



Queenstown home

NURAPLY 3P SYSTEM Technical Brochure

Description

Nuraply 3P system is a tough, reinforced bituminous waterproofing membrane, of great strength, suitable for maintenance foot traffic and finished in any selected colour using Nuracolour coating system.

The membrane layers are 3mm thick of APP bitumen with a heavy reinforcing layer of non-woven polyester inside.

The Nuraply 3P capsheet is torch-on applied to the base sheet of either Nuraply 3PB or 3PV to create a very robust, double layer, fully bonded membrane waterproofing system – ideal for flat roofs and decks protected with timber or tiles.

To provide protection, added strength and an attractive appearance the installed Nuraply 3P roof sandy surface is finished with either Nuracoat BAC (Bitumenious Aluminium Coating), Nuracolour Gel or Nuracoat Heavy Duty.

The membrane is manufactured by ATAB of Belgium but has been specifically refined for New Zealand conditions. ATAB manufacture over 10 million square meters of membranes per annum.

BRANZ have appraised the Nuraply 3P system as suitable for flat roofs and decks protected from foot traffic by installing tiles or timber decks on Nurajacks – (New Zealand's only torch-on membrane with a complete deck system appraisal).

When to use Nuraply 3P

Nuraply 3P has been developed for long-term, low maintenance waterproofing of steep or low pitched roofs, decks, gutters, terraces and canopies in new or restoration situations.

Building Code Verification



BRANZ has appraised the Nuraply 3P system and has concluded that it complies with NZBC E2 – weathertightness and B2 durability. We are happy to work with you on any building consent issues, especially if something outside the scope of usual work is planned.





Keri Keri Community Centre



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Warranty

Nuralite warrants Nuraply 3P against material defects for 20 years from the date of installation. The warranty must be applied for at the completion of the job. For this extended warranty to remain current the customer must maintain the roof and have it inspected every five years by a qualified Nuralite applicator.

The workmanship is covered by a separate workmanship warranty issued by the applicator. Nuralite will inspect the completed job if requested.

Things to consider

The substrate provides the foundation for a successful system. The two most common substrate problems are movement and ponding. To alleviate these ensure when plywood is being used that:

- ▶ Unless specifically designed otherwise the treated plywood substrate should be at least 17.5mm thick, 20mm on decks, supported at 400mm x 400mm. The plywood must be tightly butted and staggered or brick pattern laid. Stainless steel fixings and glue bonding of the plywood must be used.
- ▶ Falls are as much as possible. The minimum is as per E2/AS1 with 1:40 for roofs, 1:60 for decks and 1:100 in gutters. Pay attention to detailing around scuppers as they often are a source of ponding.

Ventilation is very important to keep the ceiling space cooler, and so limit substrate movement, as well as removing condensation buildup. A Nuravent every 20m² is recommended but attention must be paid to placement relative to rafters to allow for cross flow air movement. Soffit vents can also be useful addition to a flat roof design.

If the membrane is being tiled over, the preferred method is to keep the membrane accessible by using Nurajacks.

Building maintenance is important. Annual cleans and visual inspections are recommended. Five yearly detailed inspections by a qualified Nuralite applicator is a warranty requirement.

Basesheet Options

Plywood - Nuraply 3PB

- ▶ APP modified sheet membrane which is fully bonded to the substrate using Nurabond #10 adhesive.

Concrete - Nuraply 3PV

- ▶ Special ventilating grade membrane which allows substrate moisture and vapour to dissipate.

Coating Options

With any of these systems new coats will be required during the life of the Nuraply 3P roof system. Depending on environmental factors and the quality of the roof maintenance programme the coating will need recoating between every 5 and 10 years.

For a smooth finish without needing to recoat, consider Nuratech TPE which comes in a choice of three colours.

1. **Nuracolour:** is available in any colour but it is recommended that lighter colours are used (RV > 40) to keep the roof system cooler. The most common colour choice is 9095-Grey which has an RV of 42.
2. **Nuracoat Heavy Duty:** In circumstances where people are expected to walk on the membrane, such as for maintenance access, Nuracoat Heavy Duty should be installed. It forms a thick, robust, rubberized coating which protects the membrane while clearly delineating a slip resist pathway for people on the roof.
3. **Nuracoat BAC:** The traditional roof coating system for bitumen membranes – Nuracoat Bituminous Aluminum Coating (BAC) provides a highly reflective surface.



A - Nurabond No. 10 adhesive

B - Welding lap joints

C - Nuracolour surface dressing

When you should not use Nuraply 3P

Not for green roofs or planter boxes – specify the Nuraply 3PG system and related drainage mat to ensure the plant roots will not attack the membrane and that there is proper drainage within the waterproofing system.

