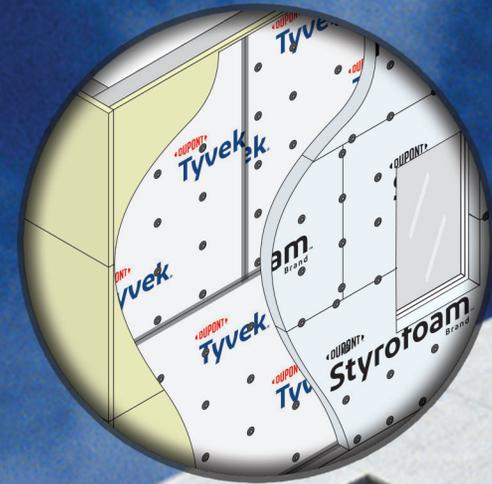


DuPont Performance Building Solutions

«DUPONT» «DUPONT»
Tyvek® | Styrofoam™
Brand

DuPont Commercial Wall² System

DuPont™ Tyvek® CommercialWrap® or Tyvek® CommercialWrap® D Weather- Resistive Barrier (WRB) UNDER DuPont Exterior Continuous Insulation



Installation Bulletin

- Optimizes Thermal Efficiency and Durability Using DuPont™ Styrofoam™ Brand Extruded Polystyrene (XPS) or DuPont™ Thermax™ Brand Polyisocyanurate Board Insulation.
- Maximizes Air and Water Protection Using DuPont™ Tyvek® CommercialWrap® or Tyvek® CommercialWrap® D.
- Meets Fire Performance Requirements of NFPA 285.

May 2020

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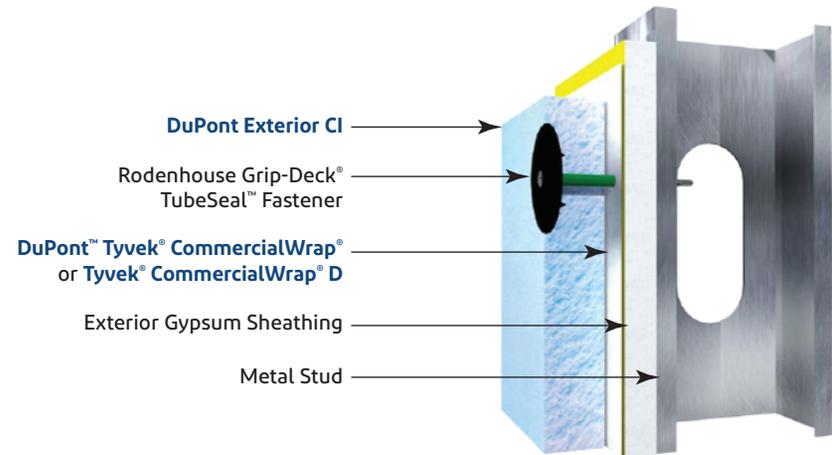


Introduction

The DuPont Commercial Wall² System in this document is based on in-depth, rigorous testing of enhanced wall assemblies that reflect the “Power of Two” when **DuPont™ Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D** and **DuPont™ Styrofoam™ Brand Extruded Polystyrene (XPS)*** or **DuPont™ Thermax™ Brand Polyisocyanurate Insulation*** are used together to protect the building above and beyond building code minimums. This bulletin is intended for commercial buildings comprised of steel framing. Designers and building owners can enjoy greater peace of mind knowing that DuPont scientists and engineers have done the hard work to ensure assembly robustness when installers follow the methods included in this installation bulletin. Use of this bulletin is limited to construction of the DuPont Commercial Wall² System outlined herein and is designed to serve as a resource for building professionals and installers using DuPont Performance Building Solutions Products in commercial construction. It does not override or change requirements in the DuPont Performance Building Solutions Installation Guidelines or product-specific Warranties, with the exception of using Rodenhouse Grip-Deck® TubeSeal™ Fasteners to secure the **Styrofoam™** or **Thermax™ Exterior Continuous Insulation (CI)** products to qualify for the enhanced Commercial Wall² System Warranty. The DuPont Commercial Wall² System Warranty is based on use of the applicable products and components in the manner outlined in this bulletin. Please refer to the applicable DuPont Performance Building Solutions Product Installation Guideline for proper installation and requirements, technical specifications, codes and standards, and safe handling of **DuPont™ Tyvek® Weather-Resistive Barriers (WRBs)**, **DuPont Self-Adhered Flashing Products**, or **DuPont Exterior Continuous Insulation (CI)** products. Product specific information is available at building.dupont.com/commercial.

