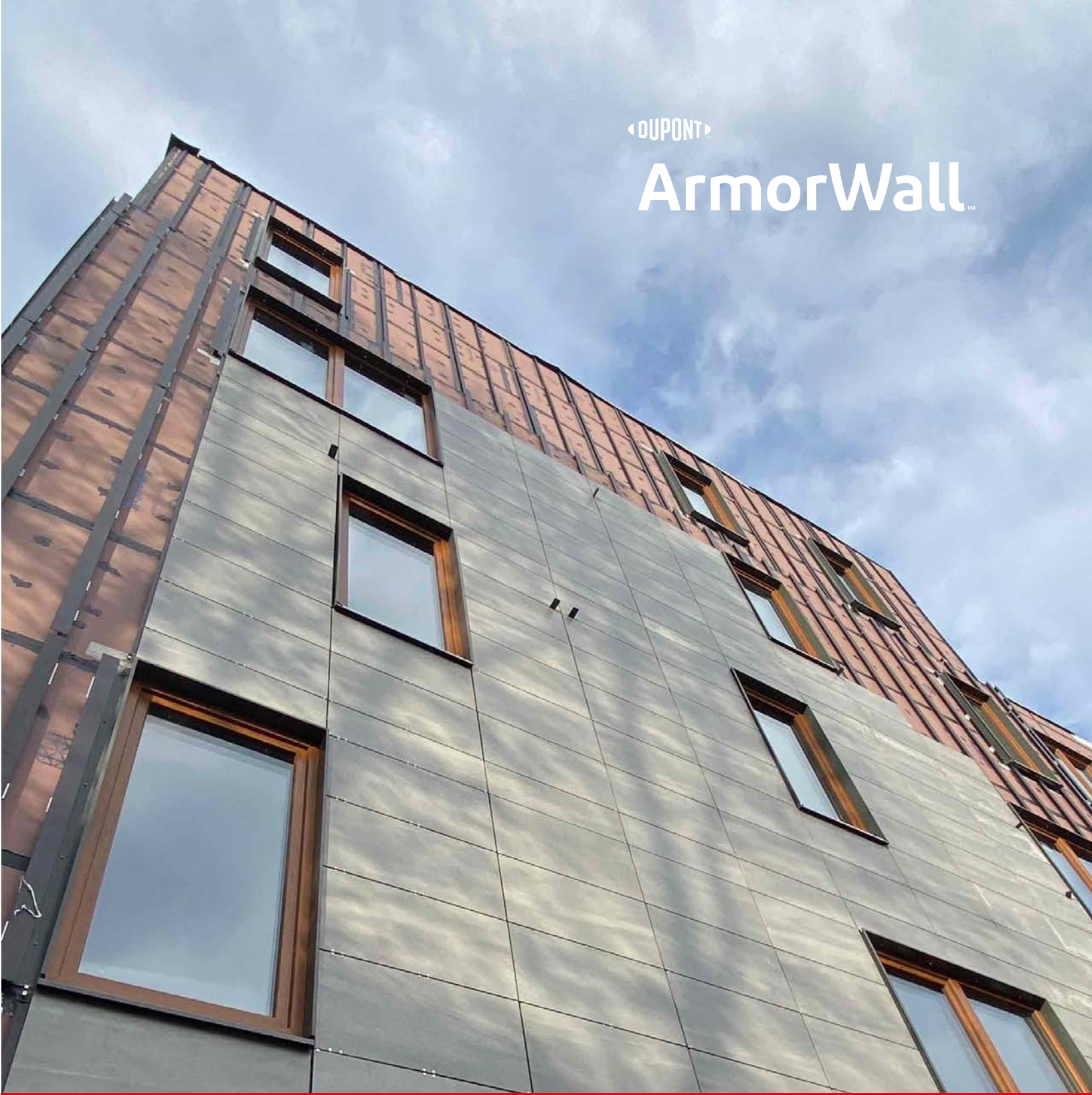




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ArmorWall™

DuPont™ ArmorWall™ System Installation Guidelines

September 2025

DuPont™ ArmorWall™ Installation Guidelines

Table of Contents

Introduction.....	3	Sealing ArmorWall™ System Panel Gaps	32
ArmorWall™ System Components.....	4	Sealing Gaps up to 1/8"	32
General Installation Guidelines.....	5	Sealing Gaps Greater Than 1/8" and up to 3/4"	33
ArmorWall™ Panel Attachment Fasteners.....	6	Sealing Gaps Greater Than 3/4" and Expansion Joints	34
Cladding Attachment Fasteners.....	7	Sealing Out-of-Plane Panel Installations	35
Fastener-Related Reports & Listings.....	7	Sealing ArmorWall™ Panel Tie-ins with Dissimilar Materials.....	36
Delivery and Storage	8	Sealing Punched Opening Sill with Full-Depth Return	37
ArmorWall™ System Shipping Quantities.....	8	Flashing Rough Openings with DuPont™ DuraGard™ WD Self-Adhered Flashing Tape and DuPont™ LiquidArmor™ FJ Flashing and Joint Compound	38
Safety and Handling.....	9	Full-Depth Return with Liquid Sill Flashing	45
Recommended Jobsite Tools.....	10	Sealing Gaps and Penetrations with DuPont™ LiquidArmor™ FJ Flashing and Joint Compound	46
Inspecting the Structure Prior to Installation	11	Patching Panels with ArmorWall™ Panel Blocks.....	47
Recommended Fastening Patterns.....	12	DuPont™ ArmorDry™ Exterior Drainage Mat Installation Guidelines for Stucco, Adhered Stone, and Direct Applied Claddings	49
ArmorWall™ Panel Attachment	13	Cladding Attachment to the ArmorWall™ System.....	54
Panel Attachment to Steel Stud Frame.....	14		
Panel Attachment to Cast-In-Place Concrete or CMU	14		
Panel Attachment - Base of Wall.....	15		
Panel Attachment - Top of Wall	19		
Outside Corners – Weave Joint.....	20		
Inside Corners – Butt Joint	21		
Capping the Panel Edge	22		
Punched Openings.....	23		
Method 1: Cutting an Affixed Panel.....	23		
Method 2: Preparing an Unaffixed Panel	24		
Method 3: Measured Panel	25		
Punched Opening Returns	26		
Option 1: Full-Depth Return.....	26		
Option 2: ArmorWall™ Panel-Depth Return	27		
Sealing Fasteners.....	28		
Sealing Field Seams	29		
Sealing Corners.....	30		
Sealing Punched Openings That Used DuPont™ ArmorBoard™ Plus Fire-Rated (FR) Structural Sheathing Returns	31		

DuPont™ ArmorWall™ Installation Guidelines

Introduction

DuPont™ ArmorWall™ Plus Fire-Rated (FR) Structural Insulated Sheathing (SIS) is an ICC-listed, high strength, fire-resistant exterior wall sheathing product, commonly referred to as a Structural Insulated Sheathing (SIS) panel.

The patented Fusion Technology of **ArmorWall™ Plus FR SIS** combines the best traits of Magnesium Oxide (MgO) and polyurethane insulation, by fusing MgO sheathing onto the exterior face of the panels to deliver high strength and durability not commonly found in

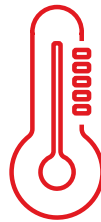
traditional building enclosure products. This innovation delivers a higher effective R-Value by eliminating many of the thermal breaks required in a typical wall assembly. As a result, architects and designers who specify the **ArmorWall™ System** are free to design with wider creativity or able to re-implement legacy design without compromising wall construction speed, efficiency, and code and continuous insulation (ci) compliance.

This Installation Guideline outlines recommended installation techniques and details for the **ArmorWall™ System**. For more information, visit armorwall.dupont.com or call 1-833-338-7668. Always check building.dupont.com for the latest versions of DuPont Installation Guidelines and other product literature.



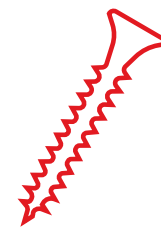
NFPA 285 Compliant Fire-Resistance

The significant fire resistance of **ArmorWall™ Plus FR SIS** allows many diverse assemblies with combustible and non-combustible claddings to successfully pass the NFPA 285 test criteria as required by Chapter 26 of the IBC. See our ICC-ES E331 and associated engineering judgment letters for additional information.



Continuous Insulation

ArmorWall™ Plus FR SIS has a high-performance, poured polyurethane insulation layer fused to the sheathing layer, which provides an easy way to comply with continuous insulation (ci) requirements in building codes. The thermal layer is offered in three standard thicknesses and R-Values.



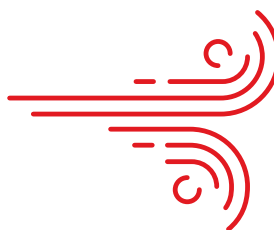
Structural Sheathing + Cladding Support

Simplify construction with direct cladding attachment to **ArmorWall™ Plus FR SIS** without the need to fasten back to stud. **ArmorWall™ panels** have been tested to support loads equivalent to most building cladding finishes, with minimal creep while under load.



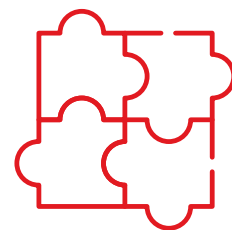
Water-Resistive Barrier

ArmorWall™ Plus FR SIS passes ASTM E331 water penetration resistance at 15 PSF for 15 minutes and complies with the International Building Code (IBC) for water-resistive barriers. Once the roofing membrane is sealed to the **ArmorWall™ System**, and the sheathing fasteners and seams have been sealed, the exterior walls are considered dried-in, and interior construction may commence.



Air-Resistive Barrier

Once properly sealed using **DuPont™ LiquidArmor™ FJ Flashing and Joint Compound** at all seams and sheathing fasteners, **ArmorWall™ Plus FR SIS** meets the IBC and ASTM E283 requirements for an air barrier assembly without the need for additional materials.



Prefabricated System for Panelization

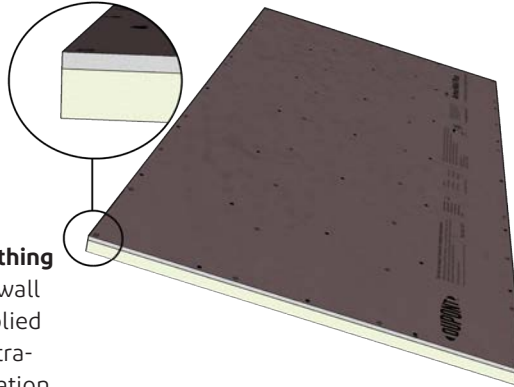
ArmorWall™ Plus FR SIS used in panelized wall assemblies enable general contractors and installers to yield greater savings, both in efficiency and labor, versus traditional wall systems. Wall panels incorporating the **ArmorWall™ System** can typically be completed faster without suffering potential affects from deflection during transport and racking during panel erection.

DuPont™ ArmorWall™ Installation Guidelines

ArmorWall™ System Components

DuPont™ ArmorWall™ Plus Fire-Rated Structural Insulated Sheathing

High strength, fire-resistant exterior wall sheathing product with a factory-applied air and water-resistive barrier and ultra-low GWP poured polyurethane insulation.



DuPont™ ArmorBoard™ Plus Fire-Rated (FR) Structural Sheathing Return

1/2" Magnesium Oxide (MgO) board product used in punched opening applications, or where field returns vary from standard provided sizes.



DuPont™ ArmorDry™ Exterior Drainage Mat
Provides a 3/16" airspace for drainage and ventilation that's required behind certain [commercial exterior claddings](#). Comprised of a heavy duty, non-permeable black corrugation attached to a gray filter fabric.



ArmorSeal Sealant (Trowel Grade)

A moisture-cured, polyether, textured, grey sealant for use with **ArmorBoard™ Plus Returns** in rough opening sills that may be penetrated by approved fasteners. **ArmorSeal Sealant** comes in a 2-gallon pail.



DuPont™ DuraGard™ WD Self-Adhered Flashing Tape

A primer-less flashing for window and door rough openings that helps maintain the integrity of air- and water-resistive barrier assemblies.



DuPont™ LiquidArmor™ FJ Flashing and Joint Compound

A moisture-cured, silyl-terminated polyether (STPE) sealant used at panel edges, seams, and fastener heads to complete the water-resistant and flashing layer within the **ArmorWall™ System**. **LiquidArmor™ FJ Flashing and Joint Compound** is packaged as individual 20-ounce sausages of dark grey, smooth sealant in a 16-pack box.



Sheathing Fasteners

ArmorWall™ panels are installed with DuPont-tested and -recommended coated sheathing fasteners that meet rigorous standards for saltwater exposure, moisture degradation, and structural performance. DuPont offers sheathing fasteners in bulk quantities to help ensure the job is installed to its performance standards while passing along the bulk purchase discount of the fasteners to the installation contractor.



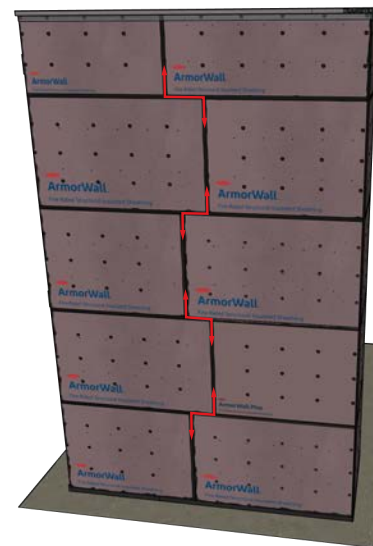
Cladding Attachment Fasteners

Cladding attachment to **ArmorWall™ panels** should be done using a recommended cladding attachment fastener of appropriate length to penetrate 1/2" beyond the MgO layer of the **ArmorWall™ panels**.

DuPont™ ArmorWall™ Installation Guidelines

General Installation Guidelines

1. **DuPont™ ArmorWall™ panels are designed for exterior wall application only.** All **ArmorWall™ System** details apply to exterior wall systems designed with a continuous water drainage path to the building exterior.
 2. **Recommended liquid flashings should be installed on a clean surface, free of dirt, grease, liquid, frost, or other debris that could interfere with adhesion.**
 3. **The installer is responsible for the final application review and acceptance of the system prior to application of subsequent systems.** Subsequent system installers are responsible for promptly alerting **ArmorWall™ System** installer of any damage or **ArmorWall™ System** performance concerns identified during subsequent application.
 4. **Do not use impact tools when installing cladding or cladding attachments to ArmorWall™ panels using DuPont recommended cladding fasteners.**
 5. **The project team is responsible for accounting for building movements** including wood framing shrinkage, structural deflection due to live loads, creep, etc. through appropriately located, sized, and detailed movement joints.
 6. **Each ArmorWall™ panel must be fastened to a minimum of two studs.**
 7. **Proper panel attachment (center-out or left-to-right) is necessary to prevent cupping/bowing.**
 8. **Only use recommended fasteners for ArmorWall™ panel AND cladding attachment.** Do not use nails, drywall screws or self-tapping fasteners for cladding attachment.
 9. **Install DuPont™ LiquidArmor™ FJ Flashing and Joint Compound as soon as practical over seams, edges, and fasteners, but prior to a weather/rainfall event.** Apply **LiquidArmor™ FJ Flashing and Joint Compound** no later than 30 days after the installation of the **ArmorWall™ panels**.
 10. **When estimating LiquidArmor™ FJ Flashing and Joint Compound, one (1) sausage per panel is an approximate usage rate that applies only to panel joints and sheathing fastener heads.** The installing estimator must determine additional sealant for rough openings, penetrations, transitions, or any additional locations requiring the use of sealant to complete the air/water barrier.
 11. **The ArmorWall™ System is designed to be a water-resistive barrier and part of a building's continuous air barrier when properly detailed and integrated with adjacent water and air control systems.**
 12. **The ArmorWall™ System is designed to be covered by an exterior cladding to be protected from UV exposure and direct impact of weather or potential debris.**
 13. **The installer is responsible for assessing galvanic corrosion risk when using stainless steel fasteners.** Consult DuPont or your local DuPont Sales Representative for further guidance.
 14. **For repairs larger than 16" horizontal or vertical, the ArmorWall™ panel replacement piece must be fastened back to the studs (2 stud minimum).**
 15. **Shim cladding attachments with horseshoe or solid shims that provide solid bearing for the cladding rail system, the full diameter of cladding fasteners at the ArmorWall™ panel face, and as required to resist design loads.** Cladding attachment fasteners shall fasten through the shim itself and may not cantilever through the void space of the shim. Design engineering and approvals for shimming shall be provided by the project or cladding attachment system designer of record.
 16. **Chemical compatibility and adequate adhesion confirmation is recommended prior to construction** for all sealants, membranes, and other systems intended to interface with or bond to the **ArmorWall™ System** and accessories.
 17. **DuPont™ ArmorDry™ Exterior Drainage Mat is required for use over ArmorWall™ panels when stucco, cement-based adhered stone or stone veneers, and direct applied systems are installed as the exterior cladding.**
 18. **DuPont recommends maintaining a minimum 3/16" airspace between the back of exterior cladding and the face of the ArmorWall™ panels.** This can be achieved using shims at the cladding fastening points, subframe assemblies, or using **ArmorDry™ Exterior Drainage Mat**. In all cases, panels should be installed in accordance with applicable building codes and requirements, including NFPA 285 compliance.
- For more information, visit armorwall.dupont.com or call 1-833-338-7668. Always check building.dupont.com for the latest versions of DuPont Installation Guidelines and other product literature.



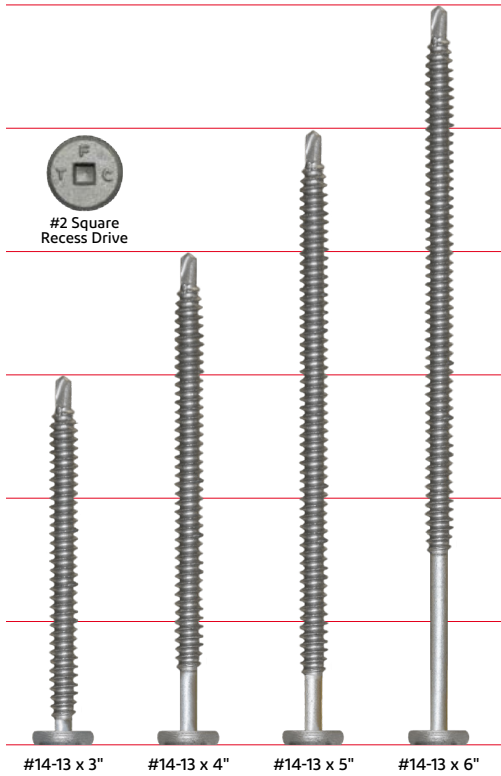
DO NOT SEAM ARMORWALL™ PANELS BETWEEN STUDS. Stagger panels by at least one stud spacing on center.

DuPont™ ArmorWall™ Installation Guidelines

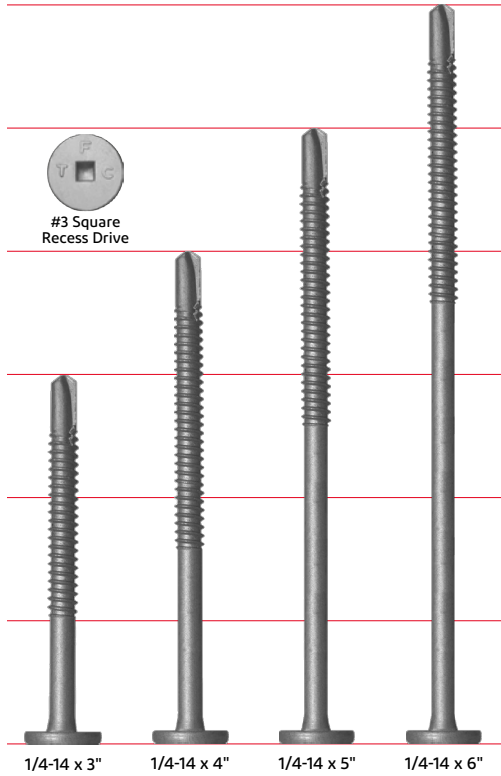
ArmorWall™ Panel Attachment Fasteners

Use DP1 or DP3 pancake head fasteners when affixing **ArmorWall™ panels** to the structure. Use DP3 fasteners when attaching the panels to 18 gauge steel studs and to heavier steel members (up to 1/4" thick).

#14-13 DP1 Pancake Head Fasteners



1/4-14 DP3 Pancake Head Fasteners



Fastener Use Table: ArmorWall™ System Panel Attachment to Substrate

	Concealor® DP-1 Pancake Head Fasteners				Concealor® DP-3 Pancake Head Fasteners			
	3"	4"	5"	6"	3"	4"	5"	6"
ArmorWall™ PLUS								
2"	●	● ●			●			
2 3/4"		●	● ●			●		
3 3/4"			● ●	●			●	
ArmorWall™ SP PLUS								
2 3/4"		●	● ●			●		
3 3/4"			● ●	●			●	
4 1/4"				● ● ●				●

- Steel Studs (18 gauge* and lighter)
- Steel Studs (18 gauge* and heavier to 1/4 steel)
- Wood
- Concrete**

*Installers may use either DP1 or DP3 fasteners when using 18 gauge steel.

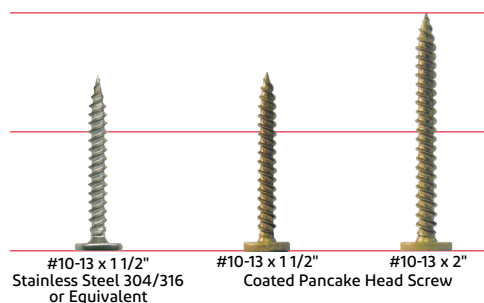
**Use a 3/16" bit when pre-drilling holes for concrete structure applications.

DuPont™ ArmorWall™ Installation Guidelines

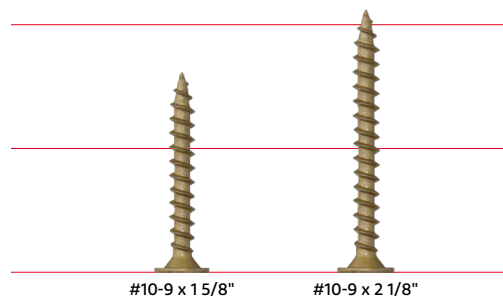
Cladding Attachment Fasteners

#10-9 and #10-13 low profile pancake head fasteners have been successfully tested to attach exterior cladding to the face of ArmorWall™ panels.

#10-13 Low Profile Pancake Head Fasteners



#10-9 Ultra Low Profile Head Fasteners



NOTE: #10-9 ultra low profile head fasteners are best used when attaching wood furring strips or similar compression materials to **ArmorWall™ System panels**. #10-9 ultra low profile head fasteners are not recommended when attaching steel clips or anchors.

Fastener Use Table: Cladding Attachment to ArmorWall™ System Panels

Cladding Material Connection Type	Concealor® ULP Fasteners	Concealor® Pancake Head Fasteners	Stainless Steel 304/316 or Equivalent
RainScreen Clips (metal)		●	
RainScreen Clips (composite)	●		
Metal Stand-off Channels		●	
Wood Furring Strips (Type V Construction Only)	●		
DuPont™ ArmorBoard™ Plus FR Structural Sheathing Returns			●

NOTE: DO NOT USE impact tools to install cladding and cladding attachments to **ArmorWall™ System panels**. Use torque control variable speed driver. Adjust and lower the torque so that the cladding fasteners **DO NOT SPIN**.

Fastener-Related Reports & Listings

DuPont™ ArmorWall™ Systems received the following fastener-related ICC-ESL Reports from the International Code Council (ICC):

- [ICC ESL-1543](#) - Cladding structural attachment labels
- [ICC ESL-1536](#) - ASTM E72 Racking/Shear
- [ICC-ESL-1306](#) - ASTM E330 Transverse Loading/Wind Pressure

DuPont™ ArmorWall™ Installation Guidelines

Delivery and Storage

Delivery

ArmorWall™ System products are delivered in wrapped, protected 48"x96"x60" pallets via dry van or flatbed:

- **Flatbed Truck Capacity: 10-12 pallets**
Flat beds are 48'-53' long with all side access. Flatbed transportation must use rigid corner protectors.
- **Dry Van Truck: 12 pallets**
Dry vans are 53' long with 102" wide door openings.



ArmorWall™ panels vary in weight; an approximate pallet weight of 3,000 pounds can be used for load calculations.

Delivery locations without dock access, such as project sites, will receive fully tarped flat beds on a specialty basis.

Delivery locations with dock access will receive dry vans that can be unloaded with a drive-in forklift. Dry vans contain pallets loaded lengthwise or widthwise and require fork extensions to unload

ArmorWall™ System Shipping Quantities

DuPont™ ArmorWall™ Plus FR SIS

Panel Thickness	Panels /Truck	Coverage
2" (R10)	360	11,520 ft ²
2 3/4" (R15)	264	8,448 ft ²
3 3/4" (R21)	192	6,144 ft ²

DuPont™ ArmorWall™ SP Plus FR SIS

Panel Thickness	Panels/Truck	Coverage
2 3/4" (R11)	216	6,912 ft ²
3 3/4" (R17)	192	6,144 ft ²
4 1/4" (R21)	168	5,376 ft ²

Storage

ArmorWall™ panels should be stored off the ground and in original shipment condition until ready for installation. Do not stack pallets. Pallets should be covered by a breathable tarp while at the project site. Avoid ground contact or continuous exposure to moisture and direct sunlight.

DuPont™ ArmorWall™ Installation Guidelines

Safety and Handling

Documentation

Always read necessary project documentation, installation manuals, product data sheets, and safety data sheets prior to commencement of work. All current **ArmorWall™ System** product information can be found at armorwall.dupont.com.

Handling

ArmorWall™ panels can be cut and installed using standard hand and power tools (see [Recommended Jobsite Tools](#)). Some skinning and direct coloration of the insulation edges is normal if exposed to UV light prior to installation; however, this does not affect the performance of the panel. **Some cupping of the panel is expected during shipment and can be rectified during installation by beginning installation from the center of the panel and working outward per the fastener standard of the designed application.**

Recommended Personal Protective Equipment

DuPont has evaluated the **ArmorWall™ System** to determine that standard construction protective equipment, including the items listed and shown below, is suitable protection:

- A. Construction Safety Helmet (Hard Hat)
- B. Safety Glasses/Goggles
- C. Dust Mask
- D. High-visibility Safety Apparel
- E. Protective Gloves

In areas with limited ventilation or for increased exposure (extensive and repeated cutting), additional PPE and respiratory protection may be warranted. Confirm project PPE requirements with the job-specific hazard analysis and safety plan.



DuPont™ ArmorWall™ Installation Guidelines

Recommended Jobsite Tools

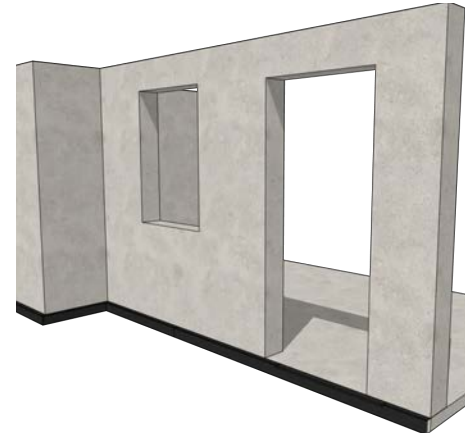
No specialized tools are required. The ArmorWall™ System is installed using the following tools that are commonly found on construction projects.



