

Thin-Clad Veneer Drainage Mat Installation Guide (Wood Stud Substrate)

Step 1: Inspect Framed Walls

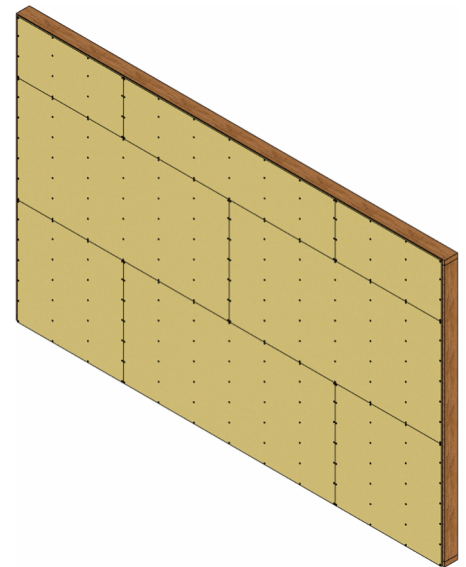
Wood studs shall be installed plumb and level.

Deflection criteria for substrate should be $L/600$ ($L/720$ preferred).



Step 2: Install Sheathing

Install exterior grade sheathing (i.e. glass-mat reinforced gypsum board, plywood etc...) per manufacturer's recommendations with proper screw placement and attachment.



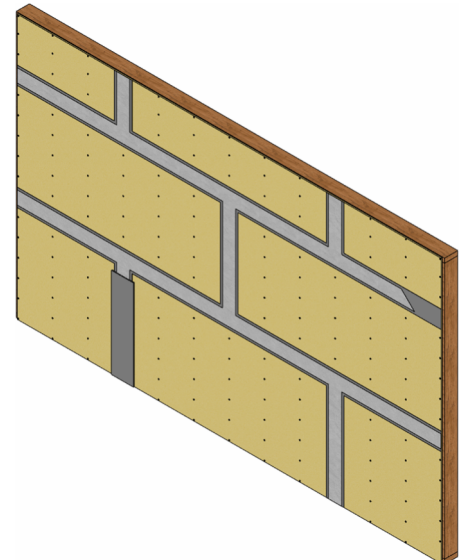
Step 3: Waterproof Joints in Exterior Grade Sheathing

Apply a liberal coat of ProGUARD DP® Water Armor Air and Water Barrier (Vapor Permeable) or Water Armor VB (Vapor Retarder/Barrier) to the joints between the exterior grade sheathing boards and then embed the ProGUARD DP® Water Armor Flashing Tape into it. Once the tape is applied, apply another liberal coat of ProGUARD DP® Water Armor Air and Water Barrier or Water Armor VB over the flashing tape and allow it all to cure per T.Clear's recommendations.

or

Apply a liberal coat of Laticrete Air & Water Barrier (Vapor Retarder) or Laticrete Air Barrier C3 (Vapor Permeable) to the joints between the exterior grade sheathing boards and then embed the Laticrete Waterproofing/Anti-Fracture Fabric into it. Once the Anti-Fracture Fabric is applied, apply another liberal coat of Laticrete Air & Water Barrier or Laticrete Air Barrier C3 over the Anti-Fracture Fabric and allow it all to cure per Laticrete's recommendations.

Regardless of the method being used, properly seal around any penetrations or openings such as recesses, chases, pipes, door and window openings etc... Refer to the respective waterproofing membrane instructions for methods to achieve proper seals.



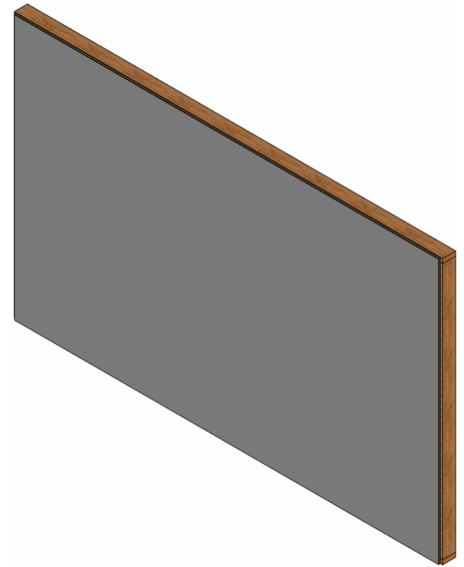
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Step 4: Install Air & Water Barrier

Apply the required number of coats of ProGUARD DP® Water Armor Air and Water Barrier (Vapor Permeable) or Water Armor VB (Vapor Retarder/Barrier) over the entire surface of the sheathing. Follow T.Clear's instructions for proper application and number of coats.

