

Fosroc® Nitoproof 810



constructive solutions

(Replaces Emer-Proof Aqua Barrier Advanced)

Highly flexible Class III, water based polyurethane waterproofing membrane.

Uses

Nitoproof 810 is suitable for a wide range of waterproofing applications such as:

- Wet areas and shower alcoves – Class III Membrane System
- Podiums, terraces, balconies and deck areas – under toppings, tiles and other finishes
- Foot trafficable exposed roof top membrane and balcony decks (when over coated with Nitoproof Top Coat UV)
- Sandwich membrane between existing and new substrates e.g. old to new concrete; cement screeds over concrete and CFC surfaces
- General areas exposed to moisture and damp conditions

Advantages

- Can be flood tested after 48 hours @ 23°C/50% RH
- Low VOC
- Elastomeric and flexible with excellent elastic recovery
- Will not re-emulsify, once cured. Handles permanently wet conditions
- Low water absorption
- Low water vapour transmission properties
- Excellent adhesion to primed surfaces
- Compatible bonding properties for tile adhesives (such as Nitotile Flex), screeds and renders
- Non-flammable and non-hazardous
- Excellent chemical resistance
- Australian made

Standards Compliance

Nitoproof 810 meets the requirements of:

- AS/NZS 4858:2004 Wet Area Membranes as a Class III membrane
- AS3740: 2010 Waterproofing of Wet Areas Within Residential Buildings

Nitoproof 810 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.

Technical Support

Parchem offers a comprehensive range of high performance, high quality waterproofing and construction products. In addition, Parchem offers a technical support package to specifiers, contractors and end-users, as well as on-site technical assistance.

Description

Nitoproof 810 is a non-flammable polyurethane membrane designed for a wide range of waterproofing applications in the built environment.

This single component membrane offers high performance elastomeric and tensile strength properties, along with excellent elastic recovery.

Nitoproof 810 is an alternative to solvent based and moisture curing polyurethane membranes for areas exposed to permanently wet conditions and offers outstanding low water vapour transmission properties.

Suitable for internal and external wet areas, enabling the direct fix of ceramic tiles, screeds, and renders over the dried membrane without bonding issues that solvent based polyurethane membranes present.

Nitoproof 810 offers excellent adhesion properties over most primed building substrates.

Nitoproof 810 is fully compatible with Nitotile Flex polymer modified cement based tile adhesive.

Design Criteria

Nitoproof 810 is designed to be applied by thick brush or roller. Nitoproof 810 should be applied as two (2) coats with a total minimum WFT of 1.5mm (coverage of 1.5 litres/m²) resulting in a minimum DFT of 1.1mm.

Specification Clause

Where required, a non-flammable polyurethane liquid membrane is to be applied to offer a durable and waterproof area. The membrane must be very low VOC, Australian made and compliant with the requirements of a Class III membrane defined in AS/NZS4858:2004. The Nitoproof 810 from Parchem Construction Supplies meet the performance criteria and is an approved product.

Properties

Data quoted is typical for this product, but does not constitute a specification.

Wet form properties

Specific gravity of mixed product:	1.25kg/litre
Solids content:	>60%
VOC content:	<2g / litre
Appearance:	High viscous
Colour:	Green

Cured membrane properties

Elongation:	>355%
Tensile Strength:	>2MPa
Shore A hardness:	68

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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.

All screw / nail heads must be sealed with either Nitoseal PU250 or Nitoseal PU400 sealant. All sheet joints must be covered with Nitoband Tape and associated detailing accessories if required (e.g. internal or external corners and pipe detailing collars) or Nitoseal PU250 / PU400 as mentioned under cracks below. See Nitoband system or Nitoseal PU250 / Nitoseal PU400 Technical Data Sheets.

Also remove any protrusions from the surface that may pierce the membrane.

Priming

Substrates must be primed, prior to the application of Nitoproof 810 membrane:

Primer choice is defined by substrate condition:

- For porous masonry surfaces, Nitoprime 120 may be selected (see TDS for further details)
- For non-porous substrates, such as ceramic tile, metals, plastics, Scyon sheeting, CFC and wet area timber the use of Nitoprime 115 may be selected (see TDS for further details)

Damp surfaces - entrapped moisture

Seek technical advice from Parchem.

Cracks

Cracks larger than 2mm or structural shrinkage cracks must be firstly filled with a flexible polyurethane type sealant such as Nitoseal PU250 or Nitoseal PU400 and then a 50mm wide polyethylene tape placed over the crack prior to the application of Nitoproof 810.

