

Continental Vinyl Deck Membrane

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1. OBJECTIVE

This guideline provides information on recommended installation requirements and process for the Continental Vinyl Deck Membrane.

Continental's Vinyl Decking Membranes are engineered to be a part of a waterproofing system for outdoor applications, such as decks, patios, roof decks, porches and surfaces that require an attractive slip resistance surface.

The following document is intended to provide guidance for the installation of the Continental Vinyl Deck Membrane. The goal is to describe the basic requirements for performing the installation of the Continental Vinyl Deck Membrane. The information and content of the document is a recommendation only. The installation must follow local building code requirements.

DISCLAIMER

The information and recommendations contained here are offered as a service to our customers and are not intended to relieve the user from responsibility. The information and recommendations provided were obtained by reliable sources. Continental makes no warranty concerning their accuracy and will not be liable for claims relating to any use regardless of whether it is claimed that the information or recommendations are inaccurate, incomplete, or misleading.

2. REQUIRED INSTALLATION CONDITIONS

Continental Vinyl Deck Membranes are engineered to be a part of a waterproof system for outdoor applications. Our membranes are ideal for decks, patios, roof decks, porches and surfaces that require waterproofing, and an attractive slip resistant surface.

Waterproofing:

- Identify all sources of potential water problems and think through the resolution.
- Always plan for worst case scenario.
- Do not proceed with completion if you do not have the proper training or experience for the installation.

Manage water with Proper Slope and Installation:

- Ensure water will drain properly away from the structure of the building.
- Verify there are no areas where water will collect or puddle.
- Water collection or ponding on the surface of a deck is a common issue.
- Low slope decks might require a perimeter edge drainage and interior drainage.

All decks have areas that might be more likely to lead to water intrusion and need extra attention to avoid future issues, such as:

- Seams.
- Upturns, as the door threshold or wall.
- Downturns, like the drip edge.
- Penetrations or points where other components will be fastened to the deck surface.

For additional information and test report visit the Continental Vinyl Deck Membrane website:

<https://www.continental-industry.com/en/solutions/surface-materials/living-spaces/exterior-design/vinyl-deck-membrane>

3. INSTALLATION OVERVIEW

A. Seam Direction

- We strongly recommended that seams run perpendicular to the house or structure of the building.
- This will allow for appropriate water drainage.
- It also allows for max efficiency of the material usage and can reduce the number of total seams.

B. Material

- Take into consideration the amount of material needed for seams and perimeters.
- Seam should overlap $\frac{3}{4}$ " to 1".
- Outside perimeters add a minimum of 6".
- Inside perimeter add a minimum of 12"

C. Seam Warning

- Do not place seams in areas that could result in trip hazards, such as stairs.
- Do not place seams in any surface valleys, as this will create a water dam.
- Avoid running seam across central drains to prevent water penetration.
- All seams are critical to form a 100% waterproof seal.

D. Slope

- All deck surfaces must be sloped $\frac{1}{4}$ of an inch per linear foot to the edge or drains to carry water away, make sure that no low-spots or water collection areas are created in the deck surface.
- Any issues resulting from incorrect installation leading to ponding water are not covered by the warranty.
- "Crickets" can be added to the corners of the walls to channel away water towards the drainage slope.

4. SURFACE REQUIREMENTS

Continental Deck Membrane is recommended to be installed on the following plywood substrates.

A. Plywood Requirements

Substrate Requirements	
Recommended Substrate	$\frac{3}{4}$ " Tongue and Groove(T&G) B-C Grade, square edge. Clear Underlayment grade. We recommend using DryPly® from Georgia Pacific.
Acceptable Substrate	5/8" Tongue and Groove (T&G) C-D Grade
Butt Joint Spacing	1/8" gap to prevent peaking of plywood
OSB Standards	Oriented strand board (OSB) can be used only for vertical surfaces in the deck, primarily building walls. OSB is not approved for use in the deck surface.

The application of the Continental Deck Membrane on any substrate that is not approved and recommended and will void the Warranty.



