Fosroc®
Nitoflor® FC150 HP/SL (roll coat application)

(NOTE: this new formulation is NOT compatible with the previous base, hardener or colour pots)

High performance, epoxy floor coating

Uses

A heavy duty, industrial / commercial coating for concrete floors that is attractive and easily cleaned. Highly resistant to chemical attack and the action of forklift vehicular and commercial type traffic.

When used in conjunction with the appropriate slip resistant medium, Nitoflor FC150 HP/SL is suitable for use in wet areas where strict levels of hygiene and cleanliness are required or where chemicals are manufactured, spilled or are an integral part of the process.

Used in the food and chemical industry, hospitals, schools, kitchens, high traffic applications and many other installations.

Specially selected and processed grades of quartz sand anti-slip grits are available to make safe all types of working areas for both personnel and plant.

Nitoflor FC150 HP/SL may be used without anti-slip grit as a sealer on concrete floors, epoxy floor screeds or as a high quality protective coating for bunds, coves and drains within production areas.

Advantages

- Long lasting and easily maintained with good resistance to many industrial chemicals
- Slip resistance improves safety for plant and personnel
- Provides an attractive gloss finish
- Available in a wide range of light reflective colours to provide a brighter work area.
- HACCP certified for use in food handling areas.

Standards compliance

APAS 0292 V3 - Class 1 Conformity

AS/ISO 9239.1-2003 Reaction to Fire Tests for Floorings - AWTA Test Report 24-003049 (@400 microns):

Critical Heat Flux (CHF): ≥11.0 kW/m²
Smoke Value: 7%.min

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.

Description

Nitoflor FC150 HP/SL utilises the base, hardener and colour pot components common to the application as a roll coat or self levelling screed.

Nitoflor FC150 HP/SL is a an epoxy resin high build coating producing a slightly textured gloss finish when applied as a roll coat. The formulation allows the incorporation of anti-slip grits and provides good chemical and abrasion resistance.

Nitoflor FC150 HP/SL is available in a range of colours by adding Nitoflor Colour Pots.

Nitoflor FC150 HP/SL is also available in pre-tinted kits in Koala Grey colour and in made to order special colours.

Note: Care has been taken to ensure that colours manufactured under our modern process are as close as possible to agreed reference samples. However, it should be noted that no guarantee can be given of exact colour matching.

Properties

Solids content:	100% w/w
VOC content:	14g / litre (ASTM D3960)
Pot life:	8 litre - 40 minutes @ 23°C
Tack free time:	8 hours @ 23°C
Recoat time:	8 - 48 hours @ 23°C 16 - 96 hours @ 10°C
Foot traffic:	12 hours @ 23°C
Vehicle traffic:	48 hours @ 23°C
Full cure:	4 days @ 23°C
Service temperature:	Up to 55°C
Compressive strength:	52 MPa @ 24 hours 65 MPa @ 7 days
Hardness - Shore D:	75
Flexural strength:	26 MPa @ 7 days
Line-marking paint adhesion to coating: Dulux Roadmaster A1	Excellent

Note: Pot life will be reduced if product is mixed and left in original container. To extend pot life pour product into flat trays such as roller trays.

Chemical resistance

Resistant to a wide range of chemicals. Resistance to spillages (examples only).

- Toluene
- Acetic Acid 5%
- Sodium Hydroxide 30%
- Ammonia 20%
- Used sump oil
- Hydrochloric Acid
- Vegetable oils
- Sulphuric Acid 30%
- Skydrol
- Sodium Chloride
- Kerosene
- Petrol
- Lactic Acid 5%

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Surface staining may result from exposure to some aggressive chemicals.

Good housekeeping practice requires spills to be quickly removed and washed.

