

# Fosroc® Nitoproof 600

## Liquid applied, elastomeric, one coat waterproofing membrane

### Uses

To provide a continuous, seamless, waterproof membrane for concrete. Typical applications will include foundations and floor slabs, suspended floors, balconies, patios, bathrooms, inspection pits, inverted roofs, planter boxes and tunnels.

### Advantages

- One coat application for horizontal surface.
- Cures to form a permanently flexible resilient barrier over a wide range of temperatures.
- Forms an impervious barrier which resists aggressive soil conditions.
- Excellent continuous adhesion prevents the lateral migration of water along a concrete surface.
- Irreversible chemical cure does not permit melting or flow of film at elevated ambient temperatures.
- Capable of bridging substrate cracks up to 1.5 mm.

### Description

Nitoproof 600 is a single component pitch modified liquid polyurethane. It cures by reaction with atmospheric moisture to form a tough elastomeric waterproof membrane. Nitoproof 600 is designed for use on horizontal and vertical surfaces.

Where Nitoproof 600 is to be exposed to UV light, it should be overcoated with Nitoproof Reflectacoat, an oil based coating containing high-grade leafing aluminium which ensures maximum reflective properties.

### Technical Support

Fosroc offers a comprehensive range of high performance high quality, construction products. In addition to a wide range of quality products, Fosroc offers a technical support package to specifiers and contractors which includes assistance with product selection and technical advice from staff with unrivalled experience in the industry.

### Properties

<b>Colour</b>	: Black
<b>Application temperature range</b>	: 5 to 35°C
<b>Service temperature range</b>	: -40 to +70°C
<b>Tack free time at 25°C</b>	: 15 to 24 hours
<b>Specific gravity</b>	: 1.40 to 1.50
<b>Viscosity at 25°C</b>	: < 22,000Cps
<b>Solids content (%)</b>	: 86 to 90
<b>Elongation (%) (ASTM D412) - 7 days</b>	: 600%
<b>Tensile Strength (N/mm<sup>2</sup>): (ASTM D412) - 7 days</b>	: 1.5
<b>Tear resistance (ASTM D 4541)</b>	: >20 kg/cm
<b>Water permeability (BS EN 12390)</b>	: Nil @ 5 bars
<b>Initial hardness (Shore A) (ASTM 2240)</b>	: 40
<b>Crack Bridging (ASTM C836/ C1305)</b>	: 2mm pass
<b>Bond Strength (Pull out ) (ASTM C1583)</b>	: 0.83 MPa
<b>Water Vapour Transmission (ASTM E96)</b>	: 75g/m <sup>2</sup> /day
<b>Service Temperature (ASTM G26 )</b>	: No Blistering , No Cracking , No Chalking, No Peeling , No Delamination
<b>Chemical resistance</b>	: Unaffected by mild acids, alkalis and water borne salts. Does not biodegrade.

### Specification clauses

#### Supplier Specification

Liquid applied elastomeric, pitch-modified polyurethane waterproof membrane where shown on the drawings shall be Nitoproof 600 obtained from Fosroc. It shall be used in accordance with the manufacturer's current application instructions.

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## Performance Specification

Liquid applied, elastomeric waterproofing membrane where shown on the drawings shall be made of a pitch modified polyurethane. The membrane when cured shall be capable of an extension of not less than 500%. Its tensile strength shall exceed 1.50 N/mm<sup>2</sup> and the water permeability shall be nil at 5 bars. It shall be used in accordance with the methods given in the manufacturer's data sheet.

## Application Instructions

### Preparation

All surfaces to be waterproofed should be clean, sound and dry. Priming of good quality, dense concrete is not necessary. For absorbent surfaces such as porous concrete a mixture of 1 part Nitoproof 600 and 1 part xylene is used to seal the surface. Bitumen and asphalt surfaces require priming with Nitoproof 600 Primer as a barrier to protect the membrane.

Nitoproof 600 Primer can be applied by brush or roller and allow to cure for 4-8 hours after application. Do not allow primer to harden completely before proceeding with Nitoproof 600 application.

All movement joints should be masked and then overcoated with Nitoproof 600 extending 150 mm each side of the tape.

Shrinkage and non-moving cracks should be pretreated with Nitoproof 600 extending 75 mm either side of the crack. All critical right angle bends must have a cant strip or fillet installed prior to application of Nitoproof 600. Any pretreated areas must be cured overnight before general application of the membrane.

### Application methods

Nitoproof 600 standard can be applied by brush, squeegee, roller or airless spray. Full details of suitable spraying equipment can be supplied on request. It is applied at a minimum wet film thickness of 1.3 mm.

Where required, Nitoproof 600 may be reinforced using suitable fabric reinforcement. This should be applied to a 1.3 mm application of Nitoproof 600 whilst it is still wet and be overcoated with another 1.3 mm thick application 24 hours later.

The newly applied membrane must be allowed to cure for a minimum of 24 hours at 25°C. Tools and equipment should be cleaned with Fosroc Solvent 101 immediately after use.

## Limitations

Nitoproof 600 should not be left exposed to UV light for more than 28 days.

In situations where it will not be overlaid by a protective concrete screed, it should be overcoated with Nitoproof Reflectacoat.

## Estimating

### Supply

Pack sizes:

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**Nitoproof 600** : 19 Litre pails

**Nitoproof Reflectacoat** : 20 litre pails

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### Coverage

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**Nitoproof 600** : 1.3 litre/m<sup>2</sup> for 1.3 mm wet film thickness

**Nitoproof Reflectacoat** : 7-10 m<sup>2</sup> per litre per coat

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## Storage

Nitoproof 600 will have a minimum shelf-life of 6 months in original unopened containers if stored at 25°C, out of direct sunlight and protected from extreme temperature exposures conditions. In tropical climates, it is recommended to store the product in air-conditioned environment.

## 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

All liquid products described on this data sheet contain flammable solvents. Do not use near open flames or smoke during use.

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<b>Flash point</b>	: 54°C
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## Ancillary materials

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<b>Form</b>	: Oil based coating containing Aluminium
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<b>Tack free time</b>	: 3 to 4 hours at 20°C
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<b>Application life</b>	: Up to 2 weeks provided can is covered when not in use
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<b>Flash point</b>	: 45°C
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### Important note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Services, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification of 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 of information given by it.

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