

Fosroc® Renderoc FC

Fairing mortar screed, to cover surface imperfections, polymer modified (0 mm to 3 mm thickness)

Uses

Renderoc FC cementitious fairing coat is designed for application in thin layers to produce a fair-faced appearance to 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 Renderoc FC material thickness to 3 mm.

Renderoc FC can be used independently to infill surface imperfections and voids or to render large sections of concrete or masonry at up to 3 mm thickness. It 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

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

Standards Compliance

Renderoc FC has been approved by the British Board of Agreement, Certificate No. 98/3461.

Description

Renderoc FC cementitious fairing coat 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 fairing 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

Parchem offers a comprehensive range of high performance, high quality construction products. In addition, Parchem offers technical support to specifiers, end-users and contractors, as well as on-site technical assistance.

Design Criteria

Renderoc FC cementitious fairing coat is designed for vertical and overhead use to infill blow holes, honeycombing and voids up to 3 mm deep in the surface of concrete. Consult your local Parchem sales office for further information.

Properties

The following results were obtained at a water:powder ratio of 0.3 by weight or 1:3 by volume at a temperature of 20°C.

Test method	Typical result
Coefficient of thermal expansion:	$7 \cdot 10^{-6} \times 10^{-6}/^{\circ}\text{C}$
Working life:	Approximately 20 minutes**
Setting time (BS 4550):	30 minutes - 1 hour**
Fresh wet density:	Approximately 2000 kg/m ³

** Note: working life and setting time will vary dependent on ambient and substrate temperatures and prevailing conditions.

Specification Clauses

Fairing coat

The fairing coat 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.

Applications 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.

No independent priming system is required.

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. Care should be taken and the work scheduled to ensure the water does not run onto areas of recently applied Renderoc FC less than 12 hours old. Under severe drying conditions repeated soaking may be necessary to ensure the substrate is still saturated at the time of application.

Fosroc® Renderoc FC

Mixing

Care should be taken to ensure that Renderoc FC is thoroughly mixed. A forced-action mixer is essential. Mixing in a suitably sized drum using an appropriate spiral paddle such as the Protocol HS2 140 x 600 M14 Helical mixing paddle (product code: TT-614217) or equivalent at a slow speed (400/500 rpm) using a heavy-duty mixer, 1500W such as Protocol MXP 1602 E (product code: TT-621941) or equivalent is acceptable for the occasional one-bag mix.

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 1 volume of drinking quality water. This should be mixed vigorously until fully homogeneous.

For larger volumes, place 4.1 - 4.75 litres of drinking quality water into the mixer and, with the machine in operation, add one full 15 kg bag of Renderoc FC and mix for 3 - 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 4.75 litres per 15 kg bag of Renderoc FC.

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

Application

Apply the mixed Renderoc FC to the prepared substrate by steel trowel from a feather-edge up to 3 mm 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.

Low temperature working

Normal precautions for winter working with cementitious materials should then be adopted. The material should not be applied when the substrate and/or air temperature is 5°C and falling. At 5°C static temperature or at 5°C and rising, the application may proceed.

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 (0.5 m² 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.

In cold conditions, the finished application must be protected from freezing.

Overcoating with protective decorative finishes

Renderoc FC may be overcoated with a protective barrier/decorative coating after a minimum of 48 hours. Parchem recommend the use of the Dekguard and Emer-Clad range of protective, and decorative coatings. These coating 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

Renderoc FC should not be used when the temperature is below 5°C and falling. 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 Parchem sales office.

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Estimating

Supply

15 kg bag

Product code: 302000

Coverage and yield

Approximately 9.0 litres / 15 kg bag (3.0 m² at 3 mm thickness)

Storage

Shelf life

All products have a shelf life of 12 months if stored correctly.

Storage conditions

Store in dry conditions at temperatures between 5°C and 30°C in the original, unopened containers. If stored at high temperatures and/or high humidity conditions, the shelf life may be reduced.

Important notice

A Safety Data Sheet (SDS) and Technical Data Sheet (TDS) are available from the Parchem website or upon request from the nearest Parchem sales office. Read the SDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

Product disclaimer

This Technical Data Sheet (TDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this TDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.



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