

High build, cementitious polyurethane top coating for industrial polyurethane cement flooring

Uses

Nitoflor PU200 has been designed to be used as a sealer coating for Nitoflor PU600 polyurethane cement floor topping, without aggregates or with a broadcast textured surface. It can also be used as a stand alone coating for concrete. It offers excellent chemical resistance, abrasion resistance and mechanical characteristics. Typically used in chemical storage plants, food processing industries, plant rooms, laboratories, warehouses, and industrial manufacturing zones.

Advantages

- Excellent chemical resistance
- Hard wearing – abrasion resistant
- Low odour and non-tainting during application
- Low VOC emission - Complies with the Green Building Council of Australia
- Fast turnaround
- Anti-microbial properties
- Excellent slip resistance properties with aggregates broadcast

Description

Nitoflor PU200 is a high build, cementitious polyurethane top coat which has a excellent resistant to acids and alkalis.

Nitoflor PU200 is supplied as coloured finish using Nitoflor PU Colour Pigments.

Design Criteria

Nitoflor PU200 is applied as either a top coat to Nitoflor PU600 with no aggregates or with a broadcast textured surface, or as a stand alone coating to concrete floors. Alternatively, Nitoflor PU200 can be applied as a top coat of a broadcast layer of Nitoflor PU200.

As a top coat to Nitoflor PU600, it is applied as a single coat at 0.75kg/m² (6.6m² / 5kg kit).

As a stand alone coating, it is applied as 2 coats to prepared concrete at 0.75kg/m² / coat (total 3.3m² / 5kg kit).

Slip Rating - AS4586

Basecoat	Broadcast Aggregate	Topcoat	Dry Floor Friction	Wet Pendulum	Wet Barefoot Ramp	Oil Wet Ramp
Nitoflor PU200	Nil	Nil	D1	P4	-	-
Nitoflor PU200	Nitoflor Anti-Slip Grains 01	Nitoflor PU200	D1	P5	B	R11
Nitoflor PU600	Nitoflor Anti-Slip Grains 01	Nitoflor PU200	D1	P5	C	R11
Nitoflor PU600	Nitoflor Anti-Slip Grains 11	Nitoflor PU200	D1	P5	C	R12
Nitoflor PU600	Nitoflor Anti-Slip Grains 21	Nitoflor PU200	D1	P5	C	R13

Properties

The following results were obtained in controlled laboratory conditions at 20°C and 50% relative humidity.

Bond Strength, EN1542:	2.3 MPa
Shore D hardness, ASTM C351:	80
Water Absorption (80°C), ASTM D570:	1.99%
Density:	1.493g / cm ³
VOC Content (ASTM D3960):	49g / litre
Chemical Resistance, ASTM C722-18:	Good resistance to wide spectrum of organic and inorganic acids, alkalis, amines, salts and solvents. Consult Fosroc for specific resistance.

Curing Times

	@10°C	@20°C	@30°C
Light traffic:	36 hrs	24 hrs	12 hrs
Full traffic:	72 hrs	48 hrs	24 hrs
Full chemical cure:	12 days	7 days	5 days

Application Instructions

Nitoflor PU200 should only be applied by specialist contractors, recognised by Fosroc who have been trained in the correct installation procedures.

Surface Preparation - Application directly to concrete

Nitoflor PU200 should be applied within the temperature range of 0 - 30°C. Refer to Fosroc for advice on application outside of this temperature range.

The substrate should be dry to less than 95% relative humidity, have an effective damp-proof membrane installed and be free from rising damp and ground water pressure.

Remove all dust, dirt, existing paint, films, efflorescence, laitance, oils or hydraulic fuels, grease, fungus, biological residues or any other contaminants which may prohibit good bond.

Fosroc® Nitoflor® PU200

Temperature Resistance

Location Properties	Dry Process (Smooth Flooring)	Dry Process (Slip Resistance)	Chemical Storage / Loading & Unloading	Wet Process / Cold Rooms
Flooring usage category	General (Smooth topping)	General (Slip Resistance ¹)	Medium Duty	Heavy Duty
Total application thickness	3.5mm	4 - 5mm	5 - 6mm	8 - 9mm
Nitoflor PU600 thickness	3mm	3 - 4mm	4 - 5mm	6mm
Nitoflor PU200 application	Single coat	Single coat	Single coat	Two coats
Service temperature (fully cured floor)	-15°C to 80°C	-15°C to 80°C	-20°C to 90°C	-25°C to 100°C
Max.cleaning temperature	80°C	80°C	90°C	100°C
Thermal Shock range ²	-15°C to 80°C	-15°C to 80°C	-20°C to 90°C	-25°C to 100°C

Note 1: The addition of a slip resistant aggregate will be dependant on the requirements of the application area.