- A. Reciprocating Saw**
May be used when cutting penetrations or punched openings within an affixed panel.
- B. Circular Saw**
May be used when cutting panels to size or when cutting punched holes.
- C. Hammer Drill**
May be used when pre-drilling concrete/CMU walls.
- D. Speed Square Tool**
Recommended to maintain accuracy when marking panels and components for cuts.
- E. Screw Gun**
Use a 2,000 RPM screw-gun with torque control to install the **ArmorWall™ panels** and to attach the cladding to the panels.
Do not use impact tools to attach cladding or cladding attachments to ArmorWall™ panels.
- F. Sausage Gun**
Used to apply **DuPont™ LiquidArmor™ FJ Flashing and Joint Compound** at seams and fasteners.
- G. RotoZip® Spiral Saw**
May be used to prepare panels for outside corner joints or when notching the foam components within **ArmorWall™ panels**.
- H. Jigsaw**
May be used when preparing panels for penetrations or otherwise notching the panel for regular and irregular shapes.
- I. Level**
Recommended to check levels throughout the projects and useful when marking long straight lines.
- J. Angle Grinder**
May be used when preparing panels for penetrations or otherwise notching the panel for regular and irregular shapes.
- K. Putty Knife/Trowel**
May be used to easily spread sealant when detailing the wall assembly.
- L. Tape Measure**
Recommended throughout the project for accuracy for panel layout and panel cuts.
- M. Chalk Line Tool**
Recommended throughout the project for preparing long precision cuts to the panels.
- N. Insulation Knife**
Allows for easy cutting of the foam insulation element of **ArmorWall™ panels**. Also used to create weave joints for outside corners.
- O. Roller Brush**
1/4" nap roller brush may be used as an applicator of **DuPont™ ArmorSeal Sealant (Trowel Grade)** at punched opening sills.
- P. Marker**
Best used for marking guides on the foam insulation for necessary modifications.

DuPont™ ArmorWall™ Installation Guidelines

Inspecting the Structure Prior to Installation



ArmorWall™ panels can be installed to the face of steel studs, wood studs, concrete, and masonry.

Examination

Verify that the surfaces and conditions are ready to accept the **ArmorWall™ System**. This includes located built-in items and penetrations, and ensuring all punched openings are in the correct locations. Any major structural deficiencies should be reported and remedied prior to installation. See [Sealing Out-of-Plane Panel Installations](#) for information on how to detail panels when walls are not in alignment.

Preparation

Protect surrounding areas from any possible damage caused during the installation of the **ArmorWall™ panels**. Any examined projections, protruding fasteners, and/or loose foreign matter preventing proper installation should be removed prior to installation.

Limitations

Do not install the **ArmorWall™ System** on structures sloped more than 15° of vertical.

Floor Transitions

Identify any gap from a concrete slab to the back face of an **ArmorWall™ panel** greater than 1/4" wide and fill with mineral wool insulation. Consider specification guidance to adjust concrete lay out tolerances to be +0/-1/2" or similar to prevent the slab from extending beyond the face of framing. Careful placement and attachment of panels at deflection joints is necessary to avoid bridging movement joints.

DuPont™ ArmorWall™ Installation Guidelines

Recommended Fastening Patterns

DuPont™ ArmorWall™ Plus FR SIS and ArmorWall™ SP Plus FR SIS panels may be installed vertically or horizontally. ArmorWall™ panels have a factory-applied fastening pattern directly on the board allowing for quicker installation in both horizontal and vertical orientations. Use the corresponding standard fastener position symbols for the preferred orientation.

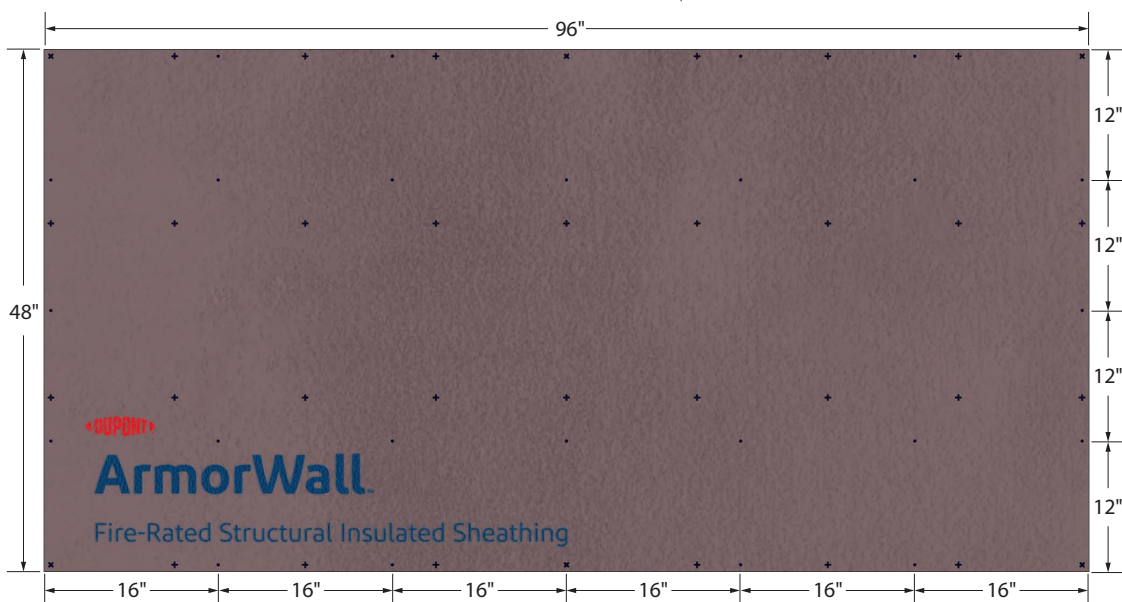
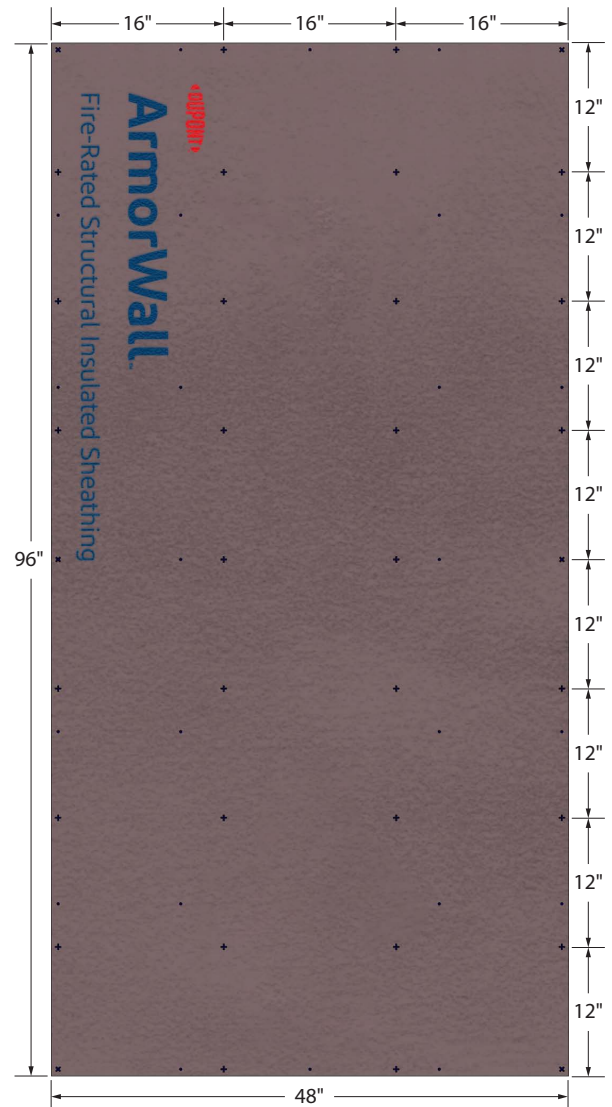


The standard length of an ArmorWall™ System panel is 8'-0" (96").

The standard width of an ArmorWall™ System panel is 4'-0" (48").

Fasteners at the perimeter should be ~3/4" from the edge of the panel. Fastener head should not span past the edge of the panel.

NOTE: Alternate fastening may be required in high wind zones or when appropriate panels are used as shear walls. Follow engineered requirements as necessary for the project.



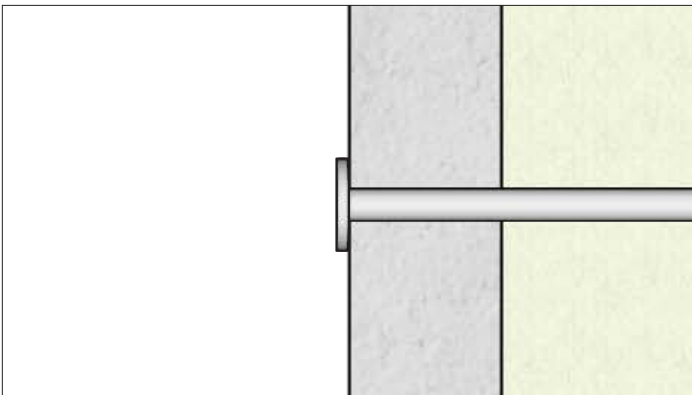
DuPont™ ArmorWall™ Installation Guidelines

ArmorWall™ Panel Attachment

General Instructions



Install ArmorWall™ panels from the center working outwards and ensure panel is firmly seated to stud face prior to fastening as straight as possible to help alleviate any possible cupping that could have resulted from transport.



Install all fasteners to be proud of the ArmorWall™ panel surface. Contact DuPont or your local DuPont Sales Representative for further guidance.



Repairs: DuPont-approved fasteners that miss a framing member should be removed and the hole repaired using **DuPont™ LiquidArmor™ FJ Flashing and Joint Compound**. The sealant must fully encapsulate the hole a minimum of 1/2" in all directions and be proud of the face of the **ArmorWall™ panel**.



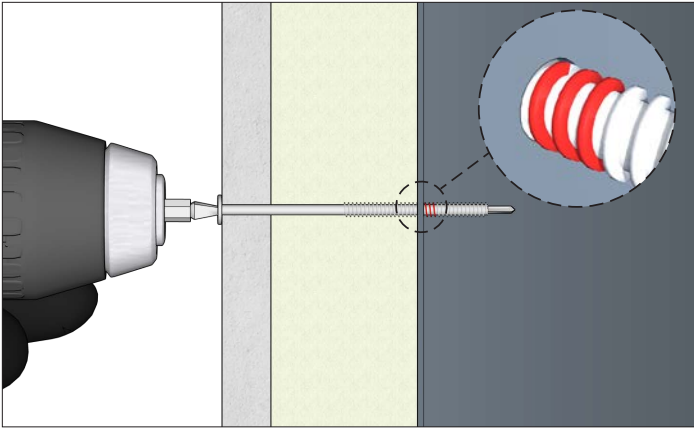
CONTRACTOR REQUIREMENT

When installing to wood framing: To allow for anticipated shrinkage of wood framing, the design and construction team must provide sufficient spacing requirements for the **ArmorWall™ panels**.

DuPont™ ArmorWall™ Installation Guidelines

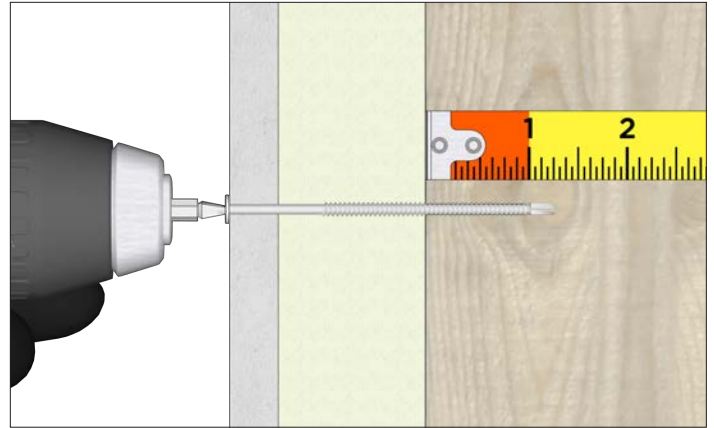
ArmorWall™ Panel Attachment

Panel Attachment to Steel Stud Frame



Each self-tapping fastener must penetrate the steel stud structure with a minimum of three threads showing beyond the metal surface. Refer to the [ArmorWall™ Panel Attachment fasteners](#) section of this guide for more information about choosing the appropriate fastener for attaching to steel stud framing.

Panel Attachment to Wood Stud Frame

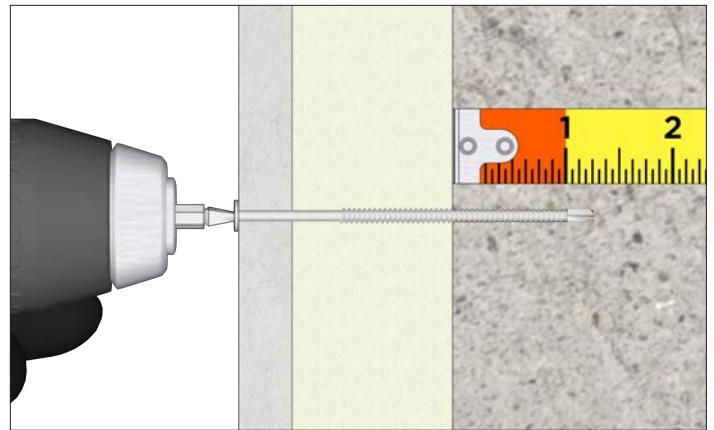


Each #14-13 self-tapping fastener must penetrate the wood stud structure a minimum of 1" of full thread. Refer to the [ArmorWall™ Panel Attachment Fasteners](#) section of this guide for more information about choosing the appropriate fastener for attaching to wood stud framing.

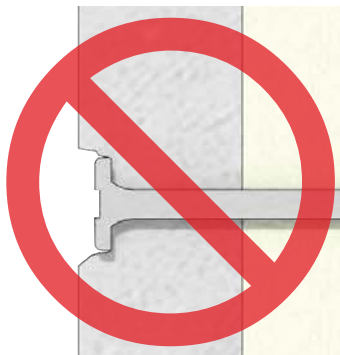
Panel Attachment to Cast-In-Place Concrete or CMU



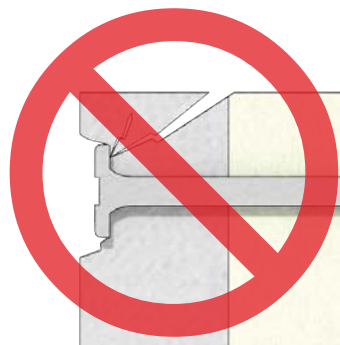
When fastening to concrete, pre-drill holes with a 3/16" bit. It is recommended that you drill pilot holes through both the panel and concrete. Follow fastener manufacturer's standard practices when attaching to concrete surfaces and CMU.



Each #14-13 self-tapping fastener must penetrate the concrete structure a minimum of 1". Refer to the [ArmorWall™ Panel Attachment Fasteners](#) section of this guide for more information about choosing the appropriate fastener for attaching to concrete



To prevent damage to the ArmorWall™ panel, DO NOT OVERTIGHTEN PANEL FASTENERS.



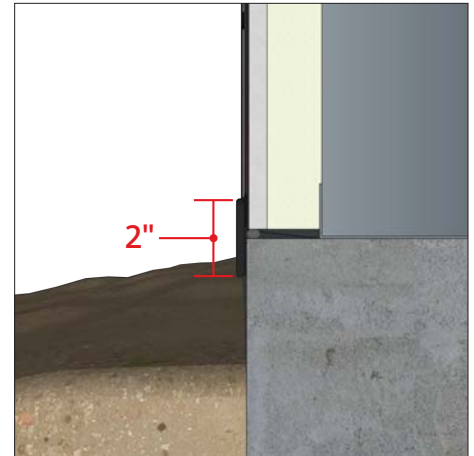
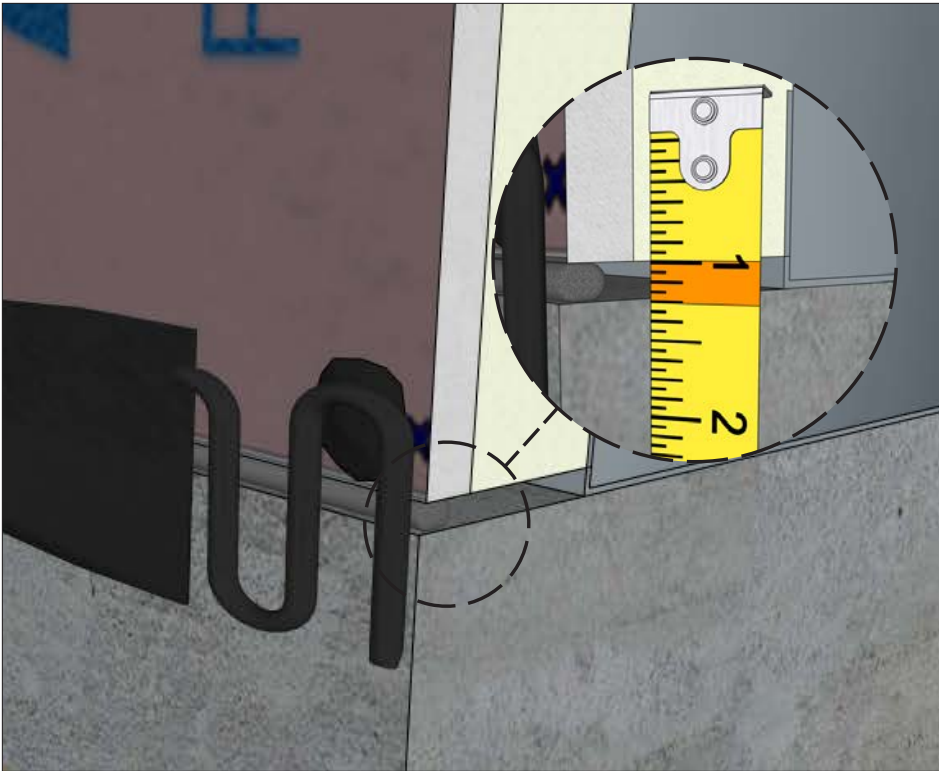
Corners are more susceptible to break off, to prevent any unnecessary damage DO NOT OVERTIGHTEN PANEL FASTENERS.

DuPont™ ArmorWall™ Installation Guidelines

ArmorWall™ Panel Attachment

Panel Attachment - Base of Wall

ArmorWall™ Panels Installed Flush with the Foundation



Offset the base of the panel 1/4" from the foundation and install a backer rod.

Apply **DuPont™ LiquidArmor™ FJ Flashing and Joint Compound** in a 2"-wide zigzag pattern around the entire perimeter.

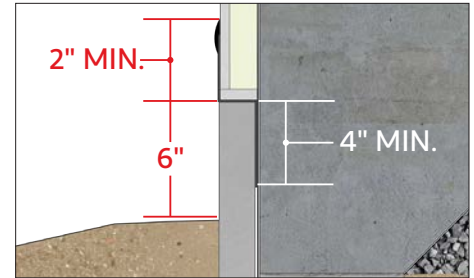
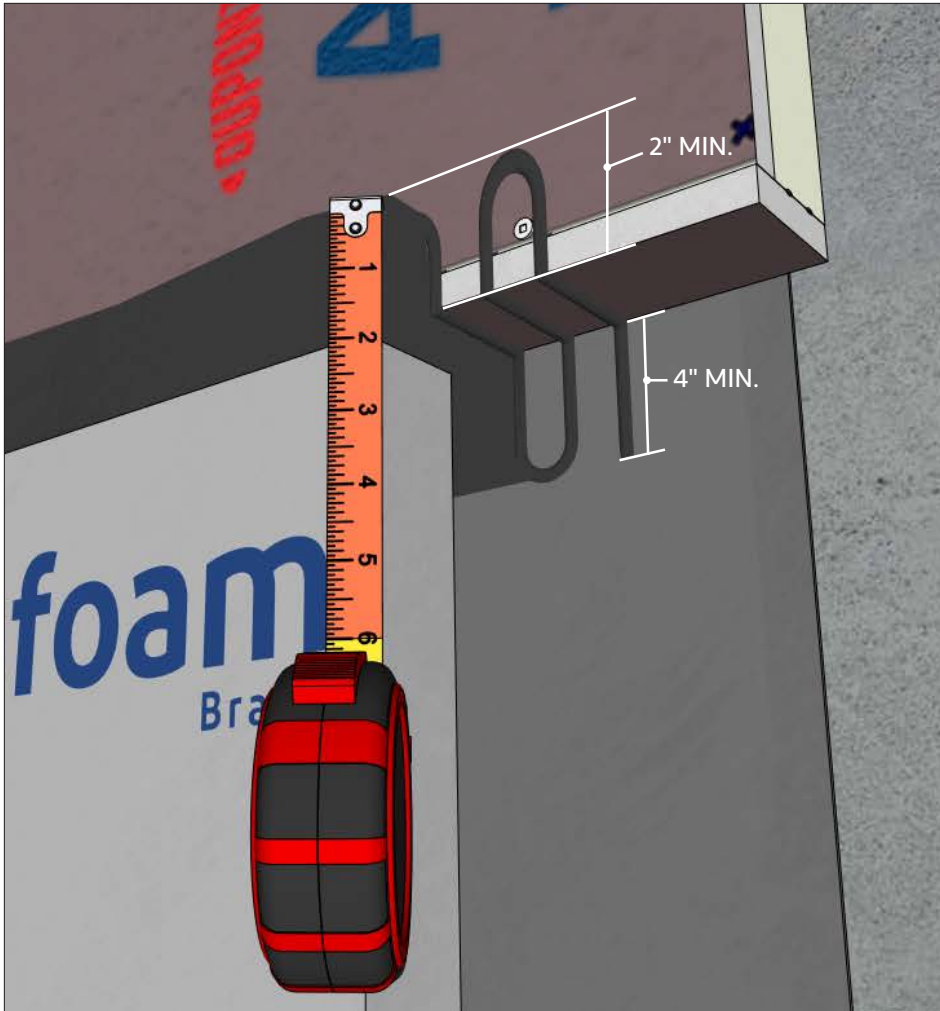
Using a putty knife, strike the sealant ensuring joint remains continuous and entirely free from pinholes or voids.

DuPont™ ArmorWall™ Installation Guidelines

ArmorWall™ Panel Attachment

Panel Attachment - Base of Wall

Transition to DuPont™ Styrofoam™ Brand XPS using DuPont™ ArmorBoard Plus Returns and LiquidArmor™ FJ Flashing and Joint Compound



Provide air and water control layer continuity to the below-grade waterproofing with **DuPont™ ArmorBoard™ Plus Returns** and **LiquidArmor™ FJ Flashing and Joint Compound**. Install the **ArmorBoard™ Returns** as detailed in the [Capping the Panel Edge](#) section of this guide. Install **LiquidArmor™ FJ Flashing and Joint Compound** and completely encase the previously installed **ArmorBoard™ Returns**. **LiquidArmor™ FJ** must extend a minimum of 2" on to the face of the **ArmorWall™** panel and 4" onto the below-grade waterproofing.

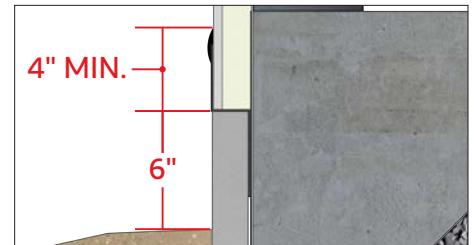
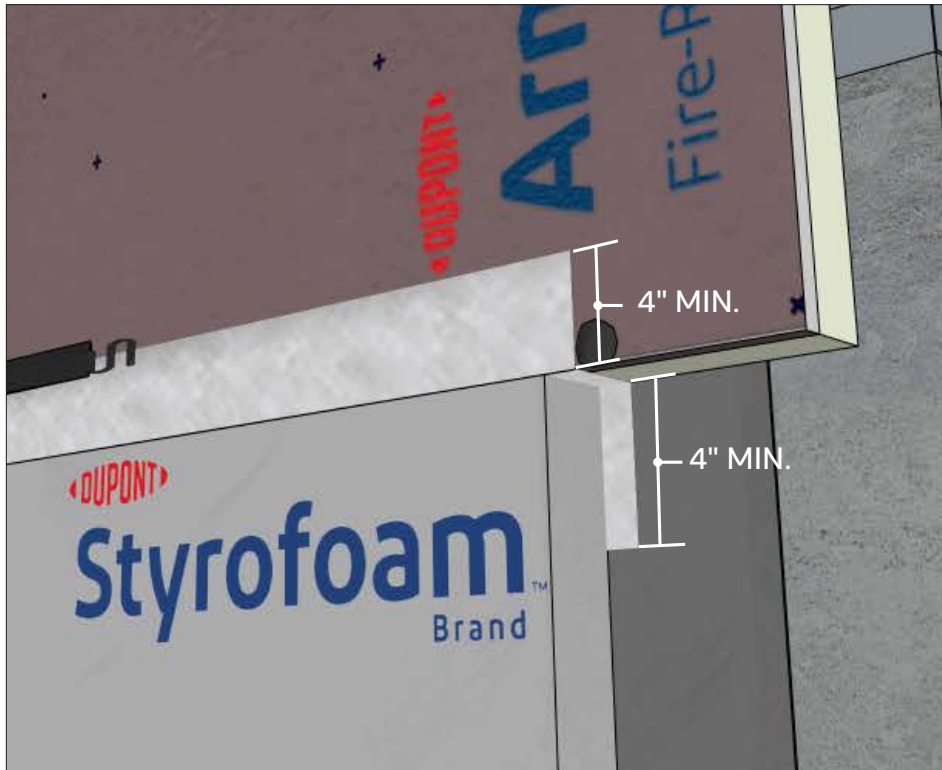
ArmorWall™ panels must be installed a minimum of 6" above the finished grade. Neither **LiquidArmor™ FJ** nor **ArmorWall™ panels** should be installed below grade. **Styrofoam™ Brand XPS Insulation** should be installed after the **LiquidArmor™ FJ** has cured for a minimum of 48 hours.

DuPont™ ArmorWall™ Installation Guidelines

ArmorWall™ Panel Attachment

Panel Attachment - Base of Wall

Transition to DuPont™ Styrofoam™ Brand XPS using DuPont™ DuraGard™ CM Transition



Provide air and water control layer continuity to the below-grade waterproofing with **DuPont™ DuraGard™ CM Transition Flashing**. The **DuraGard™ CM Flashing** must extend a minimum of 4" on to the face of the **ArmorWall™ panel** and 4" onto the below-grade waterproofing.

ArmorWall™ panels must be installed a minimum of 6" above the finished grade. Neither **DuraGard™ CM Flashing** nor **ArmorWall™ panels** should be installed below grade.

Refer to [DuPont™ DuraGard™ CM Transition Flashing installation Instructions](#) for proper installation.

DuPont™ ArmorWall™ Installation Guidelines

ArmorWall™ Panel Attachment

Panel Attachment - Base of Wall

Provide air and water control layer continuity from **DuPont™ ArmorWall™ System** to the below-grade waterproofing with metal L-flashing.

