# Renderoc SP40



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

Uses

Renderoc SP40 is suitable for wet 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

## Advantages

- 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 easyto-apply product, suitable for local conditions
- Definable performance positive benefits are easily demonstrated via a single, simple measurement.
- Resistant to Alkali Silica Reaction or Alkali Aggregate Reaction.

# Description

Renderoc SP40 is supplied as a single component, ready to use blend of dry powders and fibres 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.

## Technical support

Fosroc offers a comprehensive technical support service to specifiers end users and contractors. Fosroc is also able to offer on-site technical assistance, an AutoCAD facility and dedicted specification assistance in locations all over the world.

# Properties

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

Test Method	Typical result
Drying shrinkage to ASTM C157-93 (28 days)	<1000 microstrain
Flexural strength (BS6319 Pt.3)	>10 N/mm <sup>2</sup> at 28 days
Tensile strength (BS6319 Pt.7)	>3.5 N/mm <sup>2</sup> at 28 days
Compressive strength (BS 1881 Pt.116)	>22 Mpa at 1 day >35 Mps at 7 days >55 Mpa at 28 days
Flexural strength (BS6319 Pt.3)	>10 N/mm <sup>2</sup> at 28 days
Fire rating	Class A1 (EN 1504-3 cl 5.5)
Potential Alkali Reactivity Expansion % (ASTM C1260)	<0.1%

Note 1: 70mm cubes, air cured @ 27°C.

Design criteria

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/Trowel/Hand 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

## \* built in layers of 10mm

(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<sup>\*</sup>s standard product guarantee.

#### Instructions for use

Renderoc SP40 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 SP40		25 kg bags
Yield		
Renderoc SP40 :	:	approx 13.5 litres
(at water addition of 4.25ltr/bag)		per 25kg bag

#### Limitations

Renderoc SP40 should not be used when the ambient temperature is below 5°C and falling.

Renderoc SP40 should not be part mixed, nor part bags used.

Renderoc SP40 should not be exposed to running water either during application or prior to final set.

#### Storage

#### Shelf Life

Renderoc SP40 has a shelf life of 6 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 & Safety

Renderoc SP40 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 SP40, is non-flammable and thus presents no fire hazard.

For further information, please refer to the Product Material Safety Data Sheet for Renderoc SP40.



#### Important note :

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products whether or not in accordance with any advice, specification, recommendation or information given by it.

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