Non-Acceptable Substrates

- Oriented strand board (OSB).
- Plywood.
 - Poplar
 - Treated
 - Fire, Pressure, or Coated.
 - Particle Board
 - Sheathing Grade.
- Panels with medium-density overlay (MDO) or high-density (HDO)
- Lauan/Luan Plywood

B. Plywood Preparation

- Plywood sheathing attached to framing in accordance with the applicable code.
- Fill all plywood joints and rows of fasteners with a patching compound to ensure a smooth surface.
 - Leave a 1/8" gap between plywood panels to prevent peaking, due to expansion and contraction of the structure.
- Ensure the surface of the deck is smooth. Apply a compatible patching-filling compound to needed areas, such as gypsum and cement based underlayment:
 - Knot holes.
 - Drip edge.
 - Plywood Joints.
 - Fill over screw heads.
 - Indentations, low spots, cuts, gouges, or damaged areas.
- Sand all areas that the filler compound was applied once is completely dry.
- Sweep and clean surface of all contaminants, debris, and dust.
- Check for any items that may protrude through the membrane and correct the, prior to installing the membrane.





5. INSTALLATION.

A. Preparation

- Unroll and prepare material before taking it to the installation site. This will allow the vinyl to relax and acclimate.
- It's possible to pre-apply contact adhesive to the Continental Deck Membrane prior to the installation visit. Follow Adhesive manufacturers recommendations.



B. Layout

- Use a chalk line to mark where the first roll will be placed. Make sure you are taking into consideration the additional material needed for the perimeters.
- For each additional roll to be laid out we recommend using a $\frac{3}{4}$ " painter's tape to mark the overlap and ensure that there is at least $\frac{3}{4}$ " of material for the seam.

C. Surface Preparation

- After the pre-installation work and substrate preparation make sure to inspect all areas of the deck:
 - ✓ Confirm that the surface is free of defects.
 - ✓ Check slope. Substrate surface must be sloped at a minimum of 1/4" slope per linear foot.
 - ✓ Check for any structural issues or material that must be replaced before the installation.
 - ✓ Ensure all drainage outlets and flashings are in place.
 - ✓ Make sure that the area is dry and acclimated for the installation. Confirm that the existing and forecasted weather conditions will allow to perform the installation.
 - ✓ Measure plywood moisture content at the time of installation, recommended range is 12% to 14%



Proper deck and substrate preparation are the responsibility of the contractor or building owner.

D. Adhesives

Continental Deck Membrane must be used with approved adhesives only.

- Failure to use correct adhesive can lead to premature failure.
- Using a non-approved adhesive will void the warranty.

Adhesive Requirements	
<i>Solvent Based Adhesive</i>	Miracle® V206 Vinyl Decking Adhesive.
<i>Application</i>	Applied to non-woven backing and substrate. Use on horizontal and vertical surfaces. 1 gal/60 ft ² to each surface.
<i>Temperature Requirements</i>	Above 32 °F
<i>Water Based Adhesive</i>	Pliobond 7008 (Bostik) or IB Waterborne
<i>Application</i>	Applied to substrate only. Use only on horizontal surface. 1 gal per 100-160 ft ² .
<i>Temperature Requirements</i>	Above 45°F

Adhesive Application

- Material to be seamed with the hot air welder must be free of adhesive.
- Contaminants on the seam prior to welding can lead to premature failure.
- To help prevent adhesive contamination into the seam visible surface, use a $\frac{3}{4}$ " painter's tape along the edge of the membrane fleece during the application.

Folding Layout Method (Contact Adhesive)

- Fold vinyl back on itself halfway and cover the exposed surface completely with adhesive.
- Push the folded membrane piece over the adhesive covered portion of the substrate.
- Use wallpaper spreader to push out all air pockets.
- Pull back the remaining part of the sheet onto itself and apply adhesive to the uncovered portion of the substrate. And then push out the vinyl into the second half and use wallpaper spreader to push any air pockets.
- Continue to install adjoining membrane sheets in the same manner.



E. Heat Welding

The function of using a hot air to bond the pieces of vinyl together.