DuPont Commercial Wall² System DuPont Exterior Continuous Insulation Fastener Considerations

When the DuPont Mechanically-Fastened WRB is installed under the Exterior Continuous Insulation, Rodenhouse Grip-Deck® TubeSeal™ Fasteners are required to secure the insulation to the metal framing structure as part of the **Commercial Wall² System**. The Rodenhouse Grip-Deck® TubeSeal™ Fasteners are preassembled with a plastic tube to provide a gasketed seal at each blind fastener penetration through the **Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D**. This eliminates the need for additional fastener treatment to prevent air and water leakage at fastener locations. The Grip-Deck® TubeSeal™ Fasteners come in lengths to accommodate insulation that is 1-4” in thickness, by increments of 1/2”. The plastic tube is sized 1/8” longer than the thickness of the insulation to ensure proper sealing when compressed during installation.



Rodenhouse Grip-Deck® TubeSeal™ Fasteners are available in 1/2” increments for installation of 1” – 4” thick insulation.

*A former product of The Dow Chemical Company.

DuPont Commercial Wall² System Exterior Sheathing and/or Exterior Cladding Fastener Considerations

It is important to consider minimizing the total number of fasteners used to attach the exterior sheathing, **DuPont™ Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D**, **DuPont Exterior CI**, and the exterior facade system. All fasteners used for the **DuPont Exterior CI** and/or exterior facade (cladding) systems should be securely fastened back to the metal framing structure per manufacturer recommendations. When cladding attachment systems are used, Project Construction Management may determine if conditions allow the fastening pattern of the exterior sheathing to be reduced with the subsequent required fasteners used to secure the designated wall system.

DuPont Commercial Wall² System Applicable Products

DuPont Exterior Continuous Insulation

- **Styrofoam™ Brand Extruded Polystyrene (XPS)**
(Up to 3" depending on NFPA 285 approval and IBC)
- **Thermax™ Brand Polyisocyanurate Insulation**
(Up to 4" depending on NFPA 285 approval and IBC)

DuPont Mechanically-Fastened Weather-Resistive Barriers (WRBs)

- **DuPont™ Tyvek® CommercialWrap®**
- **DuPont™ Tyvek® CommercialWrap® D**

DuPont Self-Adhered Flashing Products

- **DuPont™ FlexWrap™** (formerly **DuPont™ FlexWrap™ NF**)
- **DuPont™ StraightFlash™**