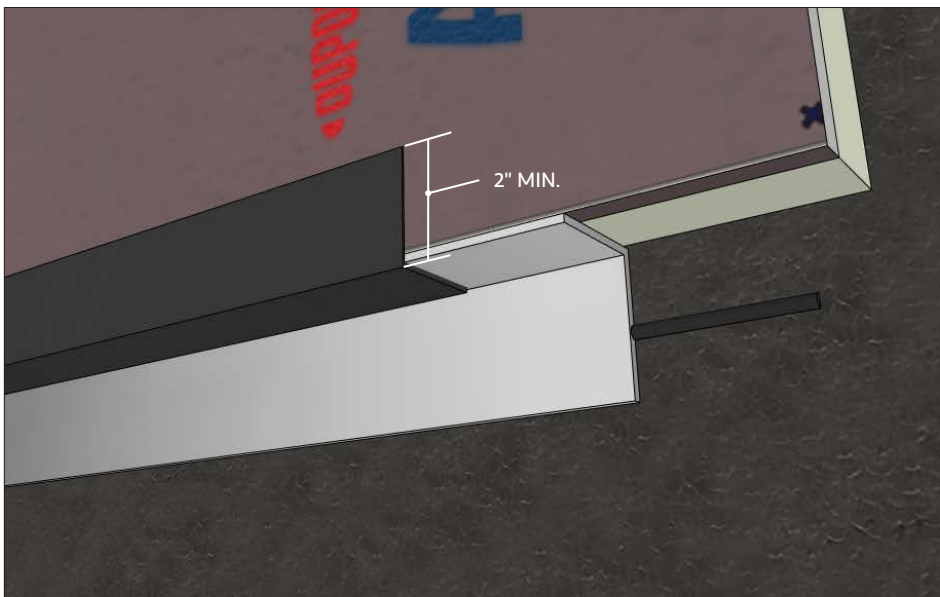
The horizontal leg of the L-flashing must cover the exposed edge and extend to the exterior face of the **ArmorWall™ panel**.

Use **DuPont™ LiquidArmor™ FJ Flashing and Joint Compound** to transition from the exterior face of **ArmorWall™ panels** to the L-flashing.

LiquidArmor™ FJ Flashing and Joint Compound must be installed a minimum of 2" onto the exterior face of **ArmorWall™ panels** and onto the L-flashing at 50 wet mils (+/- 5 mils) in accordance with the guidance for [dissimilar materials](#).

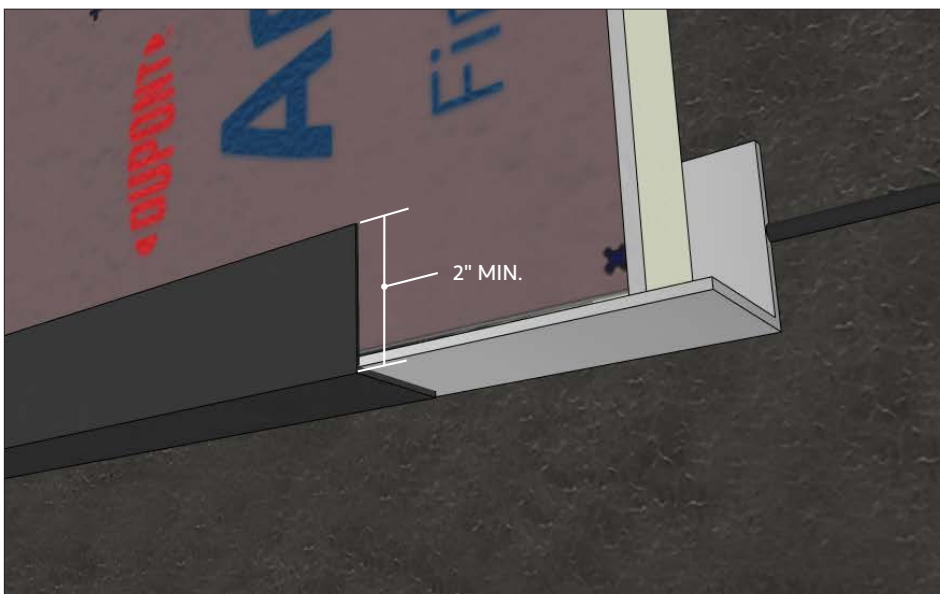
Mechanically fasten and bed seal metal L-flashing in sealant or mastic and provide transition detailing to the below-grade waterproofing system as recommended by waterproofing manufacturer to maintain air and water control continuity.

OPTION 1: Vertical leg of L-flashing attached to foundation below the **ArmorWall™ panel**



Embed the vertical leg of the L-Flashing in a bead of sealant before securing to the foundation.

OPTION 2 : Vertical leg of L-flashing installed behind the **ArmorWall™ panel**

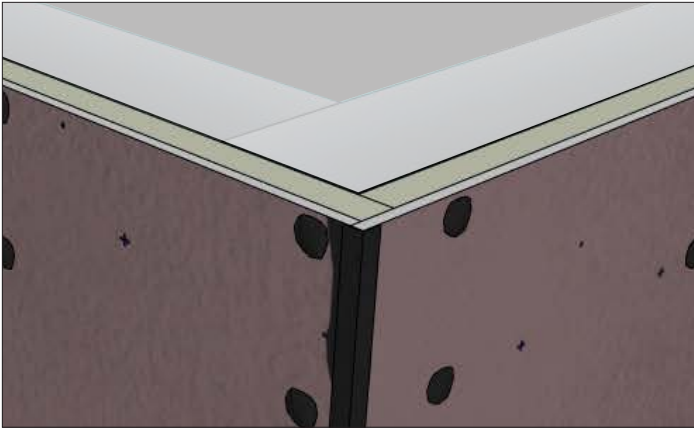


Embed the vertical leg of the L-Flashing in a bead of sealant before securing to the foundation.

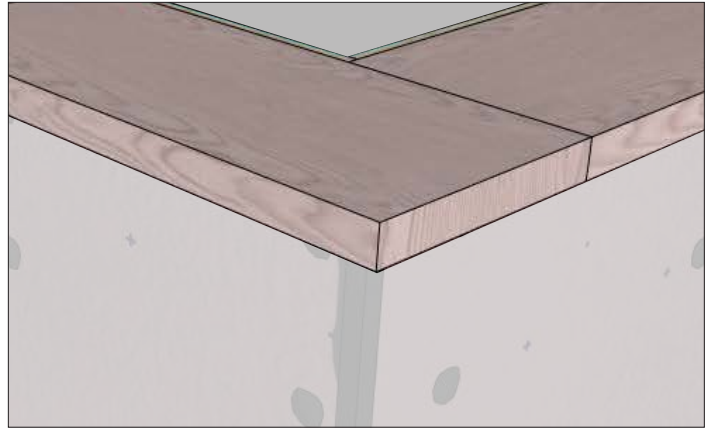
DuPont™ ArmorWall™ Installation Guidelines

ArmorWall™ Panel Attachment

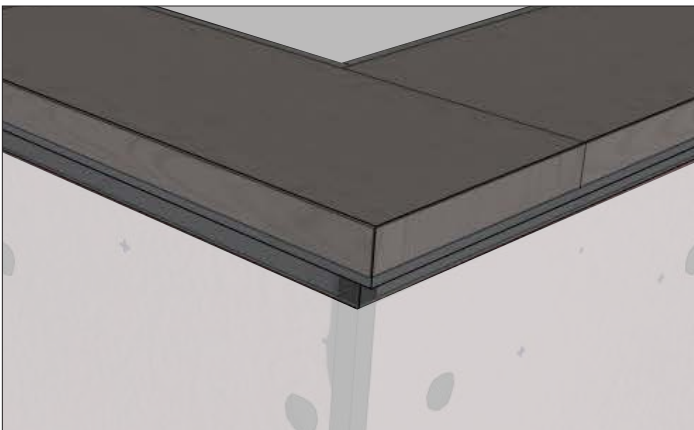
Panel Attachment - Top of Wall



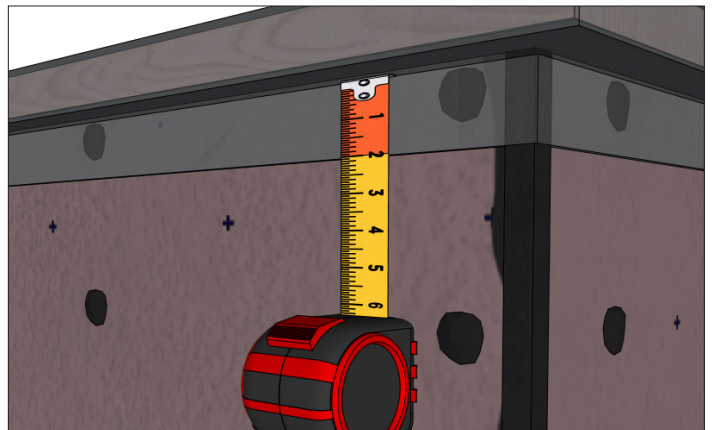
At the top of a parapet wall, **ArmorWall™ panels** are installed to the top of the assembly.



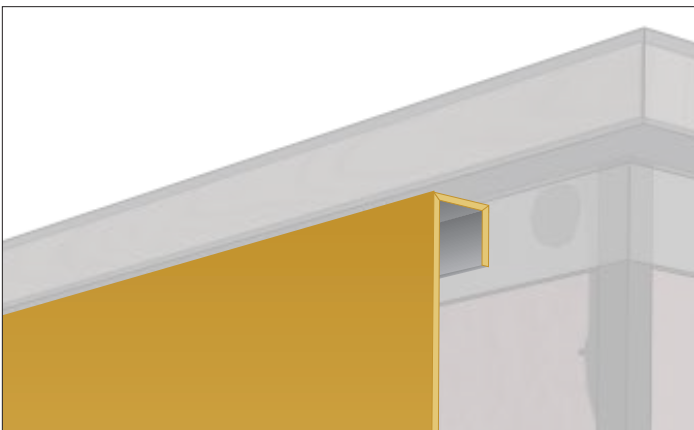
Cap the **ArmorWall™ panels** with blocking.



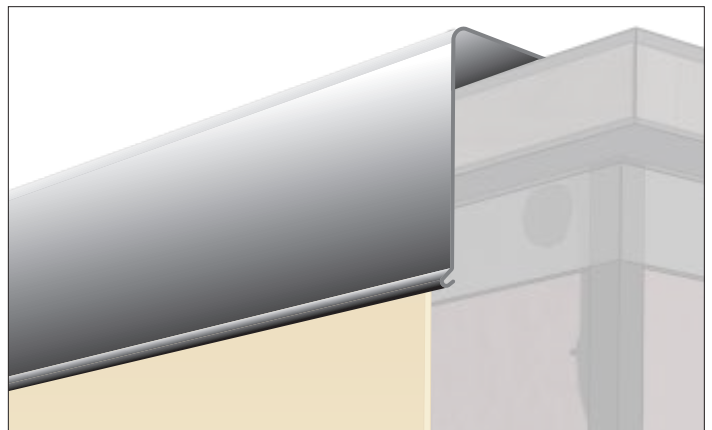
The blocking must be immediately protected by a self-adhered waterproofing or roofing membrane* that must be tied into the **ArmorWall™ panel's** factory-coated WRB.



The waterproofing or roofing membrane* must extend a minimum of 2" onto the face of the **ArmorWall™ panels**, and up and over the blocking.



Install desired cladding per the manufacturer's instructions.



Install cap per manufacturer's instructions.

*Chemical compatibility and adequate adhesion confirmation is recommended prior to construction for all sealants, membranes, and other systems intended to interface with or bond to the ArmorWall™ System and accessories.

DuPont™ ArmorWall™ Installation Guidelines

Outside Corners – Weave Joint



Measure the depth of the corner.



Mark and cut the **ArmorWall™ panel** to extend past the outside corner by the thickness of the **ArmorWall™ System panel** used on the project.



Create a pocket to receive the adjacent **ArmorWall™ panel** by first cutting a notch the depth of the foam insulation.

NOTE: The foam should never be exposed in the final assembly.



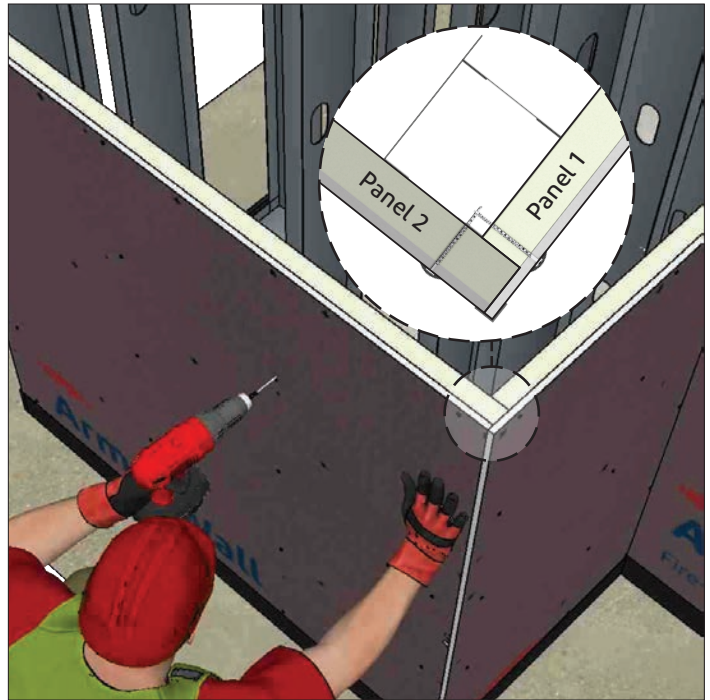
Use a router or RotoZip® tool to complete the pocket by routing out along the sheathing component of the **ArmorWall™ panel**.

DuPont™ ArmorWall™ Installation Guidelines

Outside Corner - Weave Joint

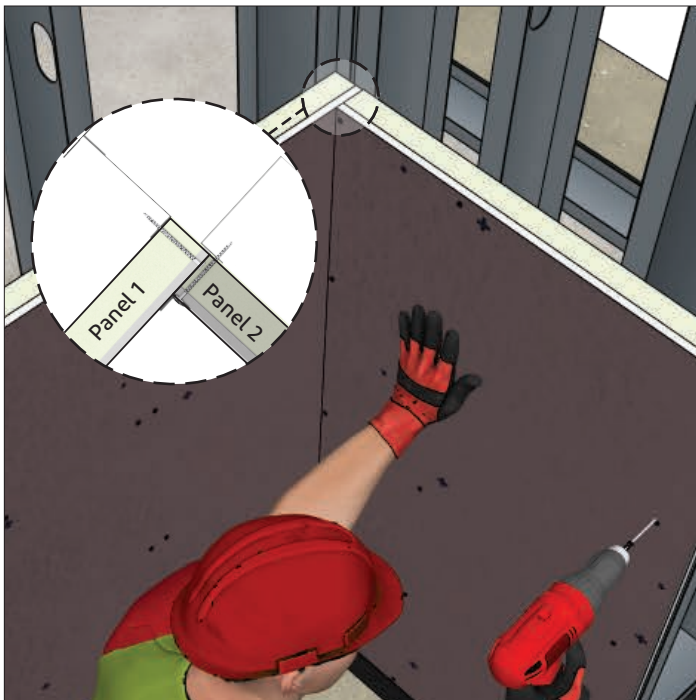


Install the prepared panel as described in the [ArmorWall™ Panel Attachment](#) section of this guide.

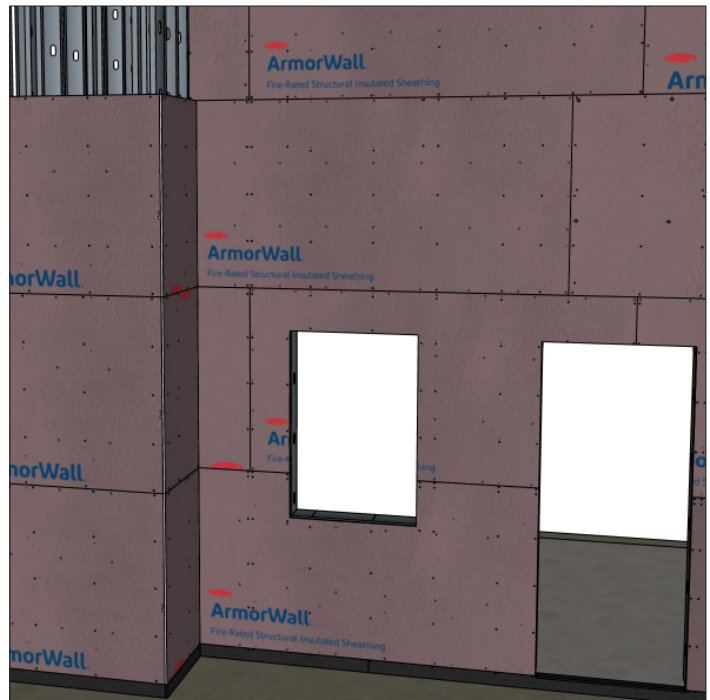


Fasten the next panel around the outside corner into the pocketed extension to complete the weave joint.

Inside Corners – Butt Joint



Use a butt joint when installing adjacent **ArmorWall™** panels on inside corners.



Continue rounding the next corner using weave joints for all outside corners and butt joints for all inside corners.

DuPont™ ArmorWall™ Installation Guidelines

Capping the Panel Edge

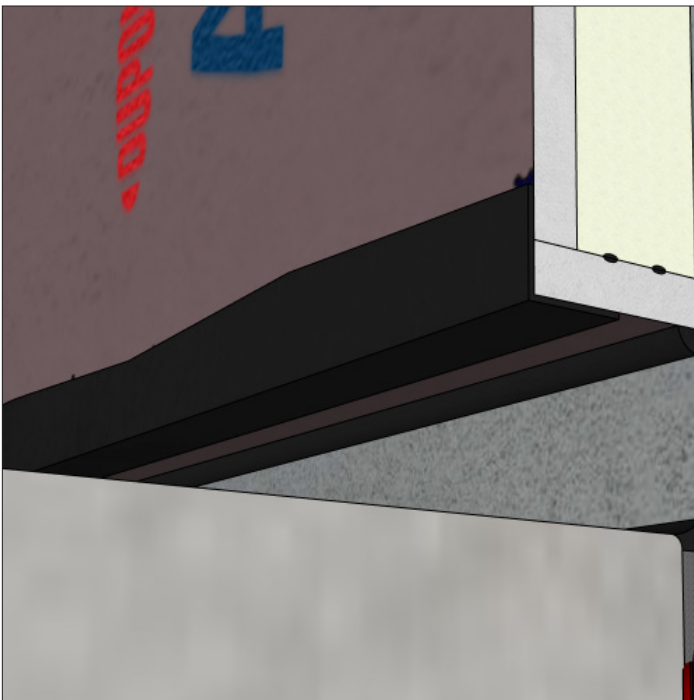
Depending on which series of **ArmorWall™ panel** is used on the project, finish the exposed sheathing with the appropriate WRB or use the appropriate **DuPont™ ArmorBoard™ Plus Return**.



Apply two (2) beads of **DuPont™ LiquidArmor™ FJ Flashing and Joint Compound** along the edge of the panel and adhere the **ArmorBoard™ Plus Return**.



Attach the return to edge of the panel. Use painter's tape to hold the return in place while the sealant cures.

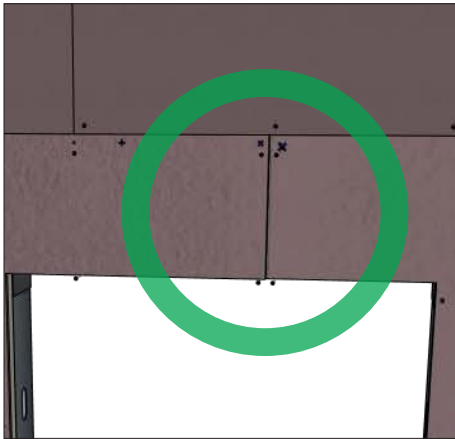


Before installing the panel, apply **LiquidArmor™ FJ Flashing and Joint Compound** along the seam between the panel and the return, extending the material 1" in both directions.

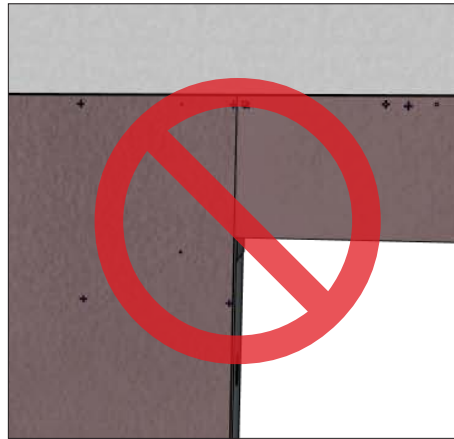
DuPont™ ArmorWall™ Installation Guidelines

Punched Openings

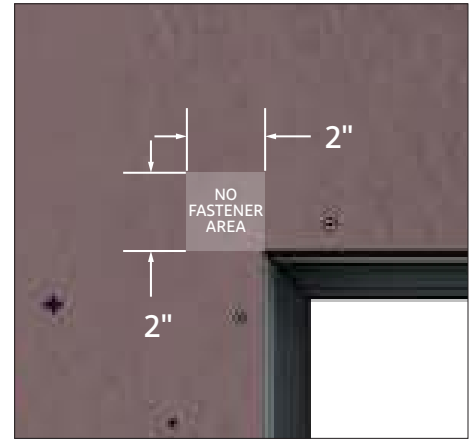
General Instructions



Locate **ArmorWall™ System panel** seams along the interior perimeter of the rough opening. It is recommended to install butt joints 16" from rough opening corners.



DO NOT locate panel edges at the corners of rough openings.



No fasteners should be installed within 2" of the corners of the rough opening.

Method 1: Cutting an Affixed Panel



Install an **ArmorWall™ panel** as described in the [ArmorWall™ Panel Attachment](#) section of this guide.

Using the rough opening as a guide, carefully cut the opening using a reciprocating saw.

NOTE: **ArmorWall™ panels** must be cut ½" short of the opening when using the *ArmorWall™ Panel-Depth Return* method. See [Punched Opening Returns: Option 2](#) for further guidance.



If necessary, cut away any extra panel at an adjacent punched opening using the rough opening as a guide.

DuPont™ ArmorWall™ Installation Guidelines

Punched Openings

Method 2: Preparing an Unaffixed Panel



Hold the panel in position while marking the interior perimeter of the punched opening onto the foam insulation. Use a permanent marker for best contrast and writability on the foam insulation.

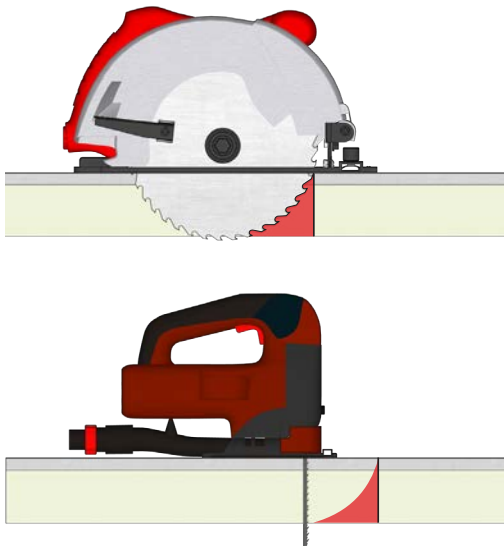
NOTE: ArmorWall™ panels must be cut ½" short of the opening when using the ArmorWall™ Panel-Depth Return method. See [Punched Opening Returns: Option 2](#) for further guidance.



Move the marked panel to the local workstation. **It is recommended that two workers carry a full panel.**

Using a circular saw, cut out the punched opening along the markings. Take proper care when operating power tools and always wear the required [personal protective equipment](#).

CONTRACTOR'S TIP



After using the circular saw, use a jigsaw to finish the inside corners.



Install the cut panel as described in the [ArmorWall™ Panel Attachment](#) section of this guide.

DuPont™ ArmorWall™ Installation Guidelines

Punched Openings

Method 3: Measured Panel



Take the necessary measurements required to properly locate the punched opening onto the **ArmorWall™** panel.

NOTE: **ArmorWall™** panels must be cut $\frac{1}{2}$ " short of the opening when using the *ArmorWall™ Panel-Depth Return* method. See [Punched Opening Returns: Option 2](#) for further guidance.



Accurately mark the panel with the necessary dimensions. Using a circular saw, cut out the punched opening along the markings.

Use a jigsaw to finish the inside corner cuts (See [CONTRACTOR'S TIP](#)).

Take proper care when operating power tools and always wear the required [personal protective equipment](#).



Install the cut panel as described in the [ArmorWall™ Panel Attachment](#) section of this guide.

DuPont™ ArmorWall™ Installation Guidelines

Punched Opening Returns

Option 1: Full-Depth Return

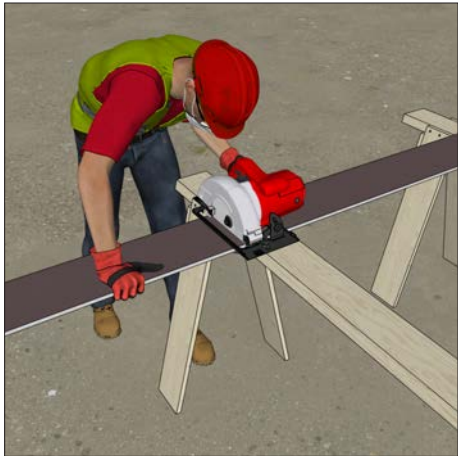
NOTE: For easier installation it is recommended that you install the top and bottom returns first followed by the sides. Measure and cut the returns accordingly to achieve this result.



Measure the width of the punched opening.

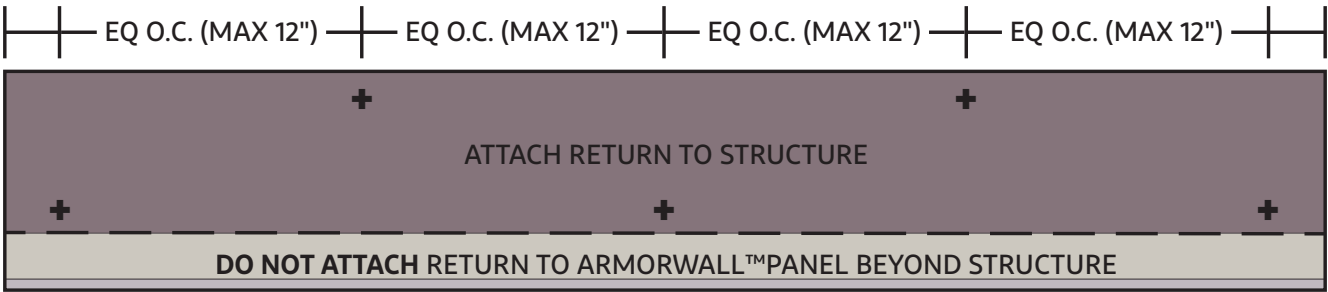


Measure the height of the punched opening.



Cut pieces of **ArmorWall™ panel** to fit the head, sill, and jambs. Use sufficient widths to be flush with the inside edge of the rough opening and the exterior face of the **ArmorWall™ panel**.

Return Fastening Pattern



Fasten the returns using standard stainless steel drywall screws of appropriate length and the proper drill type for the application. Stagger the fasteners when attaching to the building structure.



Follow the *Return Fastening Pattern*, above, install the top return.



Install the bottom return, following the *Return Fastening Pattern*.



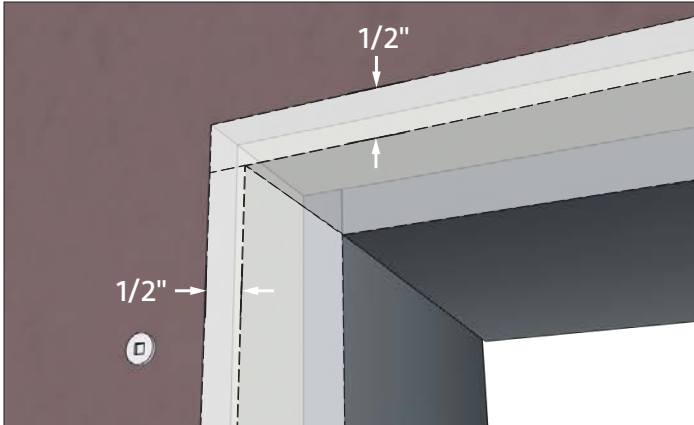
Install the side returns, following the *Return Fastening Pattern*.

