November 2026

PRODUCT DATA SHEET

Viking Enviroclad RapidLock

Version: EVRL-PDS-V1.2

Introduction:

This Data Sheet is a reference guide for Viking Roofspec Licensed Installers who are familiar with Viking Roofspec's systems. The following guide contains precautions, best uses and application procedures for the correct installation of Viking Enviroclad RapidLock TPO Membrane System.

The Enviroclad RapidLock Roofing System by Viking, introduces an evolutionary approach to membrane attachment, offering an adhered membrane solution that eliminates the necessity for traditional adhesives. This ground-breaking system ingeniously combines VELCRO® Brand Securable Solutions with FleeceBACK RL TPO, resulting in performance levels equivalent to those of conventional adhered single-ply systems. Accompanied by an approved RapidLock Coverboard and Polyiso insulation board, FleeceBACK RL TPO delivers a VOC- and odor-free attachment method that is entirely unrestricted by temperature.

Key Features and Advantages:

- **Temperature Freedom:** The RapidLock System defies temperature restrictions, providing a versatile solution for various environmental conditions. Please refer to the reverse side for pertinent precautions and limitations.
- **Adhesive-Less Efficiency:** One of the system's defining features is its adhesive-less design, substantially reducing labor requirements and time spent during installation.
- **Seam Minimization:** With an impressive reduction of 67% fewer seams compared to Modified Bitumen systems, the RapidLock System enhances seam integrity and system longevity.
- **UL Class A Rated:** FleeceBACK RL TPO membrane holds a UL Class A rating, ensuring outstanding fire resistance and safety credentials.
- **Weldability:** Full weldability with all Viking Enviroclad Accessories, enabling streamlined and precise detailing during the installation process.
- **Reinforced Fleece:** The incorporation of fleece reinforcement contributes toughness, durability, and advanced puncture resistance, reinforcing the integrity of the membrane.
- **Robust Wind Uplift Ratings:** Achieve wind uplift ratings comparable to those of traditional fully-adhered single-ply systems, guaranteeing a reliable and stable roofing solution.
- **Hail Damage Resistance:** The FleeceBACK RL TPO membranes exhibit exceptional hail damage resistance, proving their reliability through rigorous hail tests and assessments.
- **Low VOC and Odor-Free:** This system is low VOC (Volatile Organic Compounds) and odorous emissions, ensuring a safe and environmentally conscious installation.
- **20-Year Warranty:** The Viking Enviroclad TPO RapidLock (RL) Roofing System is backed by a robust 20-year warranty, offering long-term performance for both commercial and residential applications.

The RapidLock (RL) Roofing System aligns seamlessly with Viking's commitment to delivering innovative and high-performance solutions that cater to the complex demands of modern roofing. This system optimizes efficiency, durability, and safety, meeting the standards of seasoned industry professionals while providing superior protection for a wide range of roofing projects.

Description	Colour	Thickness	Width	Length	Weight
Enviroclad Rapidlock	Grey	2.92mm	3.05m	30.4m	1.94kg/m^2
RapidLock HD Coverboard	White	13mm	1.22m	2.44m	1.9kg/m^2
F.A.S.T Adhesive	Blue	Wet Bead of 15mm	150mm ribbons	Sheet length	
Polyiso Plates	Galvanized	N/A	76mm Día	N/A	
Viking HP-X Fasteners (Plywood & Concrete)	Black	N/A	N/A	50mm,76mm, 100mm	