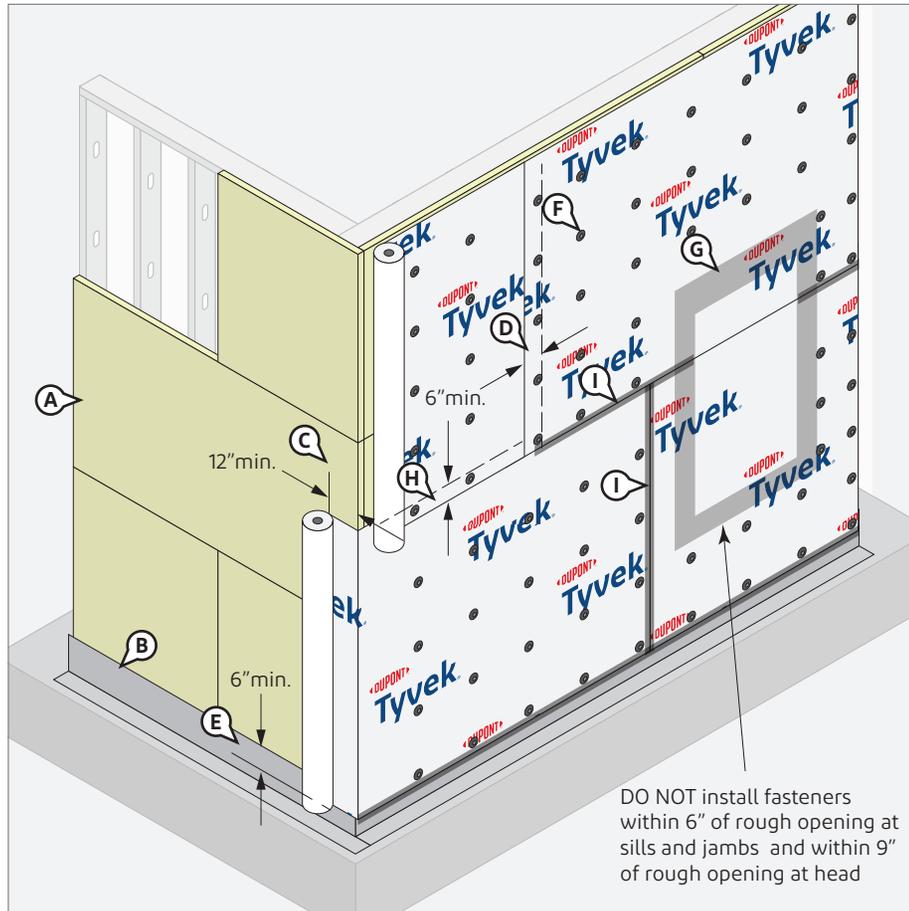
Installation Accessories

- **DuPont™ Tyvek® Tape 3"**
- **DuPont™ Tyvek® Wrap Cap** screws or Rodenhouse Thermal-Grip® FastCap™ Fasteners (approved for use) for securing **Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D**
- Rodenhouse Grip-Deck® TubeSeal™ Fasteners for attachment of **DuPont Exterior CI**

DuPont Commercial Wall² System Warranty Information

In order to make a claim under the [DuPont Commercial Wall² System Warranty](#), you must have met all of the terms and conditions of the warranty including use of the applicable DuPont Installation Guidelines and this *Commercial Wall² System - DuPont™ Tyvek® CommercialWrap® or CommercialWrap® D Under Exterior Insulation Installation Bulletin*, and be compliant with local building codes including assembly-specific details for NFPA 285. Please visit building.dupont.com/warranties for more information about the warranty.

DuPont™ Tyvek® CommercialWrap® or Tyvek® CommercialWrap® D Weather-Resistive Barrier (WRB) Installed UNDER DuPont Exterior Continuous Insulation



STEP 1

Install **DuPont™ Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D** over Exterior Gypsum Sheathing

- Secure exterior gypsum sheathing to metal studs according to manufacturer instructions.
- Install through wall flashing at bottom of wall according to plans and specifications.
- Starting at a corner of the building, unroll the **Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D** keeping the roll plumb. Extend approximately 12" past inside or outside corners.

Note: Install rolls from the bottom of the building up to ensure proper shingling. Unroll directly over window and door rough openings. **Tyvek® CommercialWrap®** may be installed vertically. **Tyvek® CommercialWrap® D** must be installed horizontally with the grooves running vertically.

- When starting the next roll of **Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D**, overlap the vertical edge of the previous roll by at least 6".
- The **Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D** should overlap through wall flashing by a minimum of 6" and install fasteners through top of through wall flashing. Terminate the **Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D** at the bottom of the wall with **3" DuPont™ Tyvek® Tape**, or **DuPont Self Adhered Flashing Products**.
- Secure the **Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D** by fastening into the studs using **DuPont™ Tyvek® Wrap Cap** screws or Rodenhouse Thermal-Grip® FastCap™ Fasteners. Press the **Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D** tightly into any inside corners before fastening to prevent damage by **DuPont Exterior Continuous Insulation (CI)** installation.
- Do not install fasteners within 6" of the sills and jambs of the openings and within 9" of the head of the openings. The **Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D** will be secured at these locations during window flashing installation.
- When installing additional courses of **Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D**, the upper layer should overlap the bottom layer by a minimum of 6".

Note: **Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D** are typically installed with 12" to 18" on-center fastener spacing, however, it is acceptable to install recommended fasteners at a reduced schedule of 24" to 48" provided the Rodenhouse Grip-Deck® TubeSeal™ Fasteners or exterior facade (cladding) fasteners are installed as soon as practically possible to maintain the integrity and performance of the **Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D**.

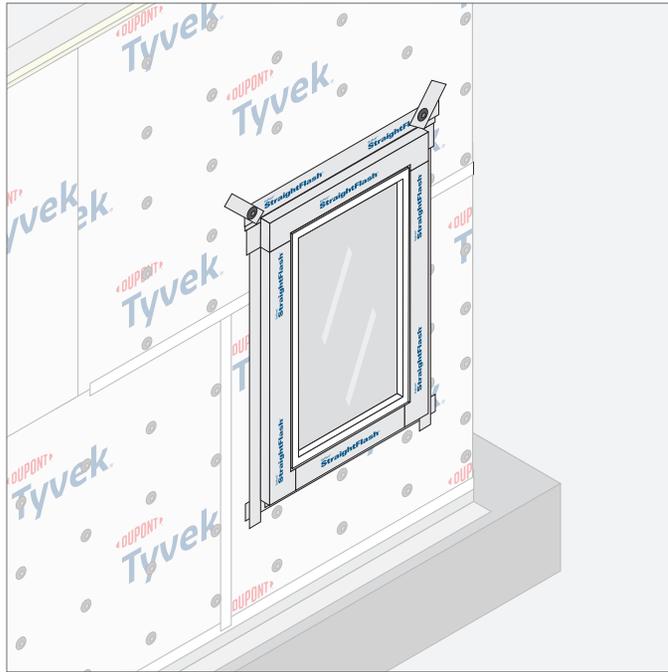
- Tape all horizontal and vertical seams with **3" DuPont™ Tyvek® Tape**.