Light Reflectance Value (LRV): BS 8493:2008

Nitoflor FC150 HP/SL Black:	5.75%
Nitoflor FC150 HP/SL Fern Green:	19.82%
Nitoflor FC150 HP/SL Harbour Blue:	20.46%
Nitoflor FC150 HP/SL Koala Grey:	33.15%
Nitoflor FC150 HP/SL Light Grey Blue:	48.26%
Nitoflor FC150 HP/SL Pastel Grey:	70.15%
Nitoflor FC150 HP/SL Raspberry:	11.45%
Nitoflor FC150 HP/SL Safety Yellow:	51.78%
Nitoflor FC150 HP/SL Sand:	58.51%
Nitoflor FC150 HP/SL Silver Grey:	64.07%
Nitoflor FC150 HP/SL Curtain Call:	14.67%
Nitoflor FC150 HP/SL Off White:	84.20%
Nitoflor FC150 HP/SL Pipeline Grey	36.43%

Slip resistance test results: AS/NZS 4586:2013

System Used	Appendix A Wet Pendulum Test	Appendix B Dry Floor Friction Test
Nitoflor FC150 HP/SL* (no additional grit)	P0	D1
Nitoflor FC150 HP/SL* saturated with Nitoflor Anti-Slip Grains 01	P5	D1
Nitoflor FC150 HP/SL* saturated with Nitoflor Anti-Slip Grains 02	P5	D1

**Applied as a 200 microns roll coat, grit applied, then overcoated with 200 microns roll coat.*

Certificates of slip test results shown are available on request. The results were achieved in controlled laboratory conditions; reasonable variations are to be expected on site, due to site-specific conditions and variances in application.

Application of the proposed system on a small test area on site, prior to commencement of works is highly recommended, to confirm actual slip resistance.

Design Criteria

Nitoflor FC150 HP/SL can be applied as a roll coat or a self levelling screed.

As a roll coat, Nitoflor FC150 HP/SL is applied on floors in two coats to achieve an approximate total dry film thickness of 400 - 500 microns (200 - 250 microns per coat).

For applications on vertical surfaces, the application rate is reduced to avoid sagging and curtaining. Achievable film thickness will vary depending on environmental conditions. Typically 150 - 200 microns per coat.

Substrates should be dry and not suffer, or be likely to suffer, from rising damp. Substrates should have a moisture content less than 5% at the time of installation.

Application Instructions

Surface preparation

It is essential that Nitoflor FC150 HP/SL is applied to sound, clean, dry substrates in order to achieve maximum adhesion between the floor coating and substrate.

The substrate should be free from all loose materials, old coatings, curing compounds, release agents, laitance, oil and grease, either via light grit blasting or grinding to achieve CSP profile of 2-3 (As per ICRI guidelines). Dust and other debris removed by vacuum cleaning.

Substrate moisture content should be <5% as measured by using Tramex CMEX11 moisture meter.

Because Nitoflor FC150 HP/SL is a relatively thin coating when applied as a roll coat, the substrate must be fine textured. Any surface irregularities may show through causing excessive wear on high spots.

If surface preparation produces an excessively deep profile on the substrate, advice should be sought from Fosroc regarding suitable methods to produce a smooth and level substrate. A 'scratch coat' of Nitomortar 903 and fillers is often used to smooth out irregularities.

Steel should be grit-blasted or abraded to remove all scale, rust, grease, etc.

Priming

On very porous concrete an additional (3rd) coat of Nitoflor FC150 HP/SL may be required or the area may need to be primed with Nitomortar 903.

New concrete floors

Unless water-reduced, the floor should be at least 28 days old and give a moisture content reading not exceeding 5% using a Tramex CMEX11 moisture meter. If substrate moisture reading is >5% consult Fosroc for advice.

Old concrete floors

A sound, clean substrate is essential to achieve maximum adhesion. Light grit blasting or grinding should be carried out as for new concrete floors. Depending on extent of the contamination, oil and grease penetration may be removed by hot compressed air treatment and primed with Nitomortar 903. Adhesion tests must be carried out to confirm sufficient preparation.

