

DuPont Performance Building Solutions



DuPont™ Tyvek® Mechanically-Fastened Water-Resistive and Air Barrier (WRB) Installation Guidelines

For Buildings Greater than 4 Stories and High Performance Installations of Any Height



July 2020



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Note

This installation guideline outlines recommended installation techniques and details for **DuPont™ Tyvek® CommercialWrap®** and/or **Tyvek® CommercialWrap® D**, referred to in this document as **DuPont™ Tyvek® Water-Resistive and Air Barriers (WRBs)** and where applicable, **DuPont Self-Adhered Flashing Products** and **DuPont™ Tyvek® Fluid Applied Products**. Both **Tyvek® WRBs** and **Tyvek® Fluid Applied Products** meet the requirements of a water-resistive barrier as defined in the 2018 International Building Code (IBC).

Tyvek® CommercialWrap®, Tyvek® CommercialWrap® D, and Tyvek® Fluid Applied Products also function as a high performance air barrier and pass ASTM E2357.

Applicable Products

Mechanically-Fastened Water-Resistive and Air Barriers (Tyvek® WRBs)

Product	Dimensions	Area
DuPont™ Tyvek® CommercialWrap®	5 ft x 200 ft	1,000 sq ft
	10 ft x 125 ft	1,250 sq ft
DuPont™ Tyvek® CommercialWrap® D	5 ft x 200 ft	1,000 sq ft
	10 ft x 125 ft	1,250 sq ft

Self-Adhered Flashing Products

Product	Width
DuPont™ FlexWrap™ (Formerly DuPont™ FlexWrap™ NF)	6 in, 9 in
DuPont™ FlexWrap™ EZ	2.75 in
DuPont™ StraightFlash™	4 in, 9 in
DuPont™ VersaFlange™ (Formerly DuPont™ StraightFlash™ VF)	6 in
DuPont™ Flashing Tape	4 in, 6 in, 9 in, 12 in

Fluid Applied Products

Product	Quantity
DuPont™ Tyvek® Fluid Applied WB+™	5 gal, 50 gal
DuPont™ Tyvek® Fluid Applied Flashing and Joint Compound+	28 oz, 3.5 gal
DuPont™ Sealant for Tyvek® Fluid Applied System*	28 oz

Installation Accessories

Product	Type	Quantity
DuPont™ Tyvek® Tape	3" Bulk Pack	24 rolls/case
DuPont™ Tyvek® Wrap Cap Screws	2" dia. plastic cap, 1-3/4" screw length	1,000 caps/box
Great Stuff Pro™ Window & Door Polyurethane Foam Sealant	Can (reusable dispensing gun sold separately)	20 oz
Great Stuff Pro™ Gaps & Cracks Polyurethane Foam Sealant	Can (reusable dispensing gun sold separately)	20 oz
DuPont™ Adhesive/Primer	Can	13.5 oz

*DuPont™ Sealant for Tyvek® Fluid Applied System should only be used as directed in the applicable *DuPont™ Tyvek® Fluid Applied Products Installation Guidelines*.

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Warranty

Please refer to the [DuPont Building Envelope Solutions 10-Year Limited Warranty for Buildings Greater Than 4 Stories](#). For buildings less than 5 stories, and low-rise multi-family buildings less than 6 stories, please refer to the [DuPont Building Envelope Solutions 10-Year Limited Warranty for Buildings Less Than 5 Stories and Low-Rise Multi-Family Residential Buildings Less Than 6 Stories](#).

Weather Protection & Energy Conservation Codes and Standards

The 2018 International Building Code (Section 1402.2 Weather Protection) requires that "exterior walls shall provide the building with a weather resistant exterior wall envelope. The exterior wall envelope shall be designed and constructed in such a manner as to prevent the accumulation of water within the wall assembly by providing a water-resistive barrier behind the exterior veneer, as described in Section 1403.2, and a means for draining water that enters the assembly to the exterior. The exterior wall envelope shall include flashing, as described in Section 1404.4." DuPont Building Envelope Solutions Products for commercial construction have been tested to the following standards:

- ABAA Evaluated
- ASTM E 2357 Standard Test Method for Determining Air Leakage of Air Barrier Assemblies
- ASTM E 1677 Standard Specification for an Air Retarder (AR) Material or System for Low-Rise Framed Building Walls
- ASTM E 331 Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Pressure
- ASTM E1105 Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Door, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference
- ASTM E 2178 Standard Test Method for Air Permeance of Building Materials
- ASTM E 283 Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen
- ASTM E 2556 Standard Specification for Vapor Permeable Flexible Sheet Water-Resistive Barriers Intended for Mechanical Attachment
- AAMA 501.5 Test Method for Thermal Cycling of Exterior Walls
- ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials
- NFPA 285 Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components

Energy Conservation Codes for commercial buildings are being adopted in many regions across the U.S. **DuPont™ Tyvek® Water-Resistive and Air Barriers (WRBs)** meet the following codes and guidelines.

