

SewperCoat® Dry Spray



High performance mortar with superior biogenic corrosion resistance

Description

SewperCoat® Dry Spray is a mortar designed to provide exceptional resistance to the biogenic corrosion environment found in sanitary sewers. The unique biogenic corrosion resistance of SewperCoat® Dry Spray is due to its 100% calcium aluminate composition, i.e. the combination of calcium aluminate cement and calcium aluminate aggregates.

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

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

SewperCoat® 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.

Advantages

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

- Inhibits bacterial activity
- Neutralizes sulfuric acid
- Readily adheres to damp concrete
- Easy Monolithic installation
- Provides Long Term corrosion protection
- Contains no VOC's

Technical Support

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

Chemical composition of main constituents

Substances	Typical % by Weight
Al ₂ O ₃	39-44
CaO	35-40
SiO ₂	2-7
Fe ₂ O ₃	9-15

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

Application Instructions

Preparation

Clean the surface and remove any dust, unsound or contaminated material, plaster, oil, paint, grease, corrosion deposits or algae. Roughen the surface and remove any laitance 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.

Application

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

Finishing

It is recommended that SewperCoat® 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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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

SewperCoat® Dry Spray is a cement-based repair mortar. In common with all cementitious materials, SewperCoat® Dry Spray must be cured immediately after finishing in accordance with good concrete practice. The use of Concure A99, sprayed on to the surface of the finished SewperCoat® Dry Spray 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 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.

Estimating

Supply

SewperCoat® Dry Spray is supplied in 20KG Bag.

Coverage and yield

Approx 2.4 Tonnes per m³ (Approx 8.3L/20KG bag)

Limitations

SewperCoat® Dry Spray is a protective mortar lining system, care should be taken when considering for use in structural applications. Please contact Parchem Construction Supplies 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 your local Parchem sales office. 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.

Storage

As with all hydraulic binders, SewperCoat® Dry Spray must be stored in dry conditions, off the ground. In this case, it will retain its properties for at least 6 months. In many instances, experience has demonstrated that properties are retained for more than one year.

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.

SEWPERCOAT

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