## 1. GENERAL

This section relates to the application of NURAPLY TPO roofing systems as external membrane waterproof coverings,
- Fixed to substrate as a mechanically or adhesively fixed system
- Applied as a single layer roof system
- Used on a wide variety of roof structures including large flat surfaces and decks, however on decks it must be protected from foot traffic by tiles or timber on Nurajacks.
- Suitable for industrial, commercial and residential roofing applications
- The NURAPLY TPO system is suitable for potable water collection.
- Not suitable for prolonged exposure to extreme heat. Mechanical exhaust etc.

1.1 DOCUMENTS

Documents referred to in this section are:
BRANZ Good practice guide - Membrane roofing

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

1.2 SUPPLIER'S DOCUMENTS

Supplier's documents from Nuralite Waterproofing Ltd relating to work in this section are:
NURAPLY TPO BRANZ Appraisal 823
NURALITE Systems design and specification manual
NURALITE Waterproofing Limited: CAD drawings

Copies of the above literature are available from NURALITE Waterproofing Limited.

| | |
|---|---|
| Web: | www.nuralite.co.nz |
| Telephone: | 0-9-579 2046 Auckland |
| | 0800 Nuralite (0800 687 254) |

**Warranties**

1.3 WARRANTY - INSTALLERS

The NURAPLY TPO applicator warrants this work under normal environmental and use conditions against failure of materials, waterproofing and execution.

| | |
|---|---|
| 5 years: | By the NURAPLY TPO Applicator |
| From: | Date of completion of the application |

Provide this warranty on the installer's standard form.

1.4 WARRANTY - SUPPLIER

The NURAPLY TPO supplier to provide warranty for the system under normal environmental and use conditions against failure.

| | |
|---|---|
| 20 years: | Warranty period |
| From: | Date of completion of the application |

Provide this warranty on the NURALITE Waterproofing Limited Materials Performance Warranty form.

**Requirements**

1.5 NO SUBSTITUTIONS

Substitutions are not permitted to any specified system, or associated components and products.

1.6 QUALIFICATIONS

Roofing to be carried out by competent workers licensed by NURALITE Waterproofing Limited and experienced with NURAPLY TPO materials systems and specialist techniques. Provide on request evidence of experience prior to commencing work.

Contact Nuralite at www.nuralite.co.nz/Applicator_List for a listing of approved applicators.

**Performance**

1.7 TEST
Where practical, flood test all gutters with a minimum 50mm depth of water for 24 hours. Make good any lack of water tightness when the surface is completely dry. Not all applications can be flood-test checked. All gutters should be checked.

1.8 PERFORMANCE
Accept responsibility for the weather-tight performance of the completed NURAPLY TPO roofing system, including all penetrations through the roof and junctions with walls and parapets. In the event that there are issues relating to any aspect of this work, arrange for a meeting to resolve these issues. The following should attend:
- NURAPLY TPO roofing applicator
- NURALITE Waterproofing Limited representative
- Contractor
- Principal
- Principal's consultant(s)

*Refer to later EXECUTION clause on co-operating with others on the installation of elements which penetrate or adjoin the roofing system; including walls and parapets, skylights, sundry elements fixed through the roofing surface, service pipework, etc.*

1.9 AS APPROVED
"As approved" means that the materials are compatible with NURAPLY TPO roofing and are part of the system required by the roofing supplier for each specific location.

**2. PRODUCTS**
*Select the appropriate NURAPLY TPO system from SELECTIONS and then use the PRODUCTS and EXECUTION clauses required for that particular system.*

2.1 NURAPLY TPO SMOOTH BACK – WATERPROOFING MEMBRANE
A polyester fabric reinforced Thermoplastic Polyolefin (TPO) membrane for application onto both flat and sloping roofs. Using NURAPLY SOLVENT BASED 1121 contact adhesive or mechanically fastened in the overlap using DRILL-TEC membrane fasteners and plates, and termination bars. A useful membrane for waterproofing parapets or gutters. Used on all vertical faces.

2.2 NURAPLY TPO FLEECE BACK – WATERPROOFING MEMBRANE
A polyester fabric reinforced Thermoplastic Polyolefin (TPO) membrane for application onto both flat and sloping roofs. Using NURAPLY WB 181 bonding adhesive or mechanically fastened in the overlap using DRILL-TEC membrane fasteners and plates, and termination bars. A useful membrane for waterproofing parapets or gutters. Used on all concrete horizontal faces.