Not on decks where the Nuraply 3P is likely to be directly exposed to high foot traffic, or where it may be mechanically or chemically damaged. In these cases ensure the Nuraply 3P is completely protected by overlaying of pavers or similar.

Not if collecting drinking water. The Nuracolour provides a potable surface but requires recoating. Consequently we recommend Nuratech TPE in these situations.

Accessories

Nuratrim – a smart way to provide a sharp edge finish where the membrane must lap over the roof edge. Detailed to ensure watertightness. Available in mill finish aluminium, powdercoated or painted.

Nurajacks – designed so that the client can have tiles or pavers, but the membrane is still accessible, Nurapads come in a range of sizes to enable tiles to be floating just above the deck or raised up to the level of the building interior if desired.

Nuravents – are unobtrusive and have a large capacity for air circulation.

Drains & Scuppers – Nuralite stocks a range of metal scuppers and drains. Alternative sized outlets can be fabricated on request. See www.nuralite.co.nz for detailed discussion of the accessories.

General Application Method - Plywood

1. Nurabond No. 10 cold adhesive is applied to the substrate. This ensures the membrane will be fully bonded to the substrate. **(Photo A)**
2. The Nuraply 3PB is lightly heated to melt the protective film – but not the sheet itself. This ensures the membrane is completely undamaged when it is laid.
3. The membrane is laid up the slope of the roof to allow for the best drainage flow towards the gutter.
4. The lap joints are welded as a separate process. As this step is vital, a three pass method is used so that the quality of the weld is checked during the process. **(Photo B)**
5. The Nuraply 3P capsheet is offset from the runs of Nuraply 3PB and is then fully heat welded to the Nuraply 3PB.
6. All lap joints are welded as a separate process. As this step is vital, a three pass method is used so that the quality of the weld is checked during the process.
7. A layer of Nurastone primer is applied before applying two coats of Nuracolour or Nuracoat Heavy Duty. Alternatively, two coats of Nuracoat BAC is applied. **(Photo C)**

Applicators

All Nuralite authorized applicators have been trained in Nuralite's system followed by on-site monitoring. Most Nuralite applicators have been working with Nuralite systems for many years. We work closely with applicators to ensure quality standards are maintained. If clients require an independent quality check during the course of a job or at completion, please contact a Nuralite technical advisor and a site report will be provided.

Technical Information

A comprehensive set of design details and specifications are available at www.nuralite.co.nz

Nuralite technical advisors are all very experienced and willing to help either on the phone, in your office or on site. Call **09 579 2046** or **0800 Nuralite (0800 687254)**.

Description – Nuraply 3P

A waterproofing membrane consisting of straight run bitumen heavily modified with polymers (APP = Atactic Polypropylene) and reinforced with non-woven polyester.

Finishing

- ▶ Top surface finished with white calibrated sand, then coated in situ with either Nuracoat BAC in reflective silver, Nuracolour in any colour or Nuracoat Heavy Duty for foot traffic.
- ▶ Underside finished with a smooth thermofusible film

Composition

- ▶ Reinforcement: non-woven polyester 180 g/m²
- ▶ Coating mass: plastomer bitumen, consisting of $\pm 70\%$ bitumen and $\pm 30\%$ atactic polypropylene (APP) modifier

Technical specifications (average values)

		Basesheet: Plywood	Basesheet: Concrete
	Nuraply 3P	Nuraply 3PB	Nuraply 3PV
▶ Tensile strength (U.E.A.t.c.):	L: 700 N T: 600 N	L: 650 N T: 500 N	L:900N T:550N
▶ Elongation at break (U.E.A.t.c.):	L: 45% D: 45%	L:45% D: 45%	L:45% D:45%

Dimensions

▶ Thickness:	3 mm	3 mm	4 mm
▶ Length:	10 m	10 mm	7.5 mm
▶ Width:	1 m	1 m	1 m
▶ Surface:	10 m ²	10 m ²	7.5 m ²
▶ Average weight:	37.1 kg	36 kg	32kg

Nuraply 3P, No.10, Nuracolour, Nuracoat Heavy Duty are non-hazardous products. Nuraflex, Nuracoat BAC and Nurastone sealer are Class III Dangerous Goods and are flammable. Care is required in use.

To the best of our knowledge, the information in this brochure is accurate at the time of printing.

Nuralite Waterproofing Ltd reserves the right to alter information, formulation or parameters at any time without notice.

Nuralite Waterproofing Ltd

53A Victoria Street, Onehunga, Auckland 1061
Ph 09 579 2046 Fx 09 579 5136
E info@nuralite.co.nz

