

(Previously known as Durafloor SLX)

Self smoothing epoxy resin industrial floor topping system, for cold weather application (2mm to 4mm thickness)

Uses

Nitoflor SLX is designed for use in a wide range of industrial environments where a lasting solution to floor maintenance problems is required. It provides a dense, impervious, coloured and chemically resistant floor surface which is hygienic and easy to clean. Typical applications include hospital clean rooms, laboratories, food processing plants, film studio floors, prisons, supermarkets and light industrial plants.

Advantages

- Specially formulated to provide resistance against 'epoxy bloom' in cold weather conditions, improving the floor's resistance to water staining
- Applied from 2 to 4mm thickness
- High flow characteristics combined with an attractive self smoothing gloss finish
- Fast application - minimises downtime
- Chemically resistant - good resistance to a wide range of chemicals
- Durable - good abrasion resistance
- Hygienic - provides a dense, impervious, seamless floor surface which is easily cleaned
- Attractive gloss finish - available in a wide range of colours to enhance the working environment
- HACCP certified for use in food handling areas.

Description

Nitoflor SLX is a self smoothing, solvent free epoxy screed incorporating a special hardener component resistant to "epoxy bloom" effect. It is supplied as a pre-measured, multi-component system ready for on-site mixing.

When laid, it provides a smooth, durable gloss surface. It is available in a wide range of standard colours, and if required, can be overcoated with Nitoflor FC150 HP plus grit to provide slip resistant finishes.

Standards Compliance

AS/ISO 9239.1-2003 Reaction to Fire Tests for Floorings - AWTA Test Report 21-001311:

Critical Heat Flux (CHF): 3.4 kW/m² (Mean)

Smoke Value: 852 %.min (Mean)

HACCP certification for SSZ (Splash or Spill Zone) - items are suitable for use in food handling areas such as kitchens, production areas.



Copies of test reports and certification are available from the Fosroc website.

Design Criteria

Nitoflor SLX is designed for application at a nominal thickness of 2 - 4 mm. Thickness will generally depend on the impact resistance requirements of the finished floor - thicker floor being capable of withstanding greater impact.

Substrates should be dry and not suffer, or be likely to suffer, from rising damp. Substrates should not have a relative humidity greater than 75% at the time of installation (refer to Limitations section).

Properties

The values given below are typical figures achieved in laboratory tests at 23°C. Actual values obtained on-site may show minor variations from those quoted.

Physical properties

Compressive strength:	60 MPa
VOC content (ASTM D3960):	8g / litre
Pot life:	30 minutes @ 20°C
Cure time -	
Foot traffic:	24 hours
Vehicular traffic:	48 hours
Full cure:	7 days
Service temperature:	Up to 50°C

Chemical resistance

Nitoflor SLX has excellent resistance at ambient temperatures to a wide range of industrial chemicals. Consult Fosroc for specific advice.

Note: It is very important that all chemical spills are cleaned up immediately. Leaving chemical spills on the floor may result in higher concentrations of chemicals pooling, causing damage to the Nitoflor SLX.

Light Reflectance Value (LRV): BS 8493:2008

Nitoflor SLX Black:	4.75%
Nitoflor SLX Fern Green:	17.51%
Nitoflor SLX Harbour Blue:	17.35%
Nitoflor SLX Koala Grey:	31.26%
Nitoflor SLX Light Grey Blue:	41.34%
Nitoflor SLX Pastel Grey:	62.97%
Nitoflor SLX Raspberry:	9.70%
Nitoflor SLX Safety Yellow:	48.78%
Nitoflor SLX Sand:	54.11%
Nitoflor SLX Silver Grey:	64.46%
Nitoflor SLX Curtain Call:	13.33%

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Application Instructions

Preparation

Nitoflor SLX should be applied by specialist contractors recognised by Fosroc who have been trained in the correct installation procedures.

Thoroughly prepare the floor surface. Correct surface preparation helps to achieve the necessary adhesive bond between the substrate and the new floor. Grinding or captive blasting is the normal suggested method. Employ adequate vacuum systems to minimise dust. Ensure surrounding areas are protected from any potential dust generated during this preparation.

All existing expansion or movement joints should be continued through the new floor surface. This can be achieved using removable forms or by cutting in joints after the Nitoflor SLX has cured sufficiently.

These joints can then be sealed at the top using Nitoseal PU400 or similar joint sealant.

Repair

Faults / defects in the base concrete floor will reflect through the Nitoflor SLX so it is important to “make good” the concrete before application of the Nitoflor SLX. These repair are generally carried out using Nitomortar 903 and fillers or a suitable epoxy fairing mortar.

Priming

Apply 1 - 2 coats of Nitomortar 903 and allow to cure. Touch dry between prime coats and 12 - 24 hours prior to the application of Nitoflor SLX.

Efficient sealing of the concrete surface is essential to minimise surface defects in the final finish.

Mixing

Scrape entire contents of the 2 x 500g Nitoflor Colour Pots into the base component (only use Nitoflor Colour Pots).

Add the entire contents of the hardener to the base and colour pot mixture and mix for 1 minute using a slow speed mixer fitted with a large spiral type mixing attachment.

After 1 minute mixing, slowly add one bag of the Nitoflor SL Fillers.

Continue mixing entire mix for a minimum of 3 minutes at 350 - 500 rpm once all components have been added.

Note: Mix in an efficient manner to ensure no colour pigment streaking is visible and scrape the side walls of the mixing vessel with a long bladed spatula to dislodge any unmixed material.