DuPont™ ArmorWall™ Installation Guidelines

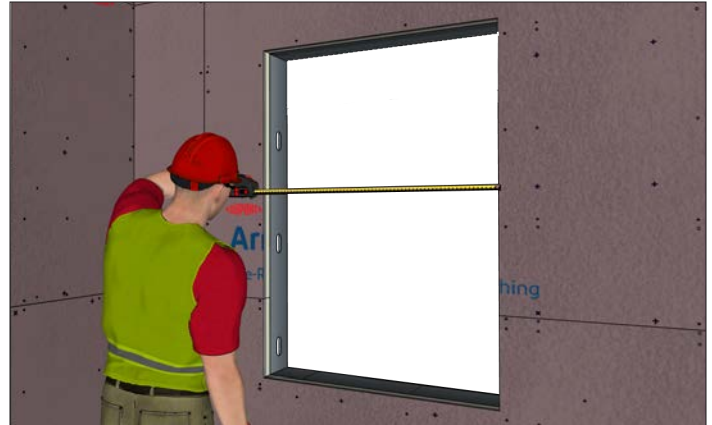
Punched Opening Returns

Option 2: ArmorWall™ Panel-Depth Return

NOTE: For easier installation it is recommended that you install the top and bottom returns first followed by the sides. Measure and cut the returns accordingly to achieve this result.



NOTE: ArmorWall™ panels must be cut 1/2" short of the opening to allow the 1/2"-thick return to be installed flush to the opening.



Measure the width of the punched opening.



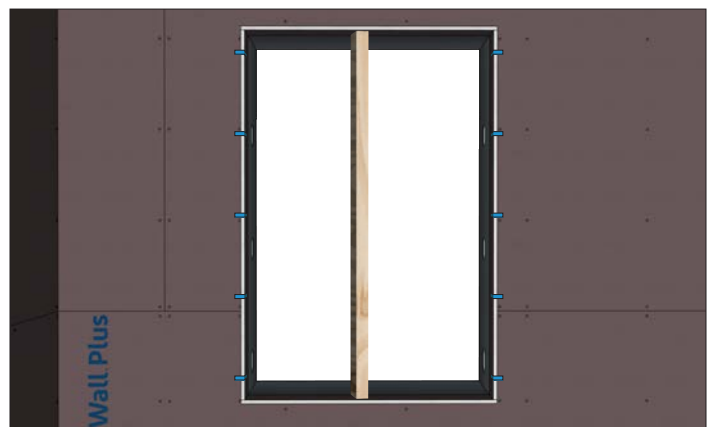
Measure the height of the punched opening.



Cut pieces of ArmorWall™ panel to fit the head, sill, and jambs.



Apply two beads of DuPont™ LiquidArmor™ FJ Flashing and Joint Compound around the entire interior perimeter panel surface at the punched opening.

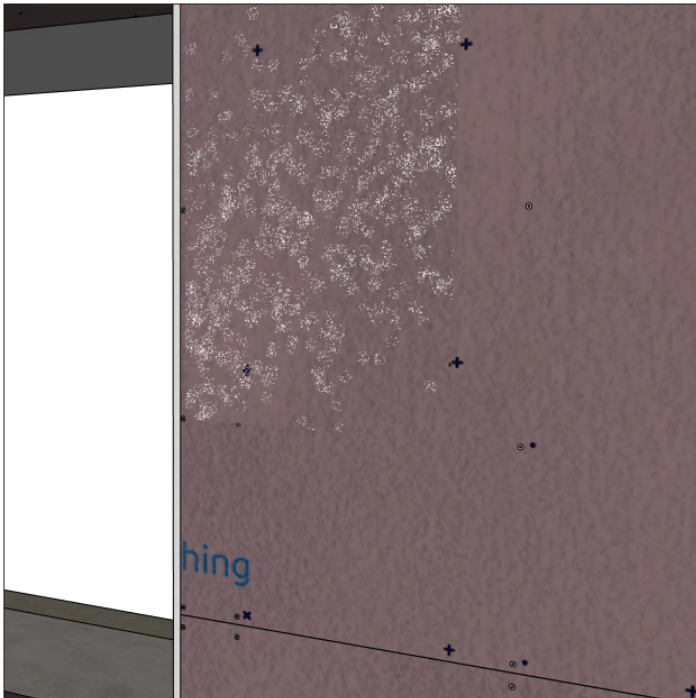


Install the pre-cut returns to cover the depth of the panel and ensure each sits flush with the punched opening. Use painter's tape, or "dead man", to hold the return in place while the sealant cures.

DuPont™ ArmorWall™ Installation Guidelines

Sealing Fasteners

NOTE: All fastener heads must be sealed or otherwise protected from rain within 30 days from **ArmorWall™ System** installation or prior to a weather/rainfall event.



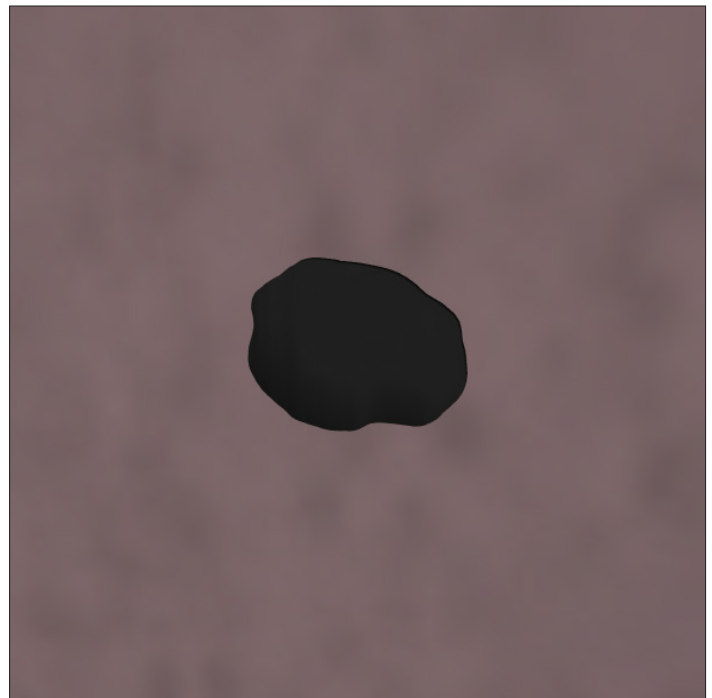
Always remove all dirt and debris from the **ArmorWall™ panel** surface prior to any sealant application.



Using a 20 oz sausage caulking gun, apply a dollop of **DuPont™ LiquidArmor™ FJ Flashing and Joint Compound** to all exposed panel fastener heads with a sufficient amount to fully seal each fastener.



Using a putty knife, immediately strike each panel fastener head to completely encapsulate the penetration, forming an airtight seal with the **LiquidArmor™ FJ Flashing and Joint Compound**.



INSTALLER REQUIREMENT: All panel fastener heads must be sealed or otherwise protected from rain within (30) days from **ArmorWall™ System** installation or prior to a weather/rainfall event.

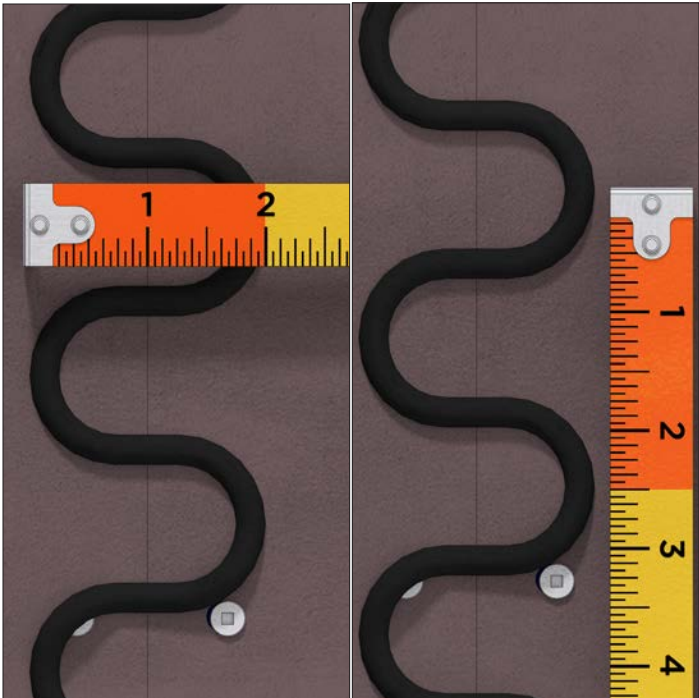
DuPont™ ArmorWall™ Installation Guidelines

Sealing Field Seams

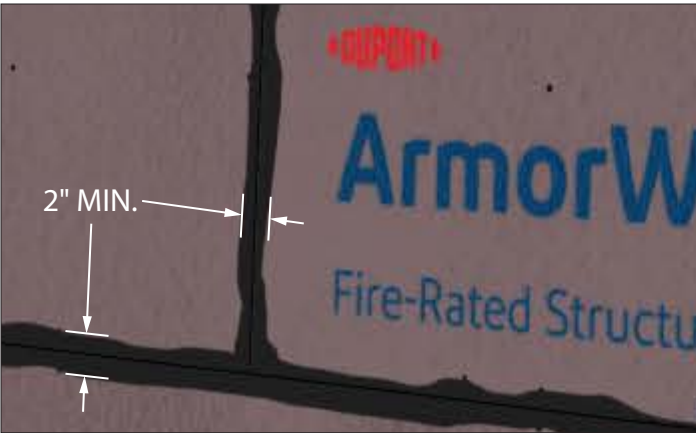
NOTE: All panel joints must be sealed or otherwise protected from rain within 30 days from **ArmorWall™ System** installation or prior to a weather/rainfall event.



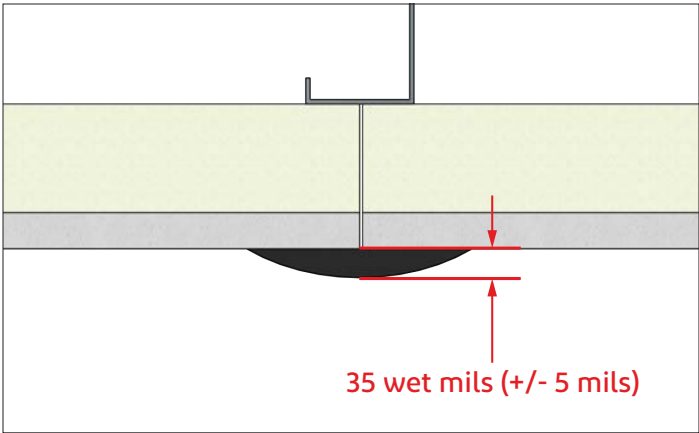
Using a 20 oz sausage caulking gun, apply a continuous bead of **DuPont™ LiquidArmor™ FJ Flashing and Joint Compound** in a zigzag pattern across each horizontal and vertical joint line.



The application pattern should span each joint with an overall width of 2" (1" on each panel) and 2 ½" between peaks.



Strike the bead with a putty knife to create a minimum 2" wide seam joint, ensuring joint remains continuous and entirely free from voids or pinholes.



DuPont™ LiquidArmor™ FJ Flashing and Joint Compound must be tooled in such a way that 35 wet mils (+/- 5 mils) of sealant cover the seam. Wide and flat is not the goal. Striking the sealant with the tool at an angle assists in a proper application.

CONTRACTOR'S TIP

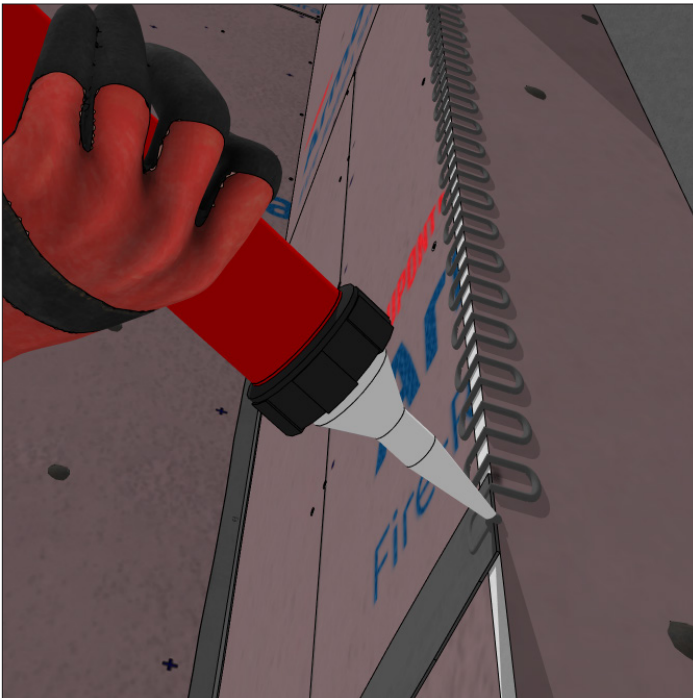
When estimating the necessary amount of **DuPont™ LiquidArmor™ FJ Flashing and Joint Compound**, the approximate usage rate of one (1) sausage per panel applies only to panel joints and sheathing fastener heads. The installing estimator must determine additional sealant amounts needed for rough openings, penetrations, transitions, or any additional locations requiring the use of sealant to complete the air/water barrier.

DuPont™ LiquidArmor™ FJ Flashing and Joint Compound Theoretical Coverage Rates	
Width (35 mils)	Coverage/Sausage (LF)
2 in	36 ft
3 in	24 ft
6 in	12 ft

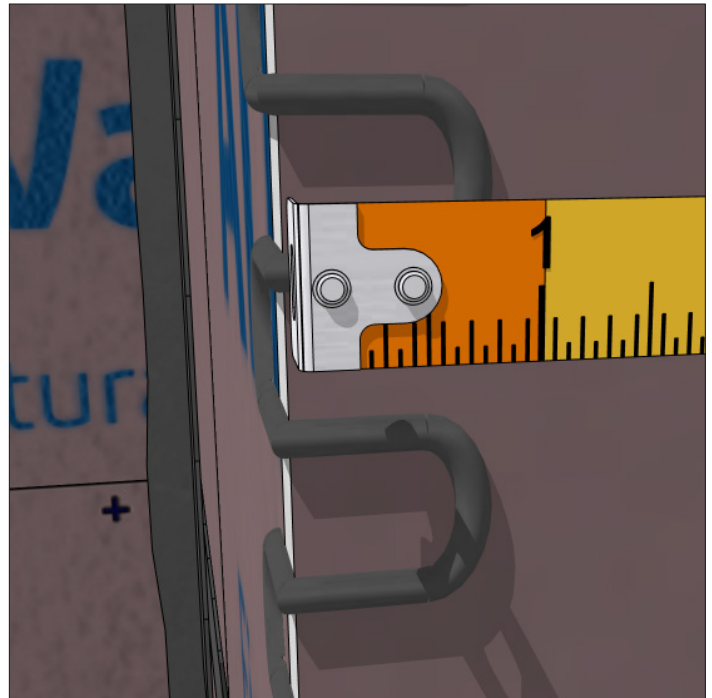
DuPont™ ArmorWall™ Installation Guidelines

Sealing Corners

NOTE: All corner joints must be sealed or otherwise protected from rain within 30 days from **ArmorWall™ System** installation or prior to a weather/rainfall event.



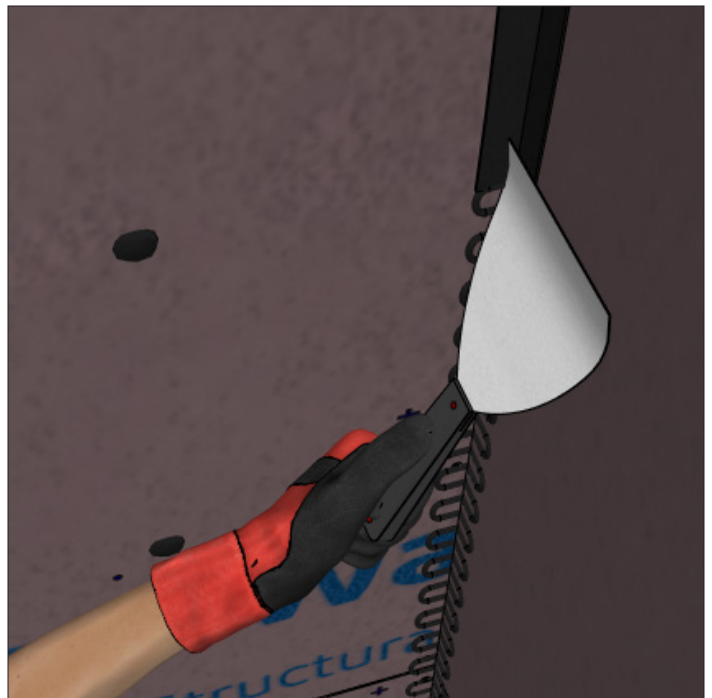
Using a 20 oz sausage caulking gun, apply **DuPont™ LiquidArmor™ FJ Flashing and Joint Compound** in a zig zag pattern across the entire corner joint line.



Ensure that the **LiquidArmor™ FJ Flashing and Joint Compound** extends at least 1" on each side of the joint.



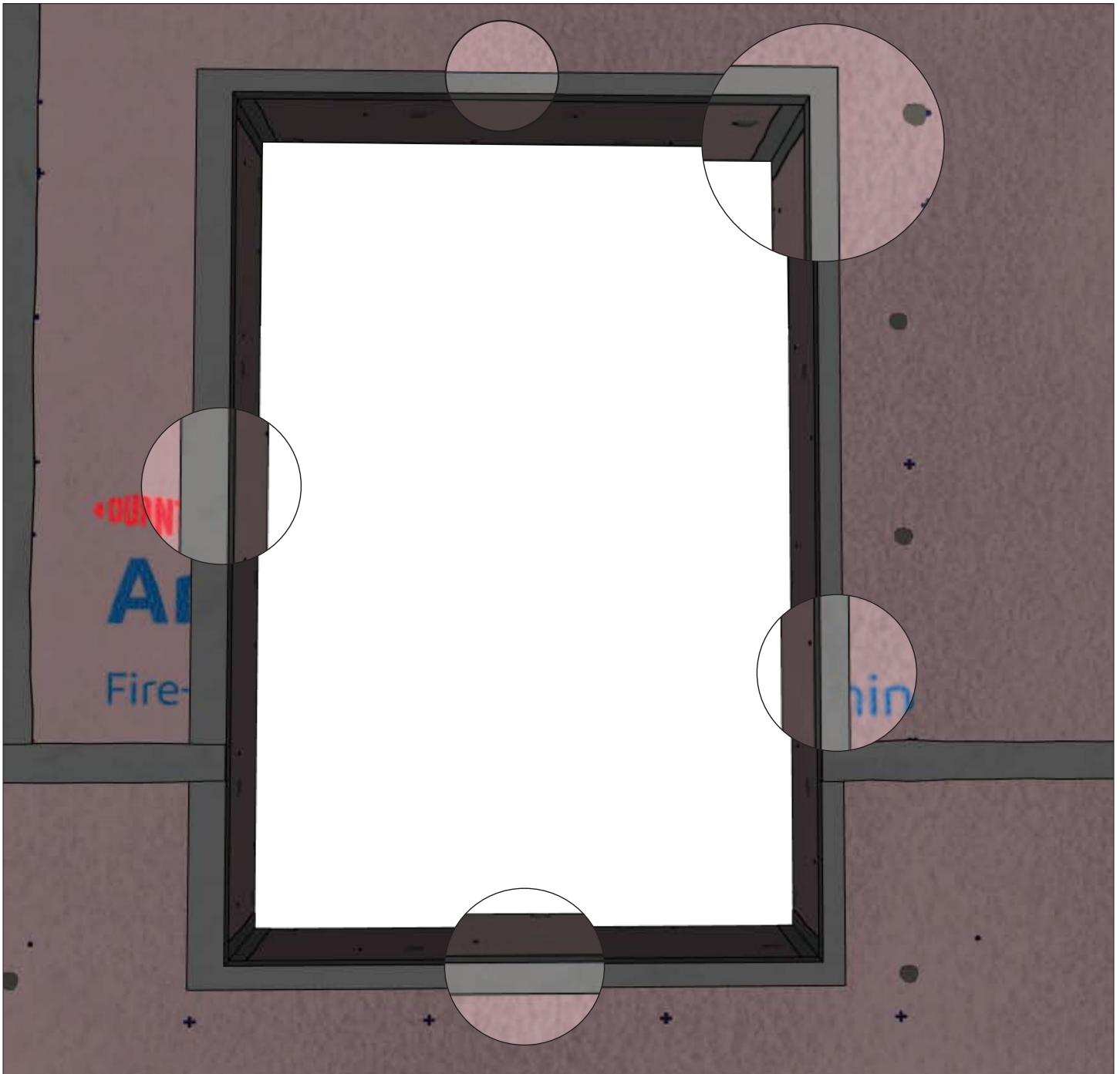
Strike the bead with a putty knife to create a minimum 2" wide seam joint with 1" on the face of each panel surface. Ensure that 35 wet mils (+/- 5 mils) of sealant covers each seam. Make sure the joint remains continuous and entirely free from voids or pinholes.



NOTE: The process for sealing inside corners is the same as the steps shown for sealing an outside corner.

DuPont™ ArmorWall™ Installation Guidelines

Sealing Punched Openings That Used DuPont™ ArmorBoard™ Plus Fire-Rated (FR) Structural Sheathing Returns



Seal all inside corners and outside edges of the punched opening (see [Sealing Corners](#) for more information).

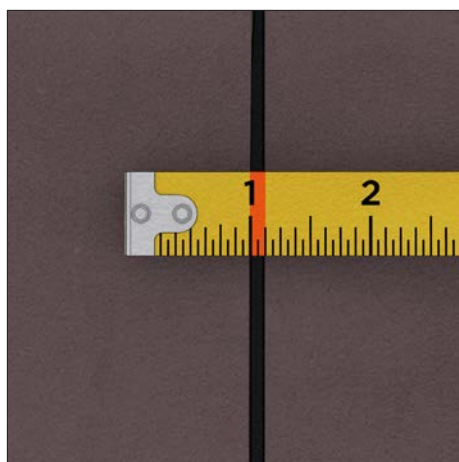
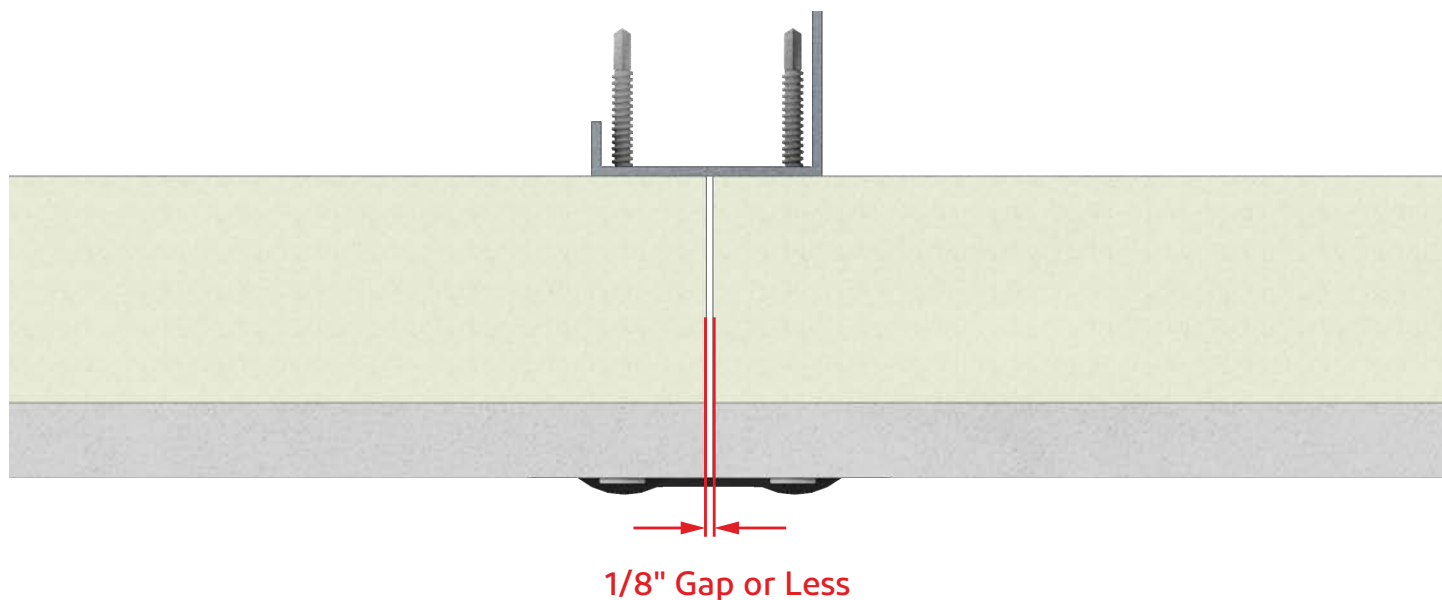
Seal all fastener heads within the rough opening (see [Sealing Fasteners](#) for more information).

DuPont™ ArmorWall™ Installation Guidelines

Sealing ArmorWall™ System Panel Gaps

NOTE: All panel joints must be sealed or otherwise protected from rain within 30 days from **ArmorWall™ System** installation or prior to a weather/rainfall event.

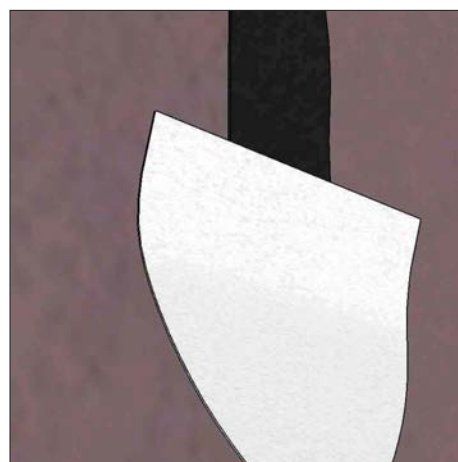
Sealing Gaps up to 1/8"



Gaps up to 1/8" in width receive the standard 2" wide seam treatment. See [Sealing Field Seams](#) for details.



Using a 20 oz sausage caulking gun, apply **DuPont™ LiquidArmor™ FJ Flashing and Joint Compound** in a zig zag pattern across the entire corner joint line, extending 1" on each panel.



