7 MPa @ 2hrs
Compressive Modulus	14 kN/mm <sup>2</sup>

### PROCEDURE

**Surface Preparation:** All contact surfaces must be free from all unsound material, ie. dust, oil, grease, corrosion by-products, organic growth and provide a good mechanical key. Smooth surfaces should be roughened to provide an adequate key and cleaned to remove release agents, curing compounds and surface laitance. Cracks should be cut back to a minimum of 10mm depth and width, preferably undercutting. Avoid feather edging.

**Substrate Priming:** There is no need to prime any reinforcement, but if priming is preferred, Teknoprime 842 should be used as a bonding primer and Teknoprime 841 as a reinforcement primer.

**Mixing:** For optimum results, mix using conventional mixing machines. Always place the water in the mixer or mixing container and add the powder. Gradually add the TEKNOCEM AQ to no more than 3.6 Ltrs of clean water per bag whilst continuously mixing the material. If one bag or less is to be used the TEKNOCEM AQ can be mixed with a rose bud type paddle attached to an electric drill. Mix vigorously for at least 2 minutes after adding all the mixture to the water. TEKNOCEM AQ is designed to give a fluid mix, but this only develops after sufficient mixing. The mix will appear dry at first. Continue mixing until fluidity develops. If greater fluidity is required, more water up to a total of 3.25 Litres may be used. Exceeding this ratio will lead to lower strength, longer setting time and the risk of surface cracking appearing. In cold weather the set can be accelerated using warm water, likewise in hot weather cold water can be used to slow down the set.

**Placing:** After mixing apply the material as quickly as possible after mixing using traditional tools. A 10mm minimum thickness of the material is always necessary. DO NOT attempt to remix or to smooth the surface. This will cause the mechanical properties, in particular strength and adhesion to be lost. Cut a chase of 10mm by 10mm at all internal angles of the wall to wall and floor to wall joints, then fill with the TEKNOCEM AQ as the work proceeds. Form fixing points by cutting out an area at least three times the diameter and one and a



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half the length of the fixing, filling with the TEKNOCEM AQ as work proceeds but clearly marking the position. Well dampen the surface with water. Mix the TEKNOCEM AQ, well dampen the surface again and carry out the rendering of the walls using standard and accepted techniques ensuring at all times a minimum thickness of 10mm.

**Equipment Cleaning:** Clean equipment immediately after use using clean water.

**Curing:** Protect against direct sunlight or wind until the setting has completed. Once set, allow at least 1 hour before applying coatings or covering to the walls or to the floors.

## PACKAGING & COVERAGE

**Pack Size:** 25kg bag

**Yield:** 10 litres per bag.

## STORAGE & SHELF LIFE

Store in dry conditions at temperatures between 10°C and 25°C. Do not expose to freezing conditions. Shelf life of 12 months.

## HEALTH & SAFETY

See separate material safety datasheet.



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www.premcrete.com | 02380 276166 |  
sales@premcrete.com | 44 Macadam Way, West  
Portway, Andover, Hampshire, SP10 3XW