



Cureseal

Multi-purpose, acrylic resin concrete protection and curing compound

Uses

Provides as a high efficiency, spray-applied, curing compound and concrete protection with cost and labour saving supplementary features. It can be used in a wide range of applications :

- Factory floors and warehouses
- High rise construction to eliminate water curing
- General floor slabs and columns
- Unloading bays
- Self-curing, primer system to subsequent coverings

Advantages

- Enhanced concrete durability - acts as a dustproofer/ surface hardener, 55% increase in abrasion resistance
- Excellent service life - good general resistance to chemicals and UV exposure
- Labour saving - acts as a primer system for subsequent finishes
- Versatile - can be applied equally well to freshly placed or existing concrete
- Cost effective - low cost spray application

Standards compliance

Classified to ASTM C309.

Description

Cureseal is a non-degrading, resin, curing compound as well as concrete protection. It is supplied as a single component liquid which is ready for immediate on-site application.

Cureseal is applied, by spray, to cementitious surfaces at a coverage rate of 4.5 to 6.0 m² per litre. It produces a hard wearing surface, with excellent adhesion properties; thereby also making it suitable as a primer for subsequent finishes which do not rely on penetration for substrate bond.

Specification

The multi-purpose, curing compound and concrete protection shall be Cureseal, an acrylic resin supplied by Fosroc. It shall be certified to ASTM C309 as a curing compound; whilst additionally providing increased abrasion and chemical resistance to concrete surfaces, and shall furthermore have the capability to act as a primer to finishes not requiring penetration for substrate bond.

Properties

Form	: Liquid
Cure times at 20° C and 50 % relative humidity :	
Tack free	2 to 4 hours
Full cure	24 hours
Abrasion resistance	: 55 % improvement on treated floors as per BCA abrasion testing

Chemical resistance:

resistance to spillage of the following

Sulphuric acid	10%
Hydrochloric acid	10%
Nitric acid	10%
Sodium hydroxide	40%
Potassium hydroxide	40%
Vegetable oil	100%
Mineral oil	100%
Motor oil	100%
Calcium Chloride	25%

Instructions for use

Pre-application

Cureseal should be gently stirred immediately prior to use to ensure uniformity of the material as applied.

New concrete

Application to freshly placed concrete should not begin until the surface is free from water, and should not commence at all if bleed water is apparent. Cureseal should be applied as soon as practically possible after removal of shuttering, and whilst the concrete surface is still damp. However, any traces of laitence, grout runs or loose material should be removed.

Cureseal

Existing concrete

Surfaces to be treated must be free from oil, grease, laitance and other loose contaminants. Any cracks or blowholes should be filled using Fosroc's range of proprietary repair materials. Consult the local Fosroc office.

Where Cureseal is to be used as the finished coating, surface irregularities may show through and should be removed this will also help to prevent wear on high spots.

Application

Cureseal should be applied uniformly by brush, roller or spray, with no overlap of applications. Under standard site conditions, a single coat of Cureseal applied at a uniform rate of 4.5 to 6m² per litre, will meet ASTM C309 curing requirements. The applied film should not be trafficked until fully dry, and care should be taken to ensure that the film is not broken.

Spray equipment

Motorised or knapsack spray equipment which produces a fine spray is recommended for use with Cureseal. For further information consult the local Fosroc office.

Cleaning

Spray equipment should be cleaned immediately after use by flushing through with water. Any residual traces of resin which are left in the nozzle may be cleaned with Fosroc Solvent 102.

Subsequent finishes

The resin used in Cureseal allows direct application of many floor coverings and paint systems, as given typically below :

- water based emulsion paints containing PVA, PVC and acrylic co-polymers.
- bituminous emulsions and solutions
- polymer modified cement systems
- epoxy resin coating which do not rely on penetration for substrate bond

Estimating

Supply

Cureseal	:	20 and 210 litre packs
Fosroc Solvent 102	:	5 litre packs

Coverage

Coverage figures quoted for Cureseal are indicative ; and based upon application to fresh or damp concrete at the appropriate time. Care should be taken to ensure that the concrete is indeed ready to accept the curing membrane. Application rates outside the range given below may be used if necessary, but it is recommended to first contact your local Fosroc office.

Cureseal	:	4.5 to 6.0m ² /litre or 0.16 to 0.22 litres/m ²
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Storage

When stored in warehouse conditions below 35°C, Cureseal has a minimum shelf life of 12 months

Freezing and exposure to heat and/or direct sunlight should be avoided.

Containers should be kept sealed and airtight to prevent any reduction in shelf life.

Technical Support

Fosroc provides a technical advisory service for on-site assistance and advice on admixture selection, evaluation trials and dispensing equipment. Technical data and guidance can be provided for admixtures and other products used with fresh and hardened concrete.

Limitations

Cureseal should only be applied in well ventilated areas.

Any concrete surfaces which receive treatment with Cureseal should not be disturbed until the concrete has gained sufficient strength to bear surface loading.

Cureseal should not be exposed to moving water, or rain, during application or before it has become tack free.

Cureseal has been tested for bond to subsequent finishes and found to perform satisfactorily. However, many variations of each individual type of finish exist and it is not possible to test each and every one. It is therefore recommended that an onsite bond test is carried out to determine absolute suitability.

Cureseal

Precaution

Health and safety

Cureseal and Fosroc Solvent 102 should not come into contact with skin or eyes, or be swallowed. Avoid inhalation of vapour/spray. Use only in well ventilated areas. If work is required in confined spaces, then respiratory equipment should be used.

Suitable protective gloves and goggles should be worn at all times. Splashes on the skin should be removed with water. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting.

For further information, please consult the relevant Material Safety Data Sheet for these products.

Fire

Cureseal and Fosroc Solvent 102 are flammable, store in accordance with local fire prevention regulations. Keep away from sources of ignition, in the event of fire extinguish using CO₂ or foam. Do not use a water jet.

Flash points

Cureseal	:	40°C
Fosroc Solvent 102	:	33°C

Cleaning and disposal

Spillages of Cureseal or Fosroc Solvent 102 should be absorbed onto sand, earth or vermiculite and transferred to suitable containers. Remnants should be hosed down with large quantities of water.

The disposal of excess or waste material should be carried out in accordance with local legislation, under the guidance of the local waste regulatory authority.

Additional Information

Fosroc manufactures a wide range of complementary products which include :

- waterproofing membranes & waterstops

- joint sealants & filler boards
- cementitious & epoxy grouts
- specialised flooring materials

Fosroc additionally offers a comprehensive package of products specifically designed for the repair and refurbishment of damaged concrete. Fosroc's 'Systematic Approach' to concrete features the following :

- hand-placed repair mortars
- spray grade repair mortars
- fluid micro-concretes
- chemically resistant epoxy mortars
- anti-carbonation/anti-chloride protective coatings
- chemical and abrasion resistant coatings

For further information on any of the above, please consult your local Fosroc office - as below.

Why use polymer curing compounds ?

Polymer curing compounds are ultimately more efficient and cost effective than water because they are a one time, one coat application.

The alternative, with water curing, is to constantly monitor the concrete surface and replenish with water as and when necessary. During the summer months this can easily become a full time occupation - right through the night - and is very difficult to maintain on vertical or inclined elements.

In contrast, polymer compounds are practical, very easy to apply and produce a constant, controlled rate of cure, which will underwrite the future durability of the concrete.

- more efficient cement hydration - more durable concrete
- improved surface quality - reduces permeability
- reduced plastic shrinkage - minimises cracks and repairs

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