



Rippon Vineyard, Wanaka

NURALITE TANKING Technical Brochure

Product Description

Horizontal and vertical tanking must prevent the ingress of water and water borne aggressive salts such as chlorides and sulphates penetrating concrete structures.

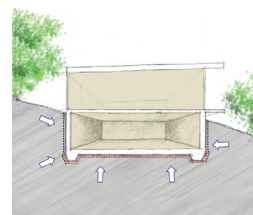
Any failure or deficiency of inaccessible below ground waterproofing, can be very difficult and expensive to correct. For that reason Nuralite offers the choice of two proven systems to meet the demanding needs of specifiers.

Nuraply 3PT (M)

Nuraply 3PT is a thick and tough, reinforced bituminous waterproofing membrane, of great strength and durability. The membrane is 3mm thick of APP bitumen with a heavy reinforcing layer of non-woven polyester inside. The 10m x 1m rolls of Nuraply 3PT are laid by heat welding the underside of the membrane to a Nuraflux primed surface.

Nuraply 3PTM has mineral chip aggregated rolled into its surface. This makes it ideally suited for waterproofing underslabs – the chips key into the poured concrete slab.

Combining Nuraply 3PT on the walls with Nuraply 3PTM under the slab ensures the entire building is encapsulated with a tough positive waterproofing system.



Cross-section of a fully encapsulated basement

Warranty



Warranty and Building Code Verification:

Nuralite warrants the Nuralite Tanking against material defects for 20 years from the date of installation. CodeMark is a product certification system administered by the Ministry of Business Innovation and Employment (MBIE) which must be accepted by Councils so long as the product or system is designed and used within the scope of the CodeMark certificate. When used as part of the Nuratherm Warm roof system, the system is CodeMark certified.





Nuraseal

Nuraseal is a totally impervious flexible self-adhesive waterproofing sheet membrane. The self-adhesive bottom surface is laminated with siliconized release foil or paper and the top surface of the membrane is covered with a special, durable high strength coloured polyethylene film.

The elastomeric nature of the synthetically modified coating is designed as a homogeneous mixture of a special bitumen and high quality type SBS elastomer, which ensures totally durable waterproofing.

Nuraseal is suitable for walls not exposed to hydrostatic pressure.

When to use Nuralite Tanking systems

Both systems have been developed for positive long-term, low maintenance waterproofing of construction features such as:

- Foundations
- Basements
- Lift Shafts, Pits
- Underslab

Nuraply 3PT (M) provides a robust watertight solution for areas where water is likely. The system can tolerate some hydrostatic pressure but specific design is required for areas of high hydrostatic pressure such as large building sites by the sea.

Nuraseal is suitable for damp proofing walls or areas not exposed to hydrostatic pressure.

BRANZ does not recommend the mixing of materials in tanking situations.⁽¹⁾ To comply, in situations where water is likely Nuraply 3PT should be used to encapsulate the external walls and floor completely.

(1) BRANZ Bulletin 397 pg 5

Things to consider

Ensure surfaces are clean, with no lumps, hollows and holes and are as dry as possible. Flush pointed blockwork is essential and corner fillets formed at wall/footing junctions as one.

Care must be taken once the membrane is installed to ensure it is not damaged prior to backfilling. Carefully supervise placement of protection boards and backfilling, to ensure no damage occurs to the membrane during that work.

If wall insulation is a consideration, install an XPS insulation product such as Composite Goldfoam adjacent to the waterproofing membrane. This will provide insulation and membrane protection. A drainage element will still be required though to encourage waterflow to the drain system at the foot of the wall.

Prevent water build up against the wall with a drainage board such as Nuradrain. At least 100 mm diameter subsoil drainage pipe should be placed 150mm from the base of the membrane. Have the subsoil pipe at the base of the wall set down a minimum of 200 mm below floor level and with the pipe sloped a minimum of 1:200 to the outlet.

Simple design features assist the performance of the system.