Alternatively the cracks can simply be covered with the Nitoband Tape system. See Nitoband Tape system Technical Data Sheet.

Nitoband Tape system, corners and detailing accessories

The Nitoband Tape System has been specifically developed by Parchem as a superior bond breaker system to traditional sealants and bond breaker tapes.

The Nitoband System includes tape (for change of direction – such as wall/wall and wall/floor joints etc.), both 270° external and 90° internal corners, an adjustable internal corner as well as three (3) size variations on pipe detailing squares (suitable from 6mm > 150mm pipe diameters).

If being used in waterproofing applications, the Nitoproof 810 membrane requires a suitable bond breaker at all substrate junctions. Parchem nominates the Nitoband Tape System which includes tape, corners and pipe penetration detailing squares or equivalent bond breaking methods compliant with local waterproofing standards and building recommendations. If a sealant is required, Parchem nominate either Nitoseal PU250 or Nitoseal PU400 polyurethane sealants.

Mixing

Nitoproof 810 membrane should be lightly stirred before use.

Membrane application

Ensure the surface has been appropriately prepared in accordance with Parchem's instructions.

Install Nitoband tape / corners and accessories (as per separate Nitoband system Technical Data Sheet).

Apply the first coat of Nitoproof 810 to the primed surface using a thick brush or roller.

After waiting the required 4 hours (@23°C) re-coat time, re-apply a second coat of Nitoproof 810 at 90° to the first coat, ensuring complete coverage is achieved and no air bubbles exist. A third coat may be required if imperfections are present in the membrane.

Conduct a final inspection on the surface of the membrane prior to commencing tiling to ensure no pin holes exist.

Once the waterproofing is completed, do not disturb the area for at least 24 hours.

Tiling can commence approximately 24 hours after last coat, in which case Nitotile Flex tile adhesive should be used.

Coverage

A minimum of 2 coats is recommended to be applied.

A total minimum coverage of 1.5 litres/m² (2 coats @ 0.75 litres/m² per coat) is recommended.

Total Wet Film Thickness = 1.5mm

Finished Dry Film Thickness = 1.14mm

Drying Times

	23°C, 50% RH	10°C, 50% RH
Recoat time	4 hours	6 hours
Dry film::	12 hours	24 hours
Flood test:	48 hours	72 hours
Tiling / toppings:	24 hours	48 hours

Maintenance

No special requirements, any damage identified during normal inspections should be repaired or replaced as appropriate.



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Limitations

Nitoproof 810 is UV resistant but is not designed for use as a long term exposed membrane, stand alone product.

However, over coating Nitoproof 810 with Nitoproof Top Coat UV will not only protect the base membrane from UV degradation but will also provide a foot trafficable membrane system (please refer to Nitoproof Top Coat UV technical data sheet).

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. (There are limitations to how hot/cold the surface temperature can be, when applying a liquid based membrane or primer).

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

Nitotile Flex polymer modified cement based tile adhesive is recommended for direct adhesion to the membrane.

Nitoprime 120 is recommended within screeds and renders directly over the membrane as a waterproof and adhesion enhancer.

Cleaning

Product while in a wet state will clean up with water. Once dried, product will need to be removed by Fosroc Solvent 10 or by mechanical means.

Splashes of Nitoproof water based membrane 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 a better practice by wearing gloves and overalls.

Important notice

A Safety Data Sheet (SDS) and Technical Data Sheet (TDS) are available from the Parchem website or upon request from the nearest Parchem sales office. 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.

Supply

	Material Code
Nitoproof 810 – 15L Pail Coverage: 1.5L/m ² (total 2 coats)	FC000608-15L
Nitoprime 115 – 4L Pail Coverage: 10m ² / litre	FC000600-4L
Nitoprime 120 - 15 L Pail Coverage: 6-8m ² / litre	FC000601-15L
Nitoband Tape 120mm wide x 10m Roll	FC000612-UNIT
Nitoband Corner Internal 90° 135mm x 135mm – Each	FC000614-UNIT
Nitoband Corner External 270° 135mm x 135mm – Each	FC000615-UNIT
Nitoband Corner Adjustable Internal 135mm x 135mm – Each	FC000613-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

Shelf Life

Nitoproof 810 has a shelf life of 12 months from date of manufacture if kept in a dry store in the original, unopened containers. Refer to the Use by Date indicated on the packaging.

Storage Conditions

Store in dry conditions at temperatures between 5°C and 30°C in the original, unopened containers. If stored at high temperatures, the shelf life may be reduced.