

# RENOCEM FC1

## Repair Compound

### Description

**Renocem FC1** is a rapid setting mortar which is easy to apply to horizontal, vertical or overhead surfaces at a wide range of thicknesses. **Renocem FC1** has an initial set time of approximately 1 to 2 minutes, where the ambient and/or substrate temperature is 20°C.

### Applications

**Renocem FC1** is used for rapid repairs to concrete segments, concrete and brick tunnel linings, sewage systems, below ground access chambers, pipes, basements, foundations where a fast repair is needed.

### Benefits

- Single component
- Excellent bond to the substrate
- Low Exotherm - minimises thermal cracking
- Pre-bagged to overcome variations in site mixing
- Chloride free
- Emergency water-stopping capability

### Standards

**Renocem FC1** is produced in accordance with the ISO 9001 Quality Management Standard and the ISO 14001 Environmental Management Standard.

**Approximate Yield for a 10kg pack**

**5.0 litres**

### Packaging

Supplied in 10 kg bags.



### Properties

Compressive Strength Class R1 > 10 MPa

Chloride Ion Content < 0.05%

Adhesive Bond > 0.8 MPa

Reaction to fire Class A1

Dangerous substance complies with 5.4

Compressive Strength EN 12190:1999 >10 MPa

@ 1 hour 10 MPa

@ 1 day 10 MPa

@ 28 days 24 MPa

Bond strength by pull off EN 1542:1999 > 0.8 MPa

@ 28 days 0.8 MPa

Chloride Ion Content EN 1015-17:2000 <0.05%

Test 0.01%

Initial setting time @20°C approximately 1 minute

### Compatibility

**Renocem FC1** is compatible with all types of EN 197 cement systems.

### Storage

**Renocem FC1** should be stored undercover, protected from extreme temperatures and stored unopened within the range 5°C and 30°C. Moisture ingress will cause the product to harden.

Please refer to the **Renocem FC1** Material Safety Data Sheet but in line with normal handling procedures, personal protective equipment should be worn.



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### Notes

#### **Preparation:**

Areas to be patched should be cut back to a depth of 15 mm and given a good mechanical key. Feather-edges must not be allowed. Surface should be brushed clean to remove loose material, dust and laitance. Grease, slime or mould growth should be removed by steam cleaning or high-pressure water jetting. A proprietary degreasing agent should be used for removal of light oil or grease contamination.

To seal leaks, crack openings must be chased out to approximately 20 mm square. The chase should always be undercut to avoid leaving a v-section. All loose material and debris should be removed.

#### **Mixing Renocem FC1**

Renocem FC1 should be added to clean water in the following proportions: One part clean water to three parts Renocem FC1 (by volume). Mix to a stiff consistency in a suitable mixing vessel, using a trowel or gloved hand. Due to the rapid set characteristics of the product, only prepare a quantity of mortar which can be placed within the prescribed set time.

#### **Disclaimer**

The physical properties quoted are typical, and should not be taken as a specification. The information supplied in our literature is based on data and experience and is given in good faith. Our policy is one of continuous research and development and we reserve the right to update this information at any time; customers should therefore ensure they have the latest issue. Whilst we guarantee the consistent high quality of our products, we have no control over the circumstances in which our materials are used, site conditions or the execution of the work and are therefore unable to accept any liability for any loss or damage which may arise as a result thereof. Materials are supplied in accordance with our standard conditions of sale.

### **Application**

Thoroughly soak the substrate to be repaired with clean water to ensure full adhesion.

Trowel apply or hand-knead the mixed mortar in place, ensuring maximum contact with the substrate before the material sets. Trowel to a finish before the material is fully hardened. If being used to stop running water, Renocem FC 1 should be mixed and held in place by hand until the initial set is reached.

The minimum application thickness of Renocem Plug products is 15 mm. Do not feather edge.

#### **Low temperature working**

In cold conditions down to 1°C, the use of warm water (up to 20°C) may be advisable to accelerate strength development. Normal precautions for winter working with cementitious materials should be adopted. The material should not be applied when the substrate and/or air temperature is 1°C and falling. At 1°C static temperature or at 1°C and rising, the application may proceed. Set and cure times will be increased at low temperatures.

#### **High temperature working**

At ambient temperatures above 35°C, the material should be stored in the shade and cooler water (down to 20°C) used for mixing. Set and cure times will be reduced at high temperatures.

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