

SOPRA Repair HB

High Build Cementitious Mortar

Description

SOPRA Repair HB is a lightweight polymer and fibre modified cementitious mortar with excellent non-slump characteristics. It contains blended cements, graded sands, light weight fillers, additives and fibres.

Uses

- * Repair to exterior and interior horizontal or vertical concrete structures.
- * Repair of honeycombing in new construction and repair of old structures.
- * Large area repairs.
- * Residential and industrial structures.
- * Overhead repairs.

Advantages

- * Easy to use, requires only the addition of cold clean water.
- * Resistant to carbon dioxide and chloride ion ingress.
- * Ideal for large area application.
- * Low labour cost in use.
- * Low shrinkage.

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.

Properties

Form	Powder
Wet Density, kg/m ³	1750
Setting time @ 25°C, hr.	
Initial	1.5
Final	3.8
Tensile Strength, N/mm ²	2.1
Flexural Strength, N/mm ²	3.2
Compressive strength, N/mm ²	
1 day	7.1
3 days	12.4
7 days	16.2
28 days	25.3
Coverage, m ² /kg/mm	1.6 -2.0

Application Instructions

Surface Preparation

The area should be broken to expose reinforcing steel to a depth of 25 mm. Steel should be exposed until it no longer shows any signs of corrosion and for a further 50 mm beyond. The depth of repair should be a minimum of 10mm. Feathered edges are not acceptable. Corroded reinforcement should be cleaned to Swedish Standard SA 21/2 or equivalent and no trace of corrosion should remain. Care must be taken to remove all corrosion from 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 any steel, it

should either be reinforced by lap-welding a new piece to it, or the damaged section cut out and replaced with new steel. The area to be repaired with **SOPRA** Repair HB should be clean and free from all contaminants such as oil, grease, laitance, paint, or corrosion products.

Priming of steel reinforcement

Within 2 hours of cleaning, steel should be protected with a single coat of **SOPRA** Prime Zincrich.

Priming of existing concrete surface

Where the substrate is liable to remain permanently damp, a coat of **SOPRA** Bond EPY epoxy resin bonding agent should be applied prior to **SOPRA** Repair HB. In all other cases, the prepared concrete should be thoroughly soaked prior to application of the repair mortar.

Mixing

Complete bags should be mixed using a mechanically powdered grout mixer. Each bag requires 4-5 litres of clean cold water. Ensure that the mixer is damp inside but free of standing water before commencing mixing. Add the pre-measured quantity of clean cold water in to the mixer. **SOPRA** Repair HB should be slowly added to the mixer while stirring continuously for at least three minutes to achieve a uniform consistency.

Application

Apply the mixed **SOPRA** Repair HB to the substrate with a gloved hand or trowel. First a thin layer of the mortar should be tightly applied and then built over at between 40 and 60 mm thickness per layer. Compact the mortar tightly to ensure maximum substrate adhesion and density. If sagging occurs at any time during the build up, the mortar layer should be removed completely and then reapplied in thinner layers. Where a thicker layer is required the surface of the

intermediate layers should be scratched and keyed and then primed with **SOPRA** Bond Acrylic prior to the application of the following layer. Tight trowel to ensure good repair cover and void-free mortar. Different surface textures may be achieved by using wooden or plastic floater sponges.

Where large areas are to be repaired, spray application can be used.

Curing

SOPRA Repair HB must be cured immediately after the removal of the formwork for at least 14 days using wet hessian wrapped with polythene sheet. Alternatively, a curing compound such as **SOPRA** Cure RB or **SOPRA** Cure WB may be applied after thorough wetting of the surface.

Cleaning

Tools used with **SOPRA** Repair HB may be cleaned using clean water immediately after use. Hardened product can only be removed mechanically.

Precautions

Health and Safety

SOPRA Repair HB 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.