Fosroc®
Nitoproof® 410 (NZ)

Fast drying flexible two component polymer modified cementitious waterproofing membrane

Uses

Nitoproof 410 is suitable for a wide range of waterproofing applications such as:

- Podiums, terraces, balconies, and deck areas – undertoppings, tiles and other protected environments
- Wet areas and showers – Class II Membrane System
- *Foot trafficable exposed roof top membrane, exposed balcony decks and walkways subject to regular foot traffic when overcoated with Nitoproof Top Coat UV.
  **Not assessed as part of the BRANZ Appraisal.*

Advantages

- Low VOC
- Solvent free, non hazardous
- Tough and flexible with excellent elongation properties
- Suitable for internal and external applications
- It is compatible with polymer modified cement based tiles adhesives, screeds and renders.

Standards Compliance

BRANZ Appraisal 1300 & 1301 for internal and external applications.

BRANZ Appraised
Appraisal No. 1300.1301

Nitoproof 410 has been independently tested to the requirements of AS/NZS 4858:2004 Wet Area Membrane as a Class II membrane against AS 3740:2021 Waterproofing of Wet Areas Within Residential Buildings.

Nitoproof 410 has been independently tested to the requirements of AS/NZS 4654.1:2012 Waterproofing membranes for external above-ground use Part 1:Materials.

*Nitoproof 410 has been tested to AS 4586-2013 for slip resistance when overcoated with Nitoproof Top Coat UV and Nitoproof Top Coat EW. Refer to the relevant data sheets on those products for results. **Not assessed as part of the BRANZ Appraisal.*

Copies of these reports are available from the Fosroc website.

Description

Nitoproof 410 is a water based, fast drying, flexible two component, polymer modified cementitious waterproofing membrane designed for podiums, terraces, balconies, and deck areas – under toppings, tiles and other protected environments.

Nitoproof 410 offers excellent adhesion properties over many primed building surfaces once correctly primed and prepared.

Design Criteria

Nitoproof 410 is designed to be applied by thick brush or roller to achieve a total Dry Film Thickness of 1.3mm. Nitoproof 410 should be applied as two (2) coats with a minimum Wet Film Thickness of 1.6mm (coverage of 1.6 litres/m²) resulting in a minimum Dry Film Thickness of 1.3mm.

Properties

Wet form

Specific Gravity of mixed product:	1.3kg / litre
VOC content:	9g / litre
Appearance: **Liquid** **Powder** **Mixed**	 White liquid Grey powder Grey slurry
Mixing ratio:	1:1 by weight

Cured membrane

Elongation:	93% (AS1145.3) Class II
Tensile strength:	1.24MPa (AS1145.3)
Bond strength:	23.93N (AS4654.1)
Shore A hardness:	65
Colour:	Grey
Moisture transmission rate:	3.80g/m²/24hrs (ASTM E 96) Permeance 48.44ng/Pa.s.m²
Water absorption:	Max. mass 1.88% (AS3558.1)
Cyclic movement:	Class II (AS/NZS 4858)
Durability:	Class II (AS/NZS 4858)

Drying times @ 23°C / 50%RH

Recoat:	2 to 4 hours
Dry film:	5 to 7 hours
Flood testing:	36 hours

Application Instructions

Surface preparation

Surfaces must be clean, sound, stable and free of: loose foreign material; existing coatings; laitance; release agents; curing compounds and oil/grease residues.

Concrete and masonry substrates should have a moisture content reading not exceeding 5% when tested using a Tramex CMEX5 moisture meter.

Rendered surfaces must be allowed to cure for at least 16 hours in normal ambient conditions prior to commencing waterproofing. Ensure all rendered surfaces have a wood float finish.

All screw / nail heads must be sealed with Selleys Wet Area Silicone (neutral cure silicone) and allowed to cure, then all sheet joints covered with Nitoband SA80 tape.

Ensure all surfaces are sound, dry and free from excessive movement, oil, dust, grease, wax, curing compounds, release agents, paint and any other loose contaminants. Also remove any protrusions from the surface that may pierce the membrane.

Priming

Substrates must be primed, prior to the application of Nitoproof 410 membrane:

For porous masonry surfaces, Nitoprime 120 should be applied at approx. 7m²/L.

For non-porous substrates, such as CFC*, wet area timber, ceramic tile, metals and plastics, Nitoprime 115 should be applied at approx. 12m²/L.

*When applying over CFC, it is advisable to conduct a water droplet test to determine the porosity of the particular grade of CFC which can vary. If the water is absorbed quickly into the CFC then it should be considered “porous” and primed with Nitoprime 120.

Cracks

Cracks larger than 2 mm or structural shrinkage cracks must be firstly cleaned and any loose material removed then filled with Selley Wet Area Silicone or covered with Nitoband SA80 tape. See Nitoband SA80 technical data sheet.

Nitoband SA80 tape, Corners and Detailing

The Nitoband SA80 has been specifically developed as a superior bond breaker system to traditional sealants and bond breaker tapes for change of direction – such as wall/wall and wall/floor joints.

The substrate must be suitably prepared, clean, sound, stable and free of protrusions. It must be primed according to the substrate with either Nitoprime 115 or Nitoprime 120.

The Nitoband SA80 Tape is installed first before applying the Nitoproof 410 membrane.

Installation

Priming

Prime the area to be treated according to the substrate.

For porous masonry surfaces, Nitoprime 120 should be applied at approx. 7m²/L.

For non-porous substrates, such as CFC, wet area timber, ceramic tile, metals and plastics, Nitoprime 115 should be applied at approx. 12m²/L (see TDS for further details).

Nitoband Corners

Nitoband SA80 can be used to form corner pieces which are positioned prior to laying longer lengths of Nitoband SA80 along floor to wall joints and other details.