Note 2: Nitoflor PU200 as a stand-alone product will have a thermal shock range of 0°C to 80°C.

Surface prepared by mechanical means appropriately using grinding or blasting techniques.

Concrete substrate should be a minimum strength of 25MPa @ 28 days.

Any damaged areas must be made good with a suitable epoxy repair mortar. Any rough or uneven areas to be smoothed with an epoxy scratch coat, of Nitomortar 903 with Nitomortar F4 fillers.

Surface preparation - Application over applied Nitoflor PU600

Fully remove any loose aggregate by vacuum and sweeping prior to application of top coat..

Nitoflor PU200 - mixing

Pack components are pre-weighed for optimum performance. Never split or proportion packs.

Stir Nitoflor PU200 Part A (Emulsion) to redisperse any settlement.

Pour into a suitable large container and add the Nitoflor PU200 Part C (Fillers) while mixing with a suitable mixer. Add Nitoflor PU Colour Pigment and continue to mix until a uniform colour is achieved. Add Nitoflor PU200 Part B (Hardener) and mix for a further 2 minutes.

Application

Please note this material has a pot life of approximately 10 minutes at 25°C.

Apply the Nitoflor PU200 by pouring the mixed product onto the floor then use a squeegee and roller to fully seal the surface.

When applying over Nitoflor PU600, or a layer of broadcast Nitoflor PU200, ensure the coating is applied evenly taking care that the slip resistant aggregate is fully exposed, avoid overfilling the aggregate.

Nitoflor PU200 has a short pot life - do not apply the product out of a roller tray.

Cleaning

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

Maintenance

Clean regularly using a single or double headed rotary scrubber drier in conjunction with a mildly alkaline detergent. For more information contact Fosroc.

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 PU200 is designed as an industrial flooring product and not colour fast therefore may change colour over time (exhibit a yellowing effect). Colour change depends on the UV light and heat levels present and hence the rate of change cannot be predicted. This is more noticeable in light colours and blues, but does not compromise the product's performance or chemical resistance.

Nitoflor PU200 is not suitable for deep freezing or steam-only cleaning (cleaning at 100°C should be steam and hot water blend)

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Nitoflor® PU200

Supply

Nitoflor PU200 - 5kg kit	
Nitoflor PU200 Part A Emulsion	FC605190-1.19KG
Nitoflor PU200 Part B Hardener	FC605191-1.41KG
Nitoflor PU200 Part C Fillers	FC605192-1.76KG
Nitoflor PU Colour Pigment 0.65kg	
Nitoflor PU Colour N43 Pipeline Grey 650g:	FC605227-0.65KG
Nitoflor PU Colour Curtain Call 650g:	FC605228-0.65KG
Nitoflor PU Colour G21 Jade 650g:	FC605225-0.65KG
Nitoflor PU Colour R63 Red Oxide 650g:	FC605226-0.65KG
Nitoflor PU Colour B23 Bright Blue (MTO) 650g:	FC605229-0.65KG
Nitoflor PU Colour Y54 Oatmeal (MTO) 650g:	FC605230-0.65KG
Nitoflor PU Colour Y15 Sunflower (MTO) 650g:	FC605231-0.65KG

Bright Blue B23, Sunflower Yellow Y15 and Oatmeal Y54 are Made-to-Order (MTO) colours. Please note that Made-to-Order (MTO) colours need to be ordered by contacting Customer Service or your Fosroc representative. Minimum Order Quantities (MOQ), Order Quantity Breaks and lead times apply.

Nitoflor Anti Slip Grains		
Nitoflor Anti-Slip Grains 01	20kg	FC611080-20kg
Nitoflor Anti-Slip Grains 11	20kg	FC611081-20kg
Nitoflor Anti-Slip Grains 21	20kg	FC611082-20kg

Coverage

As a coating on concrete: 0.75kg/m² / coat (2 coats recommended) - total 3.3m² / 5kg kit

As a coating over Nitoflor PU600: 0.75kg/m² - total 6.6m² / 5kg kit

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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Storage

Nitoflor PU200 should be stored in cool, dry conditions, in original, unopened packs.

Nitoflor PU200 Part B Hardener has a shelf life of 18 months from date of manufacture.

If stored at high temperatures and/or high humidity conditions the shelf life may be reduced.