

Viking Roof Garden System

Version: RG-PTS-V1

Product Description:

The Viking Roof Garden System is a comprehensive and fully bonded roof garden solution designed for concrete roofs. It includes the Viking Enviroclad membrane, optional insulation board, root barrier, and drainage composite. This system incorporates the Viking Roof-Garden G4 Drainage Board above a waterproofing assembly, which can be either the Viking Enviroclad TPO or 2 layers of Viking Torch-on Garden FLL Anti-Root. For enhanced thermal efficiency, the Viking WarmRoof can also be specified beneath the roof-garden and waterproofing assemblies. The supply and installation of growth media (soil) and plants are typically carried out by landscaping companies throughout New Zealand.

Purpose and Use:

The Viking Roof Garden System has been appraised for use as a roof garden on buildings with suspended reinforced concrete substrates and engineered plywood substrates subject to specific structural engineering and weathertightness design. It is important for the building designer and contractor to assume responsibility for the design and construction of the substrate, as well as the movement and control joints. The landscaping contractor is responsible for the design and installation of the growing media and plants, which falls outside the scope of this Appraisal. It is crucial that the Viking Roof Garden System is installed by Viking Roofspec approved applicators. Furthermore, Viking recommends the use of a leak detection system installed under the membrane for added protection and future testing.

Conditions:

The Viking Roof Garden System must comply with the relevant provisions of the New Zealand Building Code, including the following clauses:

1. **Drainage:** Proper drainage design and installation are critical for the performance of the Viking Roof Garden System. The system must be designed to ensure effective and efficient drainage of water from the roof garden, including appropriate slopes, outlets, and overflows.
2. **Load-Bearing Capacity:** The structural capacity of the roof and building must be assessed to ensure it can support the additional load imposed by the roof garden, including the weight of the growth media, plants, and any additional features such as walkways or seating areas.
3. **Waterproofing Compatibility:** The Viking Enviroclad membrane used in the system must be compatible with the specific waterproofing requirements of the project. It is essential to verify compatibility with any existing or planned waterproofing systems on the roof.
4. **Planting Selection:** The selection of plants for the roof garden should consider local climate conditions, maintenance requirements, and compatibility with the roof structure. Consultation with a horticulturist or landscape professional is recommended to ensure appropriate plant selection.
5. **Access and Maintenance:** Access to the roof garden for ongoing maintenance, including inspection, cleaning, and repair, should be considered during the design and construction phases. Adequate access points and pathways should be provided to facilitate routine maintenance tasks.
6. **Fire Safety:** Compliance with fire safety regulations is crucial for roof gardens. Consideration should be given to fire prevention measures, including fire-resistant plant selections, firebreaks, and adequate fire suppression systems if required by the building code.

Compliance with the New Zealand Building Code

- Clause B1 STRUCTURE: Performance B1.3.1, B1.3.2, B1.3.4, B1.3.3 (a), (b), (e), (h), and (m).
- Clause B2 DURABILITY: Performance B2.3.1 (b) 15 years and B2.3.2.
- Clause E2 EXTERNAL MOISTURE: Performance E2.3.1 and E2.3.2.
- Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1.

July 2023

PRODUCT TECHNICAL STATEMENT



Design, Construction, and Installation Instructions:

The product specification and incorporation of Viking Enviroclad into the building design should be carried out by a qualified designer, architect, engineer, or building professional who has access to the technical specifications, installation details, and standards referenced in BRANZ Appraisal No.903. This appraisal outlines the design limitations within the scope of this Product Technical Statement (PTS) and Product Data Sheet (PDS).

Maintenance Requirements:

Maintenance of roof gardens can be challenging but necessary. Regular inspections and clearance of outlets and overflow systems from debris build-up are essential for effective operation. Viking recommends twice-yearly inspections and cleanouts of outlets and overflows to ensure their proper functioning. The membrane roof system should also be inspected for damage, rubbish, and debris, particularly around drainage points. (This will be possible with a ILD system) Any identified damage, such as small punctures and tears, should be repaired, and coatings reapplied as recommended by Viking Roofspec Ltd. It is crucial to exercise caution during membrane roof system inspections to prevent moisture ingress, and repairs should be promptly addressed. Drainage outlets must be maintained to ensure their effective operation.

Quality Assurance:

Viking provides quality assurance documents that should be followed and signed off by installers and builders upon project completion. These documents can be obtained from Viking Managers or the Viking website.

- Branz Appraisal
- Viking Roof Garden PTS
- Viking Roof Garden PDS
- Viking Roof Garden Details
- Viking Substrate checklists

Warranty Information:

The Viking Enviroclad comes with a 20-year product warranty backed by Viking. A Certificate of Workmanship is provided by Viking Approved Applicator companies. Please note that access to the membrane for inspection may not be feasible, and thus, the warranty may not include inspection of the membrane itself and ILD systems can be used.

Auckland office

80 Alexander Crescent,
Otara PO Box 14-541,
Panmure, Auckland
1741, New Zealand

Christchurch office

2 Nazareth Avenue,
Middleton, PO Box
9117, Tower Junction
Christchurch 8149,
New Zealand

Wellington office

19 Pretoria St,
Lower Hutt 5010,
New Zealand

T: 0800 729 799

F: 0800 729 788

info@vikingroofspec.co.nz
www.vikingroofspec.co.nz

A division of Viking Group Limited