- Critical function for waterproofing.
- Use on all seams and details.
- Overlaps should be $\frac{3}{4}$ " to 1".
- Code requirement of 75% strength on welds.

The membrane and substrate must be clean, dry, and free of any adhesive or contaminants.

- You will not be able to hot air weld any area where there is adhesive, and this will lead to water infiltration and field failures.
- All seams and laps shall be visually inspected and physically probed after they have set and cooled.
- Probe all seams to locate cold welds or voids.

Heat Welding Tools

- Hot Air Gun. Leister TRIAC ST.
- Nozzle: $\frac{3}{4}$ " wide slot (20mm) straight or angled.
- Silicone rubber roller.
- Penny roller
- Seam probe.



6. INSTALLATION DETAILS

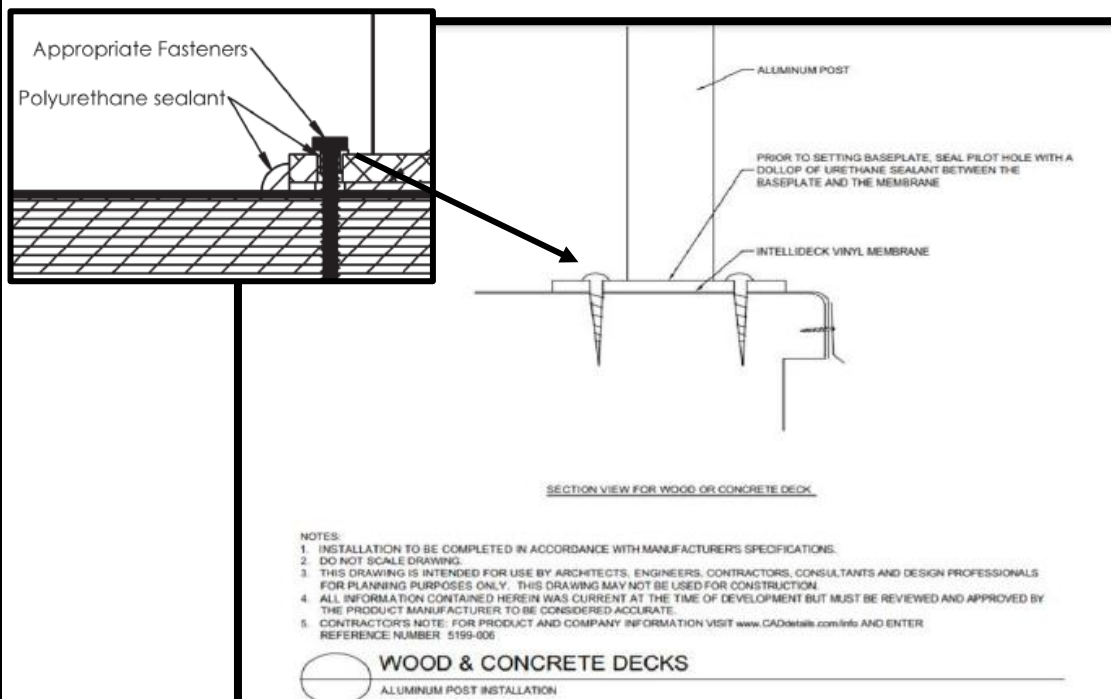
A. DECK TO WALL TRANSITIONS AND PENETRATIONS

Transitions:

- Measure and add a minimum of 6" at each wall in the deck.
- All components of the building exterior must overlap the membrane, such as siding finish, building paper, termination panels.

