



Viaduct Events Centre, Auckland

NURAPLY 3PM SYSTEM Technical Brochure

Product Description

Nuraply 3PM is a tough, reinforced bituminous waterproofing sheet, of great strength, suitable for light foot traffic and finished in a choice of five standard shades of mineral chip.

The first layer consists of 3mm thick Nuraply 3PB or 3PV which are laid with heat welded lap joints. The cap sheet is 4mm thick of APP bitumen with a heavy reinforcing layer of non-woven polyester inside topped off with embedded mineral chips. The mineral chip surface provides a natural look while providing UV protection.

The Nuraply 3PM system is suitable for installing over plywood, concrete or Nuratherm insulated roof substrates.

BRANZ have appraised the Nuraply 3PM system as suitable for flat roofs.



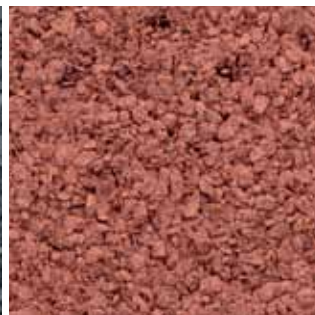
Nuraply 3PM - white



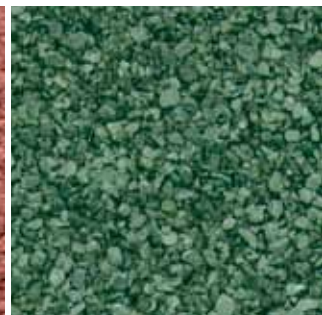
Nuraply 3PM - slate



Nuraply 3PM - charcoal



Nuraply 3PM - red



Nuraply 3PM - green

***Actual colours may vary from those illustrated.**
Refer to Nuraply 3PM sample sheet for more accurate colour examples.





Green Island, Dunedin



North Shore house

Warranty

Nuralite warrants Nuraply 3PM against materials 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.

Building Code Verification



BRANZ has appraised the Nuraply 3PM system and have concluded that it complies with NZBC E2 – weathertightness and B2 – durability.

We are happy to work with clients on any building consent issues, especially if something outside the scope of usual work is planned.

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.

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:

- ▶ The treated plywood substrate is 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. In accordance with E2/As1 we require a minimum of 1:30 for roofs, 1:40 for decks and 1:100 for gutters. Pay attention to detailing around scuppers as they often are a source of pooling.

New concrete should be clean and free from defects, cured for a minimum of 28 days, graded to correct falls with a wood float finish incorporating fillets to upstands with all sharp edges removed.

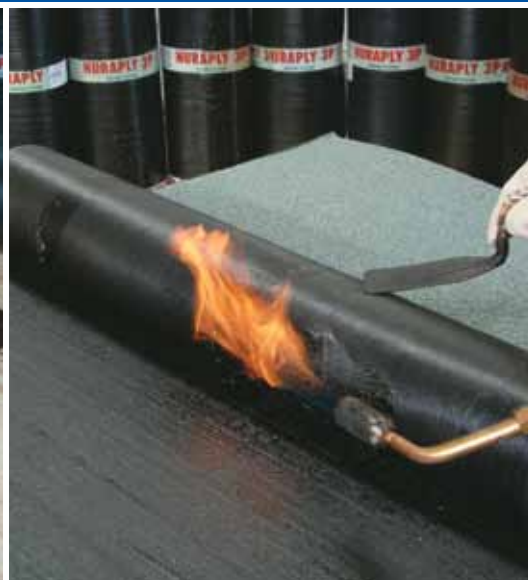
Nuraply 3PM membrane is compatible with Enertherm PIR foam to produce the Nuratherm system, which does not require vents. If installing a cold roof instead, ventilation is very important to keep the ceiling space cooler, as well as removing condensation buildup. A vent every 20m² is recommended but attention must be paid to placement relative to rafters to allow for cross flow. Soffit vents can also be a useful addition to a flat roof design.

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

To maintain appearance Nuraglaze can be applied over top of the membrane. A passive mould killer may need to be applied to kill moss and mould debris during the life of the system. The membrane must not be waterblasted to avoid damage to the aggregate finish.



A - Nurabond No. 10 adhesive



B - Melting off protective sheet



C - Welding lap joints

When you should not use Nuraply 3PM

Not if the membrane is being tiled over. The preferred method is to use Nuraply 3P and keep the membrane accessible by using Nurajacks.

Not if water is being collected for drinking. Specify instead Nuratech TPE membrane.

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 in situations where the Nuraply 3PM is likely to be exposed to high foot traffic or may be mechanically or chemically damaged. In these cases ensure the Nuraply 3P is completely protected by overlaying of pavers or similar.

Accessories

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

Nuravents – are unobtrusive but 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.

General Application Method – Plywood

1. Nurabond No. 10 cold adhesive is applied to the substrate. This ensures the Nuraply 3PM will be fully bonded to the substrate. **(Photo A)**
2. The base of 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. **(Photo B)**
3. The membrane is laid up the slope of the roof to allow for the best drainage flow towards the gutter.
4. The Nuraply 3PM cap sheet is offset from the runs of Nuraply 3PB and is then fully heat welded to the Nuraply 3PB.
5. 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. **(Photo C)**
6. A layer of Nuraglaze may be applied to lock the chips into the surface.

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 3PM

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 a dense mechanically rolled aggregate layer. Polyethylene film is on the 80mm lap joint strip. Aggregates are available in choice of colours – slate, charcoal, white, red or green (see sample card). May be overcoated with Nuracoat Glaze to maintain appearance.
- ▶ Underside finished with a smooth thermofusible film

Composition

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

Technical specifications (average values)

	Capsheet:	Basesheet:	
		Plywood	Concrete
	Nuraply 3PM	Nuraply 3PB	Nuraply 3PV
▶ Tensile strength (U.E.A.t.c.):	L: 650 N T: 500 N	L: 650 N T: 500 N	L:900N T:550N
▶ Elongation at break (U.E.A.t.c.):	L: 40% D: 40%	L:45% D: 45%	L:45% D:45%
▶ Resistance to heat (U.E.A.t.c.):	140°C		
▶ Low temperature flexibility (U.E.A.t.c.):	-8°C		
▶ Dimensional stability:	0.5%		

Dimensions

▶ Thickness:	4 mm	3 mm	4 mm
▶ Length:	7.5 m	10 mm	7.5 mm
▶ Width:	1 m	1 m	1 m
▶ Surface:	7.5 m ²	10 m ²	7.5 m ²
▶ Average weight:	43 kg	36 kg	32kg

Nuraply 3PM, Nuraglaze and No. 10 are non-hazardous products.

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.

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