

High performance, solvent free polyaspartic floor coating

Uses

UV and abrasion resistant top coat for resin floor systems or as a stand alone coating over correctly prepared concrete.

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

Advantages

- Abrasion resistant
- UV resistant
- Chemical resistant
- Solvent free
- Convenient 1:1 mix ratio (by volume)
- Fast cure
- HACCP certified for use in food handling areas.

Description

Nitoflor PA is a two component solvent-free polyaspartic semi-gloss coating.

Nitoflor PA is available in a range of 8 colours including Clear.

Properties

| | |
|-------------------------------------|---|
| Solids content: | 100% |
| VOC content: | 20g / litre (ASTM D3960) |
| Mix ratio: | 1:1 by volume |
| Working-life time: | 40 minutes [#] (after mixing) @ 20 - 25°C |
| Tack free time: | 1.5 hours* @ 25°C, 35% RH, 0.1mm WFT |
| Foot traffic: | 2 to 2.5 hours* @ 25°C, 35% RH, 0.1mm WFT |
| Recoat time: | 1.5 to 2 hours (min) ; 18 hours (max) @ 25°C, 35% RH, 0.1mm WFT |
| Cure time (vehicle traffic): | 24 hours* @ 25°C, 35% RH, 0.1mm WFT |
| Hardness: | 95 Shore A (AS1683.15.2) 53 Shore D |
| Tensile strength: | 12 MPa (AS1683.11) |
| Elongation: | 47% (AS1683.11) |
| Tear strength: | 56 kN/m (AS1683.12) |
| Abrasion resistance: | 47.8 mg loss (AS 1580.403.2, CS17, 1000 cycles) |
| Service temperature: | Up to 80°C |
| Bond strength: | >3MPa to Nitoflor FC150HP and to Nitoflor PU600 |

Working-life time will be reduced if product is kept in can after mixing. Once mixed the product should be poured out in ribbons onto the floor and rolled out immediately.

*Drying time is temperature, humidity and film thickness dependent. Thicker films will take longer to through-cure. High humidity will shorten cure time.

Chemical resistance

Nitoflor PA is resistant to many other common industrial chemicals. Please contact Fosroc for specific details.

Standards compliance

AS/ISO 9239.1-2003 Reaction to Fire Tests for Floorings - AWTA Test Report 21-001310:

Critical Heat Flux (CHF): ≥11.0 kW/m²

Smoke Value: 26 % .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 the reports and certification are available from the Fosroc website.

Design Criteria

Nitoflor PA is designed for application on floors in two coats at between 80 and 200 microns wet film thickness per coat depending on the application.

Substrates should be dry and not suffer, or be likely to suffer, from rising damp. Substrates should have a moisture content not greater than 5% at the time of installation (refer Limitations section).

Fosroc® Nitoflor® PA

Slip Rating - AS4586 (test certificates available on request)

| Substrate | Aggregate | Topcoat | Dry Floor Friction | Wet Pendulum | Oil / Wet Ramp |
|-------------------|--|-------------|--------------------|--------------|----------------|
| Concrete | nil | Nitoflor PA | D1 | P1 | - |
| Concrete | Nitoflor Anti-Slip Grains 41 (25g / litre mixed through) | Nitoflor PA | D1 | P3 | R10 |
| | | | | | |
| Basecoat | Broadcast Aggregate | Topcoat | Dry Floor Friction | Wet Pendulum | |
| Nitoflor FC150 HP | Nitoflor Anti-Slip Grains 01 | Nitoflor PA | D1 | P5 | |
| Nitoflor FC150 HP | Nitoflor Anti-Slip Grains 02 | Nitoflor PA | D1 | P5 | |
| Nitoflor PU600 | Nitoflor Anti-Slip Grains 01 | Nitoflor PA | D1 | P5 | |

Light Reflectance Value (BS 8493:2008) and Solar Reflectance Index (ASTM E1980)

| Nitoflor PA colour | LRV | SRI | Nitoflor PA colour | LRV | SRI |
|--------------------|--------|-------|--------------------|--------|--------|
| Pipeline Grey N43 | 37.45% | 30.30 | Sunflower Y15 | 49.68% | 77.27 |
| Signal Red R13 | 14.07% | 59.59 | White | 93.91% | 109.16 |
| Bright Blue B23 | 10.87% | 37.76 | Curtain Call | 11.55% | 0.54 |
| Jade G21 | 14.46% | 24.83 | Oatmeal Y54 | 46.21% | 48.68 |

Application Instructions

Surface preparation

It is essential that Nitoflor PA is applied to sound, clean, dry substrates in order to achieve maximum adhesion between the Nitoflor PA and substrate. Remove all oil, grease and loose particles.

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

New concrete floors

Unless water-reduced, the floor should be at least 28 days old and exhibit a moisture content reading not exceeding 5% when tested using a Tramex CMEX11 moisture meter.

Dry removal of laitance is required via light grit-blasting or grinding. Dust and other debris should then be removed by vacuum brush.

Overcoating Epoxy and Polyurethane screeds

Nitoflor PA may be applied to Fosroc's epoxy resin and PU screeds. High spots or trowel marks should be rubbed down and dust and other debris removed by vacuum cleaning. Overcoating with Nitoflor PA should occur within 48 hours of the application of the base epoxy or polyurethane materials. To optimise adhesion, the base flooring material should be abraded and if possible solvent wiped clean before application of Nitoflor PA.