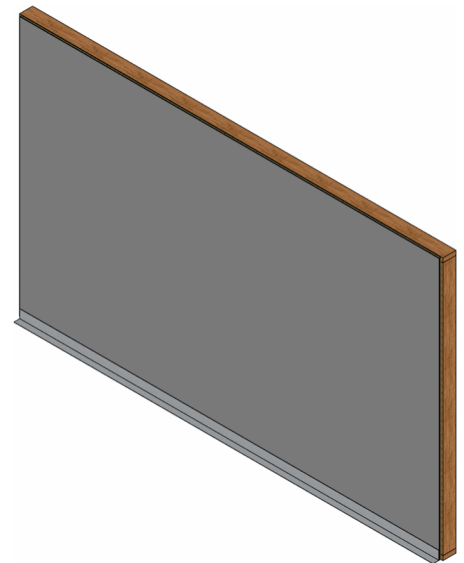
or

Apply the required number of coats of Laticrete Air and Water Barrier (Vapor Retarder) or Laticrete Air Barrier C3 (Vapor Permeable) over the entire surface of the sheathing. Follow Laticrete's instructions for proper application and number of coats.



Step 5: Base Wall Metal Flashing

Install prefinished bent metal flashing (**supplied by others**) at the base of walls, above wall openings, and at deflection joints in the wall assembly. Attach the flashing at 16" O.C. back to the studs or solid substrate behind. The flashing should extend 4" up the wall and the horizontal leg should project approximately 1/2" beyond the face of the concrete board face (i.e. depth of the horizontal leg is based on the thickness of the 3/8" DELTA®-DRY drainage mat plus the 1/2" thick concrete board plus 1/2" to extend past the concrete board surface for a total of 1-3/8" in depth).



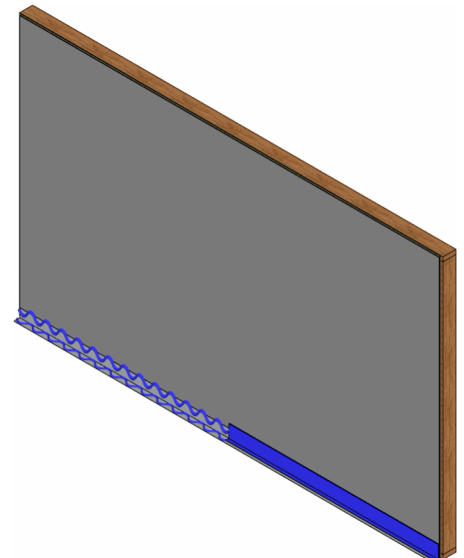
Step 6: Base Wall Flashing

Apply T.Clear Water Armor LF using a sausage gun and squeeze a generous amount of the flashing material on to the horizontal and vertical legs of the metal flashing and up the wall a few inches and then spread/flatten over the surface with a plastic putty knife ensuring proper coverage and all elements are completely sealed. Alternatively, apply a liberal coat of ProGUARD DP® Water Armor Air and Water Barrier (Vapor Permeable) or Water Armor VB (Vapor Retarder/Barrier) up the vertical leg of the metal flashing and up the wall a few inches and then embed the ProGUARD DP® Water Armor Flashing Tape into it ensuring to cover the top edge of the metal flashing. Once the tape is applied, apply another liberal coat of ProGUARD DP® Water Armor Air and Water Barrier or Water Armor VB over the flashing tape and metal flashing and allow it all to cure per T.Clear's recommendations.

or

Apply Laticrete Flashing Sealant using a sausage gun and squeeze a generous amount of the flashing material on to the horizontal and vertical legs of the metal flashing and up the wall a few inches and then spread/flatten over the surface with a plastic putty knife ensuring proper coverage and all elements are completely sealed. Alternatively, apply a liberal coat of Laticrete Air & Water Barrier (Vapor Retarder) or Laticrete Air Barrier C3 (Vapor Permeable) up the vertical leg of the metal flashing and up the wall a few inches and then embed the Laticrete Waterproofing/Anti-Fracture Fabric into it ensuring to cover the top edge of the metal flashing. Once the Anti-Fracture Fabric is applied, apply another liberal coat of Laticrete Air & Water Barrier or Laticrete Air Barrier C3 over the Anti-Fracture Fabric and metal flashing and allow it all to cure per Laticrete's recommendations.