2.3 NURAPLY TPO UN 55 – DETAILING MEMBRANE
An unreinforced Thermoplastic Polyolefin (TPO) membrane for application in areas of detailing and waterproofing penetrations.

2.4 NURAPLY TPO FLASHING STRIP
NURAPLY SMOOTH BACK polyester fabric reinforced Thermoplastic Polyolefin (TPO) membrane strip which is welded to NURAPLY SMOOTH BACK membrane.

2.5 EDGE TRIM
To Nuralite Waterproofing Limited details and to suit the specific location. NURATRIM aluminium verge trim where detailed.

2.6 NURAPLY TPO OUTLETS
Complete range of accessories, detailing and roof security formed using Thermoplastic polymers for applications in combination with NURAPLY TPO SMOOTH BACK sheets. As detailed and rebated into surfaces as required by NURALITE Waterproofing Limited.

2.7 HOLDFAST FIXALL 220MS
HOLDFAST FIXALL 220MS Gun Grade, modified silicone elastomeric sealant for use behind termination bars, stainless steel clamps, drain bowls, and other areas between the substrate and membrane. The membrane must be primed with 696 Surface Activator.

2.8 NURAPLY TPO CUT EDGE SEALANT
For use on NURAPLY TPO cut edges.

2.9 NURAPLY TPO COATED ALUMIMIUM SHEET
For metal gravel stop and drip edges, metal base and curb flashing, sealant pans and scupper sleeves.

2.10 TOPCOAT FLEXSEAL LIQUID FLASHING
Is designed for use on metal, concrete, wood, copper, SBS, APP, EPDM substrates.

2.11 ACCESSORIES
Accessories as required including:

| | |
|---|---|
| Cleaner: | NURAPLY TPO Seam Cleaner |
| Adhesives: | NURAPLY SOLVENT BASED 1121 |
| | NURAPLY WB 181 |
| Sealant: | HOLDFAST FIXALL 220MS |
| Sealant: | NURAPLY TPO CUT EDGE SEALANT |
| Cable Duct: | NURALITE Goose Neck |

**3. EXECUTION**

**Conditions**

3.1 GENERALLY
Work and materials to BRANZ Bulletins 345 and 346, BRANZ Good practice guide - Membrane roofing, and to NURALITE Waterproofing Limited installation instructions.

3.2 STORAGE
Take delivery of rolls undamaged and include for site handling facilities where required. Store rolls horizontally only, and no higher than two layers; one on top of the other. Provide dry storage for all products. Stack off the ground on a level surface and with accessories. Keep all adhesives and sealant warm, never allow them to freeze.

3.3 LAYOUT
If not detailed on the drawings, confirm the layout to suit site conditions and for the performance of the NURAPLY TPO system.

3.4 WEATHER
Lay NURAPLY TPO membrane in fair weather, with ambient air temperature no less than 7°C.

3.5 PRELIMINARY WORK
Ensure that preliminary work, including formation of falls, flashing rebates, grooves, ducts, and outlets rebated to levels, is complete and properly constructed to enable the system to work as intended. This work and the substrate to be smooth, clean and dry.

3.6 ACCEPTANCE OF SUBSTRATE
Confirm that the substrate, including sumps, rebated outlets and projections, will ensure NURAPLY TPO work of the required standard. Ensure the substrate is smooth, clean and dry and falls on roofs are 1 in 30 minimum, 1 in 40 minimum for decks and 1 in 100 for gutters.

3.7 PLYWOOD SUBSTRATE

Plywood to be a minimum of 17mm thick (21mm on decks) and complying with AS/NZS 2269, minimum CD structural grade with the sanded C side upwards. Treated H3 with waterborne CCA treatment and kiln dried after treatment. Lay with staggered joints (brick bond) with all edges of the sheets fully supported. Plywood grain across the line of supports below. Fix with 10 gauge stainless steel countersunk head screws with a no gap between all sheets. Fix at 150mm centres on edges and 200mm in the body of the sheets.

Plywood and the timber substructure to have a maximum moisture content of 20% when the membrane is installed. Fillets are not required with NURAPLY TPO installations.