Properties

RapidLock FleeceBACK (FBS) Enviroclad TPO Membrane Typical Properties and Characteristics			
Physical Property	Test Method	SPEC. (Min.)	FleeceBACK TPO Typicals
Tolerance on Nominal Thickness, %	ASTM D751	±10	±10
Thickness over Fleece, min 2.92 mm			1.52mm
Weight			1.6kg kg/M²
Breaking Strength, min, lbf (kN) 2.92 mm	ASTM D751 Grab Method	220 (1)	450 (2)
Elongation at break of internal fabric, %	ASTM D751	15	25
Tearing Strength, min, lbf (N) 2.92mm	ASTM D751 B Tongue Tear	55 (245)	100 (445)
Puncture Resistance, Joules 2.92mm	ASTM D5635	—	22.5
Puncture Resistance, lbf 2.92mm	FTM 101C Method 2031	400	500
Brittleness point, max, °C	ASTM D2137	-40	-46
Linear Dimensional Change, %	ASTM D1204	± 1 max	-0.2 typical
Field Seam Strength, lbf/in. (kN/m) ASTM D1876 tested in peel 2.92mm	ASTM D1876	25 (4.4)	60 (10.5)
Water Vapor Permeance, Perms	ASTM E96 Proc B	—	0.10 max 0.05 typical
Resistance to Microbial Surface Growth, Rating (1 is very poor, 10 is no growth)	ASTM D3274	—	9-10 typical
Properties after heat aging– ASTM D573, Properties after heat aging– ASTM D573, 32 weeks at 240 °F Weight Change, %	ASTM D573	—	± 1.0 max
Ozone Resistance 100 pphm, 168 hours	ASTM D1149	No cracks	No cracks
Resistance to Water Absorption After 7 days immersion @ 158°F (70°C) Change in mass, max, % (one side)	ASTM D471	± 3.0	0.90
Resistance to Outdoor (Ultraviolet) Weathering Xenon-Arc, total radiant exposure at 0.70 W/m² irradiance, 80°C black panel temp. 2.92mm	ASTM G155	No cracks No loss of breaking or tearing strength	No cracks No loss of breaking or tearing strength 20,160 kj/m²

Installation

New Construction						Roof Revival		
Existing or New Substrate type	Steel	Plywood	Structural Concrete	Gypsum	Fibrous Cement Products	Existing Roof System	Bitumen Membranes	Single Ply Membranes
Insulation or Underlayment Required	Yes	Yes	Yes	Yes	Yes	Insulation or Underlayment Required	No	No
Recommended Insulations or Underlayment	SecurShield HD RapidLock Coverboard					Recommended Insulations or Underlayment	SecurShield HD RapidLock Coverboard	
Insulation or Underlayment Attached By	Viking Flexible FAST Viking Fasteners and Plates					Insulation or Underlayment Attached By	Viking Flexible FAST Viking Fasteners and Plates	
Membrane Attached By	Enviroclad RapidLock System					Membrane Attached By	Enviroclad RapidLock System	

Coverboard Attachment (Adhered)

- RapidLock CoverBoard adhered with Flexible FAST™ Adhesive to the roof deck/ WarmRoof System. When adhering insulation with Flexible FAST, the adhesive extruded onto the substrate and allowed to rise and foam. Once the adhesive develops string/body/gel (approximately 1–2 minutes depending on climate), place insulation into the adhesive and walk board into place. Roll the RL Coverboard with a 35Kg segmented weighted roller to ensure full embedment.
- When the completion of flashings and terminations is not possible by the end of each workday, provisions must be taken to temporarily close the membrane to prevent water infiltration.
- Prior to membrane placement, the surface of the RapidLock Coverboard must be cleaned of dust and other foreign matter using a fine push broom or a blower.

Coverboard Attachment (Mechanically Fastened)

RapidLock Coverboard is mechanically fastened to the roof deck per Viking's specification with Viking HP-X fasteners and Polyiso Plates.

Wind Uplift Performance Options

Wind Zones within NZS3604 including Extra High at 2.5kPa

- Mechanically fixed over existing substrate with maximum 16 fixings and plates per board around the perimeter of 1.2m. 12 fixings and plates per board in the field.
- FAST adhered with Ribbons at 150mm centres over the full roof area.