Cut lengths of Nitoband SA80 tape 300 to 400mm long.

The corners should be formed by cutting a “V” section from half the width of the tape then folded into the corner and rolled securely with a small rubber roller. Refer to the Nitoband SA80 data sheet for specific details.

Nitoband SA80 Tape

The Nitoband SA80 tape is then folded in half along its length and carefully positioned along the floor to wall joint with a 50mm overlap on to the corner piece.

Membrane application

Once the Nitoband SA80 is in place, the Nitoproof 410 membrane can be applied.

Mixing

Nitoproof 410 should thoroughly be mixed in equal parts by weight or the ratio of 1L Part A liquid to 0.8 L Part B dry powder.

Add approximately half of the powder while mixing and wet out well, then add the remaining powder and wet out well.

Scrape the sides of the pail and mixing paddle.

Mix at higher speed, avoiding aeration, for 3 minutes.

Cease mixing and ‘allow the mixed material to stand for 3 minutes, and then lightly re-mix’. The Nitoproof 410 is then ready to apply.

Membrane Application

Ensure the surface has been appropriately prepared in accordance with this TDS and Nitoband SA80 should be installed first.

Mix an appropriate amount of the Nitoproof 410 waterproofing membrane that can be used within its working life as per the instructions in this TDS.

Nitoproof 410 is designed to be applied by brush, roller or suitable airless spray equipment.

In general waterproofing applications Nitoproof 410 is applied as two (2) coats with a minimum total coverage of 1.6 litres/m².

Each successive coat should be applied at 90 degrees to the previous coat. Allowing a drying time of 1-3 hours between coats.

General non immersed applications	
Approximate total coverage:	1.6L/m²
Wet Film Thickness:	1.6mm
Dry Film Thickness:	1.3mm

Conduct a final inspection on the surface of the membrane prior to commencing tiling to ensure no pin holes exist. A further coat may be required if imperfections or pinholes are present in the membrane.

Once the waterproofing is completed, do not disturb the area for at least 24 hours. Based on normal ambient conditions of 23°C @ 50% RH, tiling can commence approximately 24 hours after final Nitoproof 410 coat. Allow a further 24 hours of drying time @ 10°C.

Use polymer modified cement based tile adhesive such as Fosroc Nitotile Plus for tiling application.

Nitobond SBR used as a bonding agent is recommended for applications of cement based screeds or renders – as per TDS.

Curing and protection

Nitoproof 410 is not UV stable and must be cured for a minimum of 24 hours at 25°C before placing protection. Tiling should commence within 5 days.

Cleaning

Prior to hardening Nitoproof 410 can be cleaned from tools and equipment using water. Hardened material will need to be removed via mechanical means.

Splashes of Nitoproof 410 on paintwork etc. should be wiped off immediately using a cloth dampened with a strong detergent solution. Brushes and brooms etc. should be soaked in a strong detergent solution immediately after application has finished. Hands and skin may be cleaned using a proprietary waterless hand cleaner, but prevention of soiling is better practice by wearing gloves and overalls.

Limitations

Do not apply Nitoproof 410 in temperatures above 35°C or below 5°C.

Nitoproof 410 cannot be used in areas where negative hydrostatic pressure is evident.

Please Note:

Application of all liquid applied membranes and primers should always refer to the surface temperature conditions before commencing and not just ambient temperatures.

For example: ambient temperatures may be 10°C but the substrate could be 0°C and have frost issues. The same applies with higher temperatures: ambient temperature may be 26°C but have a substrate temperature of 36°C

Use polymer modified cement based tile adhesives for direct adhesion to the membrane.

Nitobond SBR is recommended within screeds and renders directly over the membrane as a waterproof and adhesion enhancer.

Supply

Nitoproof 410 is supplied in 25kg (19.2 litre) 2 component packs.

Nitoproof 410 Part A: 12.5L	FC000603-12.5L
Nitoproof 410 Part B: 12.5kg	FC000604-12.5KG
Nitoprime 115 – 4L Pail Coverage: 10m²/ litre	FC000600-4L
Nitoprime 120 - 15 L Pail Coverage: 6-8m²/ litre	FC000601-15L
Nitoband SA80 Tape 80mm wide x 10m Roll	FC000612-UNIT
Nitoband Pipe Detailing Square* Small <50mm - Each	FC000616-UNIT
Nitoband Pipe Detailing Square* Medium < 110mm - Each	FC000617-UNIT
Nitoband Pipe Detailing Square* Large < 150mm - Each	FC000618-UNIT

**Not assessed as part of the BRANZ Appraisal.*

Coverage/yield

Each 25kg kit of Nitoproof 410 will yield approximately 19.2 litres of mixed product.

In general waterproofing applications Nitoproof 410 is applied as two (2) coats with a minimum total coverage of 1.6 litres/m². (approx. 12.m² / 19.2 litres).

For permanently immersed conditions/applications, Nitoproof 410 is applied as three (3) coats with a minimum total coverage of 2.0 litres/m² (approx. 9.6m² / 19.2 litres).

Nitoprime 115:	10 - 12m²/litre
Nitoprime 120:	6 - 8m²/litre
Nitoproof 510:	5m²/litre (as a primer)

The coverage figures are theoretical – due to wastage factors and the variety and nature of possible substrates, practical coverage figures may be substantially reduced.

Storage

Nitoproof 410 Part A has a shelf life of 24 months from date of manufacture if kept in the original, unopened packaging.

Nitoproof 410 Part B has a shelf life of 36 months from date of manufacture if kept in the original, unopened packaging.

Do not use if there are lumps in the product.

Important notice

A Safety Data Sheet (SDS) is available from the Fosroc website. Read the SDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

Product disclaimer

This Technical Data Sheet (TDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this TDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.

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