Please refer to the [DuPont™ Tyvek® Mechanically-Fastened Weather-Resistive Barrier \(WRB\) Installation Guidelines](#) for additional information.

DuPont™ Tyvek® CommercialWrap® or Tyvek® CommercialWrap® D Weather-Resistive Barrier (WRB) Installed UNDER DuPont Exterior Continuous Insulation

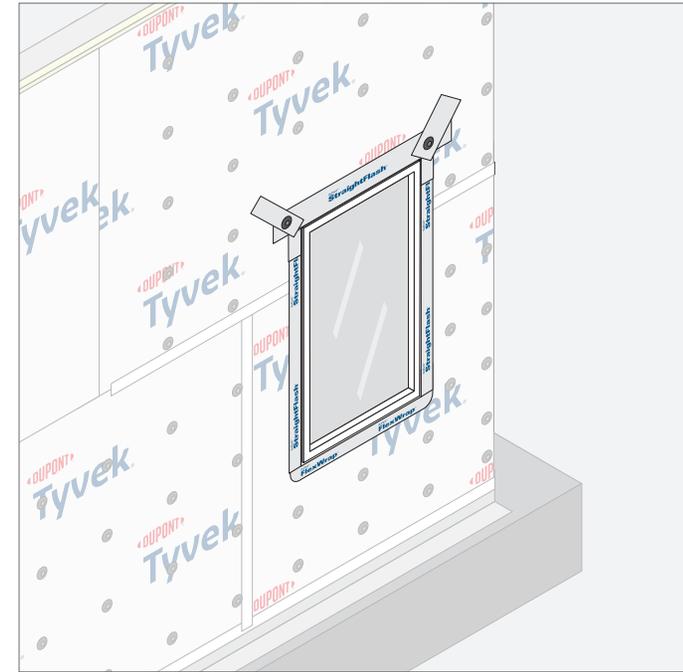
Example 1

Windows installed onto wood bump out frame and aligned with exterior finished wall



Example 2

Windows installed at same plane as Tyvek® CommercialWrap® or Tyvek® CommercialWrap® D



STEP 2

Prepare Window Rough Opening and Install Windows

To ensure a continuous drainage plane for optimum water management, the **DuPont Self-Adhered Flashing Products** should be integrated with **Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D**. DuPont offers several methods for flashing windows to accommodate various types of windows and installations as part of the **DuPont Commercial Wall² System**. Examples shown above are intended to represent two common methods of installations as part of the **DuPont Commercial Wall² System**. Refer to the applicable *DuPont Self-Adhered Flashing Products Installation Guidelines* for complete instructions and additional flashing methods.

Note: **DuPont Self-Adhered Flashing Products** should be integrated with **Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D**.

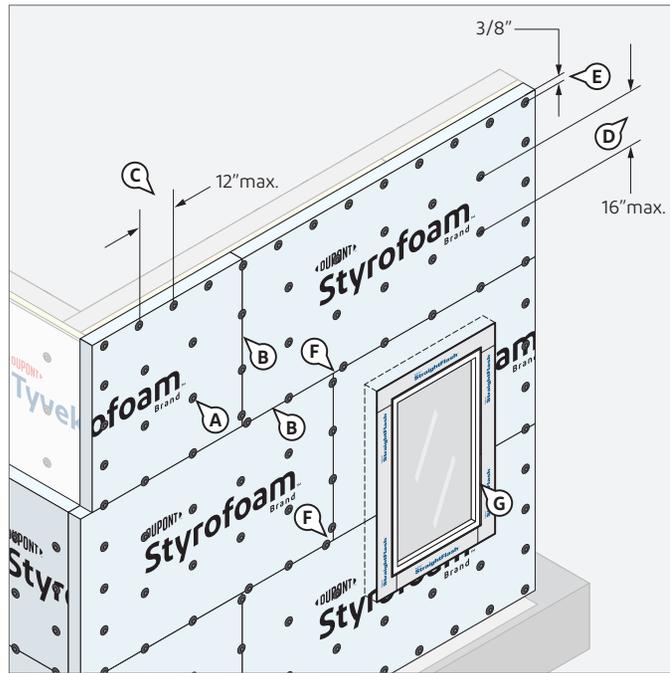
Windows aligned with the exterior finished wall typically require wood bump out framing around the window rough opening as shown in **Example 1**. The wood bump out framing is flashed and integrated with **Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D**.