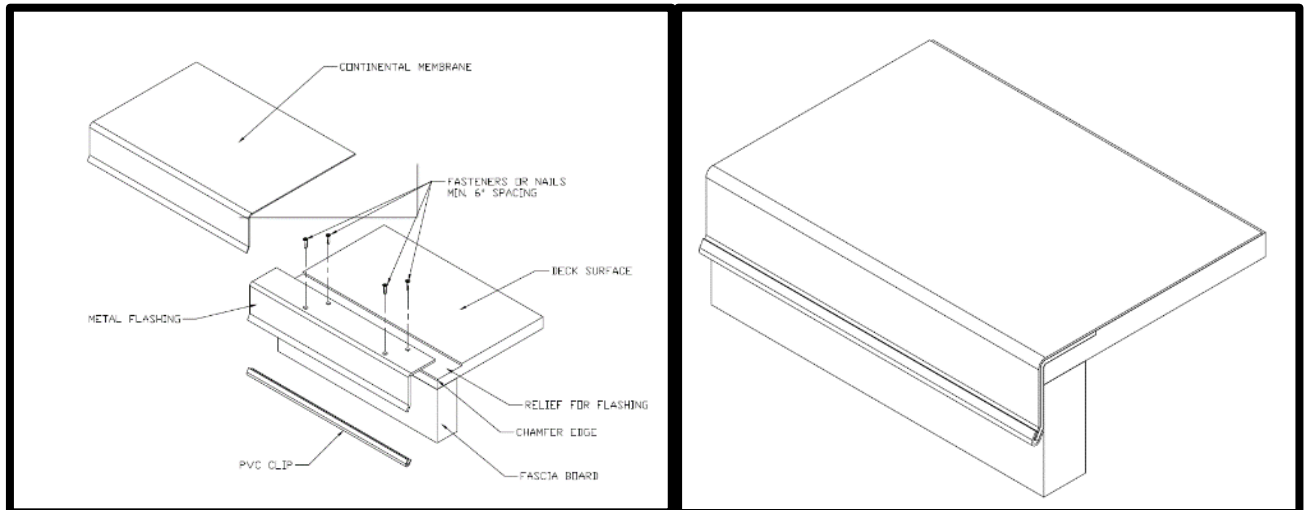
Penetrations:

- Minimize when possible as every penetration is an opportunity for water intrusion.
- Waterproof Post by fabricating a collar on site using the excess decking membrane material.
- When installing railings, pre-drill the holes and fill them with polyurethane caulk.
-



B. DRIP EDGE

- Ensure to router or sand edge of substrate surface 1/16" depth so that the drip edge will set flush with the surface, when installed.
- If done improperly, this area will create a damp and water will begin to pond.
- Fill gap and screw holes with patching compound and sand smoothly.
- Keep in mind that any non-flat surface will telegraph through the vinyl decking membrane.

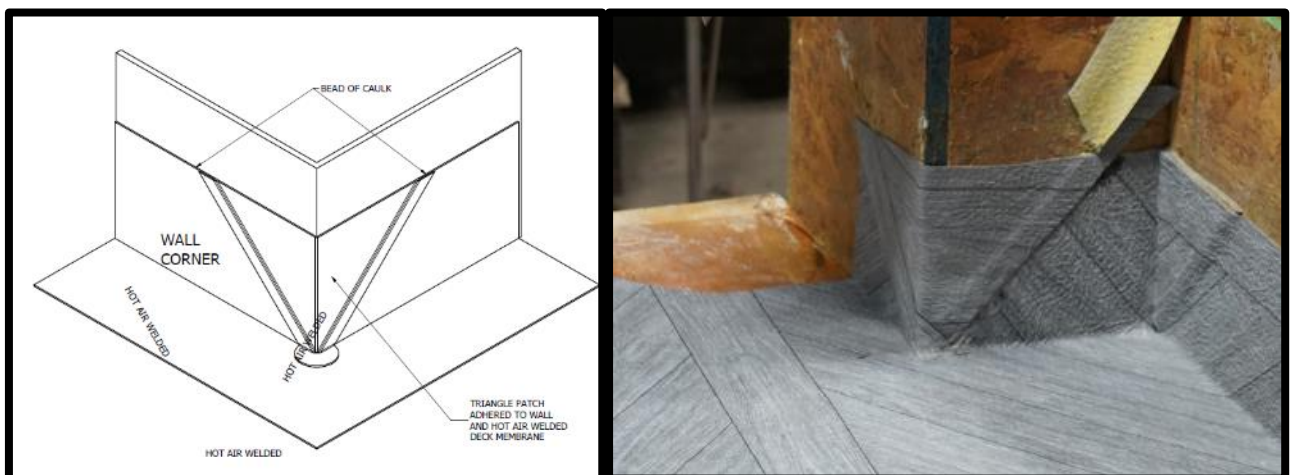


C. INSIDE CORNER

- Upturns
 - Gaps between the deck and the structure must be closed. This can be accomplished by using I-shaped sheet metal.
 - Upturns must be fully adhered. Trim to the finished height.
 - The top finished edge should be completed with a bead of polyurethane caulk.
 - Counter flash with the building paper and exterior cladding with a minimum of 2".