Placing

Apply the Nitoflor SLX topping by pouring the mixed product on to the primed surface and spread with a steel trowel or gauge rake to achieve a 2 to 4mm seamless topping.

Using a spiked roller, remove air entrainment and allow to cure.

If a slip-resistant finish is required this can be achieved by application of Nitoflor FC150 HP incorporating suitable slip resistant aggregates after initial curing of the Nitoflor SLX. Refer to the Nitoflor FC150 HP Technical Data Sheet.

Cleaning

Nitoflor SLX and associated primer should be removed from tools and equipment with Fosroc Solvent 10 immediately after use. Hardened material can only be removed mechanically.

Maintenance

The service life of a floor can be considerably extended by good housekeeping. Regular cleaning may be carried out using a rotary scrubbing machine with a water miscible cleaning agent at temperatures up to 50°C (refer to Fosroc’s “Guide to Industrial Floor Maintenance”). In some applications where long term appearance of the floor is important, clear sealers / polishes may be necessary to protect the epoxy and provide a renewable top coat. Consult Fosroc for further advice in these circumstances.

Limitations

Nitoflor SLX does not produce a ‘mirror finish’. Some imperfections in the finish are often present.

Nitoflor SLX is not resistant to scratching and marking from mechanical damage and abrasion. In applications where long term appearance of the floor is important, clear sealers / polishes may be necessary to protect the epoxy and provide a renewable top coat. Consult Fosroc for further advice.

To ensure a uniform colour, use only components with identical batch numbers in the one application area.

Nitoflor SLX should not be applied on to surfaces known to or likely to suffer from rising damp conditions or have a relative humidity greater than 75%. Suspect concrete floor should be checked using a Hygometer to check the moisture level before proceeding.

Nitoflor SLX is not a ‘floor levelling’ product and will follow the contours of the sub-floor. If the floor requires levelling, consult Fosroc for further advice.

In certain conditions a light oily film may appear on the surface of the floor during curing. Where overcoating is to occur, remove this film by solvent wiping or cleaning with a recognised reactivating solution. When not overcoating, this film can also be removed once the Nitoflor SLX is **fully cured** by cleaning the surface with a mild detergent in water.

Nitoflor SLX is designed as a rapid installation, seamless floor. Some floor areas, especially the darker coloured Nitoflor SLX, may show slight ‘dimpling’. This is common and should be expected. It has no effect on the end flooring project being seamless and hygienic.



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In areas where significant thermal shock is likely to occur, Nitoflor PU600 may be an appropriate product - consult Fosroc.

Nitoflor SLX should not be applied to asphalt, weak or friable concrete, unmodified sand cement screeds, PVC tiles or sheet or substrates known to move substantially e.g. steel walkways. For information on other substrates, consult Fosroc.

Nitoflor SLX should be applied only when the substrate temperature and the ambient temperature is above 10°C.

Nitoflor SLX is not UV stable - discolouration may occur even in internal environments including exposure through windows.

Supply

Nitoflor SLX is supplied in pre-weighed components consisting of a base, hardener, 2 x 500g colour pots and one 14kg bag of fillers which, when combined produce 16 litres of mixed product.

Nitoflor SLX 16 litre kit components:

Nitoflor SLX Base of 16L kit:	FC605128-6.2L
Nitoflor SLX Hardener of 16L kit:	FC605129-3.8L
Nitoflor SL Fillers 14kg:	FC605126-14KG
Nitoflor Colour Pot Black 500g:	FC605135-0.5KG
Nitoflor Colour Pot Fern Green 500g:	FC605137-0.5KG
Nitoflor Colour Pot Harbour Blue 500g:	FC605138-0.5KG
Nitoflor Colour Pot Koala Grey 500g:	FC605139-0.5KG
Nitoflor Colour Pot Light Grey Blue 500g:	FC605140-0.5KG
Nitoflor Colour Pot Off White 500g:	FC605141-0.5KG
Nitoflor Colour Pot Pastel Grey 500g:	FC605142-0.5KG
Nitoflor Colour Pot Raspberry 500g:	FC605143-0.5KG
Nitoflor Colour Pot Safety Yellow 500g:	FC605144-0.5KG
Nitoflor Colour Pot Sand 500g:	FC605145-0.5KG
Nitoflor Colour Pot Silver Grey 500g:	FC605146-0.5KG
Nitoflor Colour Pot Curtain Call 500g:	FC605147-0.5KG
Nitoflor Colour Pot Spec Col (MTO) 500g:	FC605148-0.5KG

Important notice

A Safety Data Sheet (SDS) is available from the Fosroc website. 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.

Ancillaries:

Nitomortar 903 Base 20L:	FC381019-20L
Nitomortar 903 Hardener 10L:	FC381018-10L
Fosroc Solvent 10 4L:	FC600800-4L
Fosroc Solvent 10 20L:	FC600800-20L

Coverage

Each Nitoflor SLX 16 litre pack covers 8m² @ 2mm thickness or 4m² @ 4mm thickness.

Nitomortar 903 as a primer: 5m²/litre

The coverage figures given are theoretical - due to wastage factors and the variety and nature of possible substrates, practical coverage figures will be reduced. Typically, an additional 10% should be allowed for surface irregularities and wastage although this will vary with site conditions.

Storage

Nitoflor SLX should be kept in a dry store in the original, unopened packs between 5°C and 30°C.

If stored at high temperatures the shelf life may be reduced.