## July 2025 SUBSTRATE CHECKLIST PLYWOOD



# Viking Enviroclad

Version 1.1

## **Plywood**

Date Started	
Approved Applicator Company	
Viking Licenced Installer	
Project Name & Address	
Main Contractor	
Membrane Thickness / Colour	
Add any notes or comments:	

Viking Roofspec can accept the maximum support spacing provided in Table 15C of CCH Ecoply Specification Guide *(increase in thickness of plywood allows greater support spacing)* 

## Note: This checklist includes two options for plywood installation.

- 1. Standard, Non-visible Roof, to be used where visuals are not critical and maintains a 3mm plywood sheet gap for movement.
- 2. Special, Visible Roof, to be used where the roof is seen from upper levels and an improved visual appearance may be required. Exchanges the 3mm sheet gap for tight butted with glued sheet edges.

Please refer to the following checklists for guidance and completion.

## Non-Visible Roof

Due to expansion and contraction of plywood substrate sheets can sometimes cause 'tenting' which is peaking of the membrane above the plywood sheet joins. This can be a little unsightly but is not problematic for roofs that aren't visible from the building and/or below. Tenting also demonstrates the membrane 'forgiving' such substrate movement by moving with it rather than splitting and allowing water ingress. This does not affect the membrane warranty. If the roof is visible from the building and/or below, we recommend the adoption of the plywood substrate checklist which has been developed for 'Visible' roofs

- Roof framing supports at 400mm in one direction and Nogs/ Blocking at the sheet edges (all plywood edges supported) use 17mm minimum thickness (CCA H3.2 treated), structural plywood (Do not use tongue & groove plywood)
- Deck framing supports at 400mm in one direction and Nogs/ Blocking at the sheet edges (all plywood edges supported) use 17mm minimum thickness (CCA H3.2 treated), structural plywood (Do not use tongue & groove plywood)
- Plywood laid with face grain at right angles to supports. Minimum CD grade with the sanded C face upwards
- Plywood is to be laid with staggered joins in a brick-bond pattern with a 3mm expansion gap between sheets.
- Plywood screw-fixed with 10g x 50mm S/S counter-sunk screws at 150mm centres at all sheet edges and 200mm centres through the body of the sheet. All screws to be counter sunk 1-2mm.
- Chamfer all external roof edges with a minimum radius of 5mm. eg. parapet edges and downturns to internal gutters

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- Plywood is to be kept dry at all times during construction. Blow/torch drying the plywood surface prior to membrane application does **NOT** comply. Plywood and framing supports should not exceed **18% moisture content.**
- For roofs and roof decks over living spaces, all insulated cavities must be ventilated in accordance with E2/AS1 8.5.2. No cavity ventilation is required for a Viking WarmRoof / WarmSpan system that meets or exceeds the minimum R-value requirements of the climate zone.
- All outlets and overflows are membrane compatible. Note that TPO membranes cannot be welded to stainless steel scuppers or sumps. Outlets/overflows must have clamped grates.
- Ensure compliant falls. E2/AS1 8.5.1. limitations state 2° for roofs (1:30 or 34mm/mt), 1.5° for decks (1:40 or 25mm/mt) and 1:100 (10mm/mt) for internal gutters

Please ensure you have ordered the correct membrane, colour and thickness for your project

#### Visible Roof

This checklist is for roof areas visible from the building and/or from below, the installation method / checklist below will help reduce movement in the plywood to minimise the potential for "Tenting" (visible peaking of the membrane above the substrate plywood edges due to expansion and contraction of building materials)

- Roof framing supports at 400mm in one direction and Nogs/ Blocking at the sheet edges (all plywood edges supported) use 17mm minimum thickness (CCA H3.2 treated), structural plywood (Do not use tongue & groove plywood)
- Deck framing supports at 400mm in one direction and Nogs/ Blocking at the sheet edges (all plywood edges supported) use 17mm minimum thickness (CCA H3.2 treated), structural plywood (Do not use tongue & groove plywood)
- Plywood laid with face grain at right angles to supports. All sheet joins must be made on a single timber support to minimise the chance of movement between sheets.
- Plywood is to be laid with staggered joins in a brick-bond pattern. Apply with a continuous bead of Holdfast Gorilla Grip 2 Hour-Cure Construction Adhesive on top of timber supports.
- Sheet edges are to be carefully glued together with a continuous bead of Holdfast Gorilla Grip 2 Hour-Cure Construction Adhesive (no spot gluing) and must be tight butt-joined. Glue must be seen to come to the top surface of the sheet joins. Once sheets have been placed together remove excess adhesive by scraping the joint with a chisel. Ensure joins and sheets are not walked on with two hours of application. When fully cured remove excess and sand all sheet joins
- □ Leave a 5mm expansion gap around the perimeter of the plane. This fixing specification allows for a maximum 50m2 without expansion joints (dependent on design). 5mm expansion joins should be allowed for areas over 50m2. For further information regarding placement of expansion joints for your design, please check with Architect/ Designer
- □ Plywood screw-fixed with 10g x 50mm S/S counter-sunk screws at 150mm centres at all sheet edges and 200mm centres throughout the body of the sheet. All screws to be counter sunk 1-2mm.
- Chamfer all external roof edges with a minimum radius of 5mm. eg. parapet edges and downturns to internal gutters
- Plywood is to be kept dry at all times during construction. Blow/torch drying the plywood surface prior to membrane application does **NOT** comply. Plywood and framing support to **be no more than 18%** moisture content when membrane is adhered.
- All outlets and overflows are membrane compatible.
- Outlets must have Clamped Grates or Enviroclad weldable components.
- Ensure compliant falls. E2/AS1 8.5.1. limitations state 2° for roofs (1:30 or 34mm/mt), 1.5° for decks (1:40 or 25mm/mt) and 1:100 (10mm/mt) for internal gutters

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## NOTES:

- Cover the substrate to keep it dry, ensuring the waterproofing membrane can be installed when needed. Communicate early with your Viking Approved Applicator on the project scheduling to ensure weather exposure is kept to a minimum.
- Correct substrate installation is critical to durability and performance of the membrane.
- Failure to strictly comply with substrate specification may affect product warranty. Product Warranty for further details.
- The Viking Visible Roof Specification works to control substrate movement where possible. Substrate
  movement may occur due to several factors, including incorrect substrate installation, seasonal conditions or
  within the design for substrate expansion allowance. Movement of substrate can produce a wrinkle or 'Tenting'
  in all types of membrane. As it is created by movement of the substrate itself this is not a product fault and as
  such, is not covered under the product warranty; however, the durability and waterproofing guarantee is not
  affected if Tenting is exhibited.
- All construction should comply with the New Zealand Building Code. Contact your local council for further advice.
- Communication between the Applicator and Construction Company will assist to ensure specification is met
- Information regarding our products, specifications and warranties is available at www.vikingroofspec.co.nz If you have a query regarding this substrate specification, please call Viking on 0800 729 799

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