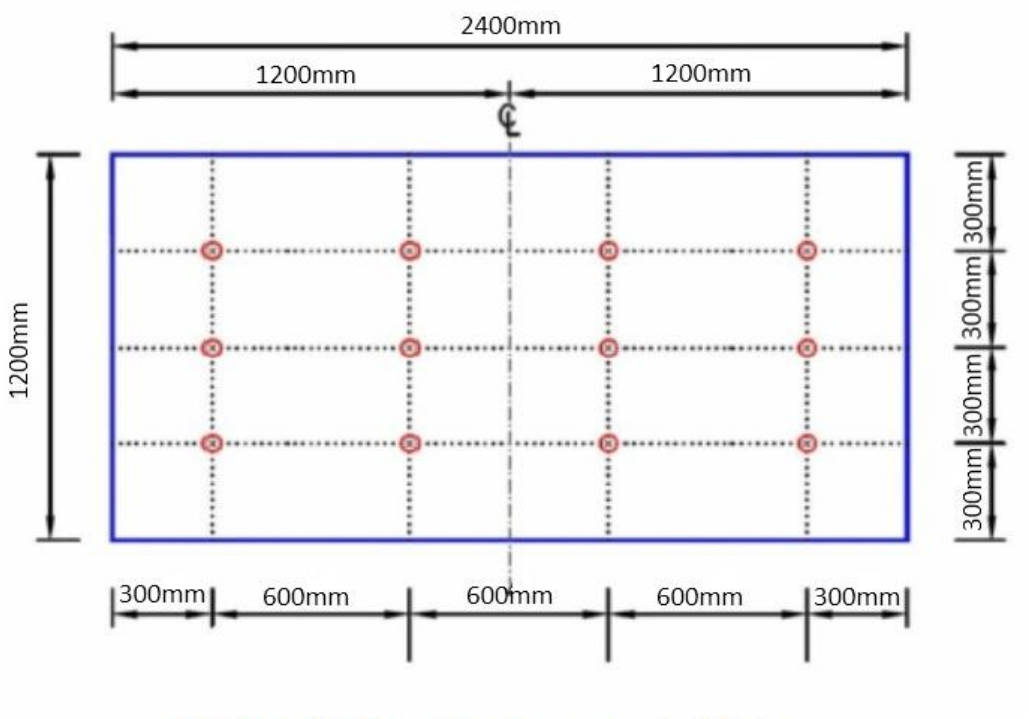
SED Option 1. Up to 4.3kPa

- Minimum 50mm PIR board, off set with 13mm RapidLock Coverboard, mechanically fixed with 16 fixings and plates per board.

