# PRODUCT TECHNICAL STATEMENT



# **Viking Torch-On**

Version: TO-PTS-V1

#### **Product description**

Viking Torch-On roofing and deck waterproofing membrane system for roofs and decks comply with E2 as an Alternative Solution, supported by CodeMark Certification and BRANZ Appraisal.

Viking Torch-On membrane systems may be specified on new or refurbishment roofs and decks for residential or commercial projects. Installed directly to Concrete, Ply, Viking PIR insulation or StrandSarking. Viking Torch-On Membranes are torch applied two-layer bituminous waterproofing membrane systems. The two-layers consist of a 3mm or 4mm thick Base-sheet which is torch-applied or self-adhered to a primed substrate, and a 4mm thick Black or Grey coloured ceramic-chip Cap-sheet.

With one exception:

Halley P is a double layer self-adhered base sheet and self-adhered cap sheet. The Halley P membranes look the same as the Torch applied systems provided by Viking Roofspec.

The Cap-sheet protects the roof system from ozone and UV degradation. A non-woven polyester and fibre-glass composite reinforced mesh within both sheet layers, provides latitudinal tensile strength and high puncture resistance. Vikings Torch-On systems offer three various modified bitumen sheet compounds providing differing properties for a wide range of climate zones.

#### Purpose and use

Viking Torch-On Waterproofing Membranes have been assessed as roof waterproofing membranes 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,
- With substrates of plywood or suspended concrete slab
- Situated in NZS 3604:2011 Wind Zones, up to and including Extra High; and,
- With a minimum fall for roofs of 1:30 (2°), decks of 1:40 (1.5°) Viking Torch-On Membranes have also been
  appraised for use as roof and deck waterproofing membranes 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 kPa
- With substrates of plywood or suspended concrete slab and
- With weathertightness design of junctions for each specific structure being the responsibility of the building designer.

# **Conditions**

- 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, PIR Polyiso Insulation, 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 protection layer, floating deck surface or on pedestals.

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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

This system 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, B1.3.4, 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),
- 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 Requirements**

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

- Is qualified to design the building under the "Scope of use" of this product.
- Has ready access to the technical specifications including installation details and standards referenced in the current CodeMark Certificate # GM-CM30092 and Branz Appraisal #948 where the design limitations are outlined for the scope of this PTS.

#### **Installation Requirements**

Installation of the structural Roof elements must always be carried out in accordance with the Viking Torch-on Technical Literature for residential construction under the supervision of a Licensed Building Practitioner (LBP) with the relevant License Class.

Installation of the Viking supplied system shall be carried out by a Viking Roofspec trained and licensed installer. Installation shall be undertaken in accordance with all relevant technical information related to the selected installation method, including information contained within the current Viking PDS and Viking Installation Guide

# **Maintenance Requirements**

The membrane roof system must be regularly checked (twice annually) for damage, rubbish, and debris particularly around drainage points. Damage, such as holes, punctures and tears must be repaired by a competent person. Any coatings reapplied 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. Repairs must be undertaken when required. Drainage outlets must be maintained to operate effectively.

• Refer to maintenance care guide for specified membrane:

#### **Quality assurance**

- Codemark Certificate GM-CM30092
- BRANZ Appraisal No. 948
- Masterspec 4421VB: Viking Two-Layer Torch-On System
- Reinforced Modified Bitumen Membrane (RMBM) Code of Practice
- Viking Torch-On PTS
- Viking Torch-On PDS
- Viking Torch-On Details
- Viking Halley P PDS

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### **Warranty information**

Viking Torch-On Systems are 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. The Full System Warranty is a process that warrants the full installation of product and workmanship in one document, conditions apply. Viking Roofspec only supply Viking Torchon systems to our Approved Applicator network of Viking Licensed Installers.

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

#### **Environmental**

Bitumen is a biproduct of the oil refining process. Torch-On membranes provide a construction use of this product. The robust nature of a modified bitumen membrane system will ensure sustainability through longevity. A Viking Torch-On roof can be overlaid at the end of its useful life, avoiding the dumping of the old roof and the filling of landfills with inorganic waste.