

# Renderoc FC

Single component, polymer modified,  
surface blowhole filler

Renderoc FC is designed for application in concrete surfaces or masonry surfaces in readiness to receive a protective/decorative coating. Surface imperfections up to 3 mm in depth can be filled with the scrape coat application. Voids of greater depth should be separately filled as a prior operation; again limiting the material thickness to 3 mm. Renderoc FC can also be used in association with other Renderoc mortars. Under normal conditions, the product does not require an independent primer or curing membrane.

## Advantages

- Easy to use - no independent primer or curing membrane necessary
- Excellent bond to the concrete substrate
- Pre-blended to overcome site-batched variations – only the site addition of clean water is required
- Contains no chloride admixtures

## Standard compliance

Renderoc FC has been approved by the British Board of Agreement, Certificate No. 92/2824.

## Description

Renderoc FC is supplied as a ready to use blend of dry powders which requires only the site addition of clean water to produce a highly consistent cementitious mortar. The material is based on a blend of cements, graded aggregates, special fillers and chemical additives to provide a material with good handling characteristics, while minimising water demand. The product exhibits excellent thermal compatibility with concrete and is fully compatible with other Renderoc mortars and Dekguard coatings.

## Technical support

Fosroc offers comprehensive technical support, including help at the design stage, application advice and on site problem solving. Specifiers and contractors are encouraged to contact our trained staff for answers to their questions.

For further information please contact us at your nearest Fosroc office.

## Properties

The following results were obtained at a water: powder ratio of 0.33 and temperature of 20°C

Test Method	Typical result
<b>Coefficient of thermal expansion</b>	7 to 12 x 10 <sup>-6</sup> /°C
<b>Pot life</b>	Approx 20 mins.
<b>Setting Time (BS4550)</b>	30 – 60 mins.
<b>Fresh Wet Density</b>	200 kg/m <sup>3</sup>

## Design criteria

Renderoc FC is designed for vertical and overhead use to infill honeycombing and voids up to 3 mm deep in the surface of concrete. Consult the local Fosroc office for further information.

## Specification clauses

### **Blowhole filler**

The mortar shall be Renderoc FC, a single component polymer modified cement-based blend of powders to which only the site-addition of clean water shall be permitted. The material shall be capable of use without independent priming and curing systems.

## Application instructions

### Preparation

Clean the surface and remove any dust, unsound material, plaster, oil, paint, grease, corrosion deposits or algae. Roughen the surface to remove any laitance and expose the fine aggregate by light scabbling or grit-blasting. Oil and grease deposits should be removed by steam cleaning, detergent scrubbing or the use of a proprietary degreaser. The effectiveness of decontamination should then be assessed by a pull-off test. Renderoc repair mortars require no additional preparation prior to the application of Renderoc FC. The cleaned areas should be blown clean with oil-free compressed air before continuing. All prepared areas should be thoroughly soaked with clean water immediately prior to the application of Renderoc FC. Any residual surface water should be removed prior to commencement.

# Renderoc FC

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## Mixing

Care should be taken to ensure that Renderoc FC is thoroughly mixed. One 10 kg bag of Renderoc FC can be mixed by hand using a suitable drum or bucket. Greater quantities should be mixed using a forced-action mixer. Mixing in a suitably sized drum using an approved spiral paddle in a slow speed (400/500 rpm) heavy duty drill is an acceptable alternative. As with other 'one pack' repair mortars, Renderoc may exhibit satisfactory handling characteristics even though inadequately mixed. This will result in a significantly lower level of performance or possible failure. It is therefore essential that mixing instructions are strictly adhered to with particular emphasis on the quantity of water used and the time of the mixing operation. If mixing small quantities by hand.

Renderoc FC should be volume-batched. Add 3 volumes of the Renderoc FC powder (loose-filled to excess and struck off level with the top of the measuring container) to one volume of drinking quality water. This should be mixed vigorously until fully homogeneous (minimum of 3 minutes). For larger volumes, place 2.8 to 3.2 litres of drinking quality water into the mixer and, with the machine in operation, add one full 10 kg bag of Renderoc FC and mix for 3 to 5 minutes until fully homogeneous. Dependent on the ambient temperature and the desired consistency, the amount of water required may vary slightly but should not exceed 3.2 litres per 10 kg bag of Renderoc FC.

Note: in all cases Renderoc FC powder must be added to the water.

## Application

Apply the mixed Renderoc FC to the prepared substrate by steel trowel as a scrape coat of minimal thickness. It should be applied with the minimum of working and be allowed to partly set before finally trowelling to a smooth finish.

If a very smooth finish is required, a small amount of water may be flicked on to the surface of the Renderoc FC with a paint brush prior to final trowelling. Do not proceed with the application when rainfall is imminent unless in a sheltered or protected situation.

Note: the maximum applied thickness of Renderoc FC is 3 mm from the depth of the imperfection to the finished surface.

## High temperature working

At ambient temperatures above 35°C, the material should be stored in the shade and cool water used for mixing.

## Curing

Renderoc FC does not require any form of curing in moderate ambient conditions, but under strong drying conditions curing may be necessary. In this case Renderoc FC should be cured immediately after finishing in accordance with good concrete practice. The use of Nitobond AR, sprayed on to the surface of the finished Renderoc FC in a continuous film, is recommended. Large areas should be cured as trowelling progresses (0.5m<sup>2</sup> at a time) without waiting for completion of the entire area. In very fast drying conditions, supplementary curing with polythene sheeting taped down at the edges should be used.

## Over coating with protective decorative finishes

Renderoc FC may be overcoated with a protective barrier/decorative coating after about 48 hours, dependent on ambient conditions. Fosroc recommend the use of the Fosroc Dekguard range of protective, anti-carbonation coatings. These products provide a decorative and uniform appearance as well as protecting parts of the structure which have not been repaired and might otherwise be at risk from the environment.

## Cleaning

Renderoc FC should be removed from tools, equipment and mixers with clean water immediately after use. Cured material can only be removed mechanically.

## Limitations

Do not proceed with the application when rainfall is imminent unless in a sheltered or protected situation. Exposure to rainfall prior to the final set may result in water uptake and severe reduction in the performance of the hardened product. The product should not be exposed to moving water during or after application. If any doubts arise concerning temperature or substrate conditions, consult your local Fosroc office.

Renderoc FC is not a surface rendering coat and should not be used for this purpose.

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## Estimating

### Supply

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Renderoc FC: 25 kg bags

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### Yield

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Renderoc FC: 6.0 litre per 10 kg bag

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Recommended limits for a single application are:

## Storage

### Shelf life

Renderoc FC 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 FC contains cement powders which, when mixed or become damp, release alkalis which can be harmful to the skin. During use, avoid inhalation of dust and contact with skin and eyes. Wear suitable protective clothing, gloves, eye protection and respiratory protective equipment. The use of barrier creams provides additional skin protection. In case of contact with skin, rinse with plenty of clean water, then cleanse 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 FC is non-flammable.



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