

Nitoproof 600PF

Liquid applied elastomeric one coat 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, planters, floor slabs, suspended floors, patios, bathrooms, inspection pits, swimming pools, bridge decks, foundations, basements and tunnels.

Advantages

- Non-toxic formulation
- One coat application for horizontal and inclined surfaces
- 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 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

Description

Nitoproof 600PF is a single component 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:	:	Black
Application temperature range	:	5°C to 50°C
Service temperature range	:	-40°C to +70°C
Tack free time @ 25 °C	:	3 hours
Specific gravity	:	1.4
Viscosity	:	160p
Solids content (%)	:	89

Typical results from membrane cured for 28 days:

Elongation (%) (ASTM D412-90)	:	500 - 700
Tensile Strength (N/mm ²) (ASTM D412-90)	:	>1.9
Adhesion-in-peel test (N) (ASTM C836)	:	>60N
Tensile Adhesion (ASTM D4541)	:	>1MPa
Recovery from elongation (%) (ASTM D412-90)	:	95
Tear resistance (kN/m) (ASTM D624-00)	:	18
Water vapour transmission (g/m ² /hr)	:	0.6
Initial hardness (Shore A) (ASTM 2240-86)	:	65
Water permeability (DIN 1048)	:	0

Chemical resistance: Unaffected by mild acids, alkalis and water borne salts. Does not biodegrade.

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 600%. Its tensile strength shall exceed 1.9 N/mm² and the water vapour transmissions shall be less than 1g/m² hour. 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 600PF and 2-4 parts xylene, dependent on porosity of substrate, is used to seal the surface.

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Cracks

Shrinkage and non-moving cracks should be pre-retreated 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 pre-treated 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 or roller. It is applied at a minimum wet film thickness of 1.5mm.

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 overcoated with another 1.5mm thick application 24 hours later.

The newly applied membrane must be allowed to cure for a minimum 24 hours at 25°C. Tools and equipment should be clean with suitable solvent immediately after use.

Flood Test

Prior to placement of protection, flood 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 pails

Coverage : 2.0 kg/m² for 1.5mm wet film thickness

Storage

Shelf life

Minimum 6 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.

Flash point: 64°C

For further information see relevant Material Safety Datasheet.

Nitoproof is the trademark of Fosroc International Ltd.



Important note

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