

# Viking Enviroclad

Version: EV-PTS-V1.1

## Product Description

Enviroclad is a single ply, polyester fabric reinforced, thermoplastic polyolefin (TPO) waterproofing sheet membrane for flat or pitched roofs and decks. It can be applied as a fully bonded or mechanically fixed system. It contains no liquid plasticizers and does not contain chlorine nor chlorine-containing ingredients. Enviroclad TPO membrane, reinforced and non-reinforced, is 100 percent recyclable during the production process, resulting in 100 percent reuse of recycled product during manufacture.

Enviroclad complies with E2 as an Alternative Solution, supported by CodeMark certification and BRANZ appraisal.

Enviroclad offers NZs widest range of colour options enabling the designer's greater aesthetic options and compliance with local council's covenants. Enviroclad is suitable for collection of Potable water, provides High UV resistance. Heat-welded, strong vulcanised seams provide maximum durability and watertightness. Enviroclad has high puncture resistance (from the polyester mesh scrim) With elongation properties that forgive building movement. Savings in power and construction costs can be made by incorporating Enviroclad with a Viking WarmRoof or WarmSpan solution.

Enviroclad rolls are wider and longer (up-to 4.88m wide x 30.4m long = 148 m<sup>2</sup>) than traditional membranes (of 7.5m<sup>2</sup> - 25m<sup>2</sup>), meaning fewer seams on the finished roof. (On some smaller roofs eliminating all laps) Enviroclad Weldable Walkway-Roll is available which offers further protection and durability to the roof surface, This Grip-tread TPO Walkway Roll is welded directly over the Enviroclad for safe traffic access when the roof or plant is being inspected or serviced providing clear escape routes from the building. There are many useful proprietary accessories for Enviroclad that ensures NZs most complete water-tight roof system.

Enviroclad is used for both commercial and residential buildings. It can be applied over an existing surface as a re-roof solution with Enviroclad FBS (Fleece-Backed System) or RhinoBond Induction welding technology. It is suitable for low-slope and pitched roofs, internal gutters, parapets, balconies / decks, and roof gardens. Enviroclad has no limitations within New Zealand. It may be specified in all Climate Zones as defined in NZBC H1/AS1 and all Exposure Zones as defined in NZS3604. Viking Roofspec advise that all membranes (other than Dec-K-ing) also incorporate a floating deck, timber or pavers on pedestals. LINK: Refer Viking Buzon Screwjack Pedestals.

Roll length: 30.4m x widths of 4.88m, 3.660m, 3.05m and 2.44m (3m width sold cut to length). Enviroclad is manufactured by Carlisle-Syntec Inc. in the US and has many environmental benefits. For a full list of these benefits, see the 'Environmental' section of this statement.

## Purpose and use

Viking Enviroclad Roofing and Deck Membrane System has been assessed as a roof and deck waterproofing membrane on buildings within the following scope:

- The scope limitations of NZS 3604:2011 and NZBC Acceptable Solution E2/AS1, Paragraph 1.1; or,
- The scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1 with regards to building height and floor plan area when subject to specific structural design; and,
- Situated in NZS 3604:2011 Wind Zones, up to, and including Extra High; and,
- With substrates of plywood, suspended concrete slab or PIR Polyiso Insulation Scope of Enviroclad Roofing and Deck Membrane System has also been assessed for use as a roof and deck waterproofing membrane on specifically designed buildings within the following scope.
- Subject to specific structural and weathertightness design situated in wind pressures up to a maximum design differential ultimate limit state (ULS) of 6.5kPa; and,
- With substrates of plywood, SIP's or suspended concrete slab.
- With the weathertightness design of junctions for each specific structure being the responsibility of the building designer.

**Conditions**

1. The product is suitable for use as a roof and deck waterproofing membrane on buildings within the scope limitations of NZS 3604:2011 and NZBC Acceptable Solution E2/AS1, Paragraph 1.1, or NZBC Acceptable Solution E2/AS1, Paragraph 1.1 with regards to building height and floor plan area when subject to specific structural design.
2. The product is suitable for use in NZS 3604:2011 Wind Zones, up to, and including Extra High.
3. The product can be used on substrates of plywood, suspended concrete slab, compressed fibre cement board, PIR Polyiso Insulation, Cover boards or SIP's, subject to specific structural and weathertightness design.
4. The weathertightness design of junctions for each specific structure is the responsibility of the building designer.
5. The product will assist with meeting the provisions of the New Zealand Building Code clauses B1 and B2, provided it is employed in accordance with the supplier's installation and maintenance requirements.
6. The product is suitable for use in all Climate Zones as defined in NZBC H1/AS1 and all Exposure Zones as defined in NZS3604.
7. The product should be used with a traffic floating deck surface on Buzon Pedestals.
8. The product has many proprietary accessories available to ensure a complete water-tight roof system.