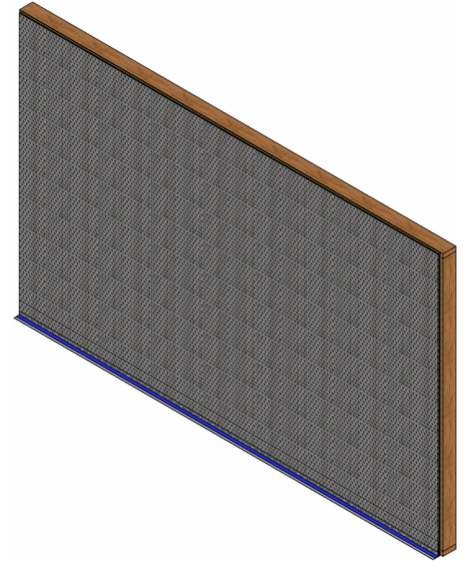
Regardless of the method being used, properly seal around any penetrations or openings such as recesses, chases, pipes, door and window openings etc... Refer to the respective waterproofing membrane instructions for methods to achieve proper seals.



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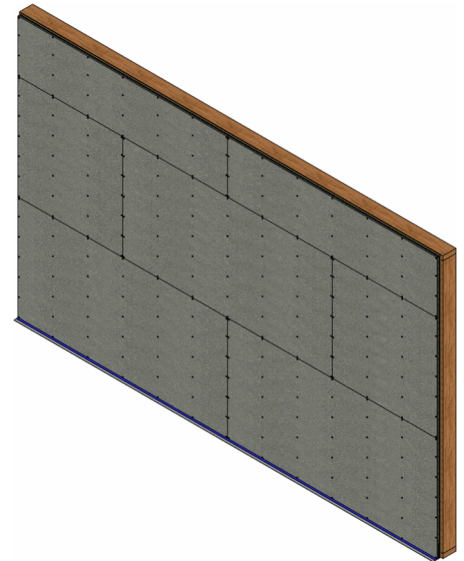
Step 7: Install DELTA®-DRY Drainage Mat

Install optional DELTA®-BUG SCREEN at base of wall and top of wall assembly, aligning bottom of DELTA®-BUG SCREEN with planned bottom edge of thin adhered masonry veneer. Install DELTA®-DRY drainage mat. Follow manufacturer's instructions for proper installation and application.



Step 8: Install Concrete Board Panels

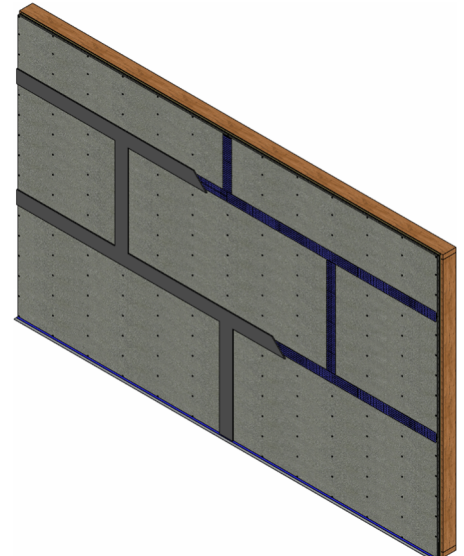
Install 1/2" thick concrete board panels. Follow manufacturer's instructions for proper installation and application, as well as screw spacing requirements. The concrete board should be installed 3/8" above the flashing/base of wall to ensure the DELTA®-DRY drainage mat is exposed at the base of the wall.



Step 9: Concrete Board Panel Joint Treatment

Once all concrete board panels are installed, treat all joints between panels with the **BLUE** self-adhering 4" wide alkali-resistant mesh tape. Apply tape across all joints (2" on either side of joint), pressing firmly to ensure adhesion to substrate. Spread a thin coat of T.Clear Total Bond or Laticrete Bonding Mortar (select appropriate bonding mortar for the application, refer to checklists below) over the alkali resistant mesh tape. Allow bonding mortar to fully cure.

Continue this process until all the joints between all concrete board panels have been treated, including at corners, opening jambs, sills, and headers etc... Allow bonding mortar to fully cure.

