

Nitoproof 300



constructive solutions

Liquid applied, two component elastomeric waterproofing membrane

Uses

A range of water/vapour proofing applications including foundations, basements, tunnels, floors, roofs, water retaining structures (not potable water), etc. Its excellent chemical resistance makes it suitable for tanking applications where aggressive ground water conditions prevail.

Advantages

- Easily applied : Liquid application means details are simplified
- Highly elastic : Cures to give permanently flexible resilient barrier over a wide range of temperatures
- Excellent Adhesion : Can be applied to a wide range of substrates. Continuous adhesion prevents lateral migration of water
- Seamless : Liquid application means no joints in the membrane
- Easily repaired : Mechanical damage to the membrane is easily repaired by spot application of NITOPROOF 300

Description

NITOPROOF 300 is a two component pitch modified polyurethane which cures by chemical reaction to give a tough elastomeric waterproof of membrane.

Properties

Application properties

Minimum Application Temperature:	5°C
Application Life:	60 minutes at 25°C
Tack free time at 25°C:	4 hours
Time to full through cure at 25°C:	24 hours (1.5 mm)

Cured Membran Properties

Ultimate Elongation (%):	>350
Ultimate Tensile Strength (N/mm ²):	>1.6
Recovery from 200% Elongation (%)	90
Service temperature	- 40°C to + 70°C

Chemical Properties

NITOPROOF 300 is unaffected by a range of mild acids, alkalis and water borne salts and is resistance to biodeterioration. Check with FOSROC technical departement for specific chemical data.

Instructions for Use

Surface Preparation

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

Concrete surfaces should have a light steel - trowel followed by a fine hair-broom or equivalent finish which is dry and free from dust, oil and other contaminants.

Moss and lichen must be removed physically followed by treatment with fungicidal wash to kill any spores and inhibit further growth. After treatment wash down thoroughly and allow to dry.

Laitance should be removed from concrete by grit blasting, wire brushing or water jet blasting and allow to dry.

All metal surfaces should be made clean from paint, oil, rust and other contaminants. Abrade to expose bright metal then wipe clean with FOSROC SOLVENT 102 before priming.

Priming

Priming is not normally required on good quality concrete substrates. However, absorbent surfaces such as porous concrete, sand/cement screed and cement boards will require sealing to prevent absorption of NITOPROOF 300. This should be done using a 1:1 mixture of NITOPROOF 300 and recommended solvent (consult Fosroc technical departement). NITOFLOL FC110 should be used for highly porous substrates.

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Use NITOFLOOR FELT PRIMER as a primer for bituminous surfaces and NITOPRIME 14 for metal, glazed and PVC surfaces. All metal and PVC surfaces should be cleaned and abraded before priming.

Movement Joints

All expansion and movement joints should be sealed with THIOFLEX 600. When cured, NITOSEAL Debonding Tape should be applied to the top surface of the sealant and the joint overcoated with a 1.5 mm application of NITOPROOF 300 extending 150 mm each side of the tape. Embed a 100 mm wide strip of NITOPROOF SCRIM, then allow to cure before general application.

Cracks

All shrinkage and non-moving structural cracks should be pretreated with not less than a 1.5 mm coating of NITOPROOF 300 extending 75 mm either side of the crack. Allow to cure overnight before general application.

Right Angle Bends

All critical right angle bends must have a cant strip or coving detail installed. This may be either pre-formed or fabricated from NITOPROOF 300. If a pre-formed strip is used, it must be bedded to a layer of NITOPROOF 300 then given a reinforcing pretreatment by application of a 1.5 mm thick coat extending 150 mm either side of the coving. Whilst still wet a 150 mm wide strip of NITOPROOF SCRIM is embedded into the NITOPROOF 300 as reinforcement (ensure thorough wetting). If NITOPROOF 300 is used, it should be firmly trowelled into the corner and formed into a 20 mm x 20 mm triangular coving.

All other angles, joints, protrusion and stress points should be pretreated with a heavy application of NITOPROOF 300 extending 50 to 100 mm either side of the detail. Reinforcement with NITOPROOF SCRIM is recommended where movement is possible.

Allow pretreatments to cure overnight before general application.

General Application

NITOPROOF 300 should be applied by brush, trowel or squeegee (two coat application on vertical surfaces).

NITOPROOF 300 is applied at a minimum wet film thickness of 1.2 mm. This is in addition to preparatory work.

Roller application: use a short haired synthetic pile roller.

The correct film thickness can be achieved by one pass. In critical applications where surety of thickness is paramount, two coats should be applied at right angles to one another. Quantities per coat should be gauged to give the specified final film thickness.

If a water test is to be run the membrane should cure for a minimum of 7 days.

Flood Test (roof)

Prior to placement of protection, flood to a minimum depth of 50 mm of water for 24 hours. Drains should be plugged and barriers placed to contain the water.

Curing and Protection

NITOPROOF 300 membrane must be cured for a minimum of 24 hours at 25°C before placing protection. Where damage to the membrane is possible (by traffic, backfilling, etc) it should be protected by cementitious screed or protection boards. A dust coat of cement should be used to prevent adhesion of the membrane to the boards.

Where a bond with a topping is not required, a separator sheet should be used.

Protection from solar radiation. All exposed areas of NITOPROOF 300 should be coated with NITOPROOF REFLECTACOAT to ensure maximum resistance to ultra-violet radiation.

Cleaning

Tools and equipment should be cleaned with FOSROC SOLVENT 102 immediately after use. DO NOT USE FOR THINNING, except where a sealing coat is required.

Precautions

Health and Safety

Some people are sensitive to resin systems. Gloves and a barrier cream should be used when handling this product. If contact with the resin occurs it must be removed before it hardens, with a resin removing cream. Do not use solvent. The use of goggles is recommended but should accidental eye contact occur, wash thoroughly with plenty of water and seek medical advice.

Ensure adequate ventilation when using resin and solvent containing materials.



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Fire

NITOPRIME 14, NITOFLOOR FC110, NITOPROOF REFLECTACOAT and FOSROC SOLVENT 102 contain flammable solvents. Do not use near open flames, not smoke during use.

Flash Points

NITOPRIME 14	12°C
FOSROC SOLVENT 102	23°C
NITOFLOOR FC110	24°C
NITOFLOOR REFLECTACOAT	40°C

Storage

The shelf life is at least 12 months in original unopened container if stored in a cool dry place below 30°C.

Packaging

NITOPROOF 300	Part A	20 litre pails
	Part B	2 litre cans

Coverage

NITOPROOF 300	1 litre/m ² /mm thickness
NITOFLOORFC110	5 - 7 m ² /litre
NITOPROOF FELT PRIMER	5 - 7 m ² /litre
NITOPRIME14	6-8 m ² /litre

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