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Epoxy screeds

Nitoflor FC150 HP/SL may be applied to Fosroc's epoxy resin screeds. High spots or trowel marks should be rubbed down and dust and other debris removed by vacuum cleaning. Overcoating times are important and other preparation such as light sanding of the existing epoxy surface may be applicable - contact Fosroc for advice.

Mixing

Stir the Nitoflor FC150 HP/ SL base and Nitoflor FC150 HP/ SL hardener components prior to mixing.

Add 1 x 700g Nitoflor Colour Pot to the 8 litre base component and mix thoroughly using a low speed heavy duty electric drill and suitable spiral mixer for 1 minute.

For 16 litre kits, 2 x 700g Nitoflor Colour Pots must be added.

Add hardener component and mix for a further 3 minutes.

Do not add solvent to the mix. Adding solvent can affect the cure and intercoat adhesion and is not required.

IMPORTANT: Once mixed the product should be poured into flat, open paint trays to maximise pot life working time. Holding the product in the original mixing can will lead to an exothermic reaction which will significantly reduce the pot life.

Application - 1st Coat

Following the required preparation, apply the mixed Nitoflor FC150 HP/SL by brush or roller at a rate of 4 - 5 m²/litre.

Using a deflocked 6 to 9mm mohair or microfibre paint roller is recommended.

When a slip resistant finish is required, the appropriate grit should be applied as soon as sufficient area has been coated. The Nitoflor Anti-Slip Grains should be lightly and uniformly broadcast over the wet Nitoflor FC150 HP/SL. The size and distribution rate of the grit should be in accordance with that prior agreed to by the client or their representative.

If any areas have lost their gloss, re-coat lightly before applying grit.

When the first coat is hard (usually the next morning - refer re-coat times in "Properties" section) sweep or vacuum off all excess grit. For good appearance and easier cleaning, it is important that all loose grit be removed at this time.

Application - 2nd Coat

Mix the components as before and apply a second coat. It is important that this final coat be uniform but the exact rate of application may be varied to suit the finish required. A heavy final coat will give an easily cleanable floor but a fairly light coat will give the best slip resistance in wet conditions.

Brushes / rollers to be washed thoroughly at least once each hour, using Fosroc Solvent 10. Ensure all solvent is removed before reusing. Brushes / rollers to be discarded after final use.

At temperatures of 20 - 30°C foot traffic may be permitted after 12 hours, and light vehicular traffic after 48 hours. Allow 4 days before subjecting to chemical attack or abrasion. In cold conditions longer periods before use will be required. Do not apply below 10°C.

Application on vertical surfaces

Application rate of Nitoflor FC150 HP/SL to vertical surfaces needs to be reduced to 5 to 6m² litre per coat to minimise runs / "curtaining".

Cleaning

All tools and equipment should be cleaned immediately after use with Fosroc Solvent 10. Hardened material can only be removed mechanically.

Maintenance

The service life of a floor can be considerably extended by good housekeeping practices. Regular cleaning of Nitoflor FC150 HP/SL may be carried out using a rotary scrubbing machine with a water miscible cleaning agent. Refer to **Fosroc's "Guide to Industrial Floor Maintenance**".

Limitations

Note: To ensure a uniform colour, use only components with identical batch numbers in the one application area or contact Fosroc for advice.

Nitoflor FC150 HP/SL should not be applied on to surfaces known to suffer from rising damp or having a moisture content reading greater than 5%. Refer to Fosroc for further advice.

Intending users should always consult Fosroc if there is any doubt as to whether a proposed application may involve conditions other than "ordinary". Such extraordinary conditions include:

- Porous or poor quality concrete causing excessive use and absorbency of the product
- Unusually cold condition during curing (<10°C)
- Elevated temperatures of service (>55°C) e.g; floors subject to hot water
- Severe, or unusual, chemical attack
- Severe, or unusual, conditions of service beyond the limiting physical and chemical properties of epoxies

Care should be taken in selecting colours as some will darken or develop a brown tinge when exposed to sunlight or certain chemicals. This effect is noticeable on white, light coloured and grey systems; on brown, yellow and red colours it is less noticeable.