It is important to note that these conditions must be carefully considered and followed to ensure the product performs as expected and meets the building code requirements. The building designer and installer should refer to the technical statement for specific installation and maintenance requirements to ensure a successful project outcome.

**Compliance with the New Zealand Building Code**

The product will, if employed in accordance with the supplier's installation and maintenance requirements, assist with meeting the following provisions of the building code

- Clause B1 Structure: Performance B1.3.1, B1.3.2, B1.3.3, B1.3.3(a), B1.3.3(c), B1.3.3(e), B1.3.3(h), B1.3.3(m), B1.3.3(p), B1.3.4, B1.3.4 (b), B1.3.4(c), B1.3.4(d), B1.3.4(e)
- Clause B2 Durability: Performance B2.3.1, B2.3.1(b), B2.3.2, B2.3.2(a)
- Clause E2 External moisture: Performance E2.3.1, E2.3.2, E2.3.7, E2.3.7(b), E2.3.7(c)
- Clause F2 Hazardous building materials: Performance F2.3.1

**Design, construction, and installation instructions**

Product specification and incorporation of Viking Enviroclad into the building design shall be carried out by a designer/ architect/engineer or a building professional who:

- Is qualified to design the buildings covered under the 'Scope' of use of this product.
- Has ready access to the technical specifications including installation details and standards referenced in both the BRANZ Appraisal No.656 and CodeMark certificate GM-CM30058 where the design limitations are outlined for the scope of this PTS.

Enviroclad is supplied as a complete system with proprietary heat weldable accessories to deal with roof penetrations including internal and external corners and pourable pockets.

**Maintenance requirements.**

The membrane roof system must be regularly checked (twice annually) for damage, rubbish, and debris particularly around drainage points. Damage, such as small punctures and tears must be repaired as recommended by Viking Roofspec Ltd. Special care must be taken when inspecting the membrane roof systems to ensure the continuing prevention of moisture ingress, and repairs must be undertaken when required. Drainage outlets must be maintained to operate effectively.

Refer to maintenance care guide for specified membrane:

- Enviroclad: [https://www.vikingroofspec.co.nz/media/3pia3yzj/enviroclad\\_c-m\\_guide.pdf](https://www.vikingroofspec.co.nz/media/3pia3yzj/enviroclad_c-m_guide.pdf)

**Quality assurance**

Viking provides quality assurance documents that we recommend the installer, and builders follow and sign off at the conclusion of the project. These can be obtained from Viking Managers or from the Viking web site.

- CodeMark Certificates CMNZ30058 and CMNZ70176
- Branz Appraisal No. 656
- Masterspec 4422VE VIKING ENVIROCLAD
- Viking Enviroclad PTS
- Viking Enviroclad PDS
- Viking Enviroclad Details
- Substrate Checklists

**Warranty information**

Enviroclad is backed by Vikings 20-year product warranty with Certificate of Workmanship provided by Viking Approved Applicator companies. Specific projects may be eligible for Viking's Full System Warranty (FSW), which must be applied for directly with Viking Roofspec and is a process that warrants the full installation of product and workmanship in one document, conditions apply. Viking Roofspec only supply Viking Enviroclad to our Approved Applicator network of Viking Licensed Installers.

FSW: Only Approved Applicator Companies with Installers licensed to Level 2 of Viking training may install for Viking Full System Warranty projects

**Environmental**

Enviroclad is US ENERGY STAR rated, and Cool Roof Rating Council certified. In New Zealand, the reduction in energy consumption will contribute points to a building's Green Star rating. Other environmental benefits include:

- Potability: Enviroclad fully complies with test requirements of AS/NZS4020:2005
- Ability to be installed over existing membranes means no dumping of old product into local landfill.
- Minimise waste due to 3.66m wide Enviroclad able to be supplied cut-to-length.
- 100 percent recyclable during the production process, resulting in 100 percent reuse of recycled product during manufacture.
- No liquid plasticizers and does not contain chlorine nor chlorine-containing ingredients.
- Solar reflectivity = lower energy usage for cooling buildings (aged White Enviroclad offers 85% solar reflectivity).
- Heat weldability (just hot air) means no oil-based tapes and primers.
- Can be installed using mechanical fastenings which negates the need for adhesive if desired, or
- Full adhesion with Low-VOC CAV-GRIP III, methylene chloride-free formula.