



Renderoc SXtra*

Shrinkage controlled, vertical and overhead cementitious repair mortar system

Uses

Renderoc SXtra is suitable for hand application to repairs where significant load bearing is required. Typical applications would include but not be limited to the following:

- Vertical and overhead repairs
- Patch repairs to concrete floor slabs
- Patch repairs to stairs, steps and other areas subject to repeated, heavy trafficking
- Arris repairs to joint edges
- General structural repairs where formwork cannot be easily erected

Advantages

Renderoc SXtra 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 SXtra 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.121: Test for water absorption

Description

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

Design criteria

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

- a) Recommended limits for a single application are:

Minimum applied thickness: 5 mm
 Overhead sections: up to 25 mm thick
 Vertical sections: up to 35 mm thick
 Small pockets or horizontal: up to 100 mm thick
 Maximum length: up to 3 m

Note: If the repair area exceeds 2.5 m², consideration should be given to the use of mass fill by means of either Renderoc SPXtra* spray applied mortar or Renderoc LAXtra* microconcrete.

- 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 = 3.0 litres per 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 to powder ratio of 0.15.

Drying shrinkage to ASTM C 157-93	
@ 7 days	: < 300 microstrain
@ 28 days	: < 500 microstrain
Permeability (DIN 1048, Part 5)	
	: < 10 mm
Flexural strength (BS 6319, Part 3)	
	: > 7 N/mm ² @ 28 days
Tensile strength (BS 6319, Part 7)	
	: > 3.5 N/mm ² @ 28 days
Compressive strength (BS 1881, Part 116⁽¹⁾)	
@ 7 days	: 50 N/mm ²
@ 28 days	: 55 N/mm ²
Water absorption	
	: < 2% (BS 1881, Part 121)

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

Estimating

Supply

Renderoc SXtra : 20 kg bags

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Coverage

Renderoc SXtra : 1.0 m² @ 10 mm thickness
(Approximately 10.4 litres/20 kg bag)

Actual coverage rate is approximate, and will be wholly dependent upon general substrate condition. It is recommended, therefore, that site trials over a typical area are conducted to determine the likely usage/coverage rates for a particular substrate.

Limitations

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

Storage

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

Precautions

Health and safety

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



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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† See separate data sheet