- ASHRAE 90.1 Model Energy Code air barrier requirements
- 2018 International Energy Conservation Code® (IECC)
- 2018 International Green Construction Code™ (IgCC)
- Minnesota Commercial Energy Code, Section 1323.0543, Section 5.4.3
- Massachusetts State Building Code 780 CMR 120.AA
- Wisconsin Building Code, Energy Conservation, Chapter Comm 63
- Michigan Building Code
- Rhode Island Building Code
- Georgia Building Code
- Florida Building Code

Tyvek® WRBs meet the ICC-ES AC-38 Water-Resistive and Air-Barrier requirements as listed in the following code reports:

- ICC-ES Evaluation Report ESR-2375:
 - **DuPont™ Tyvek® CommercialWrap®**
 - **DuPont™ Tyvek® CommercialWrap® D**

DuPont™ Tyvek® Fluid Applied WB+™ meets ICC-ES AC212, Acceptance Criteria for Water-Resistive Coatings Used as Water-Resistive Barriers Over Exterior Sheathing, per the following:

- Intertek Code Report: CCRR-0307 for DuPont™ Tyvek® Fluid Applied WB+™

Special Considerations

1. High performance installations are defined as building envelope design requirements that exceed ASTM E1677, 65 mph equivalent structural load and 15 mph equivalent wind-driven rain water infiltration resistance.
2. **Tyvek® CommercialWrap® D** must be installed with the grooves going up and down.
3. DuPont requires that **Tyvek® CommercialWrap®** and **Tyvek® CommercialWrap® D** be covered within nine (9) months (270 days) of installation.
4. **DuPont Self-Adhered Flashing Products** should be installed on clean, dry surfaces that are free of frost. Wipe surfaces to remove moisture, dirt, grease and other debris that could interfere with adhesion.
5. DuPont requires that **DuPont™ FlexWrap™**, **DuPont™ FlexWrap™ EZ**, **DuPont™ StraightFlash™**, and **DuPont™ VersaFlange™** be covered within nine months (270 days) of installation. DuPont requires that **DuPont™ Flashing Tape** be covered within four months (120 days) of installation.
6. **DuPont Self-Adhered Flashing Products** are not intended for through-wall flashing applications.
7. When using mechanically fastened through-wall flashing, DuPont recommends sealing top edge with **StraightFlash™**.

8. No surface preparation is needed for the installation of **Tyvek® WRBs**.
9. Adverse weather conditions or cold temperatures may require use of a primer to promote adhesion of **DuPont Self-Adhered Flashing Products** to most common wood-based building materials. Concrete, masonry, and fiber faced exterior gypsum board require the use of **DuPont™ Adhesive/Primer**, or recommended primer. Do not apply **DuPont™ Adhesive/Primer**, or recommended primer, to exterior continuous insulation due to potential sheathing degradation.
10. **DuPont Self-Adhered Flashing Products** perform best when installed at temperatures above 25°F (–4°C).
11. Before applying 3” **DuPont™ Tyvek® Tape**, surfaces should be dry and clean. During installation apply firm, even pressure with hand or “J” roller.
12. 4” **DuPont™ Flashing Tape** is an alternative to 3” **Tyvek® Tape** where specified.
13. Remove all wrinkles and bubbles that may allow for water intrusion by smoothing surface and repositioning as necessary during installation of **DuPont Self-Adhered Flashing Products**. Apply pressure along entire surface of flashing for a good bond using firm hand pressure, J-roller, or alternate tool without sharp edges (such as a plastic carpet tuck tool) to assist with application of uniform pressure.
14. High performance installations require **StraightFlash™**, **DuPont™ Flashing Tape** or recommended alternate patches behind fastening plates (brick tie base plates, metal fastening clips, metal channels, etc.). When used behind the cladding fasteners and/or fastening plates, the flashing patch must be adhered to the **Tyvek® WRB**.
15. **Tyvek® Fluid Applied Products** should only be used for wall systems that include a continuous path for drainage allowing moisture that penetrates the facade to exit to the exterior. The drainage path should be continuous throughout the wall assembly, including but not limited to areas such as eyebrows, band boards, penetrations, or other locations where transitions and changes of plane occur. For membrane drainage wall systems, ensure that the drainage path is not blocked or disrupted to prevent excess moisture buildup in the wall cavity.
16. Suitable substrates for **Tyvek® Fluid Applied Products** include concrete masonry unit (CMU), concrete (48 hrs. for green concrete), exterior gypsum, OSB, plywood, wood, and metal. Contact your local DuPont™ Tyvek® Specialist for use with pressure-treated or fire-retardant-treated wood (FRT).
17. Uncured **Tyvek® Fluid Applied Products** must not come in contact with building wraps due to potential impact on performance properties.
18. **Tyvek® CommercialWrap®** and **Tyvek® CommercialWrap® D** may be installed over **Tyvek® Fluid Applied Products** after 48 hours of curing at 70°F (20°C) and 50% RH.
19. When **Tyvek® Fluid Applied Products** are used as the air and water barrier, **Tyvek® WRBs** may be installed as an “intervening layer” over **Tyvek® Fluid Applied Products** after 48 hours of curing at 70°F (20°C) and 50% RH. For additional information about the use of “intervening layers” see the Stucco section under *Facade/Exterior Considerations*.
20. DuPont recommends the use of **Tyvek® Fluid Applied Products** for CMU walls with embedded brick ties. Please refer to the *DuPont™ Tyvek® Fluid Applied WB+™ Wall and Substrate Guidelines* for specific installation instructions.

