

## **APPLICATION GUIDE**

APG-REV2- 2022

## M-CRETE 500 – CONCRETE LEAK STOP SYSTEM

### M-CRETE 500 - Concrete Leak Stop System

This is a rapid setting, polymer modified cementitious water plugging mortar for arresting water seepage and infiltration under pressure through cracks, joints and voids in concrete and masonry.

The mixed mortar can also be used for rapid sealing and jointing in and around pipework, or in water retaining structures.

M-CRETE 500 is a single component, polymer modified, fibre reinforced, Portland cement-based water plugging and sealing compound.

When mixed with water it exhibits unique hydraulic properties to produce a rapid setting mortar which can arrest water seepage and infiltration through joints, cracks, or porous areas in concrete structures.

### **Typical Uses**

- Repair Leaks in Water Retaining Concrete Structures
- Fills Porous Concrete Water Tanks
- As a Plug for Leaking Pipelines
- To Seal Leaking Drains
- Repair Cracked Concrete

## **Application Guide**

#### **Surface Preparation - Manual**

- Mechanically remove all damaged concrete and masonry back to a sound core.
- Joints and cracks should be square cut or ideally dovetail cut out to a minimum depth and width of 20mm. On cutting back, feather edges and V-cuts must be avoided.
- The perimeter of the area should be broken to a depth of 10mm preferably using a power chisel.
- The areas to be treated must be free from all unsound material, i.e. dust, oil, grease, corrosion by products and organic growth.
- Smooth surfaces should be roughened, and all loose material and surface laitance removed using high-pressure water techniques.
- The prepared substrate should be thoroughly soaked with clean water until saturated with no standing water.









## **APPLICATION GUIDE**

Mixing APG-REV2- 2022

- M-CRETE 500 should be mixed by hand in a clean plastic or rubber bucket.
- Ideally no more than 0.5kg at a time, using a mixing ratio of 1 part water to 3/4 parts M-CRETE 500.
- Adjust the mix ratio accordingly to give a putty-like consistency.
- Mixing time must not exceed 2minutes.

### **Product Application**

- The mixed material should be formed into a ball (wearing gloves) until the product stiffens slightly.
- Then forced into the void and held in place firmly for 1-2 minutes until setting occurs.
- When sealing joints in pipework or forming a fillet at a wall/floor angle, a steel float or coving trowel may be used to produce the desired finish.
- Once the M-CRETE 500 Concrete Leak Stop has been placed and stiffened sufficiently, the surface should be kept in a damp condition for a minimum of 15 minutes to aid curing.
- The cured repair mortar shall set in 2 minutes at 20°C, achieving a compressive strength of 4MPa in 1 hour and 26MPa in 28 days.

#### **Technical Information**

Compressive Strength Development @ 20°C

1 hour: 4.0MPa 1 day: 11.0MPa2 hours: 5.0MPa 7 days: 19.5MPa

4 hours: 8.0MPa 28 days: 26.0MPa

Mixed Density: 2150kgs/m³

Mixed Colour: Concrete grey

• Min Application Thickness: 20mm

Final Setting Time: 2-3 minutes at 20°C.

#### **Product Safety**

M-CRETE 500 - MSDS









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#### **Legal Notice**

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