



Renderoc FC*

One component, polymer modified cementitious pinhole filler

Uses

Renderoc FC is designed for application to minor imperfections in concrete & masonry surfaces. It is suitable for application in 0 to 3 mm range, and can be used in filling pinholes prior to overcoating, general reprofiling over large areas (up to 3 mm depth), fairing coat (in association with other Renderoc mortars)

Advantages

- Cost effective - no independent primer necessary
- Time saving - curing not necessary
- High performance - excellent bond to the substrate

Standards compliance

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

Description

It is supplied as a ready to use blend of dry powders which requires only site addition of clean water to produce a highly consistent cementitious mortar. It exhibits excellent thermal compatibility with concrete, and is fully compatible with other Renderoc*† mortars and Dekguard*† protective coatings.

Properties

The following results were obtained at a liquid:powder ratio of 0.3:1 by weight or 1:3 by volume.

Property	@ 20°C	@ 35°C
Coefficient of thermal expansion	: 7 to 12 × 10 ⁻⁶ /°C	
Working life (Approx.)	: 45 minutes	20 minutes
Setting time (BS 5075)	: 60 minutes	45 minutes
Fresh wet density	: 2000 kg/m ³	

Note: Working life and setting time will vary dependent on ambient and substrate temperatures.

Design criteria

Renderoc FC is designed for vertical and overhead use in filling voids up to a depth of 3 mm. It can also be used to render over large areas, from a feather-edge up to 3 mm thickness. Anti-dusting properties may be imparted upon the mix by the addition of Nitobond SBR*† to the gauging water. This will also enhance other performance properties; but should not be viewed as mandatory for every application. However, where subsequent coatings are to be applied, it is important to produce a dust-free surface upon which to apply the coating.

Specification

The filler for minor surface imperfections (up to 3 mm depth) shall be Renderoc FC; one component, polymer modified, cementitious mortar. This shall be capable of use without need for independent primer or curing system.

Instructions for use

Preparation: Clean the surface and remove any dust, unsound material, plaster, oil, paint, grease, corrosion deposits or algae. Roughen the surface to remove any laitence 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.

Mixing - small quantities: Care should be taken to ensure that Renderoc FC is thoroughly mixed. Small quantities (up to 5 kg) can be mixed using a suitable mixing drum or bucket. Greater quantities should be mixed using a forced-action mixer. Mixing in a suitably sized drum using an approved spiral paddle attached to an approved slow speed (400/500 rpm) heavy-duty drill is an acceptable alternative. Renderoc FC should be volume-batched, if mixing small quantities by hand. Add 3 volumes of Renderoc FC powder (loose-filled to excess & struck off level with top of measuring container) to 1 volume of potable water. This should be mixed vigorously until fully homogeneous.

Mixing - large volumes: For larger volumes, place 3.0 litres of cool, potable water into mixer and, with machine in operation, add one full 10 kg bag of Renderoc FC & mix continuously for 3 - 5 minutes until fully homogeneous. Water addition may vary slightly according to both ambient temperature & desired consistency of mix, but it should not exceed 3.0 litres. For additional anti-dusting, or enhanced performance properties, add 0.6 litres of Nitobond SBR to gauging water until the desired consistency is achieved.

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

Application & finishing

Apply mixed Renderoc FC to prepared substrate, up to 3 mm thickness, by steel trowel. It should be applied with minimum of working and be allowed to partly set before finally troweling to a smooth finish. If a very smooth finish is required, a small amount of water may be flicked on to the surface of Renderoc FC with a paint brush prior to final troweling. Do not proceed with application when rainfall is imminent unless in a sheltered or protected situation. Renderoc FC is finished by striking off with a straight edge and closing with a steel or plastic float.

Renderoc FC*

Note that water can be drawn to surface if 'overworking' with the float occurs, and an unsightly finish may result. Damp sponges or plastic floats may be used to achieve a desired surface texture, but care should again be taken not to overwork surface.

Curing & cleaning

Curing is not generally required. However, under extreme conditions (high temperatures and drying winds) it may be prudent to use Nitobond AR*† as a curing agent. Nitobond AR does not require mechanical removal prior to overcoating. Renderoc FC should be removed from tools, equipment and mixers with clean water immediately after use. Remove cured material only by mechanical means.

Overcoating with protective/decorative finishes

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

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. The product should not be exposed to moving water during application or prior to initial set. If any doubts arise concerning temperature or substrate conditions, consult the local Fosroc office.

High temperature working

It is suggested that, for temperatures above 35°C, the following guidelines are adopted as good working practice:

- Store unmixed materials in a cool environment (preferably temperature controlled), avoiding exposure to direct sunlight.
- Keep equipment cool, arranging shade protection if necessary. It is especially important to keep cool those surfaces of the equipment which will come into direct contact with the material itself.
- Try to avoid application during the hottest times of the day, and in direct sunlight.
- Make sufficient material, plant and labour available to ensure that application is a continuous process.



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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Estimating

Supply

Renderoc FC	: 10 kg bags
Nitobond SBR	: 20 & 210 litre drums
Nitobond AR	: 4 & 20 litre cans

Coverage and yield

Renderoc FC	: 2 m ² @ 3 mm thick (Approx. 6 litres/bag)
Nitobond AR	: 6 - 8 m ² per litre (As a primer)

Note: Actual coverage of Renderoc FC will be wholly dependent upon the general substrate condition. It is recommended, therefore, that site trials over a typical area are carried out to determine actual usage.

Storage

All products have a shelf life of 12 months if kept in a dry store in the original, unopened bags or packs @ 25°C. Store in dry conditions in original, unopened bags or packs. If stored at high temperatures or high humidity conditions, shelf life may considerably reduce to 4 - 6 months.

Precautions

Health & safety & fire

Renderoc FC contains cement powders which, when mixed or become damp, release alkalis which can be harmful to the skin. Nitobond AR and Nitobond SBR are slightly alkaline. During use, avoid inhalation of dust and contact with skin and eyes. Wear suitable protective clothing, gloves, eye protection & respiratory protective equipment.

The use of barrier creams can provide 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. For further information, refer to appropriate Product Material Safety Data Sheet. Renderoc FC, Nitobond AR and Nitobond SBR are all non-flammable products.

* Denotes the trademark of Fosroc International Ltd.

† See separate data sheet



Cert No. THR2004006