21. **DuPont™ Tyvek® CommercialWrap®** and **Tyvek® CommercialWrap® D** must not come in direct contact with other manufacturer's cured or uncured fluid-applied and/or deck coating waterproofing products due to potential impact on performance properties. **DuPont™ StraightFlash™** can be used as transitional membrane.
22. The maximum in-service temperature for **DuPont™ Tyvek® WRBs**, **DuPont Self-Adhered Flashing Products**, and **DuPont™ Tyvek® Fluid Applied Products** is 180°F.

For additional guidance, please call 1-833-338-7668, visit our website at building.dupont.com, or consult your local DuPont™ Tyvek® Specialist.

Key Installation Requirements for DuPont™ Tyvek® Water-Resistive and Air Barriers (WRBs)

Continuity

It is important to maintain the continuity of the **DuPont™ Tyvek® WRBs** throughout the building envelope. The entire wall surface shall be wrapped, including unconditioned spaces. Special attention should be given to ensure a proper 6" overlap at all terminations, seams, penetrations, and transitions to maintain a continuous downward drainage plane and weather-resistive barrier.

Penetrations

Seal the **Tyvek® WRB** around all penetrations (electrical, HVAC and plumbing, etc.) with the appropriate **DuPont Self-Adhered Flashing Product**. The rough opening can be sealed from the interior side using sealant (and backer rod as necessary), or **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant**, **Great Stuff Pro™ Gaps & Cracks Polyurethane Foam Sealant**, or recommended foam.

Overlap

Ensure proper shingling with a 6" minimum overlap of weather-resistive barrier components from the bottom to the top of the wall to help facilitate proper drainage.

Sealants and Adhesives/Primers

Review the manufacturers' literature or label to confirm that the product(s) used have the chemical and adhesive properties necessary for use with **Tyvek® WRBs**, **DuPont Self-Adhered Flashing Products**, and **DuPont™ Tyvek® Fluid Applied Products**. Refer to *Chemical Compatibility of Representative Building Sealants and Adhesives/Primers* for more information about chemical compatibility.

Fasteners

Use **DuPont™ Tyvek® Wrap Cap Fasteners**, Rodenhouse Grip-Deck® screws with Thermal-Grip FastCap™ washers, or recommended alternates, per the fastening schedule included in this installation guideline. Temporary fasteners should not be relied upon to permanently attach **Tyvek® WRBs**, due to the limited holding power of these fastening methods. If temporary fasteners are used, permanent fastening must be applied as soon as practically possible in order to maintain the integrity and performance of the **Tyvek® WRB** and to be in compliance with DuPont Installation

*For more information about the Grip-Lok® Autofeed Fastening System, refer to manufacturer's instructions and contact your local DuPont™ Tyvek® Specialist.

Guidelines if making a claim under the DuPont Product and Labor Warranty. Refer to the *Recommended Fasteners and Spacing* and *Temporary Fastening sections* for more complete fastening information. Examples of recommended fasteners include:

Recommended Fasteners

- 2" **DuPont™ Tyvek® Wrap Cap Screws** (for steel frame construction, may also be used for wood frame)
- 1-1/4" metal gasketed washers with screws (for steel frame construction)
- 2" metal gasketed washers with screws (for steel frame construction)
- Tapcon® fasteners with 2" plastic caps (for masonry construction)
- Rodenhouse Grip-Deck® screws with Thermal-Grip FastCap™ washers installed at 16" vertical spacing along stud lines for 16" o.c. framing (approved for use with **Tyvek® WRBs**).

Metal frame construction:

- 1 5/8" – 6" Rodenhouse Grip-Deck® Self-Drilling screws with 2" dia. Thermal-Grip FastCap™ washer.
- 1-5/8