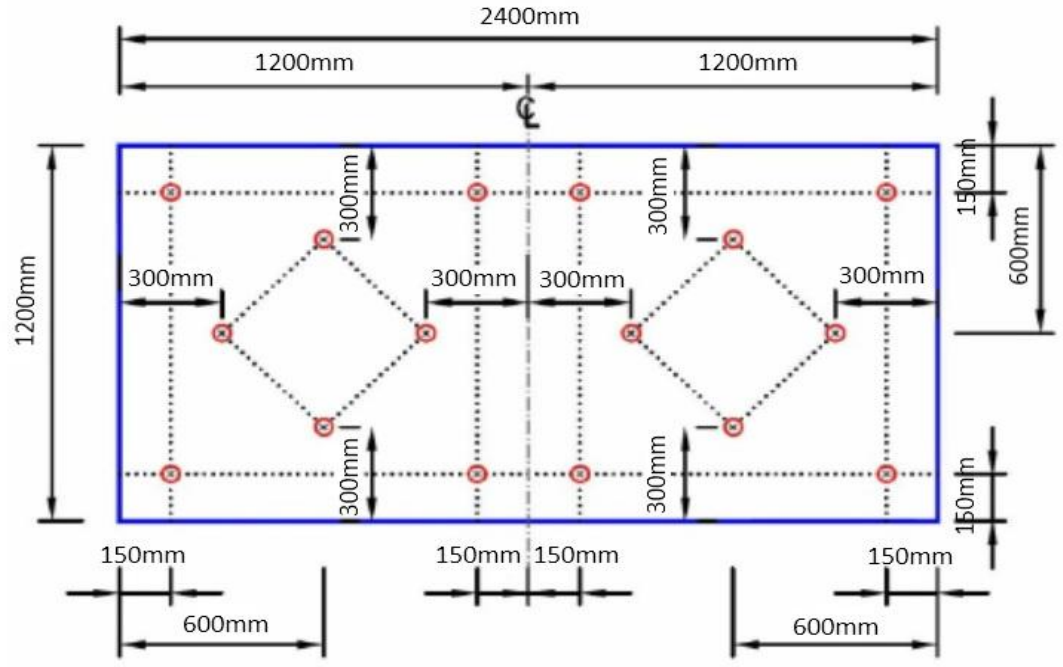
SED Option 2. Up to 10.7kpa

- Minimum 50mm PIR board fixed with 32 fixings and plates, off set with 13mm RapidLock Coverboard FAST adhered with ribbons at 100mm max centres.

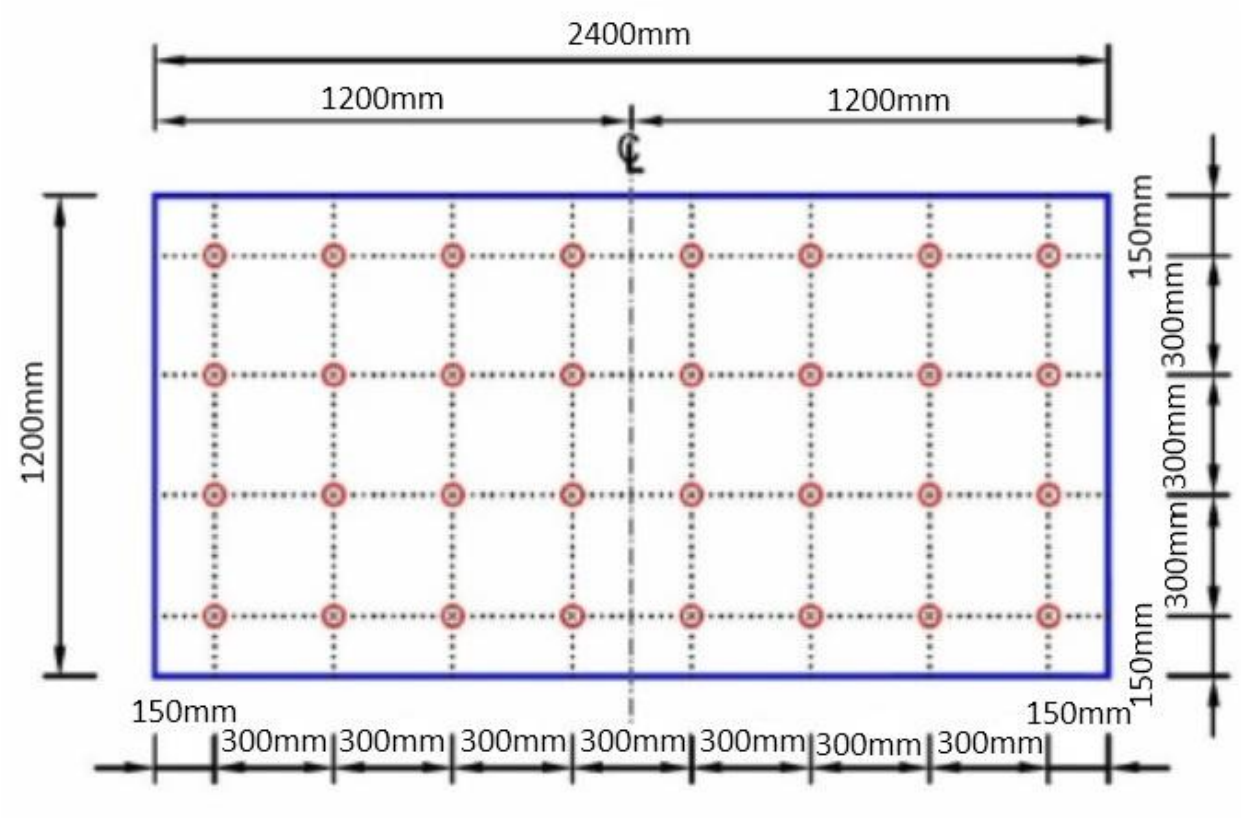
Fixing Patterns for Viking HP-X Fasteners and Polyiso Plates



