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PROCESS MAINTENANCE ADVICE

INDEX TORCH-ON MEMBRANES

Index torch-on modified reinforced bitumen membranes are manufactured by Index Building Products Spa of Italy, under strict Quality Control and European standards as denoted on their product technical sheets and in product appraisal certificates from leading authorities from around the world. Index membrane range is extensive.

Hitchins New Zealand Limited imports and markets the Index membranes in New Zealand and the Pacific Islands. We only import the top of the range products that are suitable for New Zealand building materials and systems, plus our environmental conditions.

Verification report by the Joyce Group confirms Index membranes comply with the Building Code E2 and B2 requirements. Currently a Product Appraisal is being carried out by a leading authority on the full range of Index membranes.

In keeping with the Code of Practice for Torch-On Membranes, Hitchins New Zealand Limited provided not only a schedule for maintenance servicing, but what is required by the Property Owner to ensure the Index torch-on reinforced bitumen membrane performs satisfactorily.

Hitchins provides this document, as maintenance of the Index modified reinforced membranes and finishing coats is important for their long term performance and appearance. Copy should be given to the main contractor and most importantly the Property Owner. Plus a copy also given to the installation staff so that they are aware of what is required of them when carrying out this maintenance work.

Index modified reinforced bitumen membrane system finishes can be plain (smooth) and coated with Index or Hitchins' product systems, or left as mineral finish. This maintenance advice covers Index membranes that are exposed for servicing.

Hitchins New Zealand Limited covers maintenance requirements briefly under their Product Performance Warranty this document covers this vital matter in greater detail.

1. Preventative Maintenance

The long-term performance of the Index torch-on membrane system installed on any building is reliant on the Property Owner implementing a good house-keeping or preventative maintenance programme.

The following are some of the requirements (though not necessarily all). Others are covered under various headings throughout the Code of Practice for Torch-on Membranes or in an Inspection Check List provided by the Main Contractor.

1.1. Checking

During and after other trades personnel work has been carried out on the building, to ensure no damage to the membrane or any potential water entry created. Call on the service of the membrane installer if required.

1.2. Clearing

Check gutters, sumps, drains, over-flows and corners for accumulated rubbish, leaves, branches, silt and plant-growth, then remove anything that can cause blockage of drain outlets, overflows and water build-up, ponding or flooding.

1.3. Cleaning

Recommended that the membrane surface be detergent scrubbed and washed down yearly at low pressure, to not only clean the surface but enable thorough inspection of the roof membrane. Atmospheric pollution build-up is harmful to the membrane coating.

1.4. Treating

Should any moss, mould or lichen infestation appear, treat with a recommended (by membrane supplier) solution and wash down at low pressure. Vital, if left the infestation would destroy the Index membrane or its coating finish.

1.5. Inspecting

The complete membrane surface, including gutters, sumps, drains, overflows flashings, penetrations, up-stands, etc to be thoroughly inspected at least yearly, any areas of concern noted, membrane installer or Hitchins New Zealand Limited advised and rectification work carried out.

1.6. Recoating

To ensure a coated Index torch-on reinforced bitumen membrane performs as required, clean, prepare and recoat every 5 years or at signs that the existing coating is deteriorating. To extend the performance of the membrane beyond 15-years, engage the Applicator to check, carry out any repairs that maybe required and recoat with a Hitchins' coating system.

1.7. Resurfacing

Eventually the Index torch-on membrane will require re-surfacing to provide further long term performance. Therefore after 15 years we recommend the Property Owner contact Hitchins New Zealand Limited who will carry out a full inspection, provide a written report with our recommendations.

2. Notification Work

The Property Owner is required to notify the membrane Applicator or Hitchins New Zealand Limited if they become aware of any of the following situations:-

- 2.1. Faults found in the membrane.
- 2.2. Mechanical damage to the membrane by building owner, occupier, visitor or other trades personnel.
- 2.3. Subsequent installation work, such as TV aerials, vents, air condition units, etc.
- 2.4. Building alterations or extensions.

Prompt notification is vital to not only rectify the problem, but to reduce any subsequent water ingress problems.