Nitoflor FC150 HP/SL is not recommended for exterior use where it is subject to sunlight or in applications involving prolonged chlorinated water immersion. Contact Fosroc for detailed information.

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Nitoflor® FC150 HP/SL (roll coat application)

Nitoflor FC150 HP/SL should be applied only when the substrate temperature and the ambient temperature is above 10°C.

Nitoflor FC150 HP/SL is not recommended as an application over tiles.

Do not add solvents to Nitoflor FC150 HP/SL. Some solvents, including acetone and methylated spirits will significantly affect the curing and intercoat adhesion of epoxies.

Supply

Nitoflor FC150 HP/SL is supplied in 8 litre and 16 litre 2 component kits (colour pots are additional).

(NOTE: this new improved formulation is NOT compatible with the previous base,hardener or colour pots)

Nitoflor FC150 HP/SL Base of 8L Pack:	FC605121-5.6L
Nitoflor FC150 HP/SL Hardener of 8L Pack:	FC605122-2.15L
Nitoflor FC150 HP/SL Base of 16L Pack:	FC605121-11.2L
Nitoflor FC150 HP/SL Hardener of 16L Pack:	FC605122-4.3L

Nitoflor FC150 HP/SL Koala Grey is supplied as pre-tinted kits in 8 litre and 16 litre.

Nitoflor FC150 HP/SL Koala Grey Base of 8 litre kit: FC605123-5.85L

Nitoflor FC150 HP/SL Hardener of 8L Pack: FC605122-2.15L

Nitoflor FC150 HP/SL Koala Grey Base of 16 litre kit: FC605123-11.7L

Nitoflor FC150 HP/SL Hardener of 16 litre kit: FC605122-4.3L

16 litre Special Colour kits can also be made to order subject to a minimum order quantity of 20 kits with a lead time of 14 to 21 days.

Nitoflor FC150 HP/SL Base Spec Colour:	FC605124-11.7L
Nitoflor FC150 HP/SL Hardener of 16L Pack:	FC605122-4.3L

Ancillaries

Nitoflor Colour Pot Black 700g:	FC605135-0.7KG
Nitoflor Colour Pot Fern Green 700g:	FC605137-0.7KG
Nitoflor Colour Pot Harbour Blue 700g:	FC605138-0.7KG
Nitoflor Colour Pot Light Grey Blue 700g:	FC605140-0.7KG
Nitoflor Colour Pot Off White 700g:	FC605141-0.7KG
Nitoflor Colour Pot Pastel Grey 700g:	FC605142-0.7KG
Nitoflor Colour Pot Raspberry 700g:	FC605143-0.7KG
Nitoflor Colour Pot Safety Yellow 700g:	FC605144-0.7KG
Nitoflor Colour Pot Sand 700g:	FC605145-0.7KG
Nitoflor Colour Pot Silver Grey 700g:	FC605146-0.7KG
Nitoflor Colour Pot Curtain Call 700g:	FC605147-0.7KG
Nitoflor Colour Pot Pipeline Grey:	FC605149-0.7KG
Nitoflor Colour Pot Spec Col (MTO) 700g:	FC605148-0.7KG
Nitoflor Anti-Slip Grains 01 20kg:	FC611080-20KG
Nitoflor Anti-Slip Grains 02 20kg:	FC605185-20KG
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

Floors: 4 - 5m²/litre on concrete / coat
(2-3 m²/l second coat over Nitoflor Anti-Slip Grains)

Vertical surfaces: 5 - 6m²/litre on concrete / coat

The coverage figures given are theoretical - due to wastage factors and the variety and nature of possible substrates, practical coverage figures will be reduced.

Storage

Nitoflor FC150 HP/SL should be kept in a dry place in the original, unopened packs between 10°C and 30°C.

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.

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