- Consult local building codes to determine minimum upturn height.
- To accommodate for inside corners, fold the excess material and weld.
- For outside corners cut a V-shaped piece and patch.



D. OUTSIDE CORNER

- Water must be able to flow uninhibited over the edge. If edge is not recessed water will dam and can lead to premature failure.
- Use a 1x2 fascia, installed flush with the top surface of the deck to take water away from the surface.
- You may also use a drip edge and clip system.
 - Glue membrane to the drip edge.
 - Attach clip at end of drip edge to ensure that the material will stay in place.

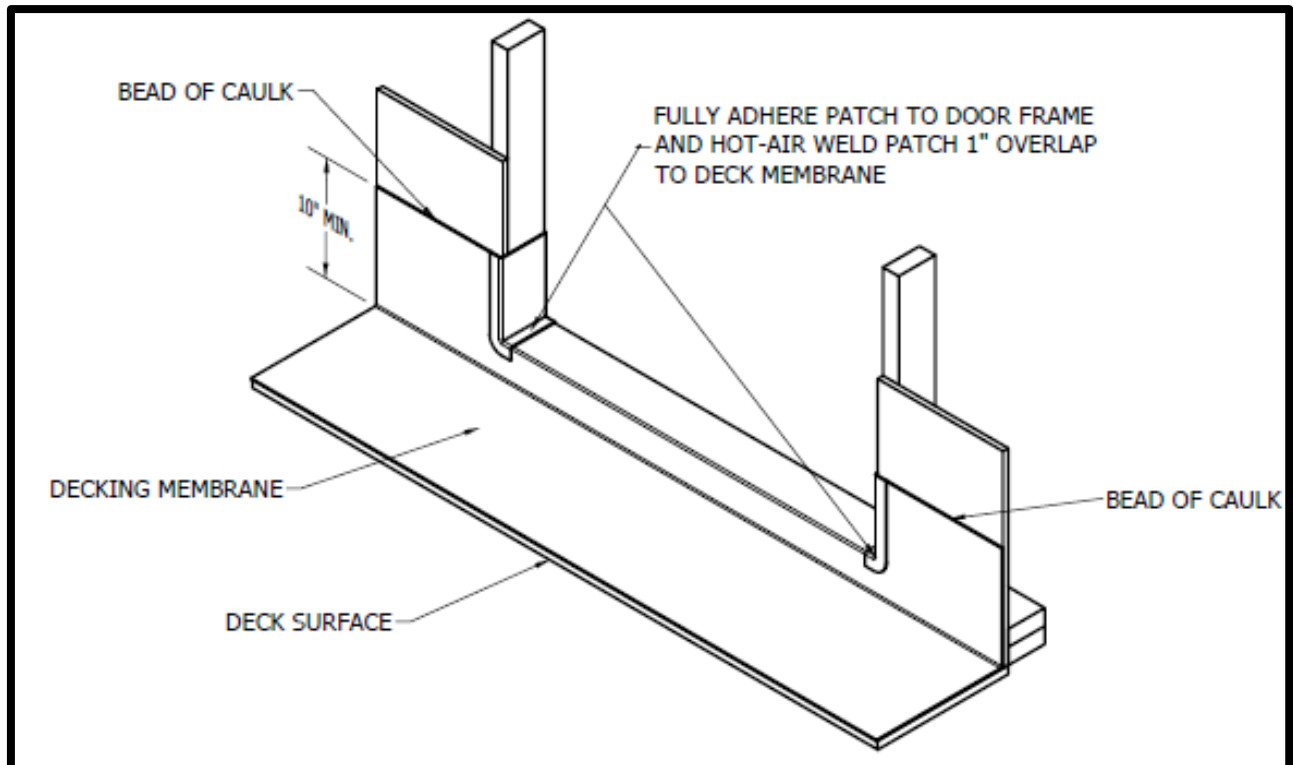


Note: Flashing shall be installed in accordance with applicable Building Codes.

