

## SOPRA REPAIR HB

### Description

**SOPRA REPAIR HB** is a one-component construction repair mortar that is ready to use, high ultimate compressive strength and abrasion resistance. The product is shrinkage compensated, which allows it to be used for vertical, horizontal and overhead application

### Recommended Uses

**SOPRA REPAIR HB** can be used in the following applications:

- Patching and repairing damaged concrete.
- Structural repairs in horizontal, vertical and overhead surfaces subject to low high bearing.
- Terraces, balconies and facades.
- Repairs where high compressive strength and abrasion resistance is required.
- Repairs to spalled concrete caused by corrosion of steel reinforcement.
- Repairs to damaged industrial flooring.
- High build application for repairs 10mm to 60mm on vertical substrates.
- Repairs to sewer tunnels, dams, bridges, power stations, concrete tanks.
- Reprofiling of worn areas.
- Repairing concrete areas subject to chemical corrosion.

### Features and benefits

- Easy to use (ready to used bags)
- One component just adds water and mix
- High ultimate strength
- High build repairs can be completed in a single application
- Excellent workability
- Excellent bond strength to concrete substrates
- High abrasion and impact resistance
- Low permeability provides protection from chloride attack and carbonation
- Extremely durable
- High build repairs with exceptional perform and characteristics
- Reduces the need for formwork

### Standard Compliance

**SOPRA REPAIR HB** complies with the following:

- In accordance with ASTM C 827-87 & ASTM 191-92
- Meets the requirements for Class R4 of BS EN 1504-3 and BS EN1504-6

### Packaging

**SOPRA REPAIR HB** is available in 25kg moisture resistance bags and pallets of 1 ton.

### Storage

**SOPRA REPAIR HB** has a shelf life of 12 months. Store away from direct sunlight, protected from rainfall.

### Technical Information

<b>Appearance</b>	Grey powder
<b>Wet density</b>	2300 kg/m <sup>3</sup>

**SOPRA REPAIR HB** was tested in accordance to BS EN 191-1 (method of testing cement).

Compressive strength @ 25°C (N/mm <sup>2</sup> )	
Age	Strength
1 day	21
7 days	45
28 days	57

Complies BS EN Class R4 & ASTM C-942

Flexural strength @ 25°C (N/mm <sup>2</sup> )	
Age	Strength
1 day	3.2
7 days	8.6
28 days	9.3

Complies with BS EN 196 & ASTM C-293

Tensile Adhesion bond @ 25°C (N/mm <sup>2</sup> )	
Age	Strength
7 days	≥ 10
28 days	≥ 15

Complies with ASTM C-882

Setting time @ 25°C & 50% R.H (hrs)	
Consistency	Time
Initial	3-4
Final	6-8

## Application Instructions

### a) Surface preparation

The concrete surface should be free of frost, curing membranes, oil stains, grease, paint and dust. The surface in which **SOPRA REPAIR HB** should be chipped and water leakage should be drained and plugged before application. The area in which it will be grouted should be soaked with water a couple of times 24 hours prior to grouting to minimize absorption and to assist in the free flow of the grout. The surface should be damp but free of standing water.

### b) Mixing

First place the water in a clean drum. Slowly add complete bag of **SOPRA REPAIR HB** into the water and continuously mix for 3-5 minutes depending on mixing method to achieve a smooth, uniform and lump free consistency. Recommended mixing method is using a low-speed drill. Dependent on the desired consistency and flow properties, the mixing ratio can be adjusted. The appropriate quantity of water required to mix a 25kg bag with 3-4 liters of clean water.

It is recommended that a trial mix should be always done to determine the correct water content.

### c) Application

Exposed steel reinforcing bars should be firmly secured to avoid movement during the application process as this will affect mortar compaction, build and bond. Apply the mixed **SOPRA REPAIR HB** to the prepared substrate by gloved hand or trowel. Firstly, work a thin layer of the mortar into the application area and then build the mortar on to this layer. Thoroughly compact the mortar on to the primed substrate and around the exposed reinforcement. **SOPRA REPAIR HB** can be applied in sections up to 60mm thickness in vertical locations and up to 40mm thickness in overhead locations in a single application and without the use of formwork. Thicker sections should be built up in layers but are sometimes possible in a single application depending on the actual configuration of the repair area and the volume of exposed reinforcing steel.

If sagging occurs during application, the **SOPRA REPAIR HB** should be completely removed and reapplied at a reduced thickness on to the correctly substrate.

- Note: the minimum applied thickness of **SOPRA REPAIR HB** is 10mm.

### d) CLEANING OF TOOLS

Tools and application equipment should be cleaned with water immediately after use. Hardened material can only be mechanically removed.

## Precautions

**SOPRA REPAIR HB** is non-hazardous material. It should not be swallowed or come in direct contact with skin or eyes. Suitable protective glasses and gloves should be worn during application. In the case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice if irritation occurs. When contact with skin occurs, wash off immediately with clean water and soap. If swallowed, seek medical emergency immediately, do not induce vomiting.

## Technical Support

**Sopra** provides on-site assistance and consultation services on projects if required. Technical Datasheets on other **Sopra** products and guidance on their use are available on request or on our website.

## Warranty

The information relating to the application and end-use of **Sopra** products, are provided in good faith based on **Sopra's** current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with **Sopra** recommendations. In practice, the differences in substrates and actual site conditions are such that no warranty in respect of sale for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must do their test to insure that the product is suitability for the intended application and purpose. The company reserves the right to change the properties of its products without prior notice.