



PROTECTO DECK™ INSTALLATION INSTRUCTIONS

THE FOLLOWING MATERIALS ARE NEEDED TO COMPLETE THE PROTECTO DECK SYSTEM.

Protecto Deck – Protecto Deck is a cold applied, nominal 70 mil, self-adhering primary waterproofing membrane for use on exterior decks beneath thin-set tile applications, paver, pedestal and decorative concrete surfaces. Available in 3' x 50' roll (150 sqft²).

Note: Each roll will yield approximately 137.5 sqft² of surface coverage with 3 inch overlapping.

Primer – Liquid bonding agent to promote full adhesion to substrates, any of the following primers are acceptable:

Solvent based primers

- Protecto Wrap #80 / #1170 VOC Primer
- Protecto Wrap #100 VOC Primer
- Protecto Wrap BT Primer

Water based primers

- Protecto Universal Water Based Primer

Detailing Liquid and Fabric – Used at floor to wall transitions, overlaps and end laps, posts and protrusions, inside and outside corners and at railings.

Protecto LM Liquid Membrane – An elastomeric latex compound premixed in 1 gallon and 5 gallon containers approximate coverage rate (approximately 1 gallon of Protecto LM Liquid Membrane will cover detailing for each roll of Protecto Deck membrane.

Protecto LM Reinforcing Fabric – Protecto LM Reinforcing Fabric is used as a reinforcing layer at wall to floor transitions and at inside and outside corners in conjunction with the Protecto LM Liquid Membrane to create a seamless waterproof barrier available in 7 1/2" x 50' roll.

Drain Detail Tape – Unreinforced conformable sheet used prior to installing floor drains available in 12" x 20' roll.



STORAGE

Protecto Deck should be stored in the original, unopened container at ambient temperatures between 40 - 90°F (5 - 32°C). Storage area should remain dry and out of direct sunlight. Do not remove materials from original containers until ready for use. Do not double stack pallets. Do not store rolls on end.

SURFACE PREPARATION

- All exterior deck surfaces must have a minimum 1/4" per foot slope to drain and must meet current TCNA application guidelines.
- All surfaces shall be clean, dry, smooth and free of any foreign materials.
- All surfaces shall be primed with Protecto Wrap Company Primer and allowed to fully cure prior to the installation of Protecto Deck membrane system.

Note: See "Technical Letter Surface Preparation" for more information.

CONCRETE

All concrete surfaces shall have a smooth steel troweled finish or better and shall be clean, free of sharp protrusions, loose aggregate, dust, voids or spalled areas. Broom finish shall not be used. Repair all areas as needed before installation of the Protecto Deck system. Concrete surfaces shall have a minimum cure time of 28 days and shall be clean, dry and must be free of form release agents, concrete curing compounds, admixtures, laitance, concrete surfacing compounds, grease or oils. Allow concrete to dry completely following precipitation.

Protecto Deck is not recommended for use on concrete floors where hydrostatic head pressure exists or moisture vapor transmission in excess of 3 - 4 lbs. On horizontal surfaces a moisture vapor emission rate test should be completed before installation of the Protecto Deck system.

Surfaces temperatures must be above (50°F) during application and for at least 48 hours after installation. If additives have been placed in the concrete that could slow the dissipation of moisture, contact Protecto Wrap Company before installation of Protecto Deck.

WOOD DECKS

Substrate Requirements (Combined subfloor and underlayment)

Minimum 1/4" per foot slope to drainage is required before installing membrane

Joist Spacing

Joists spacing must be a maximum of 16" on center and meet a minimum deflection rating of L/360 for porcelain tile and L/720 for natural stone tile.

Subfloor – Ceramic/Porcelain Tile Installations

Plywood: Minimum 19/32" exposure 1 exterior grade plywood with tongue and groove edges.

Concrete: Substrate must comply with ICC code requirements.

Underlayment – Ceramic/Porcelain Tile Installations

CBU (Cement Backer Board): 1/2" cementitious backer units installed over subfloor with dry-set Portland cement mortar and fastened to subfloor with manufacturer approved corrosion-resistant fasteners. 1/2" cement board underlayment must be approved for exterior use.

OR

1/2" plywood underlayment, exposure 1 or C-C plugged exterior, or sanded plywood grades with special inner ply construction conforming to underlayment provisions Voluntary Product Standard PS 1-95 for construction and industrial plywood, installed over subfloor with construction adhesive and corrosion-resistant fasteners. Fasteners should not penetrate framing below (plywood underlayment must be spaced 1/8" between panels and 1/4" from all materials they abut, such as walls, drains and posts).