E. DOOR THRESHOLDS

Door opening:

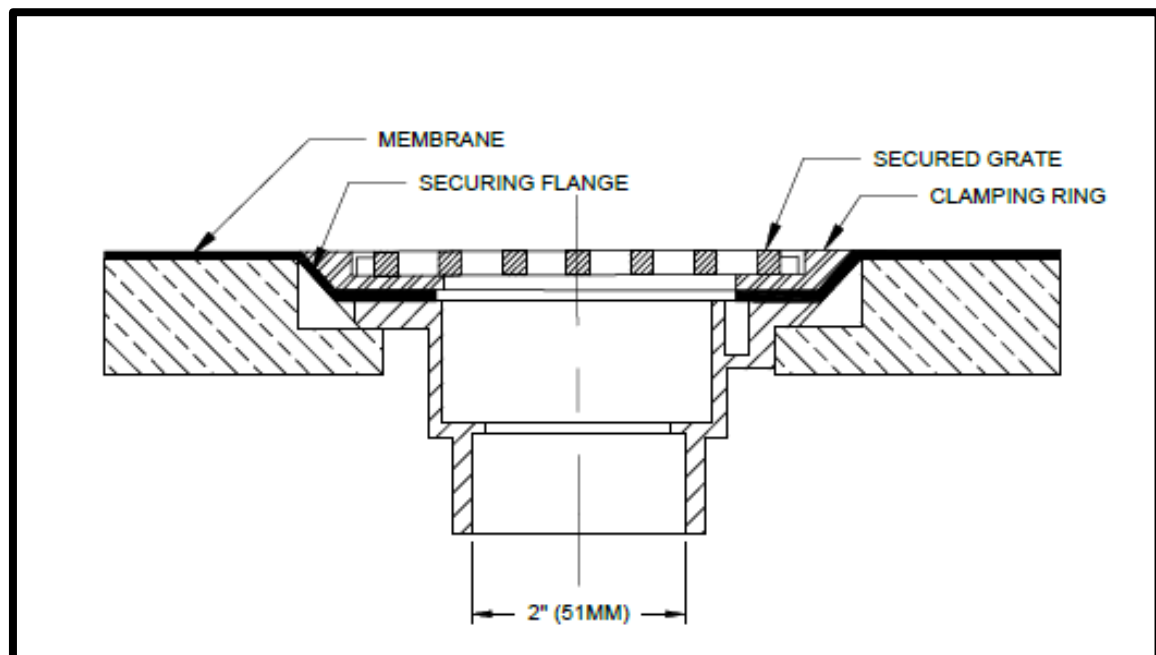
- Recommended rough opening height of 3.5" – 6" above finished deck height.
- Continental Deck Membrane must be applied to the rough opening prior to door installation for complete waterproofing.
- Continental Deck Membrane must be installed under the door threshold.



F. DRAINAGE

For decks that are fully enclosed there must be a minimum of 2 options for water to drain from deck surface.

- Primary Drains.
 - Floor drains placed at the maximum deflection.
 - PVC Coated, Spun Aluminum Solid Body. 2" and 3" available.
 - Make sure that there is no seam located on the drain.
- Secondary Drains.
 - Required for overflow.
 - Should be near primary drain.
 - No higher than 2" above primary drain.
 - No higher than any building opening.



7. CONCRETE DECKS

Considerations:

- Concrete must be completely cured.
- Poured Structural Concrete with Steel Trowel Finish – minimum 2,500 psi compressive strength.
- Understand vapor transmission and hydrostatic pressure.
 - Before installing over concrete make sure that the internal moisture content of the concrete is less than 85%.
- Bondable Profile, ICRI CSP-2 or CSP-3.
- Use solvent-based adhesive Miracle V206.