3.8 CONCRETE SUBSTRATE

Ensure wood float concrete substrate has been allowed to cure for at least 28 days before commencing application. Prepare surface, including vacuum cleaning and patching with NURAPATCH as necessary to leave smooth, clean, dry and free of debris.

3.9 MOISTURE ABSORBENT SUBSTRATE

Cover a moisture absorbent substrate and ensure that the base is kept covered and dry until over laid.

**Application - NURAPLY TPO membrane system**

3.10 GENERAL

The installation of this membrane system is limited to approved NURAPLY TPO applicators only. Refer to the NURAPLY TPO Roofing Membrane Installation Manual for the correct procedures.

3.11 SET-OUT

Neatly set out rolls starting at the lowest point of the roof. Run rolls perpendicular to the roof pitch depending on the most efficient arrangement. Pre-plan the work to keep the number of membrane laps to a minimum. NURAPLY TPO rolls to be relaxed at least 10 minutes prior to installation.

3.12 ADHERRING THE NURAPLY TPO Smooth - Back MEMBRANE WITH NURAPLY SOLVENT BASED 1121 contact adhesive.

Unroll the NURAPLY TPO SMOOTH BACK over the prepared substrate and fold back approximately half its length. Using a plastic core medium nap paint roller at a coverage rate of 1.5m2 per litre per finished surface. (includes coverage on both membrane and substrate). Once the correct adhesive tack has been achieved carefully roll the NURAPLY TPO into the coated surface and roll with water filled roller or soft bristled broom. Fold back other half of the roll of NURAPLY TPO and repeat the procedure.
At upstands secure the NURAPLY TPO SMOOTH BACK membrane with DRILL-TEC membrane fasteners and plates or termination bars in accordance with Nuralite details.

3.13 ADHERRING THE NURAPLY TPO Fleece - Back MEMBRANE WITH NURAPLY WB 181 bonding adhesive.

Unroll the NURAPLY TPO FLEECE BACK over the prepared substrate and fold back approximately half its length. Using a sheepskin roller at a coverage rate of 2.8m2 per litre horizontal surface only. Once the correct adhesive tack has been achieved carefully roll the NURAPLY TPO into the coated surface and roll with water filled roller or soft bristled broom. Fold back other half of the roll of NURAPLY TPO and repeat the procedure.

3.14 LAYOUT OF ADDITIONAL SHEETS

Unroll the next roll of NURAPLY TPO ensuring the end laps are staggered. Where no selvedge is provided, butt-join the sheets and cover joint with a 200mm minimum wide strip of Smooth-backed membrane. Laid equidistant over the joint. Hot air weld all laps into position. It is preferable to have all laps facing down the slope, but this is not achievable in all situations. Reverse laps are acceptable when using NURAPLY TPO.

3.15 WELD JOINTS

Heat fuse joints a minimum width 40mm using either an automatic welding machine or using hand welding techniques. If hand welding follow the following steps:

TACK WELD- The 10mm tack weld prevents movement of the overlap.

PREWELD- The pre-weld acts as a continuous air trap, ensuring minimal heat loss during the final weld stage. Always roll the pressure roller fully across the seam. A distance of 20mm should be kept between the roller and nozzle. Position the welding nozzle a minimum of 40mm from the overlap allowing for a 40mm lap to remain once welded.

FINAL WELD - The final weld ensures that the overlap is watertight. It must be 30mm min and should leave a small bleed at the face of the joint.

NOTE – all welds should take place once the membrane has bonded with the adhesive, If the membrane is contaminated or been exposed for more than 12 hours it must be wiped down with NURAPLY TPO Seam Cleaner before welding.

3.16 SEAM CHECK

The seams are to be checked once they have completely cooled. Seams are checked using an approx 5mm wide probe with rounded edges.

A seam check is not a leak test but will help to identify weak welds. All cut edges are to have NURAPLY TPO CUT EDGE SEALANT applied or feathered out using heat and a Penny roller.

3.17 UN – 55 T-JOINT COVER PATCHES

Must be heat welded to all T joints.

3.18 PENETRATIONS

Form mould, weld and flash all upstands, downturns and penetrations to NURALITE Waterproofing Limited details including raised, anti-ponding water deflectors on the upside of penetrations.

3.19 MOVEMENT JOINTS

Form and weatherproof movement joints as designed to NURALITE Waterproofing Limited details.