Subfloor – Natural Stone Tile Installations

A **double layer** of staggered seam plywood: Minimum 19/32" exposure 1 exterior grade plywood with tongue and groove edges.

Underlayment – Natural Stone Tile Installations

CBU (Cement Backer Board): 1/2" cementitious backer units installed over subfloor with dry-set Portland cement mortar and fastened to subfloor with manufacturer approved corrosion-resistant fasteners. 1/2" cement board underlayment must be approved for exterior use.

OR

1/2" plywood underlayment, exposure 1 or C-C plugged exterior, or sanded plywood grades with special inner ply construction conforming to underlayment provisions Voluntary Product Standard PS 1-95 for construction and industrial plywood, installed over subfloor with construction adhesive and corrosion-resistant fasteners. Fasteners should not penetrate framing below (plywood underlayment must be spaced 1/8" between panels and 1/4" from all materials they abut, such as walls, drains and posts).

If Protecto Deck is to be applied to a concrete or wood surface where other curing compounds, liquid coatings or wood treatments have been used, please contact Protecto Wrap Company for recommendations.

Metal surfaces are to be clean and free of all paint, oil, coatings, rust or any other contaminants. Wire brush and/or denatured alcohol wipe all metal to insure a clean surface. When using alcohol to clean surfaces; we suggest a two rag method, one rag to apply the liquid and one clean rag to wipe off residue to create a clean surface.

RAILINGS

All surface mounted hardware, such as posts, supports or railings must be installed, properly secured and detailed with Protecto LM Reinforcing Fabric and Protecto LM Liquid Membrane prior to Protecto Deck membrane installation. Only side or face mounted railing systems can be installed after waterproofing installation has been performed.

PROTRUSIONS

All supports, pipes and or protrusions must be installed and properly secured prior to the installation of the Protecto Deck membrane. Protecto Deck should be cut to fit tight against supports, pipes, posts or protrusions.

DRAINS

Drain flanges should be secure to the deck and fully supported. The drain flange and surrounding area should be primed and allowed to fully cure. Cover drain at least 6" past all perimeters with Detail Tape. Remove the release paper, apply the membrane over the drain hole, and make an X cut in the center of the hole and form the Detail Tape into the drain. Be sure the membrane has 100% contact with the primed drain surface. Remove the top release film. Apply Protecto Deck over the Detail Tape, then cut and form it around drain. Apply a generous coat of Protecto LM Liquid Membrane 4" onto the membrane and perimeter of drain.

Protecto Deck should be cut to fit tight against supports, pipes, posts or protrusions.

MOVEMENT AND EXPANSION JOINTS

Movement joints, expansion joints, perimeter and field expansion joints in the concrete substrate must be installed and detailed per TCNA EJ171 guidelines.

HORIZONTAL SURFACE APPLICATION

The Protecto Deck membrane is intended to be installed on all horizontal surfaces. Pre-measuring and cutting the membrane to fit will expedite the installation process and ensure the Protecto Deck is installed 1/4" or less from vertical walls and around any protrusions and drains.



Apply an even coat of primer to all horizontal surfaces, including drains, protrusions and surface mounted hardware with a brush or roller and allow to dry (cure time is 15 - 45 minutes). Back roll any puddles or drips immediately. Prime only as much area as can be covered in half a day's work. Primed areas that are not covered in a day's work will need to be re-primed prior to commencement of work. Primer coverage may vary depending on porosity of surface. When fully cured, primer should be tacky to the touch but not lift off of substrate when pressure is applied. After application and full curing of primer, the membrane is ready to be installed.

Installation of the Protecto Deck membrane should start at the lowest point of the deck with the minimum 3" adhesive overlap edge facing towards the high point of the deck. Protecto Deck incorporates a siliconized release liner that will not bond to the primed surface for ease of installation, it also has a perforated "Zip Strip" to assist in aligning the overlap edge.



Roll out the membrane with the release liner side down on the primed surface and align with the edge of the deck. Pull back approximately 6" of the release liner and adhere the membrane to the primed surface, make sure the membrane is straight and smooth out any bubbles or wrinkles. Slightly pull the membrane tight as you remove the remaining release liner and broom or squeegee the material as it comes into contact with the primed substrate. Smoothing the membrane out with a broom or roller during application, will help to avoid wrinkles, entrapped air, fish mouths and help to obtain maximum contact with the primed surface. For maximum performance, 100% surface contact to the primed substrate must be achieved. Loose laying the membrane is not recommended.



