



Fosroc Renderoc SPXtra

Shrinkage controlled, polymer modified, cementitious repair mortar, specifically designed for spraying

Uses

Renderoc SPXtra is suitable for wet or dry spraying and hand application 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 programmes, where rapid application at high volume is required
- Single layer, high build applications
- Can be used as a Cathodic Protection Overlay where the resistivity required is lower than 20,000 Ohm-cm

Advantages

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

- the dimensions of the repair remain stable; and thus
- 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'. Very low rebound is an additional cost benefit
- **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

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, hand and spray grade, repair mortar suitable for most structural and load bearing repairs.

Properties

The following typical results were obtained at a water:powder ratio of 0.18.

Test method	Typical result
Drying shrinkage to ASTM C 157-93	
7 days	: <300 microstrain
28 days	: <500 microstrain
Permeability (DIN 1048 Part 5)	: <8 mm
Flexural strength (BS 6319 Pt.3)	: >10 N/mm ² at 28 days
Tensile strength (BS 6319 Pt.7)	: >5 N/mm ² at 28 days
Compressive strength :	>50 N/mm ² at 28 days
hand application	>60 N/mm ² at 28 days
(BS 1881 Pt.116')	(iterative result, based upon spray application)
Initial Surface absorption (ISAT) (BS 1881 Pt.208)	: 0.04%
Electrical Resistivity	: < 20,000 Ohm-cm

Note 1: 100mm cubes, air cured @ 25°C.

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 :

(i) Recommended limits for a single spray application are:

- Minimum applied thickness : 10 mm
- Overhead sections : up to 150 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

ii) 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.

(iii) Water addition - between 4.25 & 4.5 litres per 25 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.

Fosroc Renderoc SPXtra

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.

Estimating

Supply

Renderoc SPXtra	:	25 kg bags
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Yield

Renderoc SPXtra	:	approx 13.5 litres
(at water addition of 4.25ltr/bag)	:	per 25kg 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.

Storage

Shelf life

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.

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 Pt.208 : Initial surface absorption

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 the skin.

During use, avoid inhalation of the dust and contact with the skin or eyes. Wear suitable protective clothing - eye protection, gloves and respiratory equipment (particularly in confined spaces).

The use of barrier creams to provide additional skin protection is also advised. In case of contact with the skin, rinse with plenty of clean water, then cleanse thoroughly with soap and water.

In case of contact with eyes, rinse immediately with plenty of clean water and 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.

* Denotes the trademark of Fosroc International Limited

† See separate data sheet



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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. **All Fosroc datasheets are updated on a regular basis. It is the user's responsibility to obtain the latest version.**

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