3.20 JUNCTIONS

Check that adjoining walls and parapets are prepared ready for the installation of NURAPLY TPO roofing. Confirm that openings have been prepared ready for the installation of skylights and other penetrations through the roof.

Required work includes the following:

- Roofing installation neatly finished to all sides of openings and to all wall and parapet junctions.
- Installation of flashings (those required to be installed prior to installation of penetrating elements and/or wall linings).

Recommended practice on parapets is to apply NURAPLY TPO roofing up across the top and down the outside face at least 70mm.

**Finishing**

3.21 ACCESS BOARDS

Provide access boards for later operations and remove when no longer needed.

3.22 FOOT TRAFFIC

Do not allow construction foot traffic on the NURAPLY TPO installation after laying to avoid dirt and damage to the surface.

3.23 ACCEPTANCE

Arrange for an inspection of the completed work. Protect and maintain roofing until completion of the contract works.

3.24 SUBSEQUENT WORK
Make good any covering cut or deformed by later work. Making good to take the form of inserting a new whole or part infill sheet to maintain the appearance of the covering as originally laid.

**Completion**

3.25 CLEAN UP
Clean up as the work proceeds.

3.26 LEAVE
Leave work to the standard required by following procedures as specified and to NURALITE Waterproofing LIMITED details.

3.27 REMOVE
Remove debris, unused materials and elements from the site.

4. **NURAJACKS**
A Tile/Paving or Timber Decking support system that is height adjustable and includes a self-levelling head to automatically compensate for the deck gradient or any difference in the level of the substrate.
Available in the following height ranges:

| | |
|---|---|
| Nurajack 0 | 28-38mm |
| Nurajack 1 | 37.5-50mm |
| Nurajack 2 | 50-75mm |
| Nurajack 3 | 75-120mm |
| Nurajack 4 | 120-170mm |
| Nurajack 5 | 170-215mm |
| Nurajack 6 | 140-230mm |
| Nurajack 7 | 185-275mm |
| Nurajack 8 | 235-325mm |
| Nurajack 9 | 205-345mm |
| Nurajack 10 | 250-385mm |
| Nurajack 11 | 300-400mm |
| Nurajack 12 | 270-455mm |
| Nurajack 13 | 315-500mm |
| Nurajack 14 | 365-550mm |

Available with two different head configurations:
1. Tile Head
2. Joist Head

4.1 NURAJACK STAR.T
A Tile/Paving or Timber Decking support system with a fixed head that is adjustable from 8mm to 15mm. With addition of Nurajack Star.B, the Nurajack Star.T can be increased in height by an additional 5mm. Up to 3 Star.B bases can be used to achieve a total of 30mm

4.2 NURAPADS
A Tile/Paving or Timber Decking support system that is of a fixed 12mm height. Commonly used on small decks or where there is insufficient space between the internal floor level and the deck to accommodate the NURAJACK system.

4.3 NURAJACK SHIM
A shim available in 1mm, 2mm & 3mm. Suitable for levelling Nurapads or when laying variable thickness stone on Nurajacks.

4.4 NURALITE CLADDING SPACERS
A self-adhesive conical rubber grommet that separates the tile/paver from the opposing cladding/joinery. Available in 5mm, 10mm or 14mm thickness.

4.5 NURAJACK ADJUSTMENT KEY
Adjustment tool for adjusting the Nurajacks from above the tiled/paved surface.

4.6 NURAJACK ACOUSTIC/ISOLATION PAD
Made from either polypropylene or EPDM the Acoustic / Isolation pad acts as an interface between the Nurajack and a membrane (if required by the membrane manufacturer). The Acoustic / Isolation pads add to the acoustic performance of the Nurajack, dampening the noise of footfall between building levels.

4.7 QUANTITIES
Use NURALITE's Quantity Calculator on www.nuralite.co.nz or www.nurajack.co.nz to determine the number of NURAJACKS required. The number required is a function of the deck dimensions and the size and structure of the tiles.

**EXECUTION**

**Conditions**

4.8 STORAGE
Take delivery of jacks and confirm quantities are as documented.

4.9 LAYOUT
If not detailed on the drawings, confirm the layout to suit site conditions. Confirm with the Tile or Paver supplier or architect to determine if additional supports are required under the middle or along the side of the chosen tile or paver or joist.