12 Insulation Fasteners & Plates



16 Insulation Fasteners & Plates



32 Insulation Fasteners & Plates

Roof Revival Substrate Requirements

Plywood must be of a minimum thickness of 17mm, any thinner gauge plywood will require the removal of existing single ply membrane and additional layer of 12mm plywood, secured with minimum 50mm Stainless Steel 10-gauge screws, 150mm perimeter and 200mm field spacings into the structure.

Concrete substrates will require a fastener pull out test to confirm suitability for this attachment method.

Metal profiles will require minimum 50mm PIR or H Grade XPS for RapidLock to be installed with FAST Adhesive. For SED wind zones where 4.3kPa or 10.7kPa is required, infill fingers must be overlaid with minimum 50mm PIR prior to installation of the RapidLock coverboard.

New Roof Construction Requirements

New cold roof construction will be with13mm Rapidlock Coverboard to the 2.5kPa mechanical fixing specification. SED wind zones must be to the 4.3kPa or 10.7kPa specification. Cavity venting is required.

New Warmroof construction can be installed to the 4.3kPa or 10.7kPa specification with PIR thicknesses greater than the 50mm minimum.

Membrane Installation

Option 1

1. Remove the RapidLock Fleece release film on one half of the sheet starting from the split in the liner at the middle of the sheet. The liner should be removed at an angle to reduce splitting or tearing.
2. Roll the membrane onto the substrate at an angle while avoiding wrinkles. When applying Viking FleeceBACK RL TPO membrane, it is recommended to maintain a large curve (radius) on the leading edge of the membrane. This will help eliminate creases and bubbles that cannot be removed after the sheet is in place.
3. Broom the sheet and then roll the membrane in place starting using a 35 Kg roller from the middle of the 3m wide sheet and working towards the outer edge.
4. Fold back the remaining half of the sheet and repeat the above process.

Option 2

1. Pull both release liners off simultaneously from underneath the membrane at a low angle.
2. Broom the sheet and then roll the membrane in place starting using a 35kg roller from the middle of the 3m wide sheet and working towards the outer edge.

Heat-Welding Procedures

- The membrane has an uncoated edge on one side along the length of the sheet for membrane welding. Adjoining membrane sheets are overlapped lengthwise a minimum of 50mm to provide for a minimum 40mm wide heat weld.
- An uncoated edge is not provided at the ends of the rolls. Adjoining membrane sheets must be butted together and overlaid with 150mm wide TPO Reinforced Membrane, hot air welded along all edges. Seal all membrane edges (where scrim reinforcement is exposed) with TPO Cut-Edge Sealant or penny rolling.

Precautions

- Use proper stacking procedures to ensure sufficient stability.
- Exercise caution when walking on wet membrane.
- UV-resistant sunglasses are required when working with FleeceBACK RL TPO membranes.
- White surfaces reflect heat and may become slippery due to frost and ice accumulation.
- Care must be exercised when working close to a roof edge when the surrounding area is snow covered.
- FleeceBACK RL TPO membrane rolls must be tarped and elevated to keep dry prior to installation. If the fleece gets wet, use a wet vac system to help remove moisture from the fleece. Do not install membrane if fleece is wet.
- FleeceBACK RL TPO membrane exposed to the weather must be prepared with Weathered Membrane Cleaner prior to hot-air welding.
- RapidLock fleece and insulation engagement is permanent once paired. Do not rapidly pull RapidLock fleece from the insulation once engaged.
- Enviroclad RapidLock membrane is not to the be adhered to the RaidLock Coverboard board, or any substrate relying upon any adhesives including Flexible FAST or CAV Grip III.

Storage

Handling and storage of all materials whether on or off site is under the control of the Viking Roofspec Licensed and Trained Installers. Dry storage must be provided for all products, do not let rolls get crushed under weight of stacking pallets on top of each other.

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