Overcoating Epoxy and Flake Flooring systems with Nitoflor PA Clear

Nitoflor PA Clear can be applied over epoxy and flake flooring systems. Overcoating with Nitoflor PA Clear should occur within 48 hours of the application of the base epoxy coating and flakes. Adhesion testing is required prior to commencing the project to ensure compatibility with the epoxy and flakes.

Mixing

Stir the Nitoflor PA Part B prior to using. Combine equal parts by volume of Nitoflor PA Part A and Part B and mix thoroughly using a low speed heavy duty electric drill and suitable spiral mixer for 1 to 1½ minutes.

Mix only enough product (typically 4 litres) which can be applied within the working life, depending on the labour available.

IMPORTANT: Once mixed the product should be poured out in ribbons onto the floor and rolled out immediately. Do not use roller trays. Holding the product in the original mixing can will lead to an exothermic reaction which will significantly reduce the working life.

Application

1st Coat

Following the required preparation, apply Nitoflor PA using 270mm microfibre rollers.

During the application the roller should be rolled dry every 10-18 m². This will prevent the roller from becoming tacky and it will increase the life of the roller. After the initial roll it is important to back roll the floor. Back rolling is done to ensure even application and will help with breaking any bubbles that may have formed from pinholes. On average a roller cover will do 45-90 m² before replacement.



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2nd Coat

After the first coat has become tack-free the second coat can be applied. This will be after approximately 1 hour but no longer than 18 hours after application.

At temperatures of 20 - 30°C foot traffic may be permitted after 1 to 2 hours, and light vehicular traffic after 24 hours; however, in cold weather a longer period before use may be required.

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 PA may be carried out using a rotary scrubbing machine with a water miscible cleaning agent.

Limitations

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

Intending users should always consult Fosroc if there is any doubt as to whether a proposed application may involve extraordinary conditions which could 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 (>100°C)
- Severe, or unusual, chemical attack

Nitoflor PA is UV resistant but applying the clear coating over non-UV resistant coatings such as epoxies will not stop the epoxy from fading/dischouring under the clear coating.

Nitoflor PA should not be applied to polymer modified cementitious screeds such as Cemtop GP Advanced or Cemtop XD.

Nitoflor PA should not be applied on to surfaces known to suffer from rising damp or having a moisture content reading greater than 5%.

Nitoflor PA should be applied only when the substrate temperature and the ambient temperature is between 10°C and 30°C.

Storage

Nitoflor PA has a shelf life of 24 months when kept in a dry place in the original, unopened packs between 10°C and 30°C.

Supply

Nitoflor PA is supplied in 8 litre and 40 litre 2 component kits.

| | |
|---|--------------|
| Nitoflor PA - Part A 4L Clear and Colours: | FC605050-4L |
| Nitoflor PA - Part B 4L Clear: | FC605051-4L |
| Nitoflor PA - Part B 4L Pipeline Grey N43: | FC605052-4L |
| Nitoflor PA - Part B 4L Signal Red R13: | FC605054-4L |
| Nitoflor PA - Part B 4L Bright Blue B23: | FC605055-4L |
| Nitoflor PA - Part B 4L Jade G21: | FC605056-4L |
| Nitoflor PA - Part B 4L Sunflower Y15: | FC605057-4L |
| Nitoflor PA - Part B 4L White: | FC605059-4L |
| Nitoflor PA - Part A 20L Clear and Colours: | FC605050-20L |
| Nitoflor PA - Part B 20L Clear: | FC605051-20L |

The following are supplied as Made to Order only; ordered in multiples of 16 with 14 days lead time:

| | |
|---|--------------|
| Nitoflor PA - Part B 4L Curtain Call: | FC605053-4L |
| Nitoflor PA - Part B 4L Oatmeal Y54: | FC605058-4L |
| Nitoflor PA - Part B 20L Pipeline Grey N43: | FC605052-20L |
| Nitoflor PA - Part B 20L Curtain Call: | FC605053-20L |
| Nitoflor PA - Part B 20L Signal Red R13: | FC605054-20L |
| Nitoflor PA - Part B 20L Bright Blue B23: | FC605055-20L |
| Nitoflor PA - Part B 20L Jade G21: | FC605056-20L |
| Nitoflor PA - Part B 20L Sunflower Y15: | FC605057-20L |
| Nitoflor PA - Part B 20L Oatmeal Y54: | FC605058-20L |
| Nitoflor PA - Part B 20L White: | FC605059-20L |

Special Colours are supplied as Made to Order only; ordered in multiples of 32 x 4 litre and 6 x 20 litre with 21 days lead time from approval of colour:

| | |
|--|--------------|
| Nitoflor PA - Part B 4L Special Colour: | FC605068-4L |
| Nitoflor PA - Part B 20L Special Colour: | FC605068-20L |

Ancillaries

| | |
|----------------------------|--------------|
| Fosroc Solvent 10 4 litre: | FC600800-4L |
| Fosroc Solvent 10 20 litre | FC600800-20L |

Coverage

Depending on application: 5 to 12.5m² /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.

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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.



constructive solutions

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