Windows installed in the same plane as the **Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D**, shown in **Example 2**, will be recessed from the exterior finished wall once the DuPont Exterior Continuous Insulation is installed.

DuPont™ Tyvek® CommercialWrap® or Tyvek® CommercialWrap® D Weather-Resistive Barrier (WRB) Installed UNDER DuPont Exterior Continuous Insulation

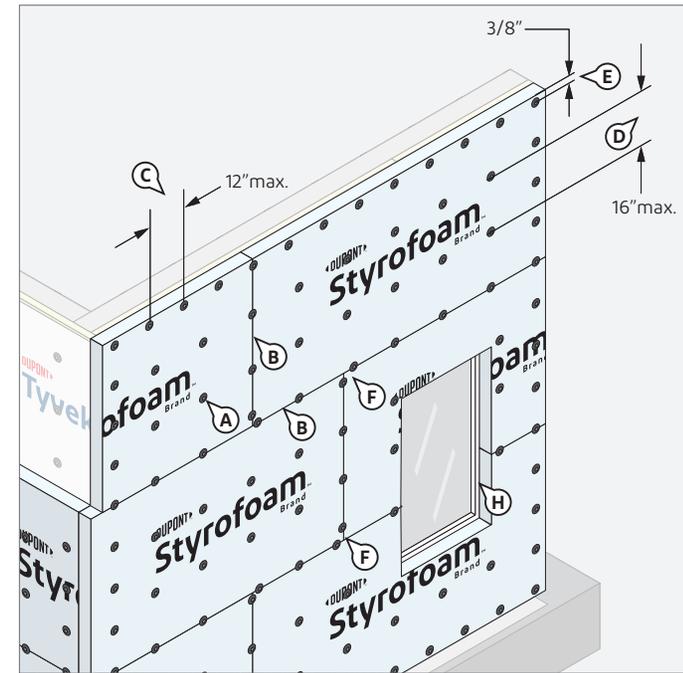
Example 1

Windows installed onto wood bump out frame and aligned with exterior finished wall



Example 2

Windows installed at same plane as Tyvek® CommercialWrap® or Tyvek® CommercialWrap® D



STEP 3

Install **DuPont™ Styrofoam™ Brand Extruded Polystyrene (XPS) Insulation** or **DuPont™ Thermax™ Brand Polyisocyanurate Board Insulation**

- A. Secure the **DuPont Exterior Continuous Insulation (CI)** boards to metal studs with printed side facing to the exterior using Rodenhouse Grip-Deck® TubeSeal™ Fasteners.
- B. Abut **DuPont Exterior CI** boards tightly together. Common practice is to stagger boards but, it is not required.
- C. Fasten **DuPont Exterior CI** boards @ max. 12" o.c. at wall perimeters.
- D. Fasten **DuPont Exterior CI** boards @ max. 16" o.c. around openings and in field of wall.
- E. Set back perimeter fasteners 3/8" from **DuPont Exterior CI** board edges and ends.
- F. One fastener can be used at intersection of 2 boards but, use at least 2 fasteners at intersection of 3 or more boards.
- G. **Example 1:** If windows are installed onto a wood bump out frame and aligned with the exterior finished wall, cut the **DuPont Exterior CI** so it will fit flush around bump-out frame.
- H. **Example 2:** If windows were installed in the plane of the **DuPont™ Tyvek® CommercialWrap®** or **CommercialWrap® D**, cut the **DuPont Exterior CI** so it is flush with rough opening.

Notes:

- Refer to the applicable installation guidelines for the specified **DuPont Exterior CI** product.
- If the windows are recessed from the exterior wall per **Example 2**, ensure any exposed edges of the **DuPont Exterior CI** are protected during exterior wall finishing.

This bulletin is limited to the installation details for construction of the DuPont Commercial Wall² System outlined herein. Please refer to the applicable DuPont Performance Building Solutions Installation Guidelines available at building.dupont.com for details not included in this bulletin. DuPont believes this information to be reliable and accurate. The information may be subject to revision as additional experience and knowledge is gained. It is the user's responsibility to determine the proper construction materials needed.

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