

Fosroc® Nitoflor Lithurin 2*

Permanent hardening and dustproofing compound for concrete surfaces

Uses

- As a surface hardener for new and old concrete floors to prevent dusting and to increase durability.
- Suitable for use on concrete and granolithic surfaces
- Typical applications include industrial floors, light engineering works, warehouses, animal feed and milk parlours, abattoirs, car parks, dams, reservoirs, tanks, silos and flues.
- As a case hardener for pre-cast products.

Advantages

- Highly durable, improves abrasion resistance and reduces chemical attack from oils and greases.
- Easy to apply, no special equipment or skills required.
- Eliminates dust formation from within the treated surface.
- Economical and low cost method of floor protection.

Description

Nitoflor Lithurin 2, a clear liquid based on sodium silicate, is mixed with water and applied to concrete surfaces. The solution penetrates the concrete and reacts with the cementitious components leaving a permanent, hard wearing and dust free surface.

Properties

Penetration	: Nitoflor Lithurin 2 is a penetrative resulting in a more durable finish better than that of other surface treatments which merely form a superficial skin.
Hardness	: The surface hardness is achieved through a chemical reaction within the cementitious material.
Anti-dust	: The chemical elimination of free lime and other soluble particles creates a tightly bound surface resistant to dusting.
Chemical resistance	: Nitoflor Lithurin 2 application reduces the absorbency of the surface and improves resistance to solvents, greases and commonly used chemicals.

Consult the Fosroc technical service department for details on resistance to specific chemicals.

Instructions for use

Preparation

Surfaces to be treated with Nitoflor Lithurin 2 must be structurally sound and free from loose materials. Cracks or holes can be repaired using a recommended Fosroc repair material which should be allowed to cure prior to proceeding.

Oil and grease contaminated surfaces should be treated with a suitable chemical de-greaser followed by washing with clean water and allowed to dry.

Any laitance or existing coating must be removed prior to application as these will prevent the Nitoflor Lithurin 2 from penetrating.

New concrete floors must be allowed to cure for 14 days prior to treatment. Coloured floors should be allowed to cure for 28 days prior to treatment and a small area tested with Nitoflor Lithurin 2 to assess the effect on the colour.

Nitoflor Lithurin 2 must only be applied to dry surfaces to maximise penetration.

Mixing

Dilute in suitable metal containers 1 part of Nitoflor Lithurin 2 with 3 parts of water and stir until a smooth homogeneous consistency is achieved.

Application

Ensure that the surface to be treated is dry and apply the mixed Nitoflor Lithurin 2 at a rate of approximately 0.1L/m² using a soft broom or brush.

Allow the solution to be absorbed into the floor for a period of up to 2 hours, any solution not absorbed after this period should be removed. Failure to do so will result in the formation of a weak, glossy surface film following the drying.

Normally a two or three coat application is recommended for complete treatment, however, very dense, well trowelled surfaces such as granolithic toppings, power floated or vacuum dewatered concrete will generally require only a single coat.

If a second application is necessary, reapply the solution after 24 hours ensuring that the floor is dry. All surplus solution must be removed as stated previously. The same procedure will apply for a third application if required.

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Crystal Application

If the finished surface needs to be highly polished, the following procedures must be followed:

Grind the surface with 800 mesh grinding sheet to open the surface pore and improve the degree of permeability ,also do the primarily treatment before the above standard application.For the surface with high smoothness ,don't grind too much to avoid any scratches to keep the appearance and aesthetics.

Clean the surface with water vacuum to air drying.

Apply Nitoflor Lithurin2 according to the above standard method after the surface becomes totally dry (about 24 hours). Follow the below procedures on the second day :

Grind the substrate 1-2 times with 1500-3000 mesh grinding sheet according to the substrate situation. When dealing with grinding ,Nitoflor Lithurin2 can be applied one more as appropriate until no penetration appears.

Note: Do not grind too much to avoid any damage to the surface.

When the requested smoothness is obtained, clean the surface completely, and if polished with water, absorb the surface to be dry meanwhile. Brush the floor wax with high hardness onto the floor surface and dry in air. Do not apply too much.

Polish with white or grey depending on the actual situation to obtain the requested crystal gloss and smoothness. Too much polishing should be avoided.

Curing

No special curing is needed for Nitoflor Lithurin2 except the floor can not bear traffic before the surface is dry.

High temperature application

When the temperature is above 35°C,the application should follow the below instructions:

The worker should be protected under high temperature working conditions.

Nitoflor Lithurin2 can be normally applied if only the substrate is treated as requested.

For further information ,please refer to the related method of statement.

Cleaning

All the instruments should be cleaned immediately with clean water after the application is finished. Cured materials can only be removed mechanically.

Technical support

Fosroc offers a comprehensive range of high performance, high quality flooring, joining and repair products for both new and existing floor surfaces. In addition Fosroc also offers technical support service to specifiers, end users and contractors. It is also able to offer on-site technical assistance, an AutoCAD facility and dedicated specification assistance in locations all over the world.

Estimating

Supply

Nitoflor Lithurin 2 : 20 litre drums

Coverage

Nitoflor Lithurin 2 : 5.0 m²/ litre of liquid for 3 coats
7.5 m²/ litre of liquid for 2 coats
10.0 m² / litre of liquid for 1 coat

Note: Coverage figures given are theoretical - due to wastage factors and the variety and nature of substrates, practical coverage figures may be reduced, this will vary with site and application conditions.

In accordance with Commercial or Health & Safety requirements packaging detail may alter. Please contact your local Fosroc office for detail.

Storage

Shelf life

When stored in cool dry conditions in original unopened drums, Nitoflor Lithurin 2 will have a shelf life of 12 months.

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Precautions

Health and safety

Nitoflor Lithurin 2 is alkaline and should not come into contact with skin or eyes or be swallowed.

Wear suitable protective clothing, gloves, boots and eye/face protection.

After contact with skin, wash immediately with plenty of soap and water. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical attention. If swallowed, do not induce vomiting, seek medical attention immediately.

Fire

Nitoflor Lithurin 2 is non-flammable.

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 repair 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

* Denotes the trademark of Fosroc International Limited

† See separate data sheet



Important note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Services, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification of information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products, whether or not in accordance with any advice, specification, recommendation of information given by it.

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