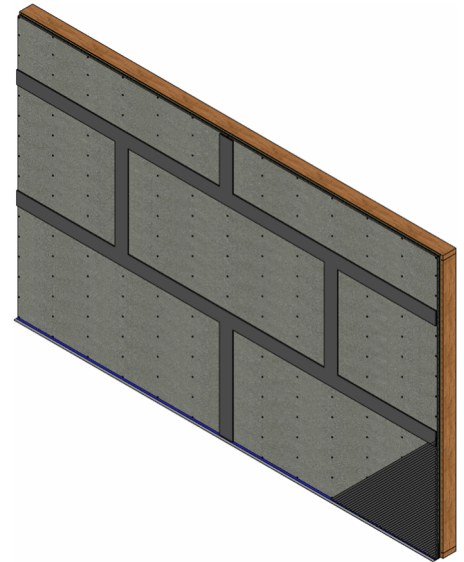


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Step 10: Adhered Veneer Substrate Preparation

Ensure installed concrete board panels are free of dust and debris. Using a notched trowel, spread T.Clear Total Bond or Laticrete Bonding Mortar across concrete board panels and ensuring to burn the mortar into the concrete board surface. Pull the notched side of the trowel across mortar to create a grooved surface and to gauge the mortar thickness. Notched trowel selection is dependent on the material being installed and the substrate tolerances. Apply only a workable area of mortar that will allow stone/brick/masonry to be properly set before surface drying occurs. This area will vary depending on site environmental conditions.

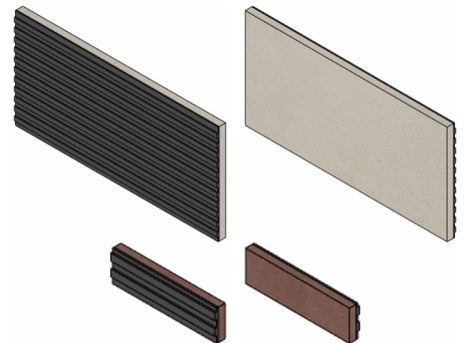
NOTE: Do not substitute T.Clear Total Bond or Laticrete Bonding Mortars with any other products or materials unless Arriscraft Technical Services has been consulted.



Step 11: Prepare Thin Adhered Masonry Veneer

Clean unit backs of any dust, laitance, loose material and any excess film that could impede bond. "Back-butter" the thin-adhered units with T.Clear Total Bond or Laticrete Bonding Mortar, ensuring to burn the mortar into the back of the units and filling any surface irregularities. Pull notched side of the trowel across mortar to create a grooved surface and to gauge the mortar thickness. Notched trowel selection is dependent on the material being installed and the tolerances of the substrate. Be sure to achieve 100% coverage with the mortar.

NOTE: Do not substitute T.Clear Total Bond or Laticrete Bonding Mortars with any other products or materials unless Arriscraft Technical Services has been consulted.

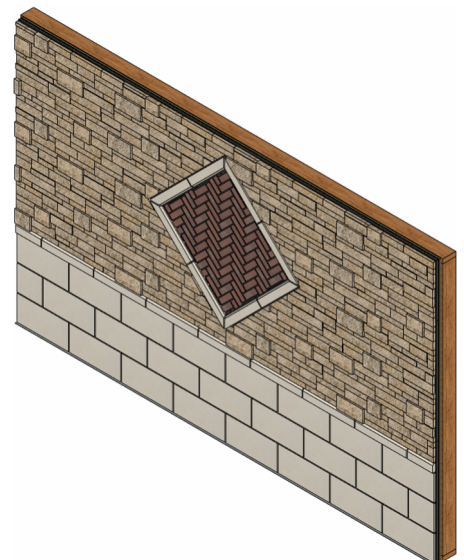


Step 12: Install Thin Adhered Masonry Veneer

Begin with the corner pieces and bring the two still wet mortar surfaces together (back buttered units and mortar on the wall as this is in part what creates the incredible bond strengths). Press the corner piece onto the wall, rotating back and forth slightly. This process should force some of the mortar to "squeeze out" and work out any air gaps in the mortar. Remove any excess mortar with a square flat trowel and use the excess on the next piece of thin-adhered masonry.

After the corner pieces are installed, apply flat stretcher pieces starting at an outside corner unit and working your way in. Set the stretcher units by placing it on the ledger or the units that were installed below. Once set on the wall push the unit into the mortar and up and at an angle and then return it back to the desired position. This process should force some of the mortar to "squeeze out" and work out any air gaps in the mortar. Remove any excess mortar with a square flat trowel and use the excess on the next unit. Remove excess mortar droppings from the veneer face with a clean wet sponge and a stiff fibre brush. Check for 100% mortar coverage by removing ten brick units, 4 ARRIS-tile, natural stone, or porcelain tile units, 8 manufactured stone units from the wall per bag of mortar used to check that no voids exist. Reinstall removed units.