3. Maintenance Servicing

During the course of regular maintenance inspections the complete roof, gutter or deck surface should be systematically checked and any areas requiring attention should be noted. The following check-list could be used:

- 3.1. Surface condition - Check for accumulated rubbish, silt, leaves, branches and plant growth, including moss, mould or lichen infestation and the over-all condition of the membrane. Remove all rubbish, treat moss, mould or lichen infestation and water-blast clean.
- 3.2. Surface protection - Check that the surface protection layer is in satisfactory condition. i.e., no bare patches of mineral chip or peeling and badly oxidising paint film.
- 3.3. Flashings - Check all flashing are intact, fully adhered, not ruptured and functioning as required. Note any bad rippling, distortion or stress areas.
- 3.4. Up-stands - Check all up-stands are intact, fully adhered, adequately protected and functioning as required. Note any areas of distortion or stress.
- 3.5. Penetrations - Inspect the membrane around each penetration to ensure that the flashings are intact, not ruptured, adhering and performing as required.
- 3.6. Edge Trim - Check for suspect movement or stress areas, ruptures, delamination or displacement at junction places or adjacent surfaces.
- 3.7. Abutting construction - Check parapet wall and other adjacent structures flashing and/or linings for damage, rippling, distortion or areas of distress and cracking.

- 3.8. Expansion Joints - Check movement or expansion joint, up-stands flashing or parapet capping to ensure they are functioning as required.
- 3.9. Roof fixtures - Check all roof fixtures, fittings, flashings, collars etc are sound, not loose or suspect.
- 3.10. Substrate - Check for depressions and ponding created by deflection in substrate and investigate the cause.
- 3.11. Over-lap welds - Check all over-lap welds in the membrane and flashing to ensure they are fully bonded to the membrane, water-tight and functioning as required.
- 3.12. Drainage - Check all gutters, sumps, drain outlets, overflows and rainwater discharge points to ensure they are clear of rubbish and clean. Inspect all welds and flashings, note any rippling, distortion or stress areas.
- 3.13. Sealants - Inspect all sealants to ensure they are not faulty and performing as required. Note any areas of concern.
- 3.14. General surface - Examine the whole of the general roof area and note any areas of stress, bubbling or blistering, de-lamination from the substrate or within the torch-on membrane system and note the extent and type of defects.
- 3.15. Inside building - Check the interior of the building for any staining or dampness signs that would indicate moisture ingress or condensation.

The inspection must be thorough, any areas of concern recorded and the installation Applicator or membrane Supplier; Hitchins New Zealand Limited is to be advised promptly. It is recommended that an experienced membrane Applicator be engaged (if required), as they will know how to carry out a thorough inspection and the potential problem areas to look for.

The original Applicator or another qualified, experienced Applicator should be engaged to carry out the required repair work in keeping with good sound trade practices and Hitchins New Zealand Limited recommended procedures.

4. Re-coating

If the Index Torch-on modified reinforced bitumen membrane has been previously coated or left uncoated to weather and settle down, Hitchins New Zealand Limited recommend the following work be carried out;

- 4.1. Apply Hitchins' Moss and Mould Killer solution; leave two days and water-blast clean.
- 4.2. Carry out a full and detailed inspection of the membrane and flashings.
- 4.3. Carry out repairs required to ensure complete water tightness.
- 4.4. Apply Hitchins recommended coating system to the desired colour.

5. Re-surfacing

Eventually the Index torch-on membrane will require re-surfacing to provide further long term performance. Therefore the following is a guide summary of work involved and procedure:-

- 5.1. Apply Hitchins' Moss and Mould Killer solution; leave two days and water-blast clean.
- 5.2. Carry out a full and detailed inspection of the membrane and flashings
- 5.3. Carry out repairs, corrective and surface preparation work required.
- 5.4. Install the recommended Index membrane system with the required flashings.
- 5.5. Mineral finish left as is and plain membrane finished over-coated for protection from UV.

Hitchins New Zealand Limited provides building inspection service, reports, recommendations and project specifications, plus full supporting literature and technical support.

Hitchins New Zealand Limited provides promotional brochures, technical dataspecs, installation instructions and MSDS on Index membrane systems as well as Technical Representation support during the project

NOTE

Preventative maintenance is good house-keeping and is very important to ensure your building membrane retains its decorative appearance and performs as required.

It is the Property Owner's responsibility to monitor and ensure preventative maintenance procedures are carried out fully. Leasing or subletting of the building does not diminish this responsibility.

Hitchins New Zealand Limited recommends engaging qualified firms under Maintenance Service Contract to carry out the above.

This maintenance advice covers only the Index membranes that are finished in mineral or coated and are left exposed for future maintenance servicing. Any future over-surfacing, sheathing etc must be with the approval of Hitchins New Zealand Limited and the adherence to their instructions.

Finally, New Zealand Limited recommends that upon the sale of the property, this Torch-on Membrane Maintenance Advice be given the new owners, thus ensuring they too are aware of the importance of good in-house maintenance.