

# Nitoflor Cureseal

Acrylic-based curing and sealing compound for freshly placed and existing concrete

## Uses

As a curing and sealing treatment to new or existing concrete to provide a dustproof and more easily cleaned surface with resistance to penetration of oils and liquids.

Ideal for warehouses, garages, industrial areas and car parks.

## Advantages

- Simple brush, roller or spray application
- Excellent curing capabilities
- Increased abrasion resistance of treated floors
- Totally seals the surface preventing dusting
- Will not prevent the bond of a wide range of subsequent treatments

## Description

Nitoflor Cureseal is a single pack acrylic coating which cures and seals interior or exterior cementitious surfaces to produce a harder wearing surface. It has excellent adhesion, and when cured forms a semi-gloss flexible film.

## Specification clause

Areas shall be treated where shown with Nitoflor Cureseal, an acrylic based curing and sealing compound manufactured by Fosroc Limited.

The product shall have the ability to improve the abrasion resistance of treated floors by 55% when measured in accordance with the requirements of the BCA abrasion test apparatus, and have a curing efficiency, which meets the requirements of ASTM C309-74 when tested in accordance with ASTM C157.

Nitoflor Cureseal shall be applied in full accordance with the manufacturer's instructions.

## Properties

### Cure time

Nitoflor Cureseal will become tack free in approximately 2-4 hours and will be fully cured after 24 hours at 20°C and 50% R.H.

### Chemical resistance

Resistant to spillage of the following chemicals:

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%

Good maintenance is essential in areas where chemical spillage is likely to occur. It is especially important that such spillage should not be allowed to dry as higher concentrations of chemicals may result.

### Abrasion resistance

In laboratory tests, two coats of Nitoflor Cureseal have shown to increase the abrasion resistance of treated floors by 55% when testing using the BCA abrasion test apparatus.

### Curing efficiency

A single coat of Nitoflor Cureseal applied at a rate of 5-6m<sup>2</sup>/litre exceeds the 75% requirement of BS 8110 when tested in accordance with BS 7542.

Nitoflor Cureseal also meets the requirements of ASTM C309-74 when tested in accordance with ASTM C157.

### U.V. Light stability

Nitoflor Cureseal has excellent resistance to fading and yellowing in external applications.

### Adhesion

Nitoflor Cureseal has excellent adhesion to concrete when applied in accordance with the instructions for use.

Nitoflor Cureseal will not prevent the bond of a wide range of subsequent treatments such as Nitoflor FC140 for demarcation lines. However it is strongly recommended that tests are undertaken to check compatibility before application proceeds.

## Instructions for use

### General

As Nitoflor Cureseal is a thin coating, the substrate must be fine textured, as any surface irregularity may show through, cause excessive wear on high spots, or change the perceived colour of the coating.

If a non-slip finish is desired, a single application of Nitoflor Cureseal is recommended.

Under standard site conditions a single coat of Nitoflor Cureseal uniformly applied at a rate of 5-6m<sup>2</sup>/litre will meet the DTp and ASTM curing requirements, however differential absorption is likely to occur. Therefore for aesthetic as well as technical considerations a second coat applied at a rate of 7-9m<sup>2</sup>/litre is recommended.

### New floors

Nitoflor Cureseal should preferably be spray applied to the concrete surface.

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For a permanent membrane, the surface of the concrete must have been worked e.g. power floated or brushed after the disappearance of bleed water in order to remove any laitance layer. The concrete should then be left for a further 10 minutes before application.

## Preparation of existing concrete

Surfaces to be treated must be structurally sound and free from loose material. Repair any cracks or holes with Nitomortar resin repair compounds. Oil and grease contaminated surfaces should be treated with a suitable chemical degreaser, washed with clean water and allowed to dry to gain maximum benefit.

Remove any laitance or existing coatings, which would prevent Nitoflor Cureseal from penetrating the concrete surface.

## Preparation of shuttered surfaces

Nitoflor Cureseal should be applied as soon as possible after shutter removal. The concrete should not be wetted after removal but the surface should be inspected for laitance, grout runs and other loose material, which must be removed before spraying.

## Mixing

Nitoflor Cureseal is a one-component material. However, containers should preferably be stored inverted for 24 hours before use then stirred well or rolled prior to use.

## Application

Do not apply Nitoflor Cureseal while free water remains on the surface.

Nitoflor Cureseal should be uniformly applied by brush, roller or spray to the concrete surface. Do not overlap applications.

Various types of spraying equipment are suitable for the application of Nitoflor Cureseal, including knapsack and motorized sprayers. For further information consult Fosroc Technical Department.

When sprayed, the nozzle should be held approximately 500mm from the surface and passed back and forth to ensure complete coverage. The pressure on the pump must be maintained at all times to produce a fine spray.

Where a surface seal is required, a second coat of Nitoflor Cureseal can be applied, either within 24 hours of the first, or at any subsequent time providing the surface is dry, clean and free from all contaminants.

It is important all applications are uniformly applied without thick or ponded areas, which will adversely affect the quality of finish.

## Cleaning

Immediately after use, all equipment should be cleaned using Fosroc Solvent 102. Special attention should be paid to the line and nozzles of spraying equipment.

## Estimating

Product	Pack	Theoretical coverage (per litre)
Nitoflor Cureseal	20 litres	5-6m <sup>2</sup> 1st coat 7-9m <sup>2</sup> 2nd coat
Fosroc Solvent 102	5 & 25 litre tins	

Coverage varies with absorbency of the surface to be treated. These figures are typical for a smooth trowelled finish. Textured or tamped finishes effectively increase the surface area and thereby reduce the coverage achieved.

Any reduction in the application rate may have a detrimental effect on the sealing and abrasion resistance of the coating.

## Limitations

Nitoflor Cureseal should only be applied in well-ventilated areas.

Do not use on areas where it is known in advance that Nitoflor Cureseal must be removed at the end of the curing period, or where screeds, grouts, or subsequent concrete placements are to be bonded.

Do not use for curing static disseminating concrete floors.

In external situations, do not apply if rain is likely to occur during application or before Nitoflor Cureseal has become tack free.

## Storage

Nitoflor Cureseal has a shelf life of 12 months provided the storage temperature is kept within the range of 2°-50°C. If this temperature range is exceeded, advice should be sought from the Fosroc Customer Service Department.

The Container should be kept sealed when not in use and care taken to prevent contamination during use.

Fosroc Solvent 102 should be stored in a cool, dry place, away from sources of heat and naked flames.

## Precautions

### Health and Safety

For further information refer to appropriate Product Safety Data Sheet.

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## Fire

Nitoflor Cureseal and Fosroc Solvent 102 are flammable.  
Do not expose to naked flames or other sources of ignition.  
In the event of fire, extinguish with CO<sub>2</sub> or foam.

## Flash point

Nitoflor Cureseal	38°C
Fosroc Solvent 102	33°C



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### Important note

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