



# Renderoc SPXtra\*

Shrinkage controlled, cementitious repair mortar, specifically designed for spraying

## Uses

Renderoc SPXtra is suitable for wet or dry spraying in a wide variety of repair applications, and is particularly well suited to vertical and overhead repairs. Typical applications would include, but not be limited to, the following:

- Mass infill to large areas
- Repairs to irregular profiles
- Excellent for repairs to fire-damaged concrete
- Fast track repair programs, where rapid application at high volume is required
- Single layer, high build applications

## Advantages

Renderoc SPXtra features **Dimensional Stability Technology** - a new materials technology which controls the rate of drying shrinkage such that, when used correctly:

- a) The dimensions of the repair remain stable; and thus
- b) Eliminating failure, due to shrinkage cracking

This in turn leads to a series of associated benefits:

- **Cost effective** - shrinkage control enables repairs to be completed 'right first time'.
- **Enhanced durability** - works in tandem with extremely low permeability to prolong effective working life.
- **Compatibility** - aligns performance closer than ever before, to that of host concrete.
- **User friendly** - specifically developed to provide an easy to- apply product, suitable for local conditions.
- **Definable performance** - positive benefits are easily demonstrated via a single, simple measurement.

## Standards compliance

Renderoc SPXtra repair mortar system complies with the following international standards:

- ASTM C157-93: Test for drying shrinkage
- DIN 1048, Part 5: Test for permeability
- BS 1881, Part 121: Test for water absorption

## Description

Renderoc SPXtra is supplied as a ready to use blend of dry powders, which requires only the addition of clean water to produce a highly consistent, spray grade, repair mortar suitable for most structural and load bearing repairs.

## Design criteria

Dimensional Stability Technology is a major step forward in the general compatibility of repair mortar systems with the host concrete, and the control of shrinkage in particular. Attention to the basic design criteria given below should ensure that the full benefits of this technology are achieved:

- a) Recommended limits for a single application are:

Minimum applied thickness: 10 mm  
 Overhead sections: up to 200 mm thick  
 Vertical sections: up to 200 mm thick  
 Surface area of a single repair: see 'Note'

**Note:** The restricting factor on surface area will be the practicality of maintaining a continuous application.

- b) In situations where a substrate/repair barrier is required, or enhanced bond strength/working time is required, or where the substrate is likely to be damp (e.g. seawalls, quays etc.), Nitobond EP epoxy bonding agent should be used.

- c) Water addition = not greater than 4.0 litres/20 kg bag  
 Under no circumstances should part bags be used or additional water be employed. Either of these two actions will adversely affect material performance, automatically invalidating Fosroc's standard product guarantee.

## Properties

The following typical results were obtained at a water:powder ratio of 0.2.

### Drying shrinkage to ASTM C 157-93

@ 7 days : < 300 microstrain  
 @ 28 days : < 500 microstrain

**Permeability** : < 10 mm (DIN 1048, Part 5)

**Flexural strength (BS 6319, Part 3)** : > 6.5 N/mm<sup>2</sup> @ 28 days

**Tensile strength (BS 6319, Part 7)** : > 3 N/mm<sup>2</sup> @ 28 days

**Compressive strength (BS 1881, Part 1161)** : 40 N/mm<sup>2</sup> @ 28 days (by hand)  
 : 55 N/mm<sup>2</sup> @ 28 days

(Interactive result, based upon spray application)

**Water absorption** : < 2% (BS 1881, Part 121)

**Note (1):** 50 mm cubes, air cured @ 25°C for hand application.

## Instructions for use

Renderoc SPXtra should be mixed and applied in strict accordance with the Product Method Statement, a copy of which may be obtained from your nearest Fosroc office.

# Renderoc SPXtra\*

## Estimating

### Supply

**Renderoc SPXtra** : 20 kg bags

### Yield

**Renderoc SPXtra** : 11.4 litres per 20 kg bag

## Limitations

- Renderoc SPXtra should not be used when the ambient temperature is below 5°C and falling
- Renderoc SPXtra should not be part mixed, nor part bags used
- Renderoc SPXtra should not be exposed to running water either during application or prior to final set
- Water ponding is not recommended for curing

## Storage

Renderoc SPXtra has a shelf life of 12 months if kept in a dry environment, in its original packing. If stored in conditions of high temperature and/or humidity, the shelf life may be reduced to as little as 4 months.

## Precautions

### Health and safety

Renderoc SPXtra contains cement powders which, when mixed with water or upon becoming damp, release alkalis which can be harmful to skin. During use, avoid inhalation of the dust and contact with skin or eyes. Wear suitable protective clothing - eye protection, gloves & respiratory equipment (particularly in confined spaces). The use of barrier creams provides additional skin protection & is also advised. In case of contact with skin, rinse with plenty of clean water, then cleanse thoroughly with soap & water. In case of contact with eyes, rinse immediately with plenty of clean water & seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting.

### Fire

Renderoc SPXtra, is non-flammable and thus presents no fire hazard. For further information, please refer to the Product Material Safety Data Sheet for Renderoc SPXtra.

## The Right Chemistry for Construction

Fosroc is one of the world's major manufacturers of advanced technology chemical based products for the construction and refurbishment industries. It operates internationally through a network of operating companies, licensees, distributors and agents.

Having over 70 years experience and using global resources for research and technical development, Fosroc has built a substantial worldwide reputation in manufacturing the most comprehensive range of high performance construction chemicals:

- Concrete admixtures
- Surface treatments
- Grouts and anchors
- Concrete repair
- Industrial flooring
- Protective coatings
- Joint sealants
- Waterproofing
- Adhesives
- F.R.P Structural Strengthening
- Specific building products

\* Denotes the trademark of Fosroc International Ltd.

† See separate data sheet



### Important note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Service.

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