

Shrinkage controlled, polymer modified, fluid microconcrete for structural repairs of all types

Uses

Renderoc LAXtra is suitable for mass infill to structural repairs in all types of load bearing situation. Typical applications would include, but not be limited to, the following :

- Repairs to columns suffering from major loss of section
- Soffit repairs where heavy load bearing is required
- Repairs to restricted access areas, where use of hand applied mortars would prove impractical
- Repairs requiring high fluidity e.g. heavily congested steel or repairs into re-entrant angles/concealed voids
- Any repairs requiring significant levels of loadbearing

Advantages

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

- i. the dimensions of the repair remain stable; and thus
- ii. 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

Description

Renderoc LAXtra is supplied as a ready to use blend of dry powders and selected aggregates, which requires only the addition of clean water to produce a highly consistent, fluid microconcrete suitable for all load-bearing situations.

Properties

The following typical results were obtained at a water:powder ratio of 0.135

Test method	Typical result
Drying shrinkage to ASTM C157-93	
7 days	:< 300 microstrain
28 days	:< 500 microstrain
Permeability (DIN 1048 Part 5)	:< 10 mm
Flexural strength (BS 6319 Pt.3)	:> 9 N/mm ² at 28 days
Tensile strength (BS 6319 Pt.7)	:> 5 N/mm ² at 28 days
Compressive strength (BS 1881 Pt.116')	:> 39 N/mm ² at 3 days > 45 N/mm ² at 7 days > 60 N/mm ² at 28 days
Water absorption (BS 1881 Pt. 122)	:< 2%

Note1: 100mm cubes, air cured @ 20°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 gained in use :

- (i) Renderoc LAXtra is designed for large volume repairs, typically in excess of 50 mm deep. The product can be applied in sections generally between 50 and 200 mm thick, greater thicknesses may be achievable, depending upon repair configuration and location together with the volume of reinforcing steel. Consult the local Fosroc office for more information.
- (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 = 3.38ltrs / 25kg 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 LAXtra

Instructions for use

Renderoc LAXtra 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 LAXtra	:	25kg bags
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Yield

Renderoc LAXtra	:	12.25 ltrs per 25kg bag
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Limitations

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

Storage

Shelf life

Renderoc LAXtra 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 LAXtra repair microconcrete 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 : Water absorption

Precautions



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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