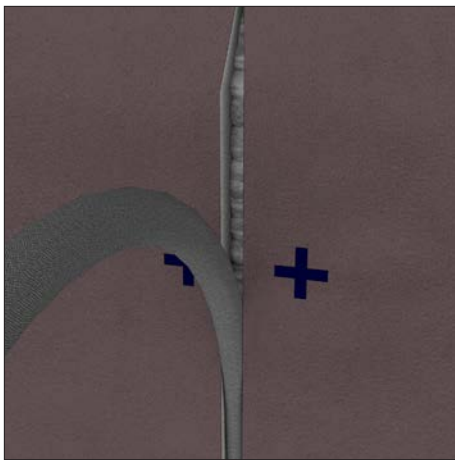
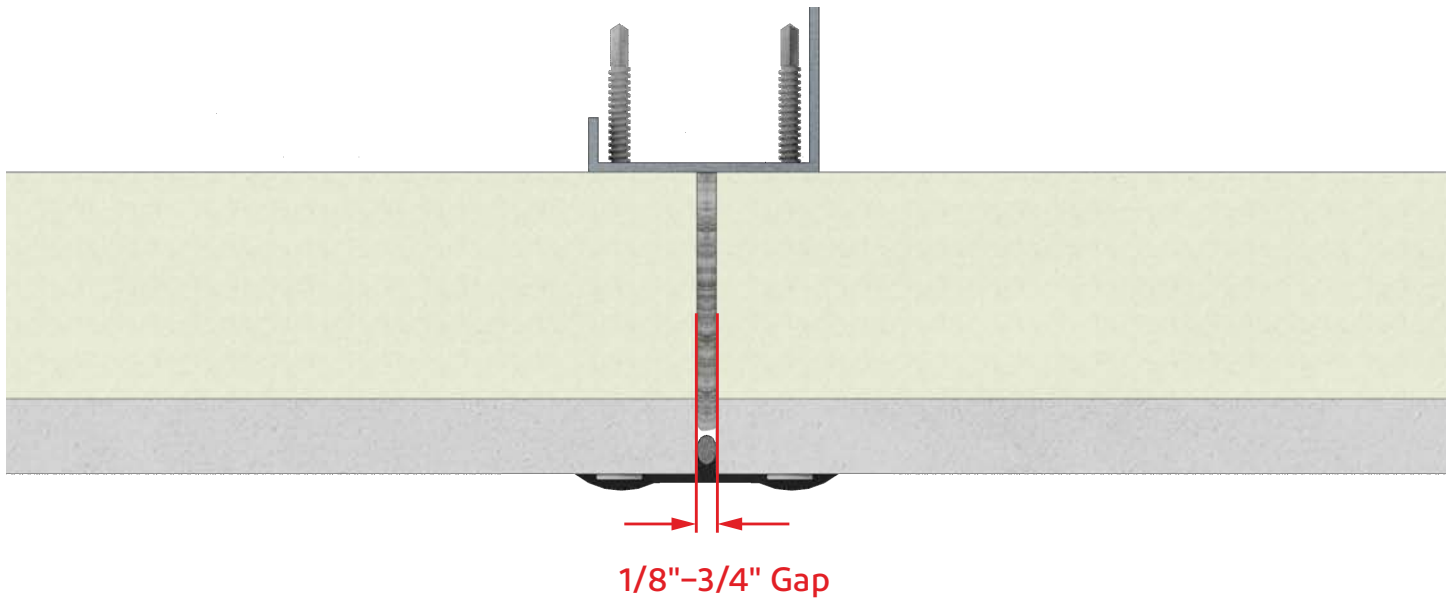
Strike the bead with a putty knife to create a minimum 2" wide seam joint with 1" on the face of each panel surface. Ensure that 35 wet mils (+/- 5 mils) of sealant covers each seam. Make sure the joint remains continuous and entirely free from voids or pinholes.

DuPont™ ArmorWall™ Installation Guidelines

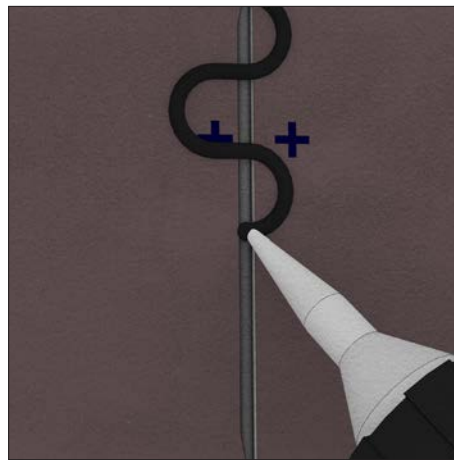
Sealing ArmorWall™ System Panel Gaps

NOTE: All panel joints must be sealed or otherwise protected from rain within 30 days from **ArmorWall™ System** installation or prior to a weather/rainfall event.

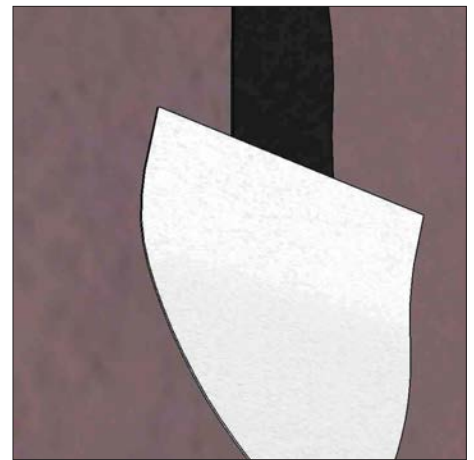
Sealing Gaps Greater Than 1/8" and up to 3/4"



Fill gaps greater than 1/8" and up to 3/4" with **Great Stuff Pro™ Gaps & Cracks Polyurethane Foam Sealant** or compressible insulation filler, followed by a compressed backer rod.



Apply **DuPont™ LiquidArmor™ FJ Flashing and Joint Compound** in a zig zag pattern across the entire joint line extending at least 1" each side of the joint.



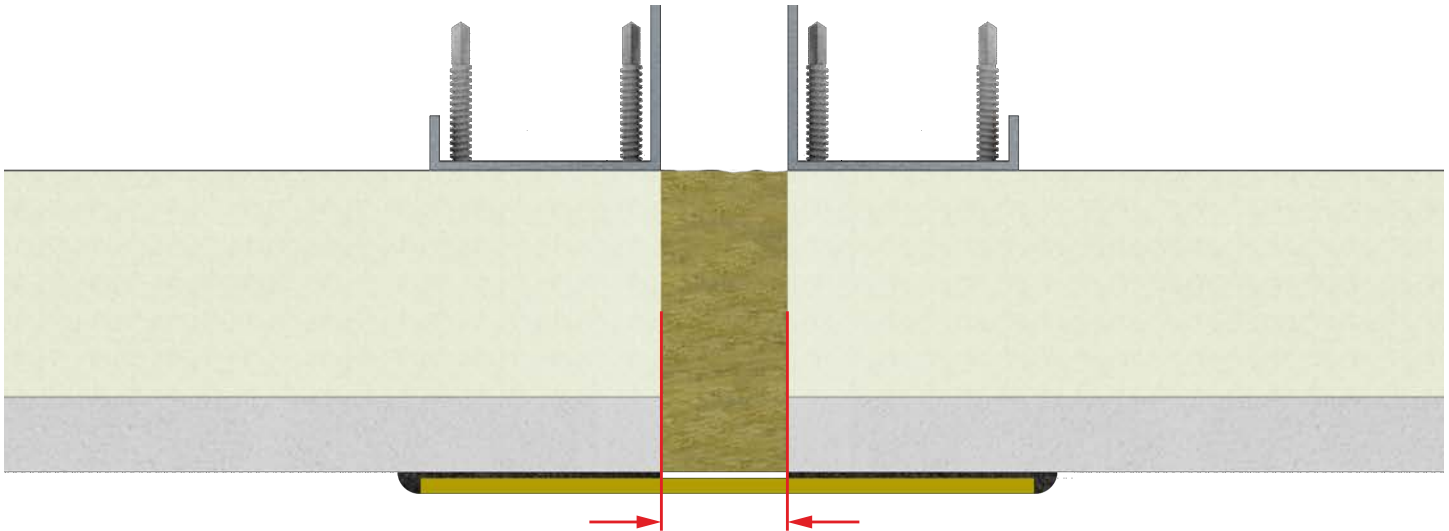
Strike the bead with a putty knife to create a minimum 2" wide seam joint with 1" on the face of each panel surface. Ensure that 35 wet mils (+/- 5 mils) of sealant covers each seam. Make sure the joint remains continuous and entirely free from voids or pinholes.

DuPont™ ArmorWall™ Installation Guidelines

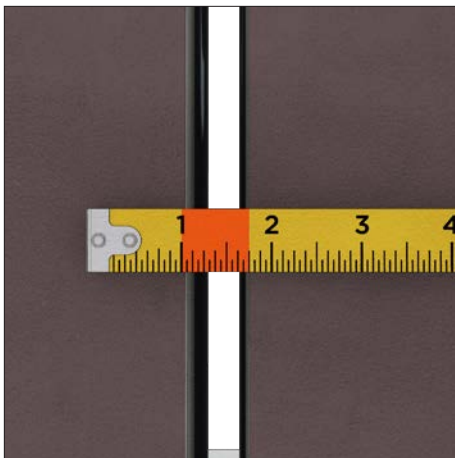
Sealing ArmorWall™ System Panel Gaps

NOTE: All panel joints must be sealed or otherwise protected from rain within 30 days from **ArmorWall™ System** installation or prior to a weather/rainfall event.

Sealing Gaps Greater Than 3/4" and Expansion Joints



3/4" Gap or Greater, or Expansion Joint

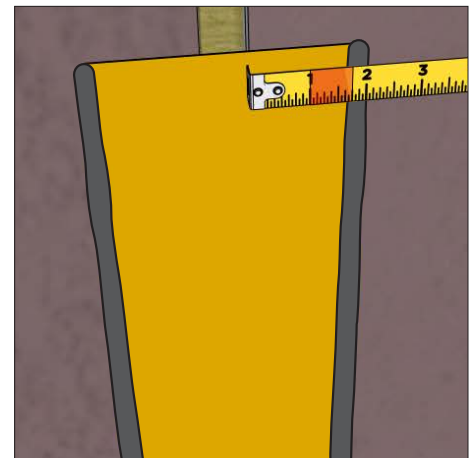


Gaps greater than 3/4" require the use of mineral wool fire safing, an optional backer rod, and a membrane seal (by others).



Fill joints with minimum 4 pcf mineral wool fire safing the full depth of the **ArmorWall™ panel** to ensure continuous insulation and fire performance of the system.

An oversized backer rod may be used at the exterior face to support the membrane seal when required.



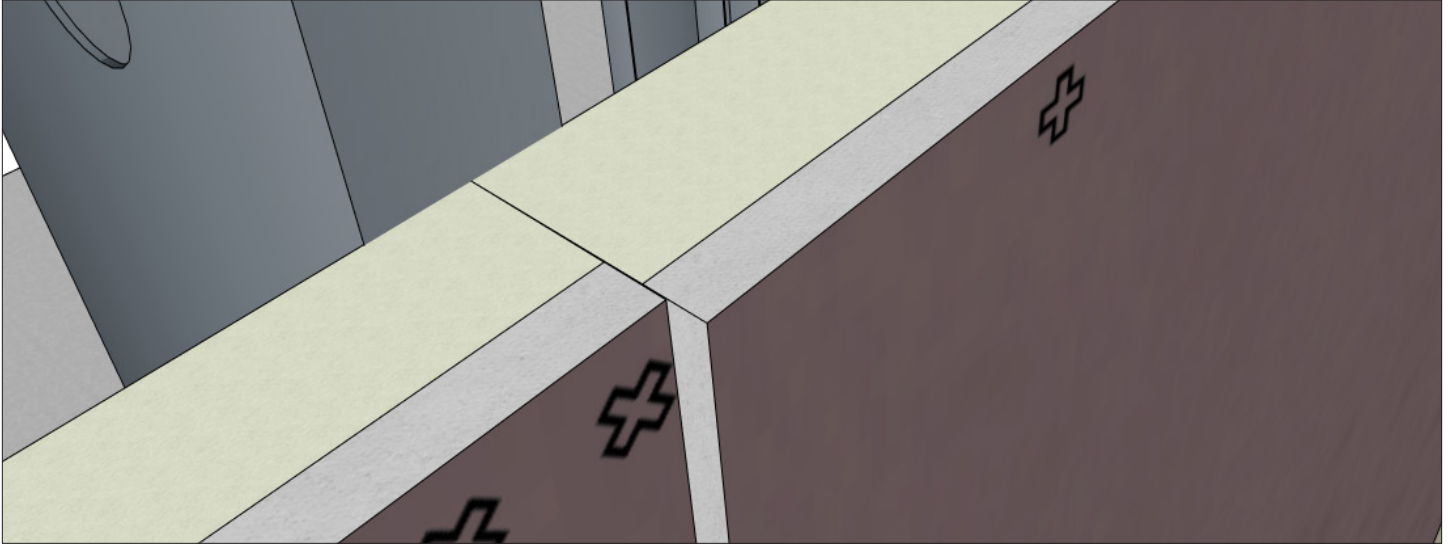
Apply a membrane seal across the joint installed per manufacturer's recommendations. The membrane seal shall adhere to a minimum of two inches on each side of the joint. Apply a fillet bead to exposed edges of membrane seal per manufacturer's recommendations,

NOTE: Installer must confirm chemical compatibility and adequate adhesion of membrane seal to **ArmorWall™ System** prior to application.

DuPont™ ArmorWall™ Installation Guidelines

Sealing Out-of-Plane Panel Installations

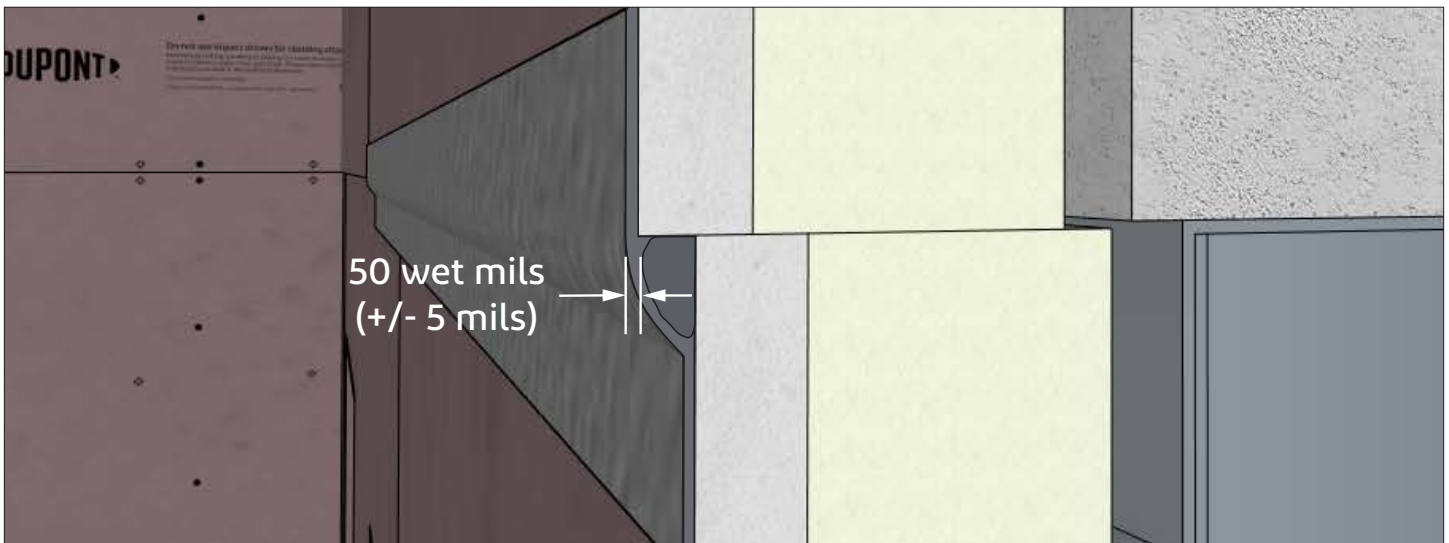
ArmorWall™ System panel joints are intended to be installed with care to create a flush surface from one board to the other. **Out-of-plane installations may be adjusted up to 1/8" by loosening or tightening the panel attachment fasteners provided the panel remains in contact with the framing member.** Seal the panel joints by following the process detailed in the [Sealing Field Seams](#) section of this guide.



Example of an out of plane panel installation.

If the panels cannot be made flush by loosening or tightening the fasteners, use one of the following methods to seal the panel joints:

- **1/16" Out of Plane**
Abutting ArmorWall™ System panel joints up to 1/16" out-of-plane may be covered with **DuPont™ LiquidArmor™ FJ Flashing and Joint Compound** at 35 wet mils (+/- 5 mils).
- **1/16" to 1/4" Out of Plane**
Apply a fillet bead of **LiquidArmor™ FJ Flashing and Joint Compound** and strike the sealant to approximately 1/2" wide and the height of the panel offset.
Apply additional **LiquidArmor™ FJ** and maintain a minimum of **50 wet mils (+/- 5 mils)** over the required joint application. Installer shall ensure **50 wet mils (+/- 5 mils)** is applied along the entire joint, including the highest point of the out-of-plane panel.
- **Greater than 1/4" Out of Plane**
Apply a flexible expansion seal across the out-of-plane joint (see [Sealing Gaps Greater Than 3/4" and Expansion Joints](#)).



Sealing out of plane panels (1/16" to 1/4" out of plane) using a fillet bead and an additional application of LiquidArmor™ FJ Flashing and Joint Compound (strike to 50 wet mils (+/- 5 mils) with a putty knife or trowel.

DuPont™ ArmorWall™ Installation Guidelines

Sealing ArmorWall™ Panel Tie-ins with Dissimilar Materials

Framed walls that include **ArmorWall™ System panels** may experience differing levels of movement versus abutting dissimilar materials such as concrete/CMU block or penetrating steel. The design professional is ultimately responsible for determining whether this type of joint needs to be designed for a movement joint or an expansion joint.



For joints where differential movement is not expected, use one of the following methods of treating a dissimilar material joint:

- **DuPont™ DuraGard™ CM Transition Flashing**

DuraGard™ CM Transition Flashing must adhere a minimum of 2" onto adjacent dissimilar material and a minimum of 4" onto the **ArmorWall™ panels**. Apply a spray adhesive/primer to substrates such as concrete, CMU block, and exterior glass-fiber faced gypsum board where **DuraGard™ CM Transition Flashing** will be installed. **DuraGard™ CM Transition Flashing MAY NOT BE USED when this type of joint is skyward (upward) facing.**

Apply a fillet bead of **DuPont™ LiquidArmor™ FJ Flashing and Joint Compound** to both edges of the **DuraGard™ CM Transition Flashing**.

- **Flexible Expansion Seal**

Apply a flexible expansion seal across the dissimilar material joint (see [Sealing Gaps Greater Than 3/4" and Expansion Joints](#)). Installer should verify the correct installation procedure for both substrates with the flexible expansion joint manufacturer.

DuPont™ ArmorWall™ Installation Guidelines

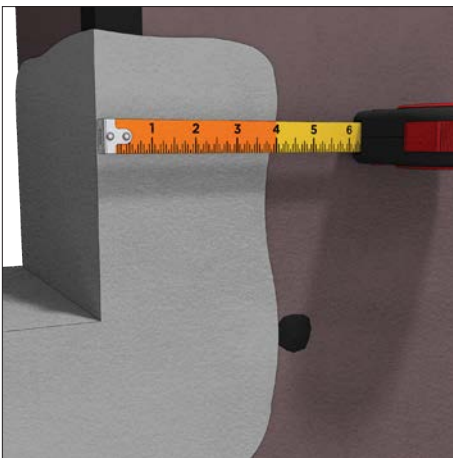
Sealing Punched Opening Sill with Full-Depth Return



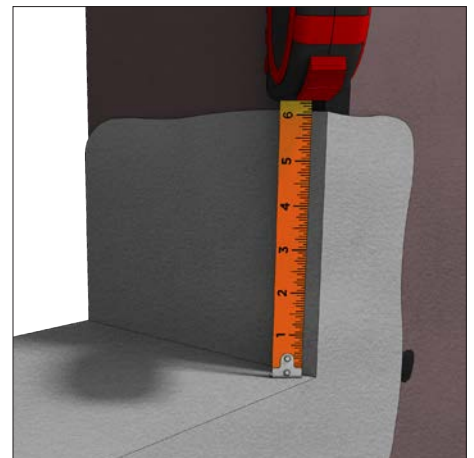
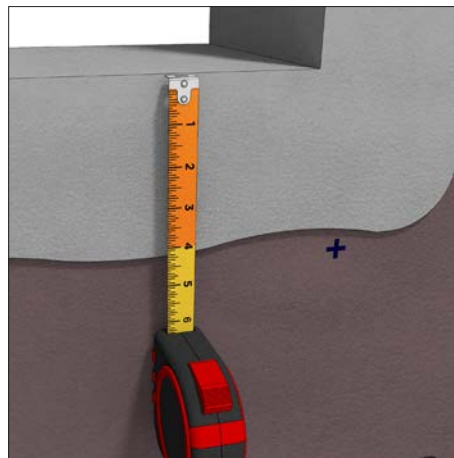
Using a putty knife or similar tools apply **ArmorSeal Sealant (Trowel Grade)** to the sill of the opening.



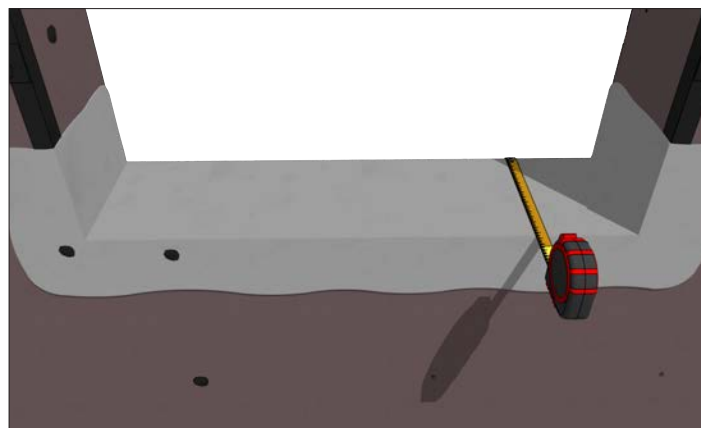
Spread the sealant with a roller brush to achieve approximately a **40 wet mil thickness**. When complete the underlying substrate should not be visible.



The **ArmorSeal Sealant (Trowel Grade)** should extend 4" from the interior on to the front facing sides and bottom of the panel at the jambs and sill.



Sealant should extend 6" up the jambs of the punched opening.



The entire width and depth of the sill is coated to complete preparation for the next phases of the project.

CONTRACTOR'S TIP



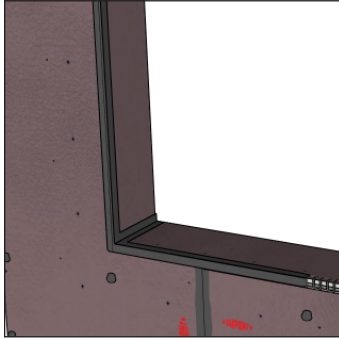
One 2-gallon pail of **ArmorSeal Sealant (Trowel Grade)** should cover approximately 40 square feet per gallon (80 square feet per pail).

DuPont™ ArmorWall™ Installation Guidelines

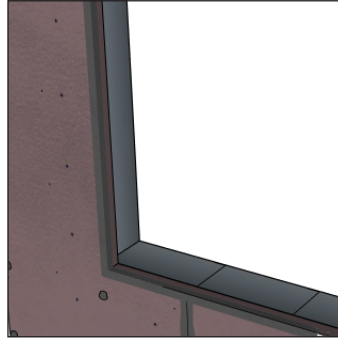
Flashing Rough Openings with DuPont™ DuraGard™ WD Self-Adhered Flashing Tape and DuPont™ LiquidArmor™ FJ Flashing and Joint Compound

DuraGard™ WD Self-Adhered Flashing Tape may be installed directly onto stud framing of rough openings or after one of the initial detailing methods shown below has been completed in the rough openings.

Types of Rough Opening Returns



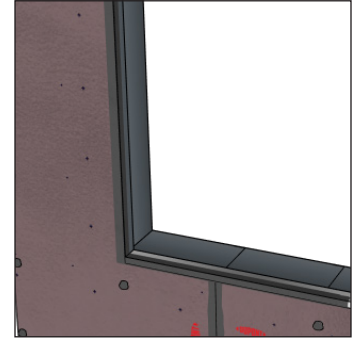
Full-Depth Return



Partial-Depth Return



Fire Retardant Treated Wood



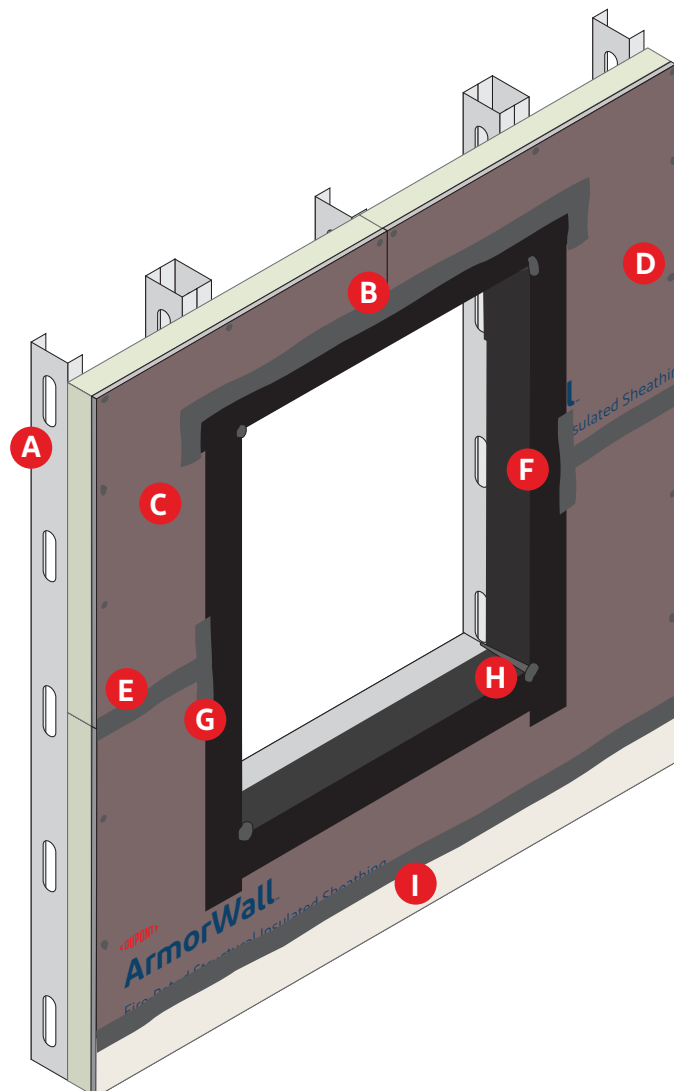
Metal L-Flashing

Installation Overview

- A. Steel Stud Frame
- B. **LiquidArmor™ FJ Flashing and Joint Compound** at header flashing.
- C. **ArmorWall™ System panel** (R10, R15, or R21 Standard)
- D. #14-13 Self Tapping Fastener or recommended fastener (see [ArmorWall™ Panel Attachment Fasteners](#))
- E. **LiquidArmor™ FJ** at all Seams and Fasteners
- F. **DuPont™ DuraGard™ WD Self-Adhered Flashing Tape**
- G. Bead of **LiquidArmor™ FJ** applied 3" beyond tape/sealant seam intersection.
- H. Bead of **LiquidArmor™** on all interior corners.
- I. **DuPont™ DuraGard™ CM Through Wall Flashing** at base of wall.

NOTE: Use a pressure roller to help achieve the best adhesion to all surfaces. Attempt to install free from wrinkles working the laps as much as possible.

INSTALLER REQUIREMENT: DuPont requires the use of **DuPont™ ArmorSeal Sealant (Trowel Grade)** for rough opening sill details where fasteners will penetrate the rough opening sill flashing. Please refer to [Sealing Punched Opening Sill with Full Depth Return](#) for detailed instructions for **ArmorSeal Sealant (Trowel Grade)**.



