Fosroc® Renderoc® CAC Dry Spray

constructive solutions

High performance mortar with superior biogenic corrosion resistance

Uses

Renderoc CAC Dry Spray can be utilized to rehabilitate sewer infrastructures that have been damaged over years by biogenic corrosion. Renderoc CAC Dry Spray can also be utilized to provide a protection lining to new infrastructures what will be exposed to biogenic corrosion conditions.

Advantages

The unique properties of Renderoc CAC Dry Spray result from the chemical and mineral phases formed during the hydration process. Renderoc CAC differs from other materials such as ordinary portland cement (OPC) concrete, epoxies, poly-vinyl chloride (PVC) or polyethylene because of its ability to inhibit bacterial activity which drastically reduces the production of sulphuric acid. The key advantages of the Renderoc CAC Dry Spray are as follows:

- Inhibits bacterial activity
- Neutralizes sulfuric acid
- Readily adheres to damp concrete
- Provides long term corrosion protection
- Contains no VOC's
- RCS (Respirable Crystalline Silica) Hazard Free

Description

Renderoc CAC Dry Spray is a mortar designed to provide exceptional resistance to the biogenic corrosion environment found in sanitary sewers. The biogenic corrosion resistance of Renderoc CAC Dry Spray is due to its calcium aluminate composition, i.e. the combination of calcium aluminate cement and calcium aluminate aggregates.

Renderoc CAC Dry Spray is a cementitious mortar that is fully compatible with the moist environment found in sewers.

Renderoc CAC Dry Spray is supplied as a ready to use dry powder for use with standard dry spray gunite or shotcrete equipment. The success of this type of application is very much dependent on the skill and experience of the nozzleman that is using the equipment.

Renderoc CAC Dry Spray is not hazardous in accordance with Australian Inventory of Industrial Chemicals. Contains <0.1% RCS.

Properties

Compressive Strength (MPa) (AS 1478.2 - 2005)	
6 hours	>20MPa
24 hours	>40MPa
28 days	>70MPa
Modulus of Rupture (Flexural Strength) (MPa) (AS 1012.11 - 2000):	
24 hours	>4.5MPa
28 days	>8.5MPa
Indirect Tensile strength (AS 1012.10 - 2000):	
28 days	>3.5MPa
Dimensional Change (Drying shrinkage) (AS 1478.2 - 2005):	
56 days	<600 microstrains

Chemical composition of main constituents

Substances	Typical % by Weight
Al_2O_3	39-44
CaO	35-40
SiO_2	2-7
Fe_2O_3	9-15

Application Instructions

Preparation

Prepare the surface to be sprayed to expose 50% diameter of the largest aggregate or a CSP of greater than 8.

The substrate should be saturated with clean water to achieve an SSD (saturated surface dry) state immediately prior to spray application of the Renderoc CAC Dry Spray.

Under no circumstances should the material be applied on a surface where running water is present.

Application

The substrate should be thoroughly washed with clean water and any excess water removed prior to the spray application of the Renderoc CAC Dry Spray. Apply the Renderoc CAC Dry Spray to the prepared substrate using suitable guniting or shotcreting equipment. If sagging occurs during application to vertical surfaces, the Renderoc CAC Dry Spray should be completely removed and reapplied at a reduced thickness on to the substrate. Note: the minimum applied thickness of Renderoc CAC Dry Spray is 25mm.

Finishing

It is recommended that Renderoc CAC Dry Spray can be left as an off the gun finish only. If trowel finished has to take place it is recommended to finish the material as soon as practically possible after spray application.

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Renderoc® CAC Dry Spray

Low temperature working

In cold conditions 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 not be used as this may cause premature setting.

Curing

Renderoc CAC Dry Spray is a cement-based repair mortar. In common with all cementitious material it must be cured immediately after finishing in accordance with good concrete practice. Curing should commence as soon as the surface of the Renderoc CAC has hardened. Which in some cases can be within 1 hour.

Initial curing should be via standard wet curing process (sprinkler, fog, wet hessian).

Once wet curing has taken place for 24 hours the Renderoc CAC should be cured with a liquid applied curing compound such as Concure A99.

In fast drying conditions, supplementary curing with polythene sheeting taped down at the edges must be used. In cold conditions, the finished repair must be protected from freezing.

Limitations

Renderoc CAC Dry Spray is a protective mortar lining system, care should be taken when considering for use in structural applications. Please contact Fosroc for further information.

Do not mix part bags. The product should not be exposed to moving water during application. Exposure to heavy rainfall prior to the final set may result in surface scour. If any doubts arise concerning temperature or substrate conditions, consult Fosroc. The degree of rebound with any spray applied cementitious product is heavily influenced by the skill and experience of the spray nozzle operator. Overhead applications will produce higher rebound results.

Supply

Renderoc CAC Dry Spray is supplied in 20kg bags and is made to order: Min. Order Qty. 77 x 20kg; Lead time 14-21 days.

Renderoc CAC Dry Spray 2.5mm agg (MTO):	FC306063-20KG
Renderoc CAC Dry Spray 4mm agg (MTO):	FC306061-20KG

Yield

Approx 9.8 litres / 20kg bag

Storage

Renderoc CAC Dry Spray has a shelf life of 18 months if kept in the original, unopened bags. Do not use if there are lumps in the product, or a loss of workability (requiring more water to be added) is experienced. If stored at high temperatures and/or high humidity conditions the shelf life may be reduced.

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