

**High performance, high strength, micro-concrete reinstatement mortar with superior biogenic corrosion resistance, for form and pour applications**

## Description

SewperCoat® Flowable is a mortar designed to provide exceptional resistance to the biogenic corrosion environment found in sanitary sewers. The unique biogenic corrosion resistance of SewperCoat® Flowable is due to its 100% calcium aluminate composition, i.e. the combination of calcium aluminate cement and calcium aluminate aggregates. SewperCoat® Flowable can be utilized to rehabilitate sewer infrastructures that have been damaged over years by biogenic corrosion.

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

SewperCoat® Flowable is supplied as a ready to use dry powder which requires only the site addition of clean water to produce a pourable, shrinkage compensated, micro-concrete suitable for large volume repairs at a nominal thickness in excess of 20 mm.

## Advantages

SewperCoat® Flowable is ideal for the reinstatement of large, structural sections of concrete as well as for many smaller locations where difficulties of access make hand or trowel-applied mortars impractical. The flowable nature of SewperCoat® Flowable obviates the need for compaction and vibration even where access to the repair zone is restricted or where reinforcement is congested.

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

## Chemical composition of main constituents

Substances	Typical % by Weight
Al <sub>2</sub> O <sub>3</sub>	40-43
CaO	36-38
SiO <sub>2</sub>	5-7
Fe <sub>2</sub> O <sub>3</sub>	10-14

## Properties

Compressive Strength (MPa) (AS 1478.2 - 2005)	
6 hours	>20MPa
24 hours	>35MPa
28 days	>75MPa
Modulus of Rupture (Flexural Strength) (MPa) (AS 1012.11 - 2000):	
24 hours	>6.5MPa
28 days	>8.5MPa
Indirect Tensile strength (AS 1012.10 - 2000):	
28 days	>5MPa
Dimensional Change (Drying shrinkage) (AS 1478.2 - 2005):	
56 days	<600 microstrains

## Application Instructions

### Preparation

The unrestrained surface area of the repair must be kept to a minimum. The formwork should be rigid and tight to prevent loss of material and have properly sealed faces to ensure that no water is absorbed from the repair material.

The formwork should include drainage outlets for presoaking and, if beneath a soffit, provision for air-venting. Provision must also be made for suitable access points to pour or pump the mixed micro-concrete into place. Saw cut or cut back the extremities of the repair locations to a depth of at least 20 mm to avoid feather-edging and to provide a square edge. Break out the complete repair area to a minimum depth of 20 mm up to the sawn edge. Clean the surface and remove any dust, unsound or contaminated material, plaster, oil, paint, grease, corrosion deposits or algae.

Where breaking out is not required, 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.

# SewperCoat® Flowable

---

## Substrate priming

Several hours prior to placing, the prepared concrete substrates should be saturated by filling the prepared formwork with clean water. Immediately prior to the application of SewperCoat® Flowable, this water should be removed from the formwork.

## Mixing

Care should be taken to ensure that SewperCoat® Flowable is thoroughly mixed. A forced-action mixer is essential. Mixing in a suitably sized drum using an approved spiral paddle in a slow speed (400/500 rpm) heavy-duty drill is acceptable. Free-fall mixers must not be used. Mixing of part bags should never be attempted.

It is essential that machine mixing capacity and labour availability is adequate to enable the placing operation to be carried out continuously. Measure 2.4 - 2.6 litres of drinking quality water and pour three-quarters into the mixer. With the machine in operation, add one full 20 kg bag of SewperCoat® Flowable and mix for one minute before adding the rest of the water. Mix for a further 2 - 3 minutes until a smooth even consistency is obtained. Note that powder must always be added to water. The quantities mixed may be scaled up as required.

## Placing

The mixed material should be placed within 15 minutes of mixing in order to gain the full benefit of fluidity and of the expansion process. If placing by pump, standard concrete pumping practice should be followed. The pump and pipeline should be primed with a slurry of calcium aluminate cement and water. DO NOT use slurry of Ordinary Portland Cement (OPC). Any residue of OPC in the hose or equipment will flash set the SewperCoat Flowable and cause blockages to equipment.

SewperCoat® Flowable when used for reinstatement of horizontal areas, must be suitably restrained by formwork.

## Curing

Correct curing is essential to ensure optimum performance of the product. The formwork should be left in place until the compressive strength of the SewperCoat® is 10 MPa, however it is recommended that the formwork be left in place for at least 24 hours if possible.

SewperCoat® Flowable is a cement-based concrete reinstatement material. In common with all cementitious materials, SewperCoat® Flowable must be cured immediately after the formwork is stripped in accordance with good concrete practice. Immediately after striking the formwork, all exposed faces of the repair should be thoroughly soaked with clean water and then sprayed with a liquid curing membrane such as Concure A99. Any delay in starting the curing process after the formwork is stripped will adversely affect the performance of the product.

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.

## Supply

SewperCoat® Flowable is supplied in 20KG Bag.

## Coverage and yield

Approx 2.4 Tonnes per m<sup>3</sup> (Approx 8.3L/20KG bag)

## Limitations

SewperCoat® Flowable is a protective mortar lining system, care should be taken when considering use for structural applications. Please contact Parchem Construction Supplies for further information.

## Storage

As with all hydraulic binders, SewperCoat® Flowable 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.6 months. In many instances, experience has demonstrated properties are retained for more than 1 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**

SewperCoat® is a registered trademark and the ownership of Kerneos, used under license.

  
**parchem**

**Parchem Construction Supplies Pty Ltd**  
7 Lucca Road, Wyong NSW 2259  
Phone: 1300 737 787  
www.parchem.com.au  
ABN 80 069 961 968