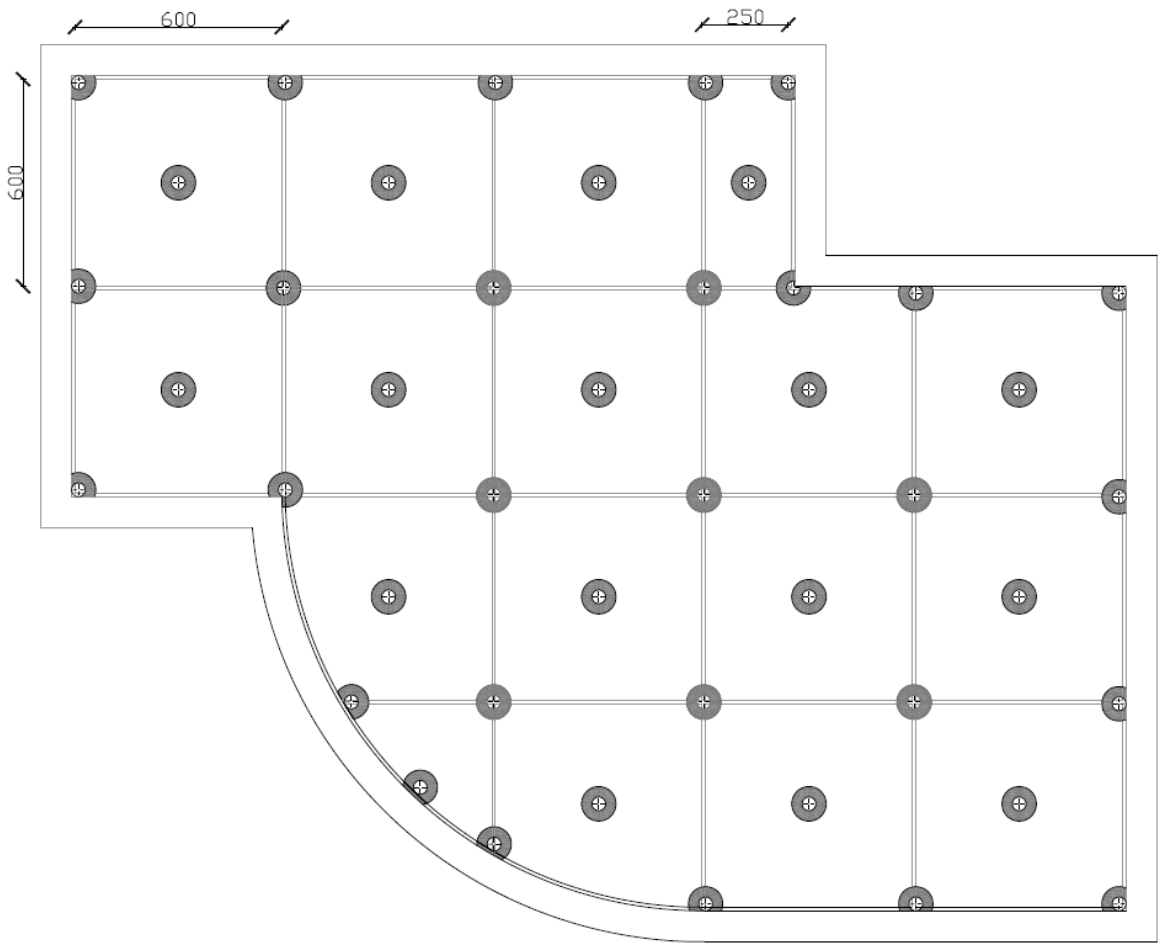
**Installation – Tiles or Pavers**

4.10 ACCEPTANCE OF SUBSTRATE
Confirm with the builder that the substrate has been completed. In particular the waterproofing membrane must be certified as being watertight.

4.11 COMMENCEMENT
Start installation in one corner of deck.
Lay paver on supports and adjust heights until the paver is at the required level.
For installation at a corner, remove all fins and slide NURAJACK in under paver. If adjacent to a side-wall, remove two spreader fins and install with fins perpendicular to the wall.

Use a Nuralite Cladding Spacer to brace the paver against the cladding to ensure the paver cannot move around.