- ▶ Slope the surrounding area away from the wall with a minimum 1:30 slope
- ▶ Seal the surface adjacent to the wall with a clay cap or concrete mowing strip
- ▶ Provide channels or drains to lead water away from the building
- ▶ Install subsoil drainage where the surrounding ground is very wet



A – Nuraflux primer applied to substrate



B – Gussets installed in high stress areas. Roller used to ensure good seal



C – Filled to corner detach

When you should not use Nuralite Tanking systems

Not with deep multi-storey basements or subject to high hydrostatic pressure. Specialist design and installation is required in these situations.

Not where tree roots are prevalent – specify the Nuraply 3PG membrane instead of Nuraply 3PT to ensure the roots will not attack the membrane.

Not in situations where the tanking may be damaged mechanically.

Not where there is insufficient room for an applicator to work on the substrate in a safe manner.

General Application Method – 3PTM

1. The surface must be compacted and free of protrusions.
2. Roll out the Nuraply 3PTM with the chip side facing up.
3. Weld the lap joints in the traditional way, ensure a large bitumen bleed is evident along the joint.
4. Ensure there is sufficient material at the sides to fold up the footing.
5. Pour the slab directly onto the membrane.

General Application Method – 3PT

1. The surface to be waterproofed should be dry, smooth, free from dust, dirt, protrusions and cavities. Green concrete must be left 28 days to cure.
2. The surface should be primed thoroughly with Nuraflux Primer and allow to dry. The drying time depends on the porosity of the substrate and the environmental conditions (approx. 0.5 - 3 hrs).
3. Nuraply 3PT is adhered to the substrate by heat fusing the base of the sheet as it is rolled up the substrate.

4. 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.
5. Top edges overflashed or secured to ensure there are no loose or uncovered edges above or below ground level.

General Application Method – Nuraseal

1. The surface to be waterproofed should be dry, smooth, free from dust, dirt, protrusions and cavities. Green concrete must be left 28 days to cure.
2. The surface should be primed thoroughly with Nuraflux Primer and allow to dry. The drying time depends on the porosity of the substrate and the environmental conditions (approx. 0.5 - 3 hrs).
3. Apply gussets to high stress areas such as internal and external corners.
4. Install Nuraseal by removing the release foil and unrolling the membrane along with it. The membrane especially at the overlaps should be firmly pressed down from the center to the sides, to ensure a good seal and to remove entrapped air.
5. Top edges overflashed or secured to ensure there are no loose or uncovered edges above or below ground level.

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**.

Description – Nuraseal

Waterproofing membrane consisting of polyethylene film bonded to a layer of bitumen/polymer adhesive.

Finishing

- ▶ Polyethylene anti corrosive film.
- ▶ Siliconized removable foil / paper.

Technical specifications (average values)

- ▶ Tensile strength (U.E.A.t.c.)
L: 450 N T: 300 N
- ▶ Elongation at break (U.E.A.t.c.)
L: 30% D: 45%

Dimensions

- ▶ Thickness: 1.5 mm
- ▶ Length: 19.05 m
- ▶ Width: 1.05 m
- ▶ Surface: 20 m²
- ▶ Average weight: 34 kg

Description – Nuraply 3PT

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

Finishing

- ▶ Top surfaced with white calibrated sand.
- ▶ 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)

- ▶ Tensile strength (U.E.A.t.c.)
L: 600 N T: 550 N
- ▶ Elongation at break (U.E.A.t.c.)
L: 40% D: 40%

Dimensions

- ▶ Thickness: 3 mm
- ▶ Length: 10 m
- ▶ Width: 1 m
- ▶ Surface: 10 m²
- ▶ Average weight: 41 kg

Description – 3PTM

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 dense mechanically rolled aggregate chip.
- ▶ 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)

- ▶ Tensile strength (U.E.A.t.c.)
L: 650 N T: 500 N
- ▶ Elongation at break (U.E.A.t.c.)
L: 45% D: 45%

Dimensions

- ▶ Thickness: 3 mm
- ▶ Length: 10 m
- ▶ Width: 1 m
- ▶ Surface: 10 m²
- ▶ Average weight: 36 kg

Nuraply 3PT, Nuraply 3PTM and Nuraseal are non-hazardous products. Nuraflux, primer is a Class III Dangerous Goods and is 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.

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