Protecto Deck has a perforated "Zip Strip" on the release liner that can be removed to help facilitate the installation at the overlap bond prior to adhering the full sheet if desired. Remove a small portion of the "Zip Strip" and align it with the exposed adhesive on the minimum 3" overlap area. Press the overlap together to create a cohesive bond. Make sure the membrane is straight, slightly pull the membrane tight as you remove the remaining "Zip Strip" release liner and broom or squeegee the material as it comes into contact with the overlap area. Pressure rolling the overlaps is essential to forming a cohesive bond at the overlap and permanent monolithic system. Fold the remaining portion of the membrane (with release liner attached) back onto the existing sheet and peel back approx. 6 - 12" of release liner at a 45 degree angle, lay membrane back onto the primed substrate and smooth out any bubbles or wrinkles. Pull existing release liner while smoothing out the membrane when it comes in contact with the primed substrate. Apply each succeeding sheet in the same manner, overlapping the edge laps a minimum of 3". If the span requires the use of two sheets, the end lap should extend a minimum of 6" onto the existing sheet. For best results, a coat of primer is recommended to be applied a minimum of 6" onto the base sheet and allowed to dry prior to applying overlapping sheet onto primed membrane. Firmly roll surface to ensure overlap is fully bonded. Do not cover wet primer. Once the end lap is fully bonded, apply a generous amount of Protecto LM Liquid Membrane to cover the end lap.



FLOOR/WALL TRANSITIONS POSTS, PROTRUSIONS, INSIDE AND OUTSIDE CORNERS, DOOR OPENINGS AND EDGE TERMINATION

Protecto LM Liquid Membrane – is an elastomeric latex compound that is pre-mixed and ready to use.

Protecto LM Liquid Membrane may be applied by brush or roller and should be applied at a minimum wet thickness of 60 mils directly to the Protecto Deck membrane and the adjoining substrate.

Fill all voids or gaps around posts and protrusion with foam backing material prior to applying Protecto LM Liquid Membrane.



NEW CONSTRUCTION

1. Apply a generous coat of Protecto LM Liquid Membrane 4" onto the Protecto Deck membrane and adjoining substrate.
2. While the base coat is still wet, embed the 7 1/2" wide Protecto LM Reinforcing Fabric into the center of the wet liquid so that half of the fabric is on the membrane and the adjoining vertical surface.
3. Use a roller or brush to smooth out any wrinkles in the fabric and force it into the wet Protecto LM Liquid Membrane so that it bleeds through fabric.
4. On long runs or at inside and outside corners or where the fabric must be cut, the fabric must be overlapped by at least 2".
5. Allow liquid to dry to the touch (approximately 2 - 3 hours).
6. Apply another generous coat of Protecto LM Liquid Membrane on top of fabric so that fabric is completely covered.
7. Once dry, visually inspect the transition areas, if there are any areas that the fabric is exposed through the Protecto LM Liquid Membrane or that appear to be sparsely coated, re-apply a coat to completely cover the areas.

Door Openings in New Construction

1. All door openings shall be flashed in such a manner as to direct water onto the deck surface and shall properly overlap onto the Protecto Deck System prior to the installation of the door.

RETROFIT/REMODEL CONSTRUCTION

Retrofit or remodel projects may require the existing siding, cladding, brick, stucco and existing doors to be removed a minimum 4" to gain access to the structural sheathing of the wall and to properly install and integrate the Protecto Deck system into the existing drainage plane of the wall system.

1. Remove a minimum of 4" of existing siding to expose wall sheathing being careful to not destroy or damage the existing weather resistant barrier (house wrap or building paper).
2. Install Protecto Deck System as outlined above and allow to fully cure.
3. Overlap existing weather resistant barrier over the Protecto LM and secure, existing weather resistant barrier should be terminated above the finished floor elevation for proper drainage.

This may require new metal "L" flashing to be installed or weep screed type flashing to properly terminate the exterior wall siding.

Note: Protecto LM Liquid Membrane must be applied directly to the exterior wall sheathing to allow for proper waterproofing sequencing.

Do not apply directly over roofing felt, house wrap, brick, stone or stucco surfaces; this could prevent the wall cavity from draining properly.

Door Openings in retrofit or remodel construction

1. Existing doors should be removed and the sill and side jambs properly flashed in such a manner as to direct water onto the deck surface and shall properly overlap onto the Protecto Deck System.