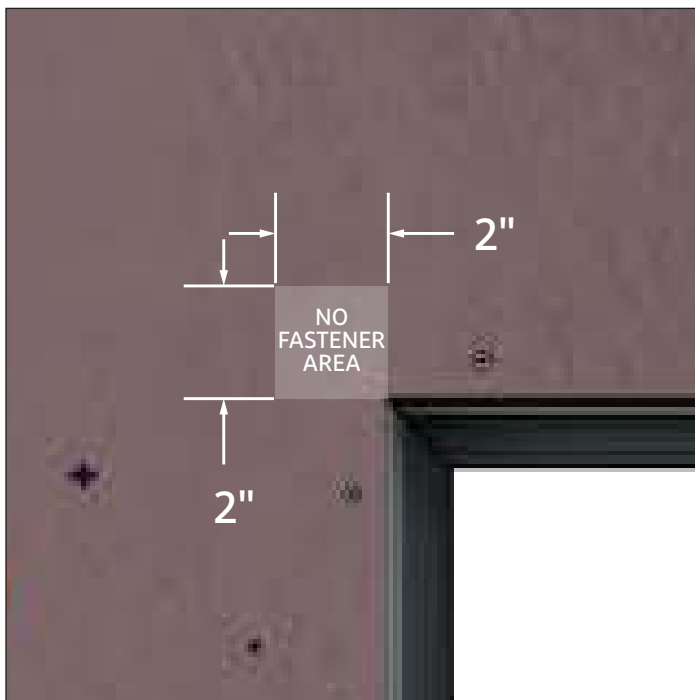
DuPont™ ArmorWall™ Installation Guidelines

Flashing Rough Openings with DuPont™ DuraGard™ WD Self-Adhered Flashing Tape and DuPont™ LiquidArmor™ FJ Flashing and Joint Compound

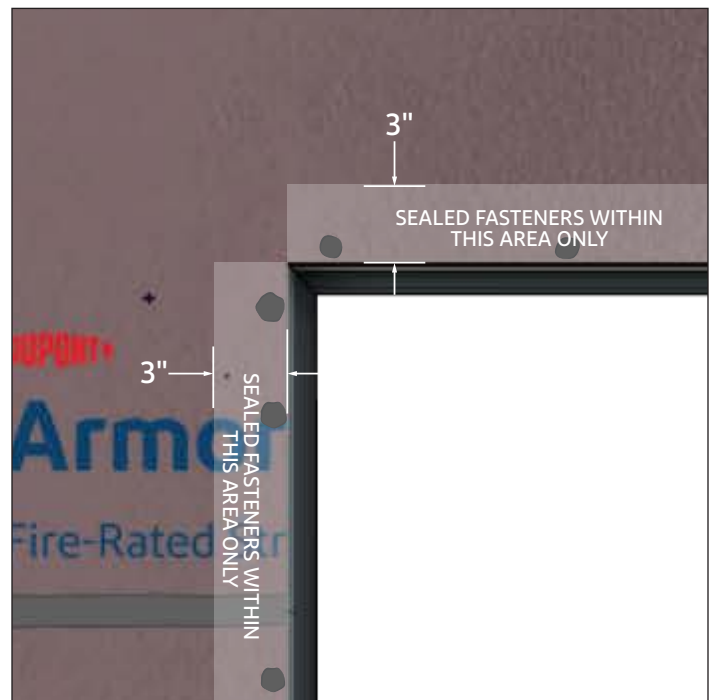
Preparation

- Ensure system fasteners and sealants around the punched opening are present and installed correctly.
- Ensure cut panel is flush with RO.
- Ensure any construction related surface damage is repaired.
- Ensure the surface of each **ArmorWall™ panel** is free of dust or contaminants Use compressed air or wipe the **ArmorWall™ panel** face and studs at rough openings with a damp cloth and allow to dry.

Fastener Placement



No fasteners should be installed within 2" of the corners of the rough opening.

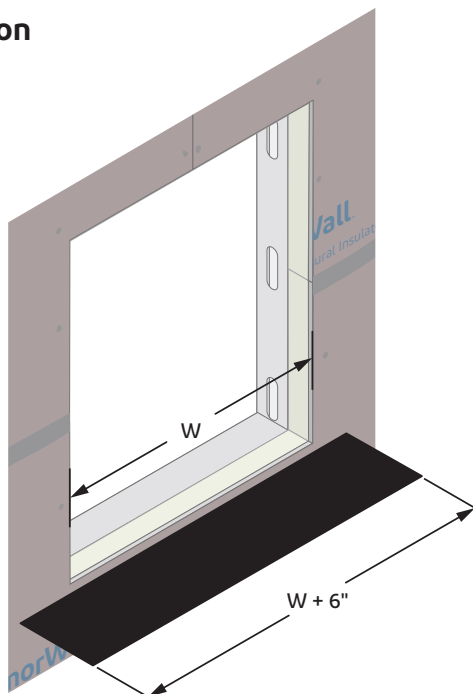


Fasteners installed at the perimeter of the rough opening (RO) should be within 1" of the RO to ensure that the cured sealant on the fasteners does not extend more than 3" from opening. This will help ensure that the sealed fastener will be completely covered by the DuraGard™ WD Self-Adhered Flashing Tape.

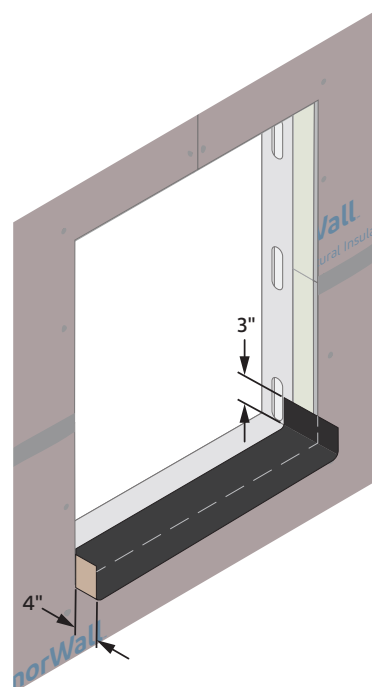
DuPont™ ArmorWall™ Installation Guidelines

Flashing Rough Openings with DuPont™ DuraGard™ WD Self-Adhered Flashing Tape and DuPont™ LiquidArmor™ FJ Flashing and Joint Compound

Sill Installation

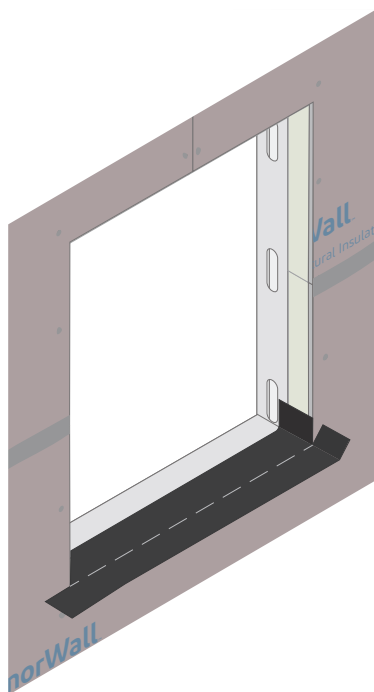


Cut a piece of **DuraGard™ WD Self-Adhered Flashing Tape** that is 6" **LONGER** than the measured width of the rough opening (W).

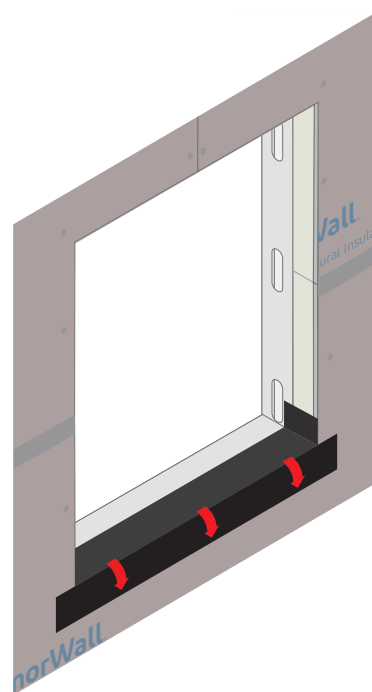


Remove the wider piece of the release liner and, beginning from the centerline of the sill, install the flashing across the sill and 3" up each jamb. Ensure that 4" of flashing material extends out of the rough opening prior to adhering to sill.

NOTE: The release liner is split at the 4" mark for easy alignment.



Cut a 3" slit at each edge of the sill flashing along the split release liner.

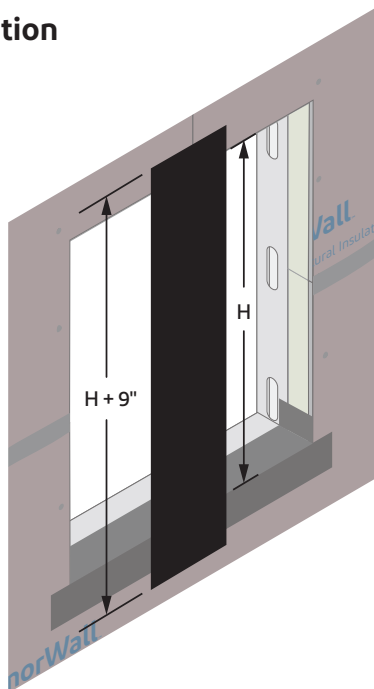


Remove the remaining release liner and adhere the flashing to the face of the wall. Use a pressure roller to help ensure good adhesion.

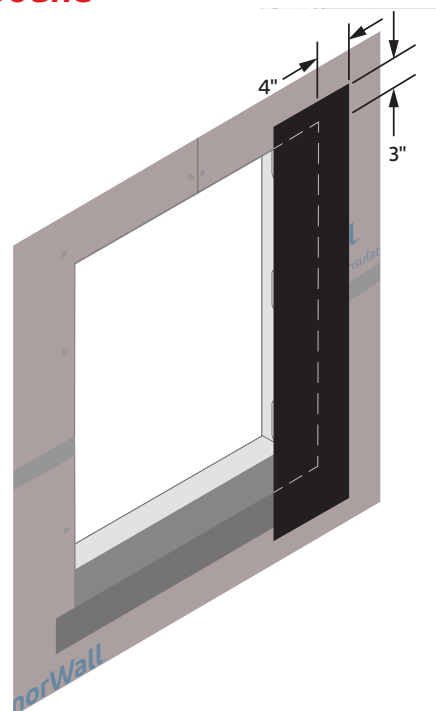
DuPont™ ArmorWall™ Installation Guidelines

Flashing Rough Openings with DuPont™ DuraGard™ WD Self-Adhered Flashing Tape and DuPont™ LiquidArmor™ FJ Flashing and Joint Compound

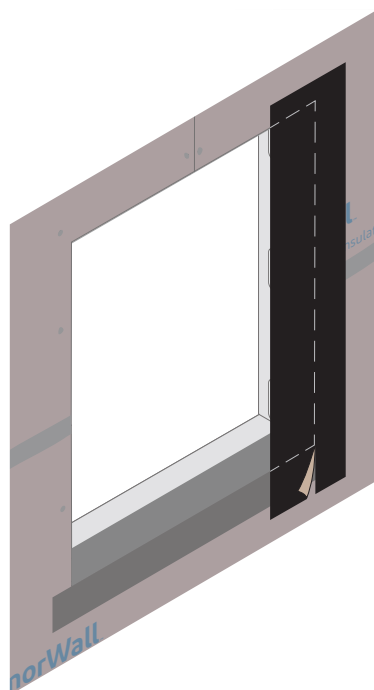
Jamb Installation



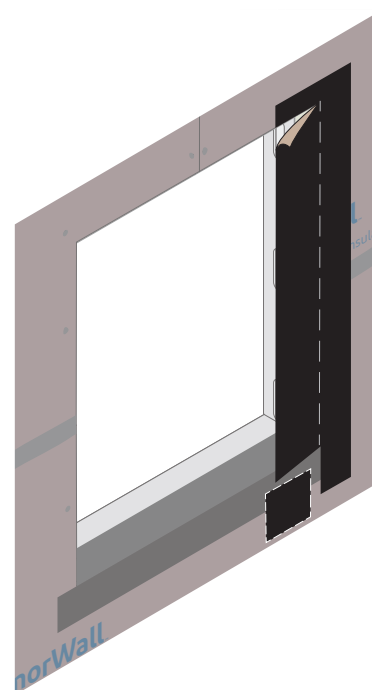
Prepare the jamb flashing by cutting two pieces of **DuraGard™ WD Self-Adhered Flashing Tape** that are 9" LONGER than the measured height of the rough opening (H).



Position the **DuraGard™ WD Self-Adhered Flashing Tape** so it extends a maximum of 3" above the top of the RO. Remove the 4" release liner and adhere the flashing tape to the face of the wall. The release liner is split at the 4" mark for easy alignment.



At the bottom of the flashing tape, using the release liner as a guide, cut a vertical slit from the end of the flashing tape to the corner of the rough opening.

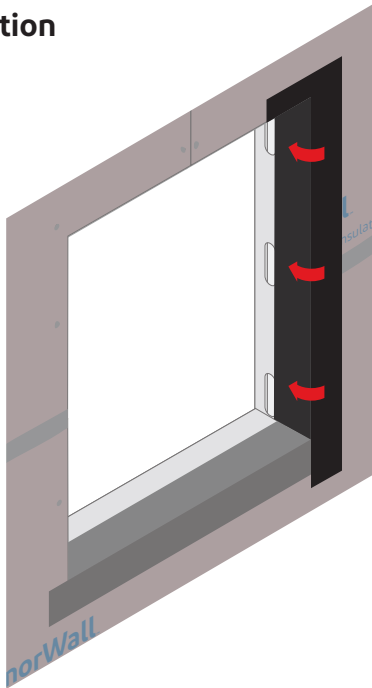


Using the head of the rough opening as a guide, cut a horizontal slit from the edge of the flashing tape to the corner. Repeat this process to make a horizontal cut at the sill, then remove the excess material at the bottom of the flashing tape.

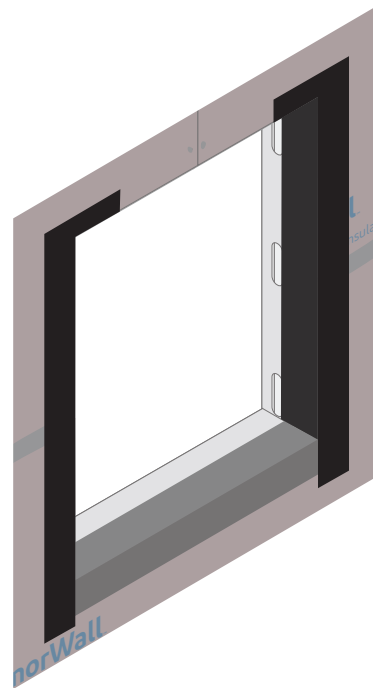
DuPont™ ArmorWall™ Installation Guidelines

Flashing Rough Openings with DuPont™ DuraGard™ WD Self-Adhered Flashing Tape and DuPont™ LiquidArmor™ FJ Flashing and Joint Compound

Jamb Installation

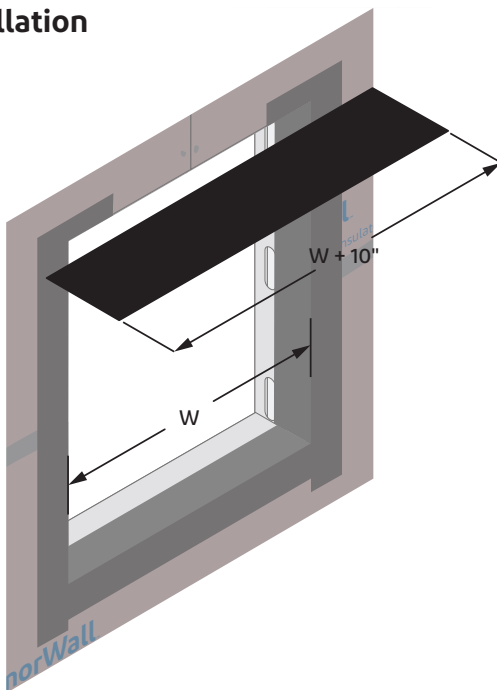


Fold the flap created in the previous step into the rough opening. Remove the remaining release liner and adhere the flap to the rough opening along the jamb. Use a pressure roller to help ensure good adhesion.

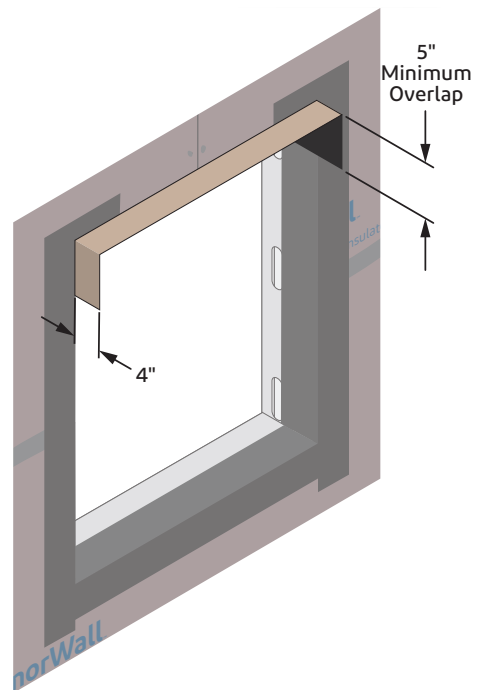


Repeat the previous steps on opposite jamb.

Header Installation



Cut a piece of **DuraGard™ WD Self-Adhered Flashing Tape** at least 10" **LONGER** than the measured width of the rough opening. Position the flashing tape in a way that ensures the jamb flashing tape is overlapped by a minimum of 1" in all directions.

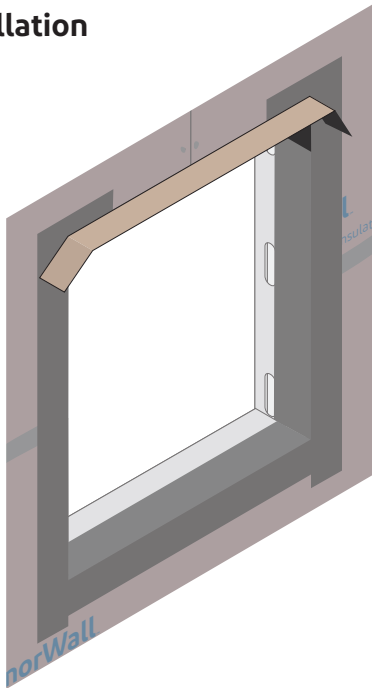


Remove the wider piece of the release liner and, beginning from the centerline of the RO, install the flashing across the header and 5" down each jamb. Ensure that 4" of flashing material extends out of the rough opening prior to adhering to the head. The release liner is split at the 4" mark for easy alignment.

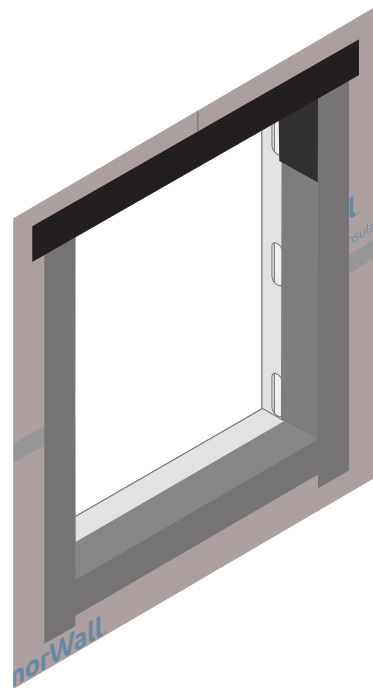
DuPont™ ArmorWall™ Installation Guidelines

Flashing Rough Openings with DuPont™ DuraGard™ WD Self-Adhered Flashing Tape and DuPont™ LiquidArmor™ FJ Flashing and Joint Compound

Header Installation

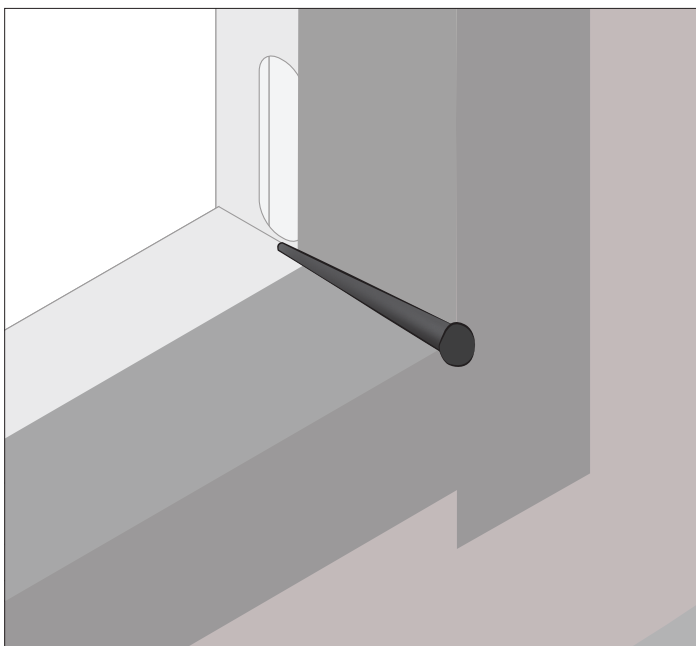


Starting at the exterior jamb, make a vertical cut on each side of the header flashing that extends into head corner. **DO NOT CUT OR DAMAGE THE INSTALLED JAMB FLASHING.**

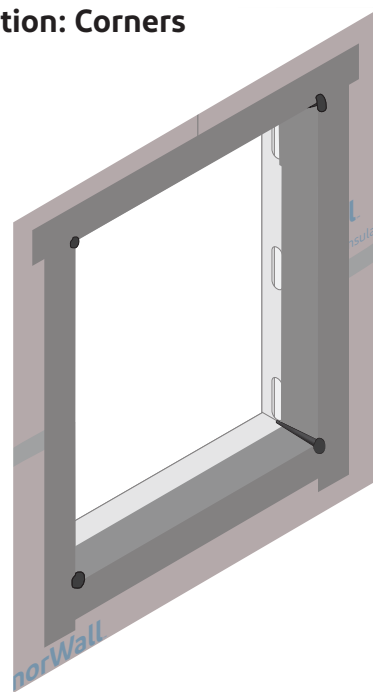


Remove the remaining release liner and adhere the resulting header flap up and onto the upper face of the **ArmorWall™ panel**. Ensure the header flashing overlaps the jamb flashing by a minimum of 1" in all directions. Use a pressure roller to improve adhesion to all substrates.

DuPont™ LiquidArmor™ FJ Flashing and Joint Compound Installation: Corners



Apply a bead of **LiquidArmor™ FJ Flashing and Joint Compound** on all interior corner transitions at the returns of the rough opening. Repeat on the other corners of the rough opening,

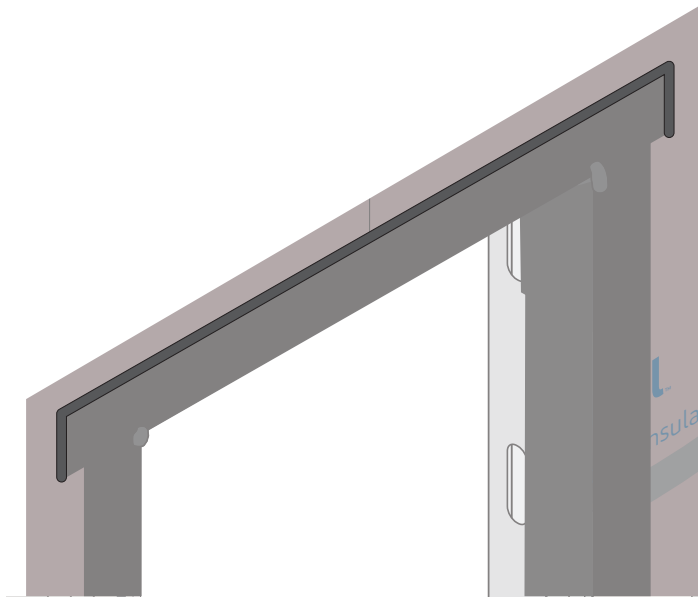


Ensure **LiquidArmor™ FJ Flashing and Joint Compound** extends onto the exterior face and covers the exterior flashing overlaps in all four corners. Strike sealant on face to 35 wet mil thickness.

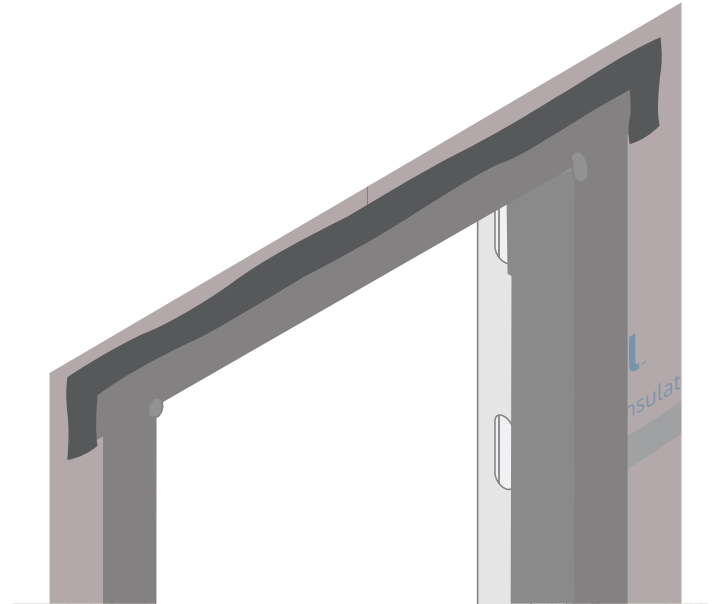
DuPont™ ArmorWall™ Installation Guidelines

Flashing Rough Openings with DuPont™ DuraGard™ WD Self-Adhered Flashing Tape and DuPont™ LiquidArmor™ FJ Flashing and Joint Compound

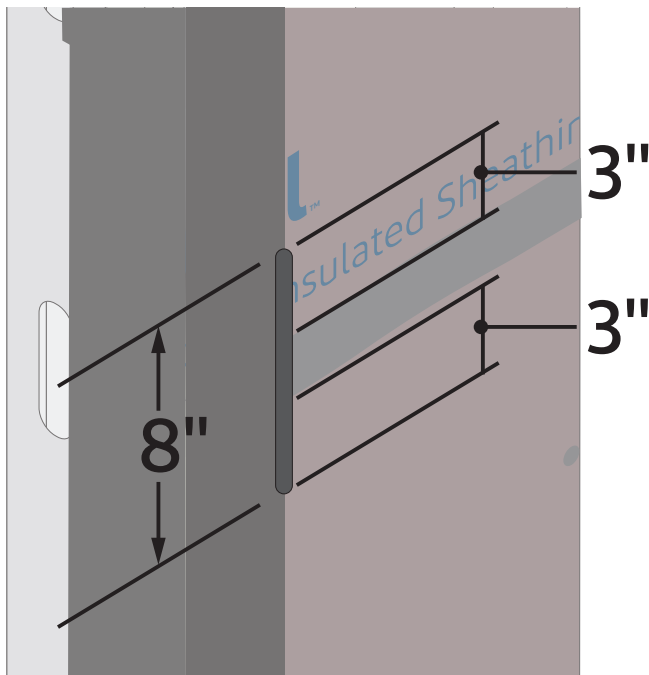
DuPont™ LiquidArmor™ FJ Flashing and Joint Compound Installation: Head and Jamb



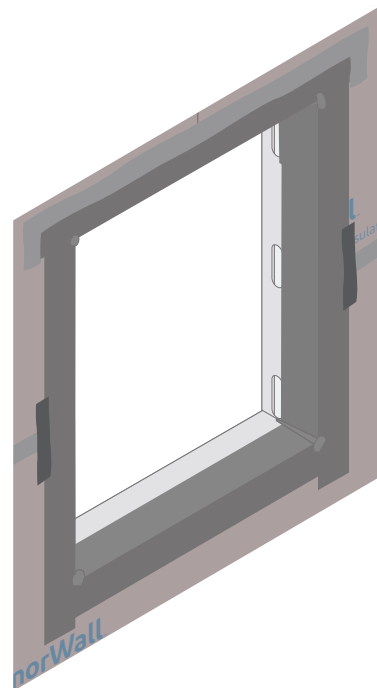
Apply a bead of **LiquidArmor™ FJ Flashing and Joint Compound** on the leading edge of the **DuraGard™ WD Self-Adhered Flashing Tape** at the header section of the rough opening.



