Fosroc®
Nitoflor® PU200

High build, cementitious polyurethane top coat

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 emmission - Complies with the Green Building Council of Australia
- Fast turnaround
- Anti-microbial properties
- Excellent slip resistance properties with aggregates broadcast
- HACCP certified for use in food handling areas
- RCS (Respirable Crystalline Silica) Hazard Free*

Standards compliance

AS/ISO 9239.1-2003 Reaction to Fire Tests for Floorings - AWTA Test Report 22-001879:

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 the certification are available from the Fosroc website.

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 matt finish using Nitoflor PU Colour Pigments.

*Nitoflor PU200 Fillers are classified not hazardous for RCS in accordance with Australian Inventory of Industrial Chemicals; contains <0.1% RCS.

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 0.5mm thick (13.5m² / 9.5kg kit).

As a stand alone coating, it is a applied as 2 coats to prepared concrete at 0.5mm thick / coat (total 6.7m² / 9.5kg kit).

Properties

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

Bond Strength:	2.3 MPa (EN1542)			
Hardness:	80 Shore D (ASTM C351)			
Water Absorption:	1.99% @ 80°C (ASTM D570)			
Density:	1.422g / cm³			
VOC Content:	31g / litre (ASTM D3960)			
Service temperature range:	0 - 80°C (as a stand alone coating)			
Chemical Resistance:	Good resistance to wide spectrum of organic and inorganic acids, alkalis, amines, salts and solvents. Consult Fosroc for specific resistance.			
Pot life:	15 minutes at 25°C			
Light traffic cure time:	36 hours @ 10°C; 24 hours @ 20°C; 12 hours @ 30°C			
Full traffic cure time:	72 hours @ 10°C; 48 hours @ 20°C; 24 hours @ 30°C			
Full chemical cure:	12 days @ 10°C; 7 days @ 20°C; 5 days @ 30°C			
Light Reflectance Value (LRV): BS 8493:2008	Nitoflor PU200 Bright Blue:	21.35%	Nitoflor PU200 Curtain Call:	12.76%
	Nitoflor PU200 Jade:	12.92%	Nitoflor PU200 Oatmeal:	48.33%
	Nitoflor PU200 Pipeline Grey:	27.49%	Nitoflor PU200 Red Oxide:	8.3%
	Nitoflor PU200 Sunflower:	40.99%		

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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 21	Nitoflor PU200	D1	P5	C	R13

Temperature Resistance

Location / Properties	Dry Process (Smooth Flooring)	Dry Process (Slip Resitance)	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.

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 10 to 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.

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 PU600/PU200 Part A Base 2.6kg to redisperse any settlement.

Pour the base into a suitable large container and add the Nitoflor PU200 Part C Fillers while mixing with a suitable mixer. Add one 300g Nitoflor PU Colour Pigment and continue to mix until a uniform colour is achieved. Add Nitoflor PU600/ PU200 Part B Hardener 2.8kg and mix for a further 2 minutes.

Application

Please note this material has a pot life of approximately 15 minutes at 25°C. Pot life will be reduced if product is mixed and left in original container. To extend working life, pour product on to the prepared floor as soon as possible after mixing.

Do not apply the product out of a roller tray. 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.

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 perfomance or chemical resistance.

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

Supply

Nitoflor PU200 - 9.5kg kit; (6.68 litres mixed)	
Nitoflor PU600/PU200 Part A Base 2.6kg:	FC605204-2.6KG
Nitoflor PU600/PU200 Part B Hardener 2.8kg:	FC605201-2.80KG
Nitoflor PU200 Part C Fillers 3.8kg:	FC605192-3.8KG
Nitoflor PU600/PU200 Colour Pigment 0.3kg	
Nitoflor PU Colour N43 Pipeline Grey 300g:	FC605227-0.3KG
Nitoflor PU Colour Curtain Call 300g:	FC605228-0.3KG
Nitoflor PU Colour G21 Jade 300g:	FC605225-0.3KG
Nitoflor PU Colour R63 Red Oxide 300g:	FC605226-0.3KG
Nitoflor PU Colour B23 Bright Blue 300g:	FC605229-0.3KG
Nitoflor PU Colour Y54 Oatmeal 300g:	FC605230-0.3KG
Nitoflor PU Colour Y15 Sunflower 300g:	FC605231-0.3KG

Nitoflor Anti-Slip Grains	
Nitoflor Anti-Slip Grains 01 20kg:	FC611080-20kg
Nitoflor Anti-Slip Grains 21 20kg:	FC611082-20kg

Coverage

As a coating on concrete: 0.5mm thick; 13.1m² / 9.5kg kit applied as a single coat (2 coats recommended)

As a single coat over Nitoflor PU600: 0.5mm thick; 13.1m²/ 9.5kg kit (one 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 PU200 components should be stored in cool, dry conditions, in original, unopened packs.

Nitoflor PU600/PU200 Part B Hardener has a shelf life of 18 months from date of manufacture.

Nitoflor PU200 Part C Fillers has a shelf life of 24 months from date of manufacture.

Store between 5 and 30°C. If stored at high temperatures and/ or high humidity conditions the shelf life may be reduced.

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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