

Nitoproof 1000

Liquid applied polyurethane modified bitumen, elastomeric, one coat application waterproofing membrane.

Uses

To provide a continuous, elastomeric, seamless, waterproof membrane for concrete. Typical applications will include foundation wall, basement slab, suspended floors, r.c. flat roofs, balconies, patios, bathrooms, inspection pits, inverted roofs, planter boxes, podiums, parking garages, 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 2.0mm.
- Easy to apply over all contours, forming an impervious layer of waterproofing.

Description

Nitoproof 1000 is a single component polyurethane modified bitumen. It cures by reaction with atmospheric moisture to form a tough elastomeric waterproof membrane. Nitoproof 1000 is designed for use on horizontal and vertical surfaces.

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

Colour	:	Black
Application temperature range	:	5°C to 45°C
Service temperature range	:	5°C to 70°C
Drying Time, (To Touch) At 25°C (1.3mm thickness)	:	1 to 2 hours
Drying Time, At 25°C (1.3mm thickness)	:	48 hours
Density @ 25°C, litre/kg	:	1.10
Viscosity @ 25°C, cps	:	20,000

Typical results from membrane cured for 28 days

Elongation Of Cured Film (%) (ASTM D412-98)	:	±1,000
Tensile Strength (N/mm ²): (ASTM D412-90)	:	0.50
Water vapour transmission: 1.3 mm film (g/m ² /d)	:	7.90
Initial Hardness (Shore A)	:	78

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

Specification clauses

Supplier Specification

Liquid applied elastomeric, polyurethane modified bitumen waterproofing membrane where shown on the drawings shall be Nitoproof 1000 obtained from Fosroc Sdn. Bhd. It shall be used in accordance with the manufacturer's current application instructions.

Performance Specification

Liquid applied, elastomeric waterproofing membrane where shown on the drawings shall be made of a polyurethane modified bitumen. The membrane when cured shall be capable of an extension of not less than 900%. Its tensile strength shall exceed 1.30 N/mm² and

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the water vapour transmissions shall be less than 7.90 g/m²/24 hour for a thickness of 1.3mm . 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 1000 and 4 part Xylene is used to seal the surface.

Construction Joints – All movement joints should be masked and then overcoated with Nitoproof 1000 extending 150mm each side of the tape.

Cracks – Shrinkage and non-moving cracks should be pre-retreated with not less than 1.3mm coating of Nitoproof 1000 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 25mm x 25mm angle fillet installed prior to application of Nitoproof 1000. All angle joints, protrusions and stress points should be pre-treated with heavy application of Nitoproof 1000 extending 50-100mm either side of the detail. Any pretreated areas must be cured overnight before general application of the membrane.

Application Methods

Nitoproof 1000 standard can be applied by brush, squeegee or roller. 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 1000 may be reinforced using suitable fabric reinforcement such as Scrim 2250. This should be applied to a 1.3mm application of Nitoproof 1000 whilst it is still wet and be overcoated with another 1.3mm 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 1000 should not be left exposed to UV light for more than 14 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:

Nitoproof 1000	: 20 litre pails
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Nitoproof Reflectacoat	: 20 litre pails
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Coverage

Nitoproof 1000:	1.3 litre/m ² for 1.3mm thick wet film thickness
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Nitoproof Reflectacoat:	7-10 m ² per litre per coat
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Storage

Minimum 6 months in original unopened containers.

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.

Nitoproof 1000 : Flammable when wet

Ancillary materials

Nitoproof Reflectacoat

Form: Oil based coating containing aluminium

Tack free time: 3 to 4 hours at 20°C

Application life: Up to 2 weeks provided can is covered when not in use

Flash point : 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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