

# Sopra Repair MC

## High Performance Micro-Concrete

### Description

Sopra Repair MC is a high performance cementitious one component micro-concrete which has excellent shrinkage compensation and is highly fluid. It has been specially formulated to provide excellent resistance to carbon dioxide and chloride ion ingress.

### Packaging

25 kg bags.

### Storage

12 months storage life when stored in original bags at between 2 and 35 °C in a dry and shaded place.

### Uses

- \* Repair of exterior and interior horizontal and vertical concrete structures.
- \* Repair of honeycombing in new construction and old structures.
- \* Large area repairs 30 mm thickness and above,
- \* Residential and industrial structures.

### Properties

Form	Powder
Wet density, kg/m <sup>3</sup>	2350
Setting time @ 25°C, hr.	
Initial	<2.0
Final	>3.0
Compressive strength, N/mm <sup>2</sup>	
1 day	18.2
7 days	35.7
28 days	56.8

### Advantages

- \* Easy to use, requiring only the addition of cold clean water on site.
- \* Ideal for large area application.
- \* Single component-low labour cost.
- \* No bleeding or segregation.
- \* Excellent resistance to carbon dioxide, chloride ion and sulphate ion ingress.

### Application Instructions

#### Surface Preparation

The area to be repaired should be broken to expose reinforcing steel and to a depth of 25 mm. Steel should be exposed until it no longer shows any signs of corrosion and for a further 50mm. Depth of repair should be a minimum of 10mm. Feathered edges are not acceptable. Corroded reinforcement must be cleaned thoroughly including the back of steel rebars. Allow steel to dry prior to application of primer. Where steel corrosion has removed more than 25 % of the cross-sectional area of steel, it should be reinforced by lap-welding a new piece, or the damaged section should be replaced with new steel. The area to be repaired should be clean and free from all

### Standards Compliance

ASTM C 191-92  
ASTM C 827-87  
BS 4550  
BS 5383

contaminants such as oil, grease, laitance, paint, or corrosion.

#### Priming of steel reinforcement

Within two hours of cleaning, steel should be primed using SopraPrime Zincrich.

#### Priming of existing concrete surface

Where the substrate is damp, Sopra Bond EPY should be applied prior to the SopraRepair MC. In all other cases, concrete should be soaked and SopraBond Acrylic should be applied prior to application of SopraRepair MC.

#### Formwork

Formwork should be able to withstand the hydraulic pressure of Sopra Repair MC without movement during placement. It should be watertight at all joints between formwork and concrete to prevent leakage. All formwork should be treated with Sopra Mould OB mould release agent prior to placement. The formwork should have adequate drainage outlets for pre-soaking and suitable access points to pour or pump Sopra Repair MC in and to prevent air entrapment.

#### Mixing

Each complete bag should be mixed using a suitable mechanically powered mixer. Each bag requires 4 litres of clean cold water. Addition of more water will improve flowability but the strength of the final material will be decreased. Ensure that the mixer is damp inside, but free of standing water. Sopra Repair MC should be slowly added to the mixer while stirring continuously for at least three minutes to achieve uniform consistency.

#### Application

Apply the mixed Sopra Repair MC into the substrate formwork whilst maintaining sufficient hydrostatic head or pumping pressure to ensure that all voids are completely filled.

#### Curing

Sopra Repair MC must be cured immediately after application for at least 14 days using wet hessian wrapped with polythene sheet in accordance with good concreting practice. Alternatively, a high efficiency curing compound such as Sopra Cure RB may be applied after thorough wetting of the surface.

#### Cleaning

Tools contaminated with Sopra Repair MC can be cleaned using clean water. Hardened mortar can only be removed by mechanical means.

#### Precautions

##### Health and Safety

SopraRepair MC is non-hazardous. However, it should not be swallowed or allowed to come into contact with skin or eyes. Suitable protective goggles should be worn. Splashes on the skin should be removed with water. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. If swallowed, seek medical attention immediately. Do not induce vomiting.

#### Technical Support

Sopra provides on-site assistance and consulting services on projects when requested. Technical data sheets on other Sopra products and guidance on their use are available on request.

#### Warranty

Sopra products are guaranteed against defective materials and manufacture and sold subject to Sopra standard terms and conditions of sale. Whilst Sopra endeavours to ensure that any advice, information or recommendation given is correct, the company can not accept any liability either directly or indirectly arising from the use of its products, since the company has no control over the application of its products.