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Construction	Mar 2013	NCP	oct 2010	3 pages

WATERPROOFING MEMBRANES

Specification for PREVENTATIVE MAINTENANCE

Soprema Roofing Membranes require regular inspection and maintenance to ensure long life and durability.

- 1.0 Torch on roofing
- 2.0 Torch-on buried garden-type membranes
- 3.0 Tanking Systems (below ground)

1.0 Torch On Roof membranes

AGGREGATE FINISHES

Regularly examine roofing for cuts, rips or physical damage caused by traffic or other processes. If damaged, repair using methods below. Ensure plant room equipment on the roof is minimised and installed to best practice. Many roof leaks are through roof penetrations. Examine for chip loss. If chip loss is extreme, replace by embedding more chips in Curnoir. Apply Curnoir at 3m²/litre and sprinkle chips (of the appropriate colour) into the wet Curnoir to excess. They will self bond over time. Examine for lichen growth etc. If excessive, apply a proprietary mould and lichen cleaner at the appropriate strength with a garden sprayer. Never waterblast membranes.

Ensure all gutters are swept clean and smooth and ensure the drain inlets are clear and bird-proof covers are installed. Ensure roof vents are well fixed and stable. Nuplex provide proprietary roof vents and drain outlets.

METAL FINISHES (EG: COPPER, ALUMINIUM, STAINLESS STEEL MEMBRANES)

Examine in similar ways to aggregate finishes above.

SMOOTH FINISHES

These are normally smooth or lightly sanded finishes that are overcoated with Cural bituminous/aluminium coating or Flexiglaze

Examine at regular intervals for wear. If necessary recoat the Cural with two coats of Cural at 400 grams/m²/coat. It is anticipated that this recoating is required at 10 year periods.

Examine all gutters, vents and drains as in aggregate finishes above. Severely deteriorated surfaces may be renovated using the Curnoir/Cural system. Refer to the full data sheet for information.

DAMAGE

Damage, wear, rips, buckling of the membrane may occur due to structural movement. A number of methods have been established to remedy these. **The main method** for repair is removal of the membrane and re-installing the full system. The repair is overlapped onto the old.

Alternate small repairs

METHOD A – For small rips and tears

- Broom joint area with stiff brush to remove loose material.
- Clean well.
- Apply a heavy coat of Curnoir and imbed a 100mm wide strip of Nuplex reinforcing tape.
- Apply more Curnoir to fully cover the tape.
- Apply liberally Soprasun granules grey-green.

METHOD B – For full area coverage eg: drain bases

- Use as Method A above but use full width reinforcing tape to fully cover the affected area.

METHOD C – For larger cracks

- Broom joint area with a stiff brush to remove loose material.
- Apply Nuplex membrane primer at 4m²/litre to joint area.
- Apply Soprasolin tape (min 100mm) to primed area. Apply under the upper lap and under terminal flashings.
- Roll with hand roller.
- Apply a heavy coat of Curnoir.
- Liberally apply Soprema granules grey-green.
- Only use this method in dry, warm conditions.

METHOD D – For obvious buckling and cracking that indicates a continual expansion joint

- Broom area to remove loose material and clean well.
- Apply a 12mm PEF rod along the exact buckled area. Bond this to the surface using Bituthene Mastic. Allow to set up. This will act as a raised joint allowing expansion and contraction.
- Complete the laminate repair using Method A.
- If using as a gutter repair, do not allow this repair to impede the flow of water.

METHOD E – Simple repair for use on smooth surfaces

- Clean the area well.
- Apply Nuplex Membrane Primer at 4m²/litre.
- Apply a strip of Soprasolin tape of the required thickness.

Repair methods A through E are only options for different applications and mode of failure.

Replacement is normal.

Contact your Nuplex representative for advice.

2.0 Torch on Buried structure waterproofing membranes eg Jardin

a. Full buried Systems

These systems are rugged/durable double layer waterproofing membranes with an anti-root top layer.

No penetrations should be made through a buried garden membrane.

The garden membrane should have protection board directly against its face and on the base. Drainage at the drain inlet should be carefully provided.

Ensure the garden maintenance staff are trained in the nature of the waterproofing at the base of the garden. Sharp garden implements should not be used.

Inspections:

- Annually: inspect the top edge termination of the membrane above ground level. It should be cleanly into the chase or still firmly affixed behind the termination bar. Or alternatively it may be over the garden parapet and perhaps under stone capping. Inspect for any capping damage which may affect the membrane.
- Ensure the protection board is still sound and unbroken. The top edge should be visible.
- If garden disturbance is obvious, dig out the garden area and inspect the membrane and protection sheet. Replace if necessary.
- Ensure plants and trees are not growing to the point where strong roots may damage the system.
- Inspect for vandalism and obvious damage.
- Roof gardens must have drainage to prevent saturation. Inspect the drains so that they are unobstructed and obviously working. If the gardens are sodden it indicates that the drain is blocked. Remove the garden material and place better drainage materials at the drain inlet.
- Inspect for leaks and advise waterproofing maintenance staff of any issues.
- In the case of doubt, remove the garden material and inspect, repair or replace the membrane.

b. Membranes under ballast, stones pavers

In this instance pavers or stone ballast is laid loosely directly onto membrane. A polyethylene or fabric separating layer is optionally, but preferred, used in this instance (on top of the membrane). The stones or pavers are carefully laid onto this. Maintenance:

- Prevent mould, slime, plants from growing with regular spray treatments of plant or mould killers.
- Do not penetrate the paver or ballast layer.
- Do not allow solvent materials to penetrate the ballast and damage the membrane.
- Ensure all drains are maintained to prevent blockage and are free flowing.
- Manage the site over time with the understanding that a critical waterproofing product is beneath the pavers / ballast.

3.0 Tanking - Buried structure waterproofing membranes eg Bituthene 3000, Preprufe 160

These systems are flexible waterproofing membranes comprising numerous components including protection, vertical drainage and site drainage.

No penetrations should be made through a buried tanking membrane.

The membrane should have protection board directly against its face leading to the base. It should provide both protection and drainage. (Nuplex NPX).

Site drainage at the base should be carefully provided. (field drains; drainage coil, these should be installed with maintenance in mind. ie top and bottom ends exposed for flushing. The site should not fill with water.

Ensure the site / garden maintenance staff are trained in the nature of the waterproofing at the base of the wall. Sharp garden implements should not be used in this area.

Inspections:

- Annually: inspect the top edge termination of the membrane above ground level. It should be cleanly into the chase or still firmly affixed behind the termination bar. Or alternatively it may be over the garden parapet and perhaps under stone capping. Inspect for any capping damage which may affect the membrane.
- The soil level would have been designed to be below the membrane termination. Ensure this remains so.
- Ensure the protection board is still sound and unbroken. The top edge should be visible, is stable and still fully protecting the membrane from damage or UV.
- If garden disturbance is obvious, dig out the garden area and inspect the membrane and protection sheet. Replace if necessary.
- Ensure plants and trees are not growing to the point where strong roots may damage the system.
- Inspect for vandalism and obvious damage.
- Gardens must have drainage to prevent saturation. Inspect the drains so that they are unobstructed and obviously working. If the gardens are sodden it indicates that the drain is blocked. Remove the garden material and place better drainage materials at the drain inlet.
- Flush the drainage coil / field tiles at the base of the tanked wall to ensure the area free drains.
- Inspect for damage / leaks and advise maintenance staff of any issues.
Escalate serious issues immediately.
- In the case of doubt, remove the backfill material and inspect, repair or replace the membrane.
- Ongoing construction: ensure all parties are aware that a critical waterproofing membrane is below ground.

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