Strike **LiquidArmor™ FJ** to ensure no voids or pinholes, sealing the reverse lap.



At sections where the **DuraGard™ WD Self-Adhered Flashing Tape** overlaps **ArmorWall™ Plus panel** seams with **LiquidArmor™ FJ Flashing and Joint Compound**, apply **LiquidArmor™ FJ Flashing and Joint Compound** 3" beyond tape/sealant seam Intersection.



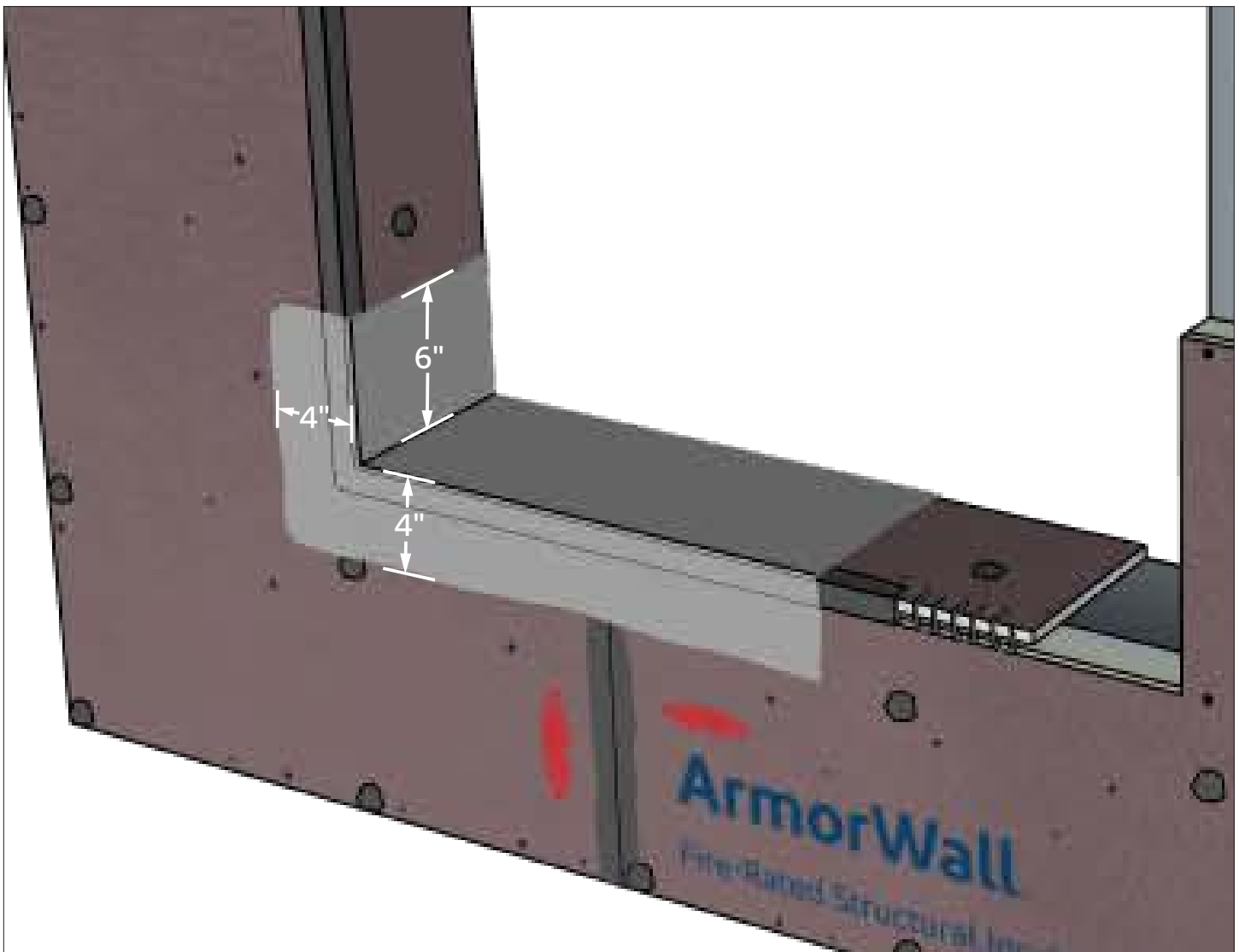
Strike **LiquidArmor™ FJ** to ensure no voids or pinholes.

DuPont™ ArmorWall™ Installation Guidelines

Full-Depth Return with Liquid Sill Flashing

Characteristics of this Return Type:

Return Material	DuPont™ ArmorBoard™ Plus FR Structural Sheathing Returns (Non-Insulated ArmorWall™ Plus FR SIS) mechanically-fastened to structure. DuPont™ LiquidArmor™ FJ Flashing and Joint Compound applied to joints and fastener heads
Depth of Return	Full depth of assembly
Opening Flashing	DuPont™ ArmorSeal Sealant (Trowel Grade) at sill: • Applied past the dryline of the window. Interior beyond the inside face of fenestration or door system. • 6" up the jambs • Extend 4" on to the face of the panel at bottom and sides adjacent to the jambs



INSTALLER REQUIREMENT: DuPont requires the use of **ArmorSeal Sealant (Trowel Grade)** for rough opening sill details where fasteners will penetrate the rough opening sill flashing. Please refer to [Sealing Punched Opening Sill with Full-Depth Return](#) for detailed installation instructions for **ArmorSeal Sealant (Trowel Grade)**.

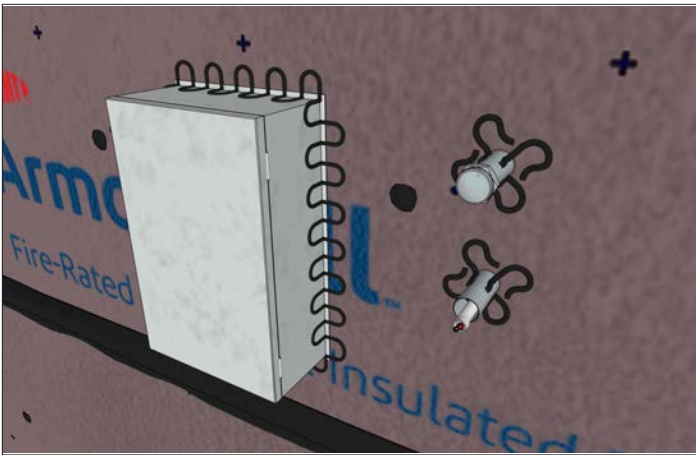
DuPont™ ArmorWall™ Installation Guidelines

Sealing Gaps and Penetrations with DuPont™ LiquidArmor™ FJ Flashing and Joint Compound

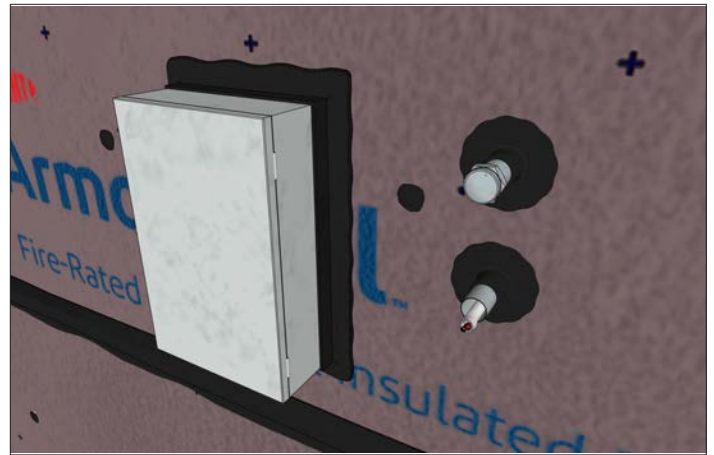
General Instructions

Cut out appropriately sized hole for the penetration into the **ArmorWall™ panel**. Use the appropriate method, detailed below, to fill any gaps that result from cutting oversized holes before applying **DuPont™ LiquidArmor™ FJ Flashing and Joint Compound**.

Sealing Gaps up to 1/8"



Apply **LiquidArmor™ FJ Flashing and Joint Compound** to the penetration in a zigzag pattern at the hole. Sealant should extend 1" on both the surface of the penetration and the face of the **ArmorWall™ panel**.

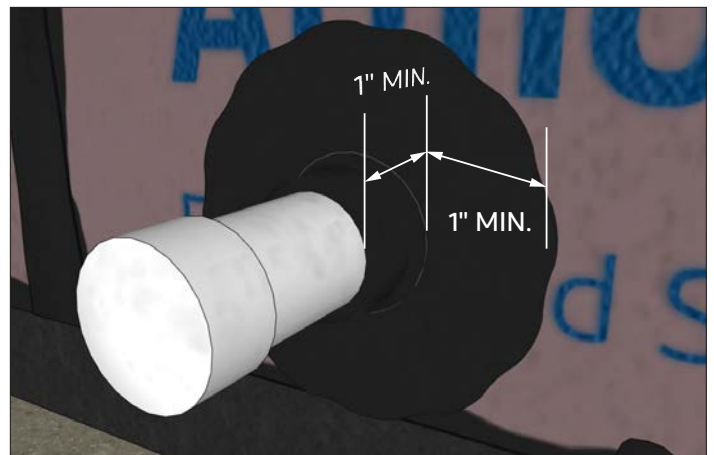


Strike sealant bead to achieve a 35 wet mil thickness. Ensure the wet sealant is free from voids or pinholes.

Sealing Gaps 1/8" to 3/4"



Fill any gaps 1/8" or greater resulting from oversized holes with **Great Stuff Pro™ Gaps & Cracks Polyurethane Foam Sealant** or appropriately sized compressible backer rod.



Apply **LiquidArmor™ FJ Flashing and Joint Compound** to the penetration in a zigzag pattern at the hole. Sealant should extend 1" on both the surface of the penetration and the face of the **ArmorWall™ panel**. Strike sealant bead to achieve a 35 wet mil thickness. Ensure the wet sealant is free from voids or pinholes.

Sealing Gaps Larger than 3/4"

Follow the joint detail repair method found in this Install Guide (see [Sealing Gaps Greater Than 3/4" and Expansion Joints](#)) or replace the section of **ArmorWall™ panel** to reduce the gap between the panel and the penetration.

DuPont™ ArmorWall™ Installation Guidelines

Patching Panels with ArmorWall™ Panel Blocks

Construction or scaffold tie-backs are often required on projects. These temporary tie-backs penetrate the **ArmorWall™** panels and require a patch after the tie-backs have been removed.



Measure the overall dimensions of the penetration, vertically and horizontally.

NOTE: For repairs larger than 16" (horizontal or vertical), the **ArmorWall™** panel replacement piece must be fastened back to the studs (2-stud minimum).



Cut a rectangle slightly larger than the measured hole in any available, undamaged, and clean **ArmorWall™** panel material.



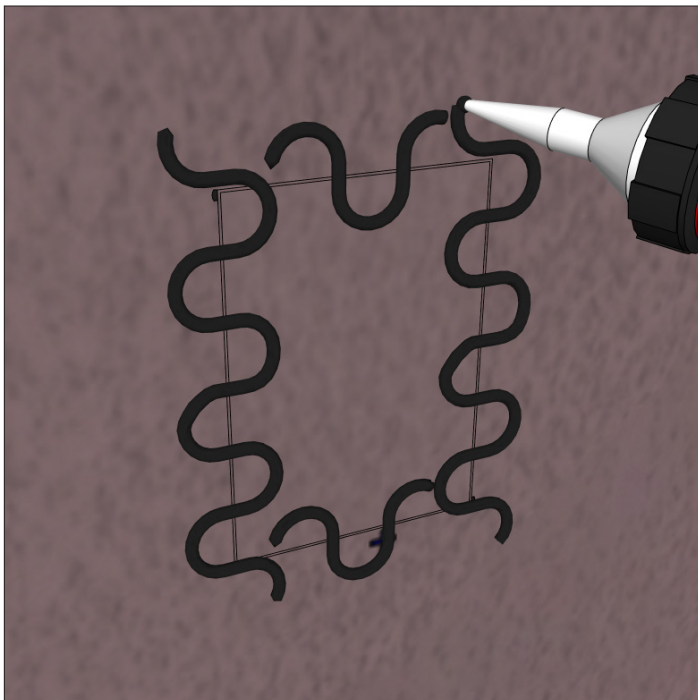
Use a marker to trace the cut block onto the panel.



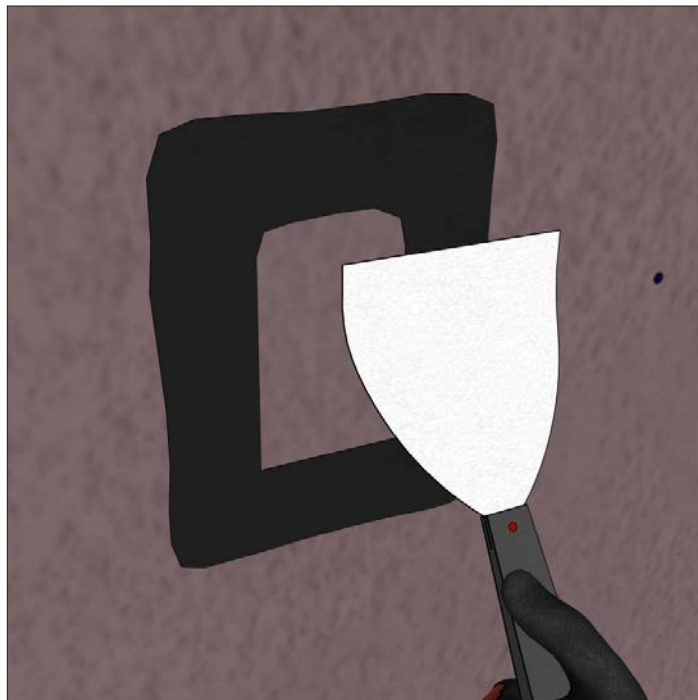
Carefully cut out the hole along the traced line. Maintaining precision will determine which gap repair will be required (See [Sealing ArmorWall™ System Panel Gaps](#)).

DuPont™ ArmorWall™ Installation Guidelines

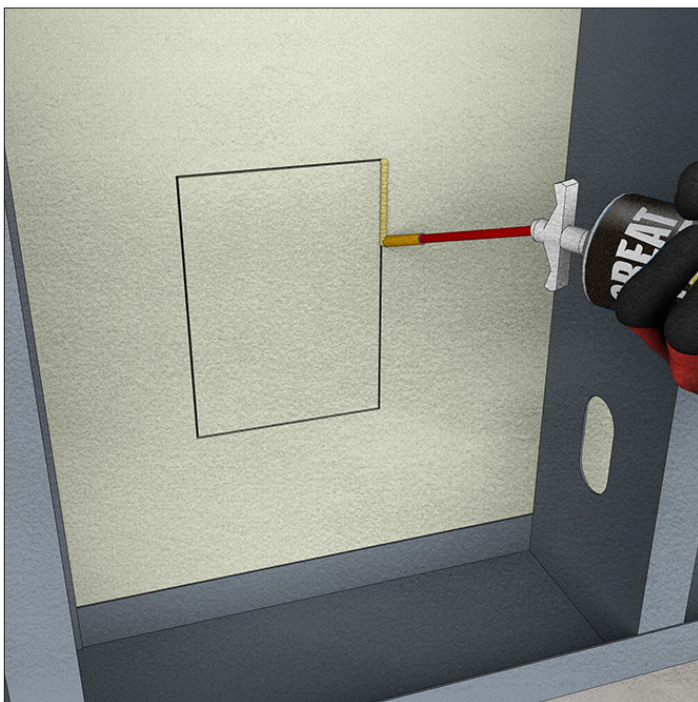
Patching Panels with ArmorWall™ Panel Blocks



Seal the panel piece in place using **DuPont™ LiquidArmor™ FJ Flashing and Joint Compound**. Ensure sealant spans a minimum 1" on each face of the seam.



Strike the sealant bead to achieve a 2" total width and a 35 wet mil thickness. Ensure the wet sealant is free from voids or pinholes.



Seal the interior gap using **Great Stuff Pro™ Gaps & Cracks Polyurethane Foam Sealant**.

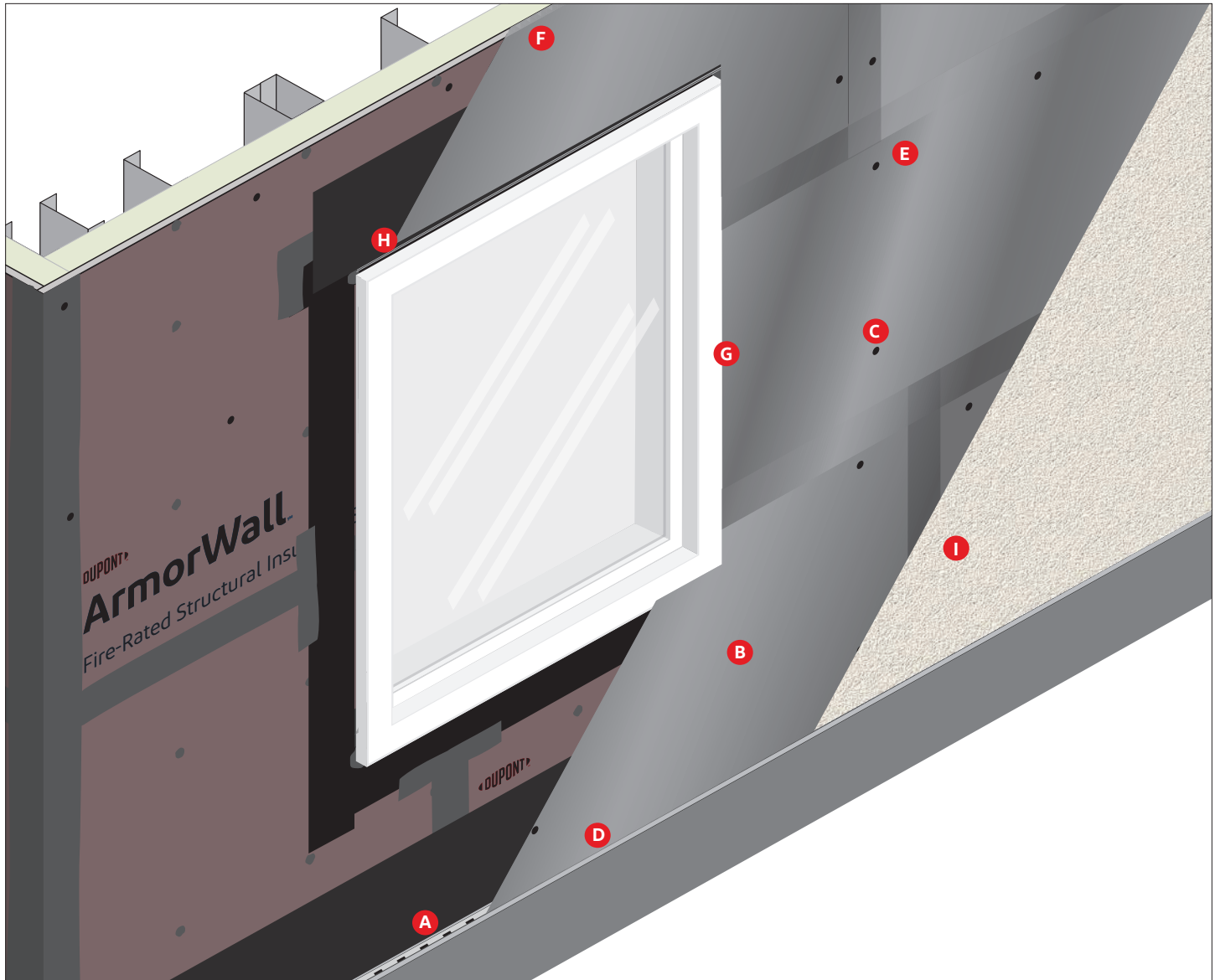


NOTE: The completed patch cannot be used for structural connection.

DuPont™ ArmorWall™ Installation Guidelines

DuPont™ ArmorDry™ Exterior Drainage Mat Installation Guidelines for Stucco, Adhered Stone, and Direct Applied Claddings

3/16" drainage & air ventilation mat required for stucco, adhered masonry, and direct applied claddings

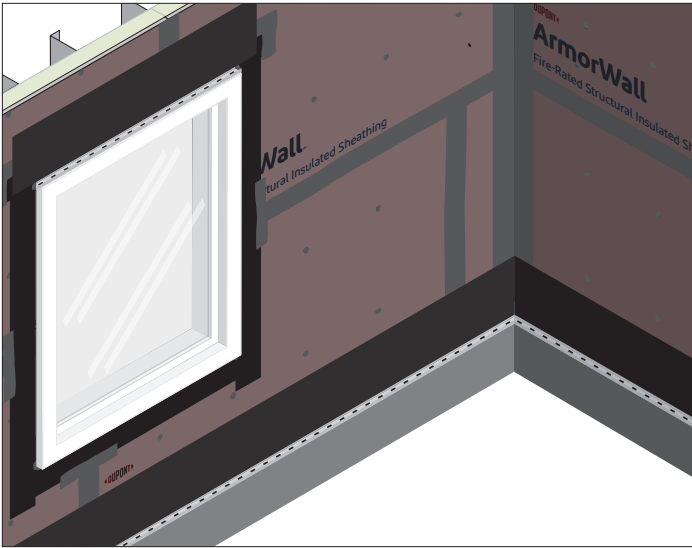


Installation Overview

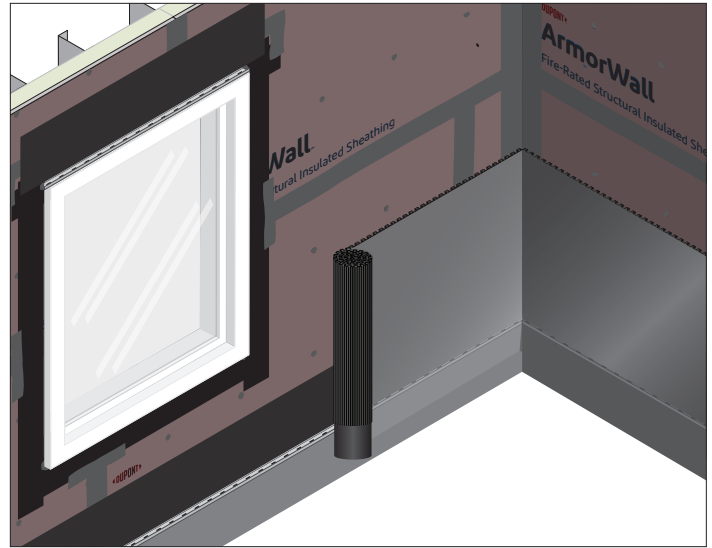
- A. Install drainable weep screeds at base of wall and rough opening headers.
- B. Roll out the first course of **ArmorDry™ Exterior Drainage Mat**.
- C. Temporarily secure the **ArmorDry™ Exterior Drainage Mat** to the **ArmorWall™ panel**.
- D. Create an insect screen at the bottom of the wall.
- E. Install additional courses of **ArmorDry™ Exterior Drainage Mat** allowing the filter fabric to overlap the adjacent **ArmorDry™ Exterior Drainage Mat**.
- F. Trim the top row of **ArmorDry™ Exterior Drainage Mat** and create an insect screen at the top of the wall.
- G. Cut **ArmorDry™ Exterior Drainage Mat** flush with jambs and sills and any penetrations.
- H. Integrate the **ArmorDry™ Exterior Drainage Mat** with the weep screeds installed at all rough opening headers.
- I. Install the exterior veneer.

DuPont™ ArmorWall™ Installation Guidelines

DuPont™ ArmorDry™ Exterior Drainage Mat Installation Guidelines for Stucco, Adhered Stone, and Direct Applied Claddings

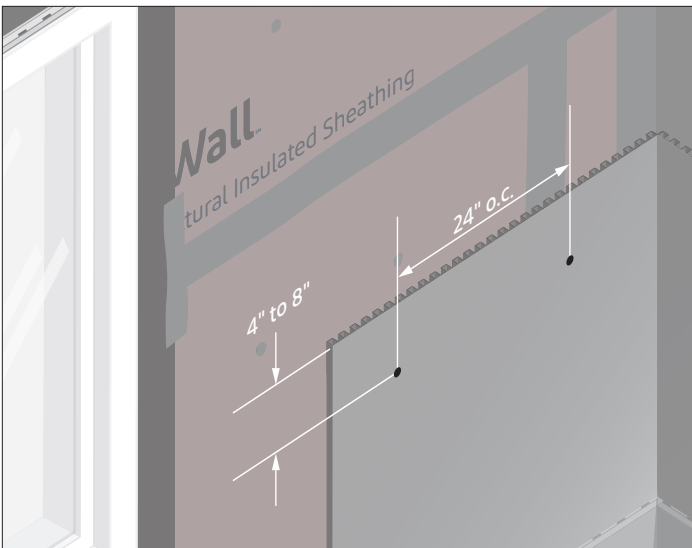


1. Install drainable weep screeds at base of wall and rough opening headers along with other accessories as required per ASTM C926 and ASTM C1063.
2. Drainable weep screeds at base of wall and rough opening headers should be flashed to **DuPont™ ArmorWall™ System panels** using **DuPont™ DuraGard™ WD Self-Adhered Flashing Tape** prior to installation of **ArmorDry™ Exterior Drainage Mat**.

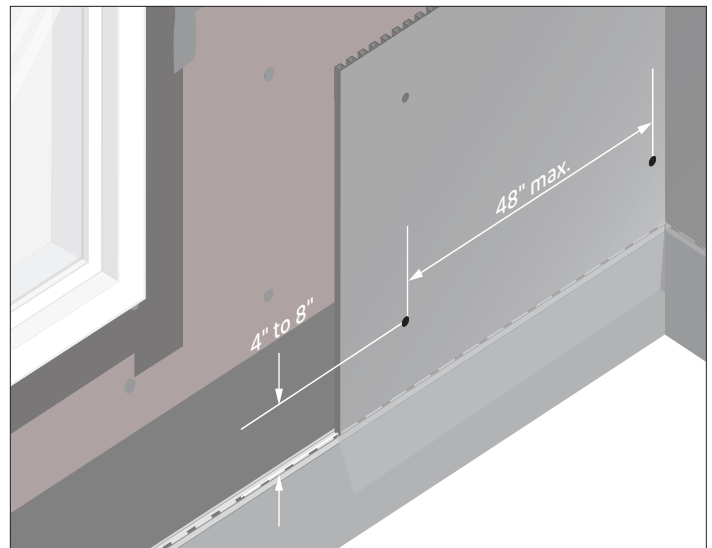


3. Starting at the bottom of the wall, roll out the first course of **ArmorDry™ Exterior Drainage Mat** and integrate with weep screed. The **ArmorDry™ Exterior Drainage Mat** can be unrolled around outside corners and tightly into inside corners. The 4" flap should extend beyond the weep screed, the bottom of the **DuPont™ ArmorWall™ panel**, or any other bottom wall accessories.

