



## **Nuralite Sheet Membrane & Nuraply 80**

### **Care, Maintenance & Rebirthing Instructions**

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#### **Introduction**

In the early 1960's the first sheets of Nuralite membrane were laid in New Zealand, manufactured in the UK by British Uralite PLC. Nuralite consisted of six layers of asphaltic compounds and mineral fibres, laminated to form a 2.4 x .9m x 2mm thick single layer, semi rigid membrane. Nuralite contained long fibre asbestos fibres, which were encapsulated in a high melting point asphalt. Nuralite roofs and decks were spot bonded to the substrate using "blobs" of bitumen adhesive. The "brick" pattern appearance easily identifies Nuralite roofs.

The 75mm laps joints were then fluxed and welded together. The application of heat ensured a completely homogenous joint between the sheets. Nuralite was black when first laid but weathered to a permanent attractive shade of mottled Matt Grey colour over a year. No additional surface treatments were required.

The mineral fibres in Nuralite, being encapsulated in asphalt, do not pose a health problem in normal conditions of use. Care must be taken if removing old Nuralite sheets and the disposal thereof.

One unique characteristic of this system was it "breathed" - the spot bonding allowed vapour to travel and Nuralite membrane allowed vapour to pass through it.

In the 1980's a variation of Nuralite was produced by British Uralite, called Nuraply 80. This system combined new roof membrane manufacturing techniques with the protective weathering surface finish used for Nuralite. Formed in 10m x 1m rolls, Nuraply was 2.5mm thick comprising a 1mm surface layer of Nuralite, laminated onto a 1.5mm thick body layer woven polyester reinforced bituminous felt.

Both systems performed very well and have been widely used on many iconic buildings throughout New Zealand, The Pacific Islands and Asia, as well as in Europe.



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#### Periodic Inspections & Repair

A periodic inspection program should be established by the building owner in conjunction with a suitably qualified Nuralite applicator.

The inspection should concentrate on “high risk” areas such as hatches, drains and around all roof top equipment, as well as a general inspection of the entire roof. Inspections should also include the examination of the roof deck if possible from the underside for evidence of leaks, deteriorated decking, structural cracks or movement and other deficiencies.

All welded joints, parapets, edges and flashings should be examined for evidence of damage, cracking, deterioration and moisture infiltration.



For repair, a Nuralite Applicator uses component products and special techniques, to achieve neat, unobtrusive reinstatement of the system. Repair work by non-Nuralite trained people should be avoided as the performance life of Nuralite and Nuraply roofs can be affected, and reduced, by random repair work by unskilled people.

*Example of a poor repair to a lap joint*

#### Annual Cleaning

Nuralite sheet and Nuraply 80 roll roofs were not coated when installed. Instead they were left to age to a natural matt grey colour. Dirt and mould deposits can darken the surface.

Once a year the roof should be swept clean and washed down with a hose, detergent or cleaner and broom. TO AVOID SURFACE DAMAGE DO NOT HEAVILY WATERBLAST NURALITE AND NURAPLY 80.

Particular attention should be paid to areas where ponding water, leaf build up and surface deposits are present.

The annual cleaning programme should preferably be performed in conjunction with a comprehensive periodic inspection.



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#### Rebirthing

Beyond the standard maintenance described above, Nuralite does not recommend overcoating the old membrane with an acrylic or liquid system.

The old Nuralite was not designed to be coated, so applying liquid systems may cause bubbles and blisters.

If the roof is very tired then it could be time for an entirely new roof.

#### ***Overlay the roof with a modern Nuraply system***

If the system has reached the end of its useful life and the membrane is still well adhered to the substrate, the recommended approach is to overlay the existing roof with a modern Nuraply system.

This approach uses the original roof as an underlay and saves disposing of the old membrane which could be an expensive exercise.

A suitably trained applicator needs to review the state of the current roof, paying particular attention to the condition of the membrane and the amount of moisture that may have been absorbed into the substrate. Substrates with high moisture levels will require drying out before being overlaid with a new membrane.

The membrane should be overlaid with a layer of Nuraply 3PV to allow the Nuralite membrane to continue to “breathe”. Depending on client preference the cap sheet may be either Nuraply 3P or Nuraply 3PM.

Nuralite has detailed literature on each of these options available at [www.nuralite.co.nz](http://www.nuralite.co.nz)

The installation steps are:

1. Clean the roof off with a wash of Nuracide followed by brushing with a hose and broom. Finish with a further application of Nuracide solution.
2. Conduct a thorough inspection of the roof and effect any necessary remedial work to ensure the old membrane is tidy and well bonded to the substrate.



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3. Overlay the existing membrane by priming with Nuraflux as required, and welding onto it a new layer of Nuraply 3PV.
4. Overlay the capsheet of Nuraply 3P with a coating or Nuraply 3PM
5. Install Nuravents at a rate of approximately one every 20 sqm

This new Nuraply system can then be issued with a standard 20 years Nuraply Materials Defect warranty, and associated workmanship warranty.

#### Ronald MacDonald House – Roof Overlay



*Roof in Original Condition*



*Cleaned and Primed*



*Measuring out new membrane*



*Completed overlaid roof*