THIS DRAWING IS INDICATIVE ONLY AND BY NO MEANS COMPREHENSIVE




*If required by the Paving Supplier place an additional NURAJACK under the centre of the paver or tile.*

**Finishing**

4.12 CONTINUATION
Place two NURAJACKS parallel to the installed ones and adjust to the approximate required height. Lay paver on NURAJACKS and fine tune so that the paver is completely stable.

If installing a cut tile/paver against a structure, the Nurajack base can be cut down as far as the thread to ensure the cut tile has support at its edge. This will stop the tile/paver from being unstable.

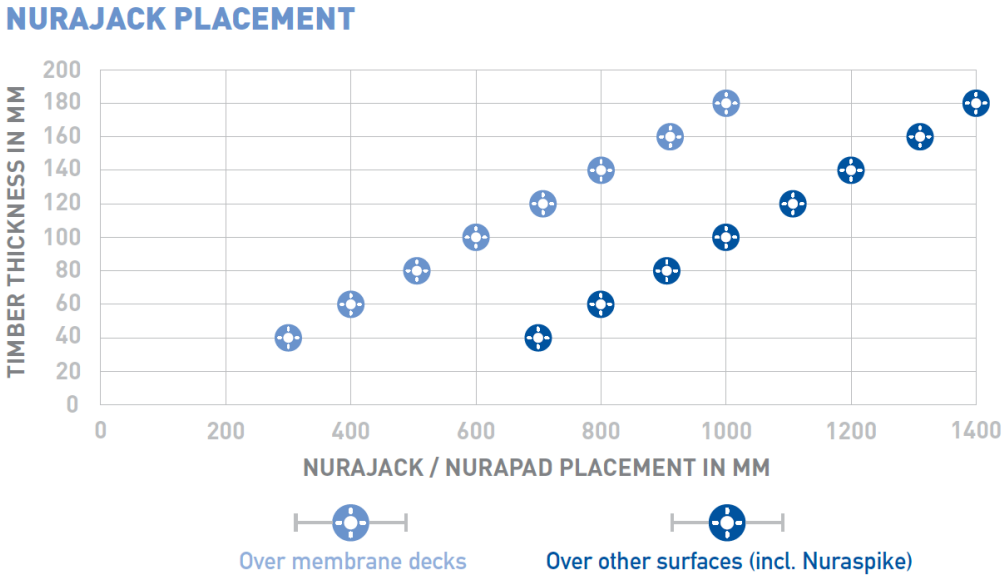
Remember to brace the pavers against the cladding by using a Nuralite Cladding Spacer. Failure to do this will mean the deck may become loose and unstable.

Repeat the process until all pavers are installed.

4.13 ACCEPTANCE
Arrange for an inspection of the completed work.

**Nurajack Installation with timber overlay**

4.14 COMMENCEMENT
Place the Nurajacks directly on to the laying surface. The distance between them will depend on the supporting joist (timber or aluminium), the joist depth and the decking planks' loading capacity. See the below Placement Graph:




4.15 CONTINUATION

Lay the joists on to the paving supports. In the case of natural wood joists, fix them to the Nurajacks by using self-drilling 8mm stainless steel screws. Pay attention especially when Nurapads, SE0, SE1 and SE2 Nurajacks are used, in order to avoid any screw exiting from the back of the pedestal and potentially damaging waterproofing underneath.

Adjust the heights of the Nurajacks so that the joists are completely level. Place the planks on the joists in the opposite direction. Fix the planks using stainless steel screws or clips. Leave a 2-4 mm. space between each plank for water drainage.

On smaller decks, Nurapads may be used to separate the deck from the membrane. The joists can be tapered in the opposite direction to the fall of the deck to produce a level timber deck surface.

**Completion**

4.16 CLEAN UP

Clean up as the work proceeds.

4.17 LEAVE

Leave work to the standard required by following procedures as specified and to NURALITE Waterproofing LIMITED details.

4.18 REMOVE

Remove debris, unused materials and elements from the site.

4.19 DOCUMENTATION

Complete “Project Signoff Checklist” at the end of this specification. Retain all documentation and project photos for later reference.

**5. SELECTIONS**

Substitutions are not permitted to the following, unless stated otherwise.