NOTE: Install **ArmorDry™ Exterior Drainage Mat** with the filter fabric layer facing outward.



4. Temporarily secure the **ArmorDry™ Exterior Drainage Mat** to the **ArmorWall™ panel**, using DuPont-approved cladding attachment fasteners, or minimum 1/2" stainless steel staples¹ into the **ArmorWall™ panel**. Attachment back to the stud is not required with the **ArmorWall™ System**. Start along the top of the roll by installing fasteners 4-8" below the top edge of the roll. **Horizontal spacing along the top row of fasteners should be a maximum 24"-on-center.**



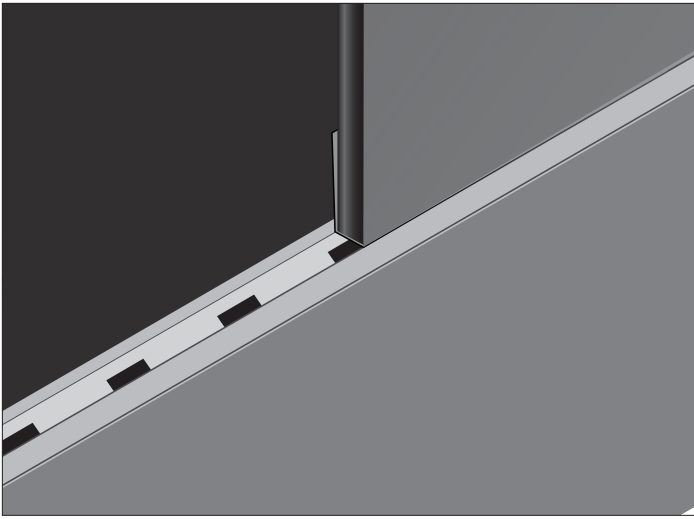
5. Install fasteners 4-8" above the bottom edge of the roll. **Horizontal spacing along the bottom can be up to 48"-on-center, as needed.**

NOTE: Installed **ArmorDry™ Exterior Drainage Mat** shall be covered with fully fastened lath or cladding prior to the end of each work day. Once the lath or cladding has been completely installed, the cladding fasteners will permanently secure the **ArmorDry™ Exterior Drainage Mat**.

¹5/16" (8 mm) stainless steel staples may be used to secure the **ArmorDry™ Exterior Drainage Mat** using the same spacing as the cladding attachment fasteners defined above.

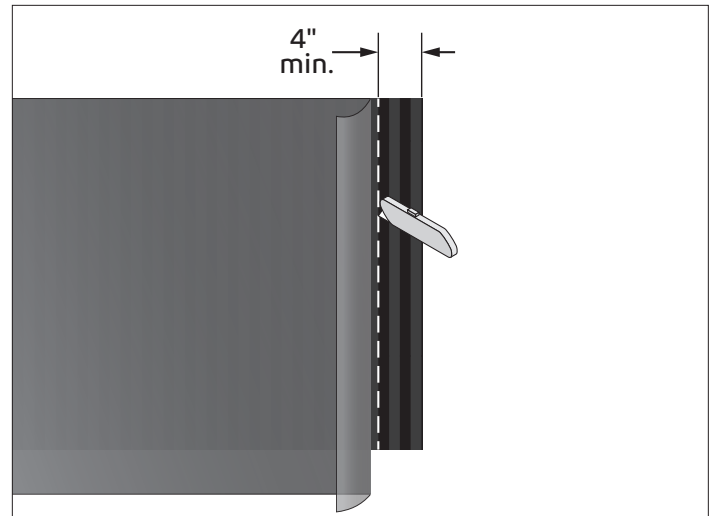
DuPont™ ArmorWall™ Installation Guidelines

DuPont™ ArmorDry™ Exterior Drainage Mat Installation Guidelines for Stucco, Adhered Stone, and Direct Applied Claddings

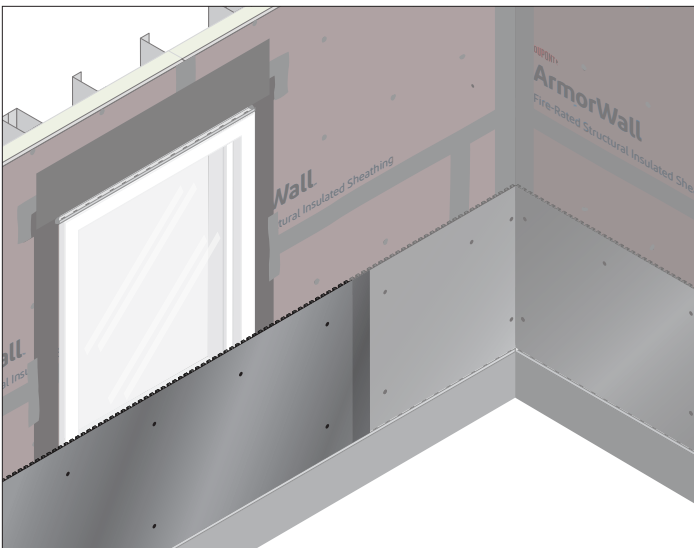


6. Fold 4" filter fabric flap behind the drainage mat along the bottom edge of the roll to serve as an insect screen. The flap should be behind the drainage mat, but over the **DuPont™ ArmorWall™ panel** and weep screed at the bottom of the wall. Secure the **ArmorDry™ Exterior Drainage Mat** and folded flap along the bottom of wall 48"-on-center.

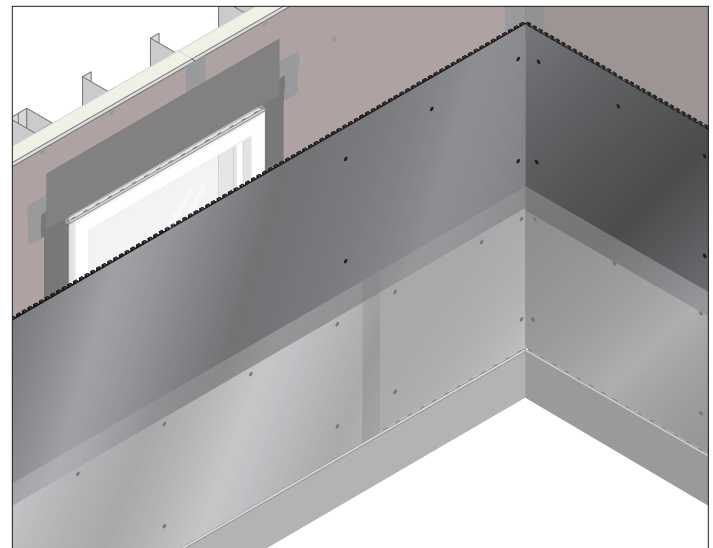
NOTE: The bottom of wall detail may vary depending on plans and specifications.



7. Before installing a new roll of **ArmorDry™ Exterior Drainage Mat**, peel back the filter fabric a minimum of 4" and cut 4" of corrugated drainage mat away along the entire width of the roll.



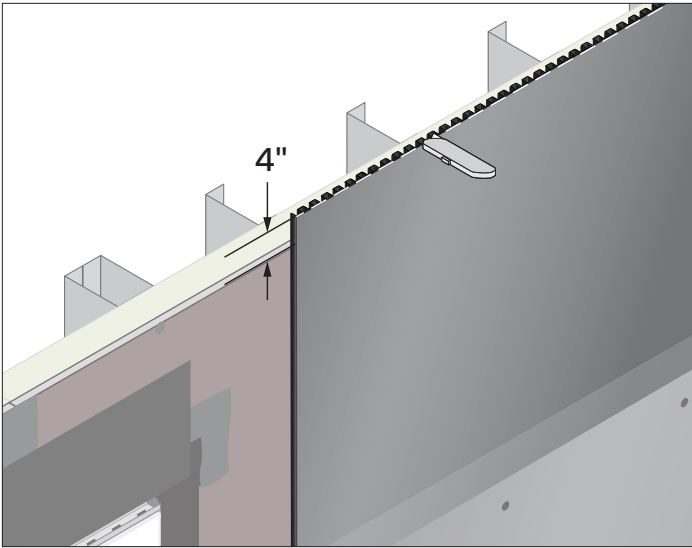
8. Start the next roll of **ArmorDry™ Exterior Drainage Mat** by butting the vertical edge of its corrugated drainage mat against the vertical edge of the corrugated drainage mat from previous roll and allow the filter fabric to overlap the adjacent **ArmorDry™ Exterior Drainage Mat**. A piece of tape may be used to secure the 4" vertical filter fabric flap to ensure proper placement prior to lath or cladding installation.
9. Install each subsequent roll in the same manner. **Avoid overlapping the corrugated drainage mat to maintain a flat plane across the wall.**



10. Install additional courses of **ArmorDry™ Exterior Drainage Mat** as necessary by aligning horizontal edges of corrugated drainage mat to butt against the top horizontal edge of the lower course with the filter fabric flap overlapping the bottom course. Offset vertical joints in the **ArmorDry™ Exterior Drainage Mat** by a minimum of 12" from course to course. It is not necessary to secure the filter flap; however, the flap must remain in place with proper shingling after cladding installation.

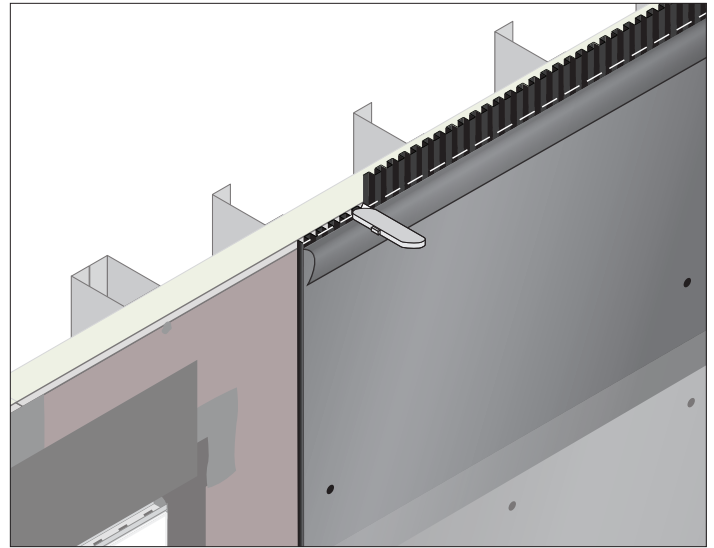
DuPont™ ArmorWall™ Installation Guidelines

DuPont™ ArmorDry™ Exterior Drainage Mat Installation Guidelines for Stucco, Adhered Stone, and Direct Applied Claddings

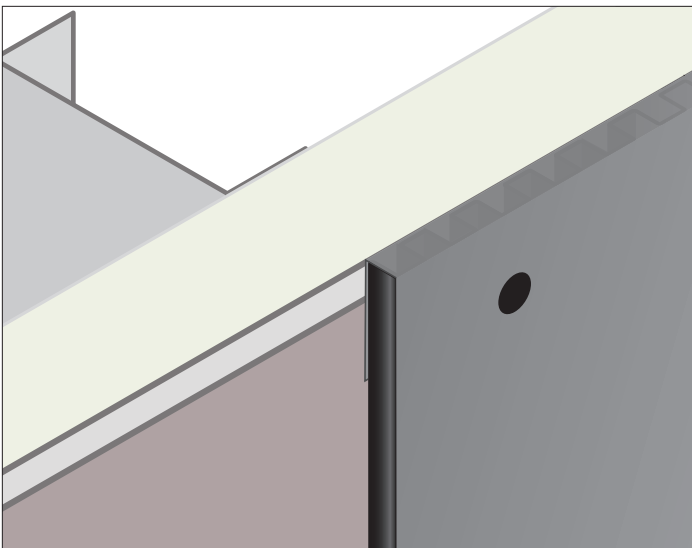


11. For the final row of **ArmorDry™ Exterior Drainage Mat** at the top of wall, measure the distance from previously installed course to the top of wall and add 4" to the measurement. Use a utility knife or shears/scissors, cut the **ArmorDry™ Exterior Drainage Mat** to the desired width

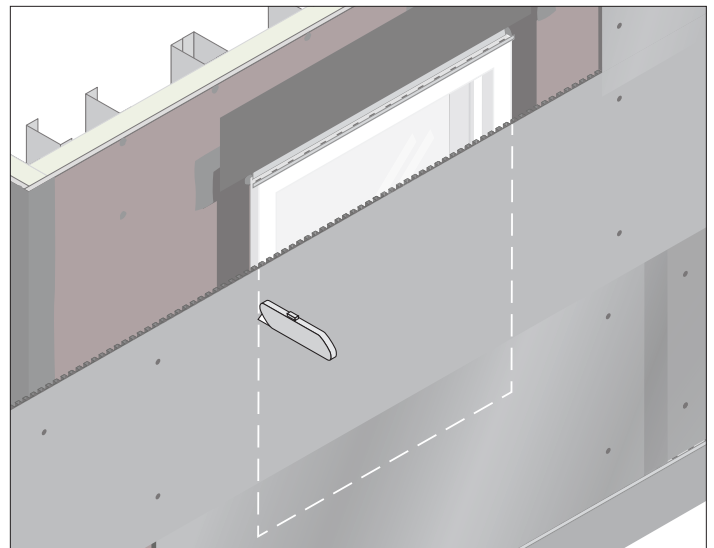
NOTE: The excess material will be used to create an insect screen at the top of the wall. **Do not install fasteners at the top of the wall until the insect screen has been completed.**



12. Peel back the filter fabric 4" on the edge of the **ArmorDry™ Exterior Drainage Mat** that will be installed at the top of wall. Use a utility knife or shears/scissors to cut the corrugated drainage mat so that it's flush with the top of wall.



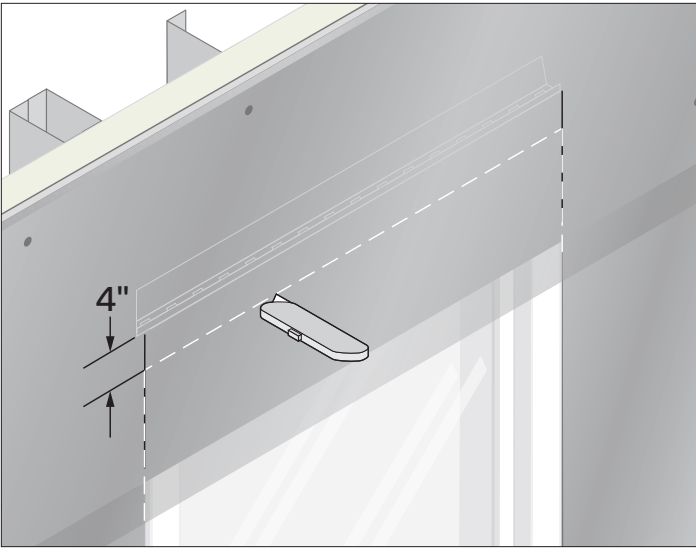
13. Fold the 4" filter fabric over and behind the corrugated drainage mat to create an insect screen at the top of the wall
14. Install fasteners to secure both the insect screen and **ArmorDry™ Exterior Drainage Mat** along the top of the wall. **Horizontal spacing along the top row of fasteners should be a maximum 24"-on-center..**



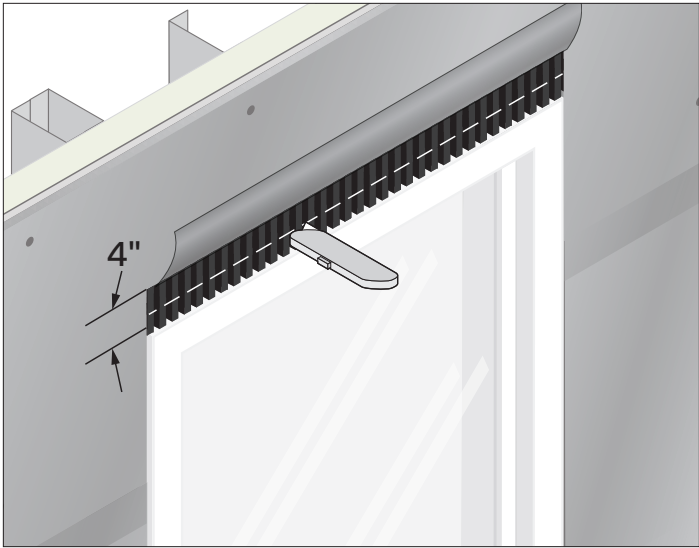
15. Using a utility knife or shears/scissors, **trim the ArmorDry™ Exterior Drainage Mat flush with each window and door frame at the jamb and sill** and around all wall penetrations. The head treatment will be detailed in the following steps.

DuPont™ ArmorWall™ Installation Guidelines

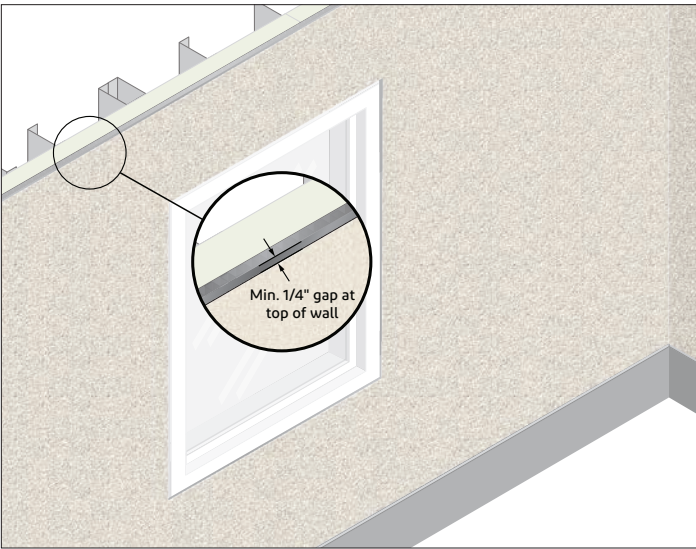
DuPont™ ArmorDry™ Exterior Drainage Mat Installation Guidelines for Stucco, Adhered Stone, and Direct Applied Claddings



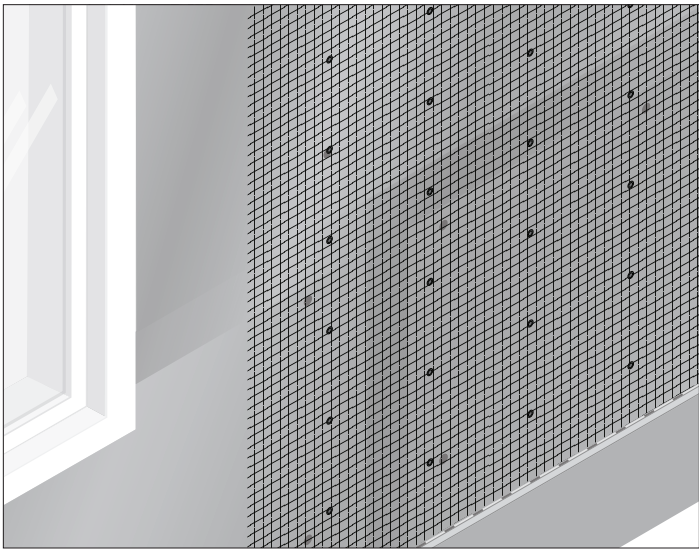
16. At rough opening headers, cut the **ArmorDry™ Exterior Drainage Mat** 4" **LONGER** than the weep screed previously installed at the rough opening header.
17. Trim the **ArmorDry™ Exterior Drainage Mat** flush with each window and door frame at the jamb.



18. Peel back the filter fabric 4" and using a utility knife or shears/scissors, cut the corrugated drainage mat so that it fits into the rough opening header weep screed.
- Fold the 4" filter fabric up and under the corrugated drainage mat to create an insect screen at the rough opening weep screed (not shown). **Do not cut through the window and/or door flashing or into the DuPont™ ArmorWall™ panel underneath.**



19. Install cladding system over **ArmorDry™ Exterior Drainage Mat**. When installing cladding, leave minimum 1/4" gap at top of wall or install weeps per manufacturer's instructions to allow for airflow behind cladding.



Lath can be attached through the **ArmorDry™ Exterior Drainage Mat**, directly to **ArmorWall™ panels**, without going back to the building framing using recommended fasteners and fastening patterns allowed by building code, ASTM C1063, and ASTM C926.

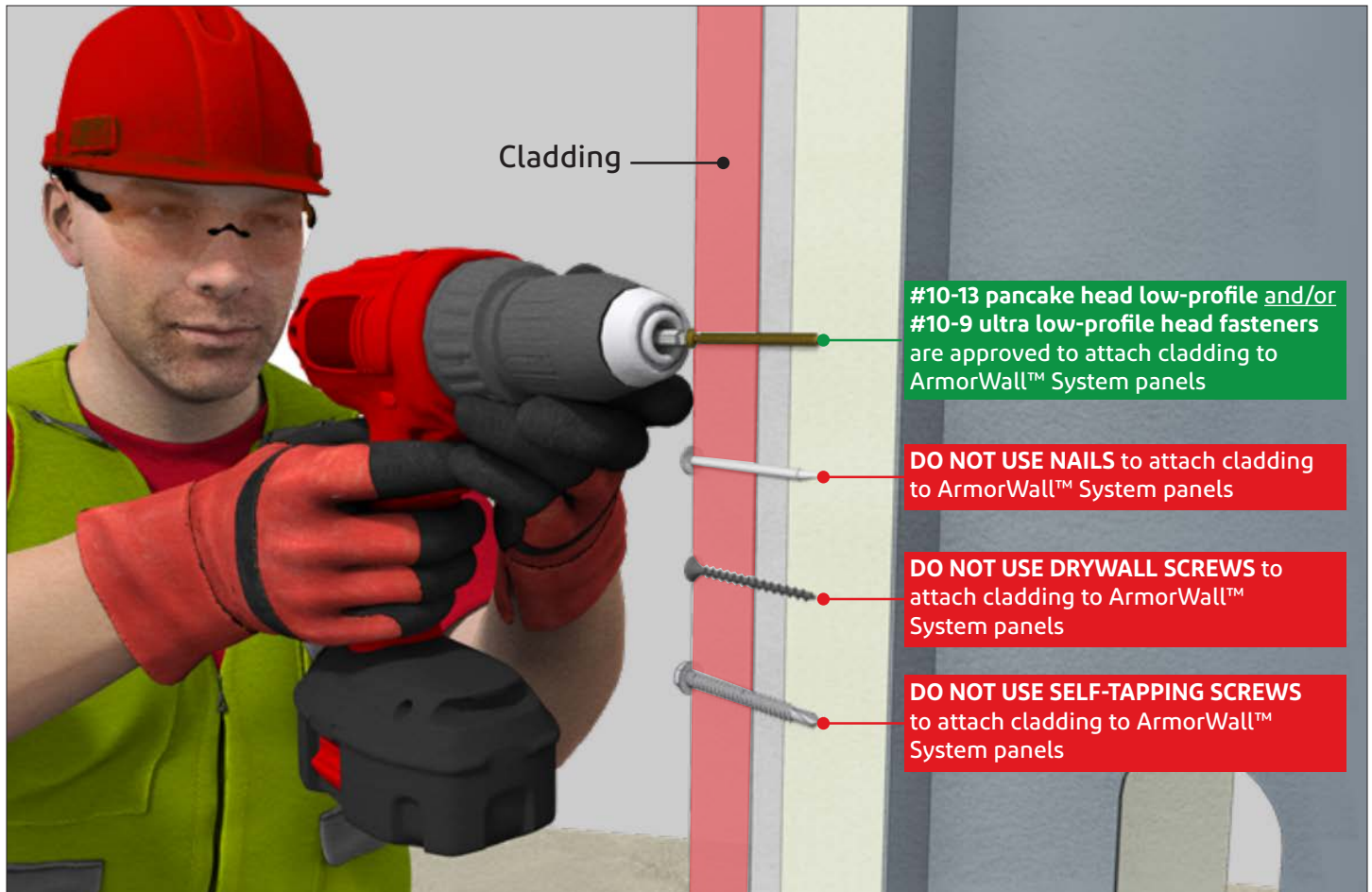
The following attachment patterns may be used in a horizontal or angled grid layout when the stucco or adhered stone cladding weight is between 10 and 15 psf:

ASCE 7 Max Windload	Fastening Pattern	Fasteners per Panel
30 psf	16" x 16"	~18
60 psf	12" x 12"	~32
90 psf	10" x 10"	~46

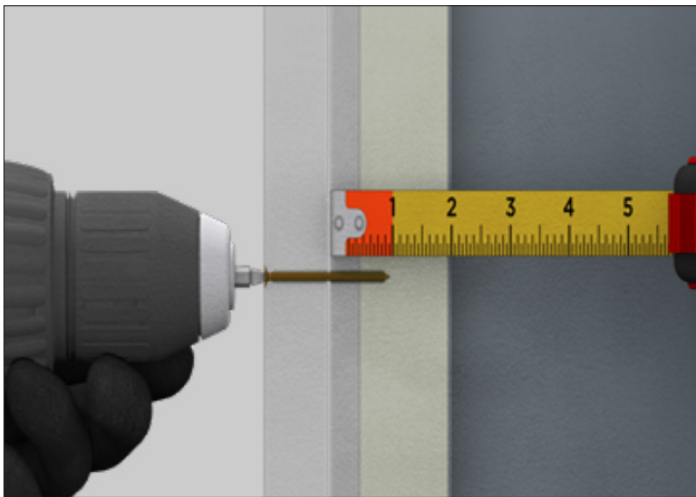
DuPont™ ArmorWall™ Installation Guidelines

Cladding Attachment to the ArmorWall™ System

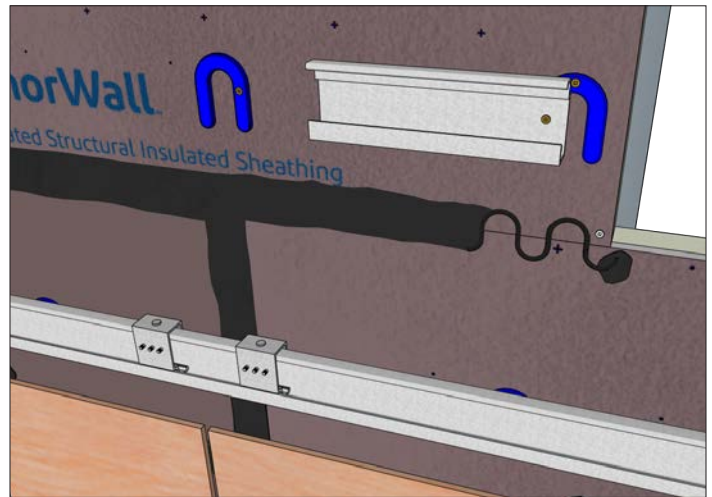
Always follow cladding manufacturer installation instructions. See [Cladding Attachment Fasteners](#) for more information about choosing the appropriate fastener for the building structure.



Use a 2,000 RPM screw-gun with torque control. DO NOT USE IMPACT TOOLS TO ATTACH CLADDING AND CLADDING ATTACHMENTS TO ARMORWALL™ PANELS.



Each cladding attachment fastener must penetrate the **ArmorWall™ panel** a minimum of 1" after securing claddings, clips, standoffs, and all other attachments. Read the applicable product information sheet available at ArmorWall.DuPont.com for pullout tolerances.



Cladding attachment fasteners shall fasten through the shim itself and may not cantilever through the void space of the shim.



ArmorWall™

Fire-Rated Structural Insulated Sheathing

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