Once the bonding mortar has cured then use Laticrete Pointing Mortar or a Type "N" mortar to point the joints between the individual units as required. Place pointing mortar into a grout bag or grout gun and squeeze the grout into the joints between the thin-adhered masonry units. Once the mortar is thumbprint hard, tool the joints to a concave or raked finish depending on the desired joint finish ensuring to push the mortar into the joint during this process to force the mortar against the adhered veneer units. Allow the wall to cure.



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Checklist for Placing a Drainage Mat Thin-Clad Veneer Order When Installing over Wood Stud Substrate			
Materials Required		Approximate Coverage/Size (if applicable)	Notes
<input type="checkbox"/>	ProGUARD DP® Water Armor Flashing Tape or Laticrete Waterproofing Anti-Fracture Fabric	180 lin. ft. (covers the joints of approximately 15 sheathing panels) 75 lin. ft. (covers the joints of approximately 6 sheathing panels)	Does not account for windows or sheathing panels that have been cut. For the price we simply recommend doubling the quantities.
<input type="checkbox"/>	Water Armor Air and Water Barrier (Air and Water Barrier that is Vapor Permeable with a perm rating of 30) or Water Armor VB (Vapor Barrier with a perm rating of 0.07) or Laticrete Air and Water Barrier (Air and Water Barrier that is a Vapor Retarder with a perm rating of 0.157) or Laticrete Air Barrier C3 (Air and Water Barrier that is Vapor Permeable with a perm rating of 3.0)	500 sq. ft. with 1 coat required 250 sq. ft. with 2 coats required 250 sq. ft. with 2 coats required 500 sq. ft. with 1 coat required	
<input type="checkbox"/>	Water Armor LF or Laticrete Flashing Sealant Eliminate these if Flashing Tape/Fabric are being used as flashing	16 lin. ft. 16 lin. ft.	Can be used as flashing in combination with Water Armor or Laticrete waterproofing.
<input type="checkbox"/>	Prefinished bent metal flashing (supplied by others)	N/A	
<input type="checkbox"/>	DELTA®-BUG SCREEN	1-1/2" x 5'-0"	
<input type="checkbox"/>	DELTA®-DRY drainage mat	150 sq. ft. (3'-3" x 50'-0")	
<input type="checkbox"/>	Util-A-Crete concrete board panels (3'-0" x 8'-0" x 1/2")	24 sq. ft.	
<input type="checkbox"/>	ProGUARD DP® Silver C Screws for attaching concrete board panels and bent metal flashing	Dependent on required spacing. Sold in full box quantities. Screw length should ensure a minimum 1" embedment into concrete (i.e. concrete board panel thickness plus DELTA®-DRY thickness plus 1" - select next longest standard fixed screw length)	
<input type="checkbox"/>	Alkali Resistant Mesh Tape Rolls	4" x 150'-0" (covers the joints of approximately 13 full 3'-0" x 8'-0" concrete board panels)	Does not account for windows, concrete board panels that have been cut etc... Double quantities.
<input type="checkbox"/>	Thin Masonry Veneer Material (stretchers, corners, custom profiles)	Dependent on selected material	
<input type="checkbox"/>	T.Clear Total Bond for all masonry options or Laticrete Bonding Mortar (select appropriate one): 1) Laticrete Hi-Bond Veneer Mortar for ARRIS-tile, Porcelain tile, ceramic tile, natural stone tile, or 2) Laticrete Masonry Veneer Mortar for manufactured stone and thin natural building stone, or 3) Laticrete Thin Brick Mortar for thin brick, Midtown, Coastal and stack	25 sq. ft. 25 sq. ft. 25 sq. ft. 25 sq. ft.	
<input type="checkbox"/>	Shims (to help with proper install and keep stone and joints level as material is installed and to maintain joint spacing): 1) 1/16" (100 per bag) 2) 1/8" (100 per bag) 3) 1/4" (100 per bag) 4) 3/8" (20 per bag)	Order shim thickness that is appropriate for the joint widths for the masonry material being installed. Exception to that rule, we recommend 1/16" and 1/8" shims be used with Stack and Midtown when installing them with tight joints.	
<input type="checkbox"/>	Laticrete Pointing Mortar or Type N mortar to point the joints (if required)	Dependent on selected material	
<input type="checkbox"/>	Laticrete Latasil or Dowsil Silicone Sealant for sealing movement joints and joints around openings such as windows and doors, as well as penetrations like pipes and fittings etc...	Dependent on Joint width to be sealed	Don't forget backer rod in the joint prior to installing the silicone