5.1 NURAPLY TPO SYSTEM

| | |
|---|---|
| Location: | ~ |
| Brand: | NURATHERM INSULATED MEMBRANE ROOF SYSTEM |
| Vapour layer: | NURAPLY ALU |
| Insulation: | ENERTHERM INSULATION (Zone 1 & 2 - 70mm, Zone 3 - 80mm minimum) |
| First layer: | NURAPLY TPO |
| Colour: | LIGHT GREY |

**Finishes**

| | | |
|---|---|---|
| 5.2 | ACCESSORIES<br>Location:<br>Details: | <br>~ |
| **5**.3 | Accessories | NURAJACKS |

# Safe2Torch Check List
# (Prior membrane Installation)

It is recommended that anyone preparing a specification or applying a membrane should complete this check sheet and if any boxes are ticked avoid the use of a direct torch-on application in these areas.

Project Name: _____

Form Completed by: _____

Company: _____

Area ready: _____

Applicator _____

**Decks and Insulation**

Timber / Other combustible materials. ☐

Metal deck (refurbishment) where old materials may accumulate in the troughs. ☐

Insulation – unless specifically designed and tested for use with torch-on membranes. ☐

**Details**

Expansion joints with voids and/or combustible fillers. ☐

Detail under all abutments to roof tiles, slates and roofing iron. ☐

All timber substrates. ☐

Change in level details with fixed timber or plastic facias and/or all soffits, gutters or restricted spaces. ☐

Windowsills and frames, door sills, louvered vents, air ducts, intakes and outtakes. ☐

Junctions to existing waterproofing with flammable insulation/deck materials. ☐

Vulnerable plastic curbs, domes, pipes and the like. ☐

Working when in close proximity to potentially flammable coatings and shrinkwrap. ☐

Cladding and roofing underlays. ☐

Working in close proximity to stored chemicals, flammable liquids and explosives. ☐

**Existing weathering components with concealed flammable materials.**
**These include:**

Timber, DPC or sarking membranes beneath fixed metal capping systems. ☐

Existing kitchen extraction plant coated in oils or fats. ☐

Flammable wrapping to trunking/ducting/bitumen sheet rolls and roll inserts. ☐

Timber cladding. ☐

Existing metal or plastic copings/capping's. ☐

Notes

Signed: Date:

# Nuraply TPO Concrete Substrate Readiness Checksheet

Project Name: _____

Form Completed by: _____

Company: _____

Area ready: _____

Applicator _____

Fax Number: _____

Structure complies to the New Zealand Building Code and concrete complies with NZS 3101 (2006) ☐

Concrete cured with curing membranes removed. Concrete substrate contains less than 5% moisture content. ☐

Surface smooth and clean with falls as per plan. ☐

Cavities and cracks filled with Nurapatch, flushed off and cured. ☐

Concrete surface firm with any soft concrete or laitance removed. ☐

Ponding areas removed. ☐

Roof drains and overflow recesses formed to fit rebated outlets. ☐

If terminating into a chase, pre-form the chase and ensure it's Straight and 20mm deep. ☐

Plinths formed for any exterior ventilation, solar panels or fixtures. ☐

Construction joints incorporated in slab as per designers specification. ☐

Substrate clean, firm and suitable condition for laying the Nuralite systems. ☐

*When substrate ready complete this form and fax to the* Nuralite *applicator*

Notes

Signed by main contractor (builder) Date:

# Nuraply TPO Roof Readiness Checklist on Plywood Substrate

Project Name: _____

Form Completed by: _____

Company: _____

Area ready: _____

Applicator _____

CCA H3.2 treated (Not LOSP) plywood sheets used, 17mm thick for roofs, 21mm thick for decks. ☐

Plywood sheets supported by joists and nogs at maximum 400mm centres in both directions, unless specified otherwise. ☐

Sheets stagger lay (fully offset) with the face grain at right angles to the primary supports ☐

All sheet edges supported by nogs, fixed 150mm on edges and 200mm through girth, edges butt-jointed with no gaps except at abutments. ☐

Sheets glued in place and then fixed using 316 grade Stainless Steel 10 gauge countersunk screw fixings. ☐

All decks and gutters have correct falls once installed. ☐

Rainwater outlets and overflow recesses formed to fit outlets rebated into the surface. ☐

5mm clearances from all abutments, 5mm radius to all exposed edges. ☐

Sharp edges and lips removed and cavities filled. All joints flush. ☐

Substrate dry(20%), clean, firm and suitable condition for laying . ☐

Notes

Signed: Date:

# Nuraply TPO Checklist for Project Signoff

Project Name: _____

Form Completed by: _____

Company: _____

Area: _____

Applicator: _____

Products Used: _____

| Project Review | Comply Y/N/Na | Comments |
|---|---|---|
| Substrate readiness form completed | | |
| Gutters correctly and neatly installed, particularly the internal corners | | |
| Roof drains & overflows installed to specification and watertight | | |
| Adhesive used in correct quantities. Membrane fully adhered to substrate with no evidence of bubbles or lifting. | | |
| Correct quantity of fastenings used if Mechanically fastened. | | |
| All laps fully welded and tidily appearance. | | |
| Overall installation free of wrinkles, creases and splits | | |
| All penetration details completed to specification including under/overflashing | | |
| All non standard details installed as per pre-approved specifications (attach approved drawing) | | |
| Any damage to membrane repaired to specification. | | |
| Gutters correctly and neatly installed, particularly the internal corners | | |
| Roof drains & overflows installed to specification and watertight | | |

**Remedial action required:**

Signed: _____
Date: _____

# NURAPLY TPO MAINTENANCE PROGRAMME

To get the longest life from a roof it must be regularly inspected & maintained.

When first installed there should be inspections each spring and autumn, to enable the effects of annual extremes of weather to be checked. Following that an annual program of roof inspection and cleaning should be established by the building owner as part of general building maintenance.

Roofs exposed to high levels of pollution or in close proximity to trees might require more frequent inspection.

Any inspection of a roof should include the interior of the building for signs of water penetration or condensation and for alterations, which may have affected the roof. Externally, abutting construction, which can affect the performance of the roof, should also be inspected.

## Annual Inspections & Cleaning

### Inspections

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. Parapets and edging should also be examined for evidence of cracking, deterioration and moisture infiltration.

### Damage

If damage is found on the roof surface it should be repaired immediately by an approved Nuralite Applicator. They will use NURAPLY TPO component products and special techniques to achieve neat, unobtrusive reinstatement of the NURAPLY TPO.

### Cleaning

Location, traffic level, effective drainage, and service use will dictate cleaning requirements. Sweeping clean followed by hose and broom washing of the NURAPLY TPO roof is recommended, not water blasting. If mould does appear it should be removed with a long-term mould killer such as Nuracide.

You may do this yourself or talk to your applicator if you would like them to include you in an annual program of inspections & cleaning.

## Five Year Authorised Service Checks

To maintain your warranty, every five years you must have an Approved Applicator visit to inspect the roof and ensure it remains in good condition.

The Applicator will thoroughly check the roof for signs of damage, water ingress or potential problems.

| | Applicator | Date | Signed |
|---|---|---|---|
| **Inspection 1** | | | |
| **Inspection 2** | | | |
| **Inspection 3** | | | |
| **Inspection 4** | | | |

## INSPECTION CHECKLIST

1) Surface:
   a) accumulation of silt or vegetation;
   b) areas of ponding.

2) Membrane:
   a) blistering, ripples, rucking, detachment;
   b) cracks, splits, tears, punctures, indentations;
   c) pimpling, pitting, crocodiling;
   d) pulled, unbonded laps;
   e) softening of surface.

3) Substrate:
   a) depressions in surface;
   b) lack of support/soft support to membrane.

4) Rainwater outlets:
   a) blocked;
   b) not bonded to membrane (if bonded type);
   c) clamping ring loose (if clamped type).

5) Upstands:
   a) damaged/detached flashings;
   b) sagging membrane;
   c) splits, cracks, tears;
   d) membrane unsupported at junction;
   e) unbonded laps;
   f) blistering.

6) Eaves/verge:
   a) unbonded or peeling membrane;
   b) cracking/splitting or strain in membrane;
   c) displacement or signs of movement of edge trim.

7) Movement joints, upstand type:
   a) unsealed capping joints;
   b) dislodged flashing/capping;

8) Abutting construction:
   a) parapet copings cracked, loose, unsealed;
   b) damaged damp-proof course, lack of continuity in damp-proofing;
   c) open joints, cracking in construction;
   d) loose/missing pointing.

9) Roof fixtures and penetrations:
   a) damaged/missing flashings;
   b) balustrade/vent pipe, loose or missing flashing or collar;
   c) plant plinth damaged/missing flashing;
   d) lightning conductor tape, fixing loose