



# Nitoproof 600 PF

## Pitch Free PU based Liquid applied single component elastomeric waterproofing membrane.

### Uses

Nitoproof 600PF is used to provide a continuous, seamless, water and vapour proof membrane for concrete. Typical applications will include roofs, podiums, balconies, floor slabs, suspended floors, patios, bathrooms, inspection pits, swimming pools, bridge decks.

### Advantages

- Non-toxic formulation
- Pitch free Polyurethane
- Cures to form a permanently flexible, resilient barrier over a wide range of temperatures
- Root Resistance\*
- Excellent continuous adhesion to concrete prevents lateral water migration
- Irreversible chemical cure does not permit melting or flow of film at elevated ambient temperatures
- Capable of bridging substrate cracks up to 2mm
- Easy to apply, requires no special equipment

\* Protection screed required

### Description

Nitoproof 600PF is a single component pitch free PU based liquid polyurethane. It cures by reaction with atmospheric moisture to form a tough, elastomeric, waterproof membrane. Nitoproof 600PF is designed for use on horizontal and vertical surfaces, covered by a protective screed or render.

### Technical support

Fosroc offers comprehensive technical support, including help at the design stage, application advice and on site problem solving. Specifiers and contractors are encouraged to contact our trained staff for answers to their questions.

For further information please contact Fosroc

### Typical Properties

Colour	: Dark Green 25 kg pack : Black 20 kg pack
Application temperature range	: 5°C to 50°C
Service temperature range	: -40°C to +70°C
Tack free time @ 25°C	: 5 hours
Specific gravity	: 1.50 ± 0.1
Viscosity	: 50 to 100 P
Solids content(%)	: 85 Minimum

### Typical results from membrane cured for 28 days:

Elongation (%) (ASTM D412)	> 600
Tensile Strength (N/mm <sup>2</sup> ) (ASTM D412)	2.5
Adhesion in-peel test (N) (ASTM C836)	>50N
Recovery from elongation (%) (ASTM D412)	95
Tear resistance (kN/m) (ASTM D624-00)	15
Water vapour transmission 2.3mm film (g/m <sup>2</sup> /hr)	0.6
Initial hardness (Shore A) (ASTM 2240)	60
Water permeability@ 5 bar, mm (BSEN 12390)	Nil
Chemical resistance	Unaffected by mild acids, alkalis and water borne salts. Does not biodegrade.
Crack bridging C836-95	> 2mm

Note: The typical physical properties given above are derived from testing in a controlled laboratory environment. Results derived from testing field-applied samples may vary, dependent on actual site conditions

### Specification clauses

#### Supplier Specification

Where shown on the drawings, the liquid applied, elastomeric polyurethane waterproof membrane shall be Nitoproof 600PF obtained from Fosroc. It shall be used in accordance with the manufacturer's current application instructions.

#### Performance Specification

The liquid applied, elastomeric waterproofing membrane, where shown on the drawings, shall be made of hydrocarbon free polyurethane. The membrane when cured shall be capable of an extension of not less than 400%. Its tensile strength shall exceed 1.9 N/mm<sup>2</sup> and the water vapour transmissions shall be less than 1g/m<sup>2</sup>/24 hour. It shall be used in accordance with the methods given in the manufacturer's data sheet.

### Application instructions

#### Surface preparation and Priming

All surfaces to be waterproofed should be clean, sound and dry. Porous concrete surfaces to be primed with Nitoproof WB primer.

Nitoproof WB Primer is a two component product and must be

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mixed & applied in order to perform as specified. Transfer base and the hardener to a suitable fresh container and mix thoroughly with a slow speed mixer for 2 -3 minutes which makes the mix as a milky white paste.

Add double the quantity of clean water by volume (4ltr water to 2ltr pack size, 12 liter water to 6ltr pack size) to the mix gradually under mixing which makes the mix as low viscous milky white liquid. Apply using a roller or brush. Do not apply on running or standing water. The application to be completed within 3 hour of mixing at 27 degree C. The mixed material should be periodically hand stirred if is kept idle for more than 15 minutes.

The diluted primer should be applied at a coverage of 8-10 m<sup>2</sup>/litre, preferably using roller. The applied primer should be allowed to reach tack free condition (4 to 5 hours) before applying Nitoproof 600PF. The application of Nitoproof 600PF should be completed before 16 hours@ 27degc from the time of application of Nitoproof WB primer

## Cracks

Shrinkage and non-moving cracks should be pre-treated with not less than 1.5 mm coating of Nitoproof 600PF extending 75mm either side of the crack. Allow to cure before general application.

## Right Angle Bends

All critical right angle bends must have a minimum 25 x 25mm angle fillet installed prior to application of Nitoproof 600PF. All angle joints, protrusions and stress points should be pretreated with heavy application of Nitoproof 600PF extending 50 -100mm either side of the detail. Any pretreated areas must be cured overnight before general application of the membrane.

## Application Methods

Nitoproof 600PF can be applied by brush, squeegee, roller/ suitable spray applied machine. It is applied at a minimum wet film thickness of 1.5mm in 2 coats. The second coat should be applied in perpendicular direction to the first coat.

Where required, Nitoproof 600PF may be reinforced using a suitable fabric reinforcement. This should be applied to a 1.5mm application of Nitoproof 600PF whilst it is still wet and be over-coated with another 1.5mm thick application 24 hours later. Please contact your local Fosroc office for details.

## Protection to the membrane

The newly applied membrane must be allowed to cure for a minimum 24 hours at 25°C. Before placing protection screed, tools and equipment should be cleaned with suitable solvent immediately after use.

## Flood Test

After 72 hours of curing, flood test can be carried out to a minimum depth of 50mm of water for 24 hours. Drains shall be plugged and barriers placed to contain the water.

## Cleaning

Tools and equipment should be cleaned with a suitable solvent immediately after use. Do not use the solvent for thinning.

## Limitations

Nitoproof 600PF should be protected from UV light not more than 14 days after application. This can normally be achieved by use of a protective screed.

## Estimating

### Supply

Nitoproof 600PF	: 25 kg & 20kg pails
Coverage	: 2.0 kg/m <sup>2</sup> for 1.5mm wet film thickness
Nitoproof WB Primer	: 2 & 6Litre
Coverage	: 8 to 10m <sup>2</sup> / Litre(After dilution)

## Storage

### Shelf life

Minimum 9 months in original unopened containers if kept below 25°C.

Note : In accordance with Commercial or Health & Safety requirements packaging detail may alter. Please contact your local Fosroc office for detail.

## Precautions

### Health and safety

Some people are sensitive to resin systems. Impervious gloves and barrier cream should be used when handling these products. Eye protection should be worn. If accidental eye contamination occurs, wash thoroughly with plenty of water and seek medical advice. If contact with skin occurs, it must be removed before curing takes place. Wash off with an industrial skin cleaner followed by plenty of soap and water. Do not use solvent. Ensure adequate ventilation when using these products.



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## Fire

Nitoproof 600PF is flammable. Keep away from sources of ignition. No smoking. In the event of fire, extinguish with CO<sup>2</sup> or foam. Do not use a water jet.

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Flash point: 56°C

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For further information, refer to the Product Material Safety Datasheet.



## Fosroc Chemicals (India) Pvt. Ltd.

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### Important note :

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products whether or not in accordance with any advice, specification, recommendation or information given by it.

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