



Delamore Lodge, Waiheke Island

NURADECK SYSTEM Technical Brochure

Description

Nuradeck is a tough liquid-applied, elastomeric, fibreglass reinforced trafficable waterproofing system, based on the latest acrylic resin technology.

Nuradeck is available in most standard or matched colours, and has inbuilt resistance to mould growth.

The quick drying, water-based Nuradeck gel, applied in a series of coats, encapsulating fibreglass reinforcing, provides a jointless membrane 1-1.5mm thick. The satin surface finish, is stippled and slip resistant.

When to use Nuradeck

The Nuradeck system is designed for application externally or internally to roofs, decks, gutters or walls constructed in concrete, plywood and stable sheet materials.

The inert dense Nuradeck surface is suitable for the catchment of drinking water.

Nuradeck is compatible with, and can be applied over the Nuraply 3P system to accommodate very difficult flashings details.

When tiled over, Nuradeck C is excellent waterproofing for internal wet area and walls.



Timeball plywood dome, Whangarei



Shopping Centre Walkway, Auckland

Warranty

Nuralite warrants Nuradeck against material defects for 15 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 Nuradeck and have it inspected every five years by a qualified Nuralite applicator.

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

Building Code Verification

The Joyce Group consultants have independently appraised the Nuradeck 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.

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 plywood must be used.
- ▶ Falls are as much as possible. The minimum is 1:40 for roofs, 1:60 for decks and 1:100 for gutters. Pay attention to detailing around scuppers as they often are a source of ponding.

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. Concrete accelerants must be avoided as they can cause loss of adhesion.

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 drinking water is being collected a first flush diverter should be installed to reject possible roof deposits and stagnant or contaminated water.

Surfaces must be sufficiently porous for the Nuradeck sealer coat to penetrate and adhere to.

If Nuradeck is being tiled over, Nuradeck C may be used provided acrylic-compatible tile adhesives and pointing are used.

The completed and cured Nuradeck system is suitable for foot and wheeled traffic and furniture. A period of post installation hardening to full strength occurs after Nuradeck is laid.

A layer of Nuraglaze may be applied on to the Nuradeck to enhance the appearance over time.

Although Nuradeck is available in any colour, it is recommended that lighter colours are used (RV > 40) to keep the system cooler. As with any coating system, new coats will be required during the complete life of the system. Depending on environmental factors and the quality of the roof maintenance programme the coating will need recoating between every 5 and 10 years.

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



A (Nuradeck gel primer)



B (Nuradeck fiberglass reinforcing)



C (Nuradeck gel topcoats)

Damage repair shall be carried out by an approved applicator using Nuradeck component products in accordance with the instructions of Nuralite Waterproofing Ltd to achieve neat unobtrusive reinstatement.

When you should not use Nuradeck

Not on uncured or wet concrete – specify Nuraply 3PV ventilating membrane to allow moisture to continue to vent.

Not for Green roofs & Planter Boxes – specify the Nuraply 3PG system and related drainage mat to ensure the roots will not attack the membrane and that there is proper drainage within the system.

Not if ponding water will occur to avoid premature Nuradeck deterioration caused by dry/ wet/ immerse / freeze/ thaw conditions.

Not in situations where it is likely to be damaged either mechanically, by pollution or exposure to chemicals.

Not with broad based objects directly upon them. Items like planters, pots and Nurapads prevent the system from breathing efficiently.

Accessories

Nuratrim – a smart way to provide a sharp edge finish where the Nuradeck 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.

See separate Nuralite Accessories brochure for a detailed discussion of these products

Drains & Scuppers – Nuralite recommends Allproof products for this purpose. Their complete range is stocked at Nuralite and is available to all Nuralite applicators.

General Application Method

1. Apply Nuradeck gel thinned with water as a primer to ensure penetration of the substrate surface. Allow to dry. **(Photo A)**
2. Roll on one full coat of Nuradeck gel.
3. Roll out fibreglass mat into a wet coat of Nuradeck gel taking care to keep edge of the mat in a straight parallel line, and avoiding wrinkling. Force the mat into wet Nuradeck gel with the roller, until gel comes through and saturates the fibreglass. **(Photo B)**
4. Apply two or more topcoats of Nuradeck gel ensuring that an even finish is achieved with all fibreglass completely sealed in Nuradeck gel at a total coverage of 1.5 litre of gel on every square metre of substrate. **(Photo C)**
5. Allow to dry.
6. Apply Nuraglaze if desired.

Applicators

All Nuralite authorized applicators have been trained in Nuralite's systems 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 – Nuradeck

PHYSICAL DATA

▶ Colour:	Most standard or matched colours
▶ Gloss:	Satin Finish
▶ *Dry film build:	400 Microns
▶ *Tensile strength:	0.3MPa
▶ *Elongation at 20°C:	300%
▶ *Water swelling:	7%, (7 days immersion)
▶ *Water pondage:	No water transmission, (7 days immersion)
▶ Water vapour permeability:	49gm/m ² /day (typical range for acrylic systems)
▶ Chemical resistance:	Resistant most commercial chemicals in low concentration
▶ Fire resistance:	Does not support combustion
▶ Application air temperature range:	10°C to 35°C
▶ Solvent:	Water
▶ Packaging: Nuradeck gel:	20 litres pails
▶ Fibreglass matt:	30kg ± rolls

* Unreinforced film of Nuradeck gel

Nuradeck gel is supplied in three grades for varying climatic and application conditions:

- ▶ Nuradeck Standard gel (general purpose)
- ▶ Nuradeck Winter Grade gel (with faster curing resins for cold application conditions)
- ▶ Nuradeck C gel (for poor weather application conditions, and greater chemical resistance and under tiles)

The chopped strand fibreglass reinforcing mat is nominally 300gm/m² emulsion bound grade. A 225gm/m² grade is also used for fine detail application and for internal wet areas waterproofing.

Nuradeck is a non-hazardous product. Nuradeck fibre glass mat can cause skin irritation.

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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