Overlaps and End Laps

1. Apply a 4" wide coat of Protecto LM Liquid Membrane to all overlapping seams of the Protecto Deck membrane and allow it to dry to the touch.
2. Next, apply a final coat of Protecto LM Liquid Membrane to all seams within 24 hours to seal the installation.
3. Protecto LM Liquid Membrane should be cured for at least 24 hours at prior to conducting flood test.

PERIMETER EDGE/DRIP EDGE

All drip edge flashings shall be installed prior to the installation of the Protecto Deck system. The Protecto Deck membrane should be installed over the Drip Edge and terminated approximately 1/4" - 1/2" from the edge and terminated with a generous coating of Protecto LM Liquid Membrane.



FLOOD TESTING

Protecto Deck system must be installed and fully cured at least 24 hours prior to flood testing. Protecto Wrap Company recommends following ASTM D5957 testing protocol when performing a flood test. Perform flood test with a minimum of 1" and a maximum of 4" of water for 24 hours. Drains should be plugged and barriers placed to contain the water. All leaks shall be located and repaired (see "Repairs") prior to covering the membrane. There shall be a minimum 24 hour wait period after repairs are made prior to re-testing Protecto Deck system.

WARRANTY CAN NOT BE ENFORCED WITHOUT DOCUMENTATION OF LEAK FREE FLOOD TESTING SUBMITTED TO PROTECTO WRAP COMPANY WITHIN 30 DAYS AFTER TESTING. THE APPLICATOR AND GENERAL CONTRACTOR MUST SIGN THE SUCCESSFUL FLOOD TESTING DOCUMENT.

REPAIRS

If Protecto Deck system is damaged and requires repairing after the flood testing is complete; clean the damaged area and remove any loose material. The damaged area must be completely dry prior to repairs. Apply a coat of primer a minimum 8" beyond all edges of the damaged area. Cut Protecto Deck membrane patch so as to cover the area a minimum of 6" past the edge of the damaged area in all directions. Apply the Protecto Deck patch to the area that was primed and roll firmly to ensure full contact. A minimum 4" wide, 60 mil thick coat of Protecto LM Liquid Membrane shall be applied to seal all edges of the patch.

PROTECTION OF MEMBRANE

Protecto Deck system is not designed for long term exposure to sunlight and shall be protected by a suitable weather resistant system if the finished tile covering is not applied immediately.

In order to prevent damage to the membrane, drainage boards or suitable protection board should be applied to protect the membrane from damage if the finished tile covering is not installed immediately.

Protect non-traffic horizontal surface areas with 90 lb. felt. Moderate to heavy traffic areas should be protected with 1/8" asphalt hardboard or other suitable protection board.

If other trades are allowed to work on or near membrane, the Contractor should make them aware of the waterproofing and provide suitable protection. They should take care in working around the installation of membrane and inspected the areas for damage once the work is finished and report any consequential damages to the Contractor for repair.

TILE

Using a Latex Modified Mortar, first key the mortar into the surface of the membrane with the flat side of the trowel, then comb out the mortar with the notched side of the trowel to ensure the mortar is well seated into the fabric to ensure full bond to the surface of the membrane.

MOVEMENT JOINTS

Follow ANSI 108.1-3.1.2 and TCNA EJ171 Guidelines for the location of movement joints in exterior tile work on floors.

Use only 100% silicone or siliconized acrylic latex sealant designed for ceramic tile & stone applications.

DRAINAGE BOARDS/MATS

If a drainage board system is going to be used, it may be adhered directly to the Protecto Deck with a modified thin set mortar application.

MAINTENANCE

Periodic inspection and maintenance of perimeter soft joints, expansion joints, movement joints and sealants around posts/protrusions is required by the owner to maintain warranty.

Grout joints should be inspected periodically for cracks and repaired immediately, cracks in grout joints will allow water to migrate under the tile and can cause efflorescence to occur at the surface, prolonged neglect can cause damage to the waterproofing system.

CLEAN UP

Dispose of waste in accordance to local requirements. Control worksite so that boxes and release liner do not present a hazard. Packaging materials and release liner can be recycled.

Caution

Protecto Deck should not come into contact with solvent based products, polysulfide's, plasticized PVC roofing materials or high concentrations of resins (pitch).

When installed in areas subjected to freeze-thaw cycles, snow and ice accumulation or where the use of snow or ice melting chemicals are used, degradation may occur to grout joints, control joints, soft joints and expansion joints.

Note: Outgassing may be intensified in decks that have been recently subjected to rain, high humidity or other forms of moisture. Consult Protecto Wrap Company for recommendations if these conditions exist.

LIMITED WARRANTY

This product is covered by the Protecto Wrap Standard 10 year Limited Warranty.



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