



Fosroc® Nitoproof 280

Single component, Water based modified Polyurethane Waterproofing Coating for exposed application

Description

Nitoproof 280 is a roller, brush, spray applied, easy to use, single component, water based liquid applied, flexible, UV resistant modified polyurethane coating.

Uses

- Waterproofing Exposed Roof & above ground structures in new construction.
- Waterproofing of above ground Old / Existing Roofs, Life extension.
- Adhered to both Concrete & Metal Substrates

Specification

- Environment friendly, Water based Technology
- Seamless and monolithic waterproofing coating
- Liquid Applied hence easy to detail
- Single Component, ready to apply from Pail
- Non-Hazardous, odourless
- UV resistant
- High crack bridging properties
- Good Elongation
- Rapid Installation
- Withstand Human Traffic
- Available in Eight Standard colours
- Strong adhesive bond to Concrete, Metal, Plaster, Mortar

Specification

Liquid applied, flexible waterproofing membrane where shown on the drawings shall be Polyurethane modified water based membrane with Elongation > 300%, Crack bridging > 2mm, Tensile strength > 2.0 N/mm² & Shore A hardness > 76. Waterproofing Coating shall have high UV resistance & shall pass over 1000 Hrs of Weathering test

Properties

Typical Physical properties at 30°C .

Colours	: White, Grey, Light Blue, Sand, Black
Elongation, 7 Days Ageing (ASTM D412)	: >300%
Tensile Strength Membrane (ASTM D412)	: > 2.0 N/mm ²
Tensile Strength Membrane With Mesh (ASTM D412)	: > 13 N/mm ²
Shore A Hardness	: > 76
Crack Bridging (ASTM 836)	: >2mm
Water Vapour Permeability ASTM E96	: >140 gm / m ² / Day
Accelerated Weathering Pass or Fail (ASTM D822A)	: 1000 Hrs Pass
Service temperature (Cured)	: -10°C to 80°C
Water Penetration test BS EN 12390 12hr	: 2 Bars, No penetration
Salt Spray Test ASTM B117	: No blistering or corrosion after 1500hrs

Application Instructions

Working Life, 30°C *	: 30 mins
Tack-Free Time per Coat, 30°C	: 90 mins
Overcoating Time, 30°C	: 2 - 24 hours
Trafficable, 30°C	
Light Duty Traffic	: 24 hours
Service Traffic	: 48 hours

* Usable working life of material following mixing and spreading as per the application instructions.

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Instruction for Use

Preparation

All surface to be waterproofed should be sound, clean and dry.

Concrete Surface

Concrete surface should be free from oil, dust, high spots and other contaminants. Moss and lichen must be removed to get clean concrete substrate.

Moisture of the Concrete substrate shall be <6%, 28 days fully cured & structurally sound.

Steel Substrate

Nitoproof 280 exhibits good adhesion to steel substrate.

All steel substrate should be blast cleaned to SA 2½ Standard of cleanliness. An angular profile amplitude of at least 100 microns is recommended.

Steel Substrate needs to be Primed with Nitoprime 29 before applying Nitoproof 280.

Cracks

All shrinkage and non-moving structural cracks should be pretreated with Nitofill EPLV before application of Nitoproof 280 on 75mm either side of the crack. Allow to cure overnight before general application.

Right angle bends

All right angles must have Coving / fillet shall be formed plain cement concrete mortar. Use of Nitoproof Scrim shall be recommend along with Nitoproof 280 at all angels, joints, protrusion, and stress points. All pre-treatments to cure overnight before general application.

Priming

On concrete surface Nitoproof 280 shall be applied at the rate of 0.2 Kg/ m²

Application

Nitoproof 280 shall be stirred / mixed with a slow speed mixer [300-400 rpm] for 3 [Three] minutes before commencing the application.

On horizontal surfaces Nitoproof 280 should be applied by brush, trowel, squeegee, rollers, at a minimum consumption of 0.65 Kg/m² per coat. Two coat are recommended to be applied per overcoating times and film drying times.

For heavy duty applications, per coat consumption of 0.8 Kg /m² per coat.

On vertical surfaces Nitoproof 280 should be applied at 0.4 Kg/m² in two coats.

Curing

Nitoproof 280 membrane after application of final coat shall be allowed cure for 24 Hours before allowing for light human traffic.

Estimating

Supply

Nitoproof 280	: 20kg Plastic Pail
Nitoprime 29	: 20kg Metal Pail
Scrim Glass Fibre	: 1.27 m (W) x 119.7 m (L)

Coverage

Nitoproof 280 Primer Coat On Concrete	: 0.2kg/m ²
Nitoproof 280	: 0.65kg/m ² per coat Total 1.3kg/m ²
Nitoproof 280 Heavy Duty	: 0.8kg/m ² per coat Total 1.6kg/m ²
Nitoprime Prime 29	: 0.2kg/m ²
Nitoproof Scrim	: As Required

* Coverage rate given above, is a minimum. A higher coverage rate may be required in some cases, depending on site conditions such as surface profile & intended use. Contact Fosroc Technical representative for advice.

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Limitations

Do not proceed with application if atmospheric relative humidity is >90% or if the surface temperature is <-10°C above the dew point.

Application should not commence on ponded water or wet substrate.

For work in exposed areas, do not proceed with application if precipitation is imminent. Keep applied areas protected till coating drying times.

As with all exterior coatings, some fading of colour can be expected over time, depending on UV levels and temperature.

Safety handling

Avoid contact with eyes and skin. Wear suitable protective clothing, gloves and eye/face protection at all times.

Refer to safety data sheets for detailed information.

Storage

Nitoproof 280 has a shelf life of 12 months if kept in a dry, covered store between +5°C to +35°C in the original unopened containers.

Nitoprime 29 has a shelf life of 12 months, if kept in a dry covered store between +5°C to +35°C in the original unopened containers

Disposal Considerations

Cured Nitoproof 280 can be disposed off as per MSDS. The unused material is to be disposed of according to local environmental laws and ordinances.

Additional Information

Fosroc manufactures a wide range of complementary products which include:

- waterproofing membranes & waterstops
- joint sealants & filler boards
- cementitious & epoxy grouts
- specialised flooring products
- Fosroc additionally offers a comprehensive package of anti-carbonation/ anti-chloride protective coatings

For further information on any of the above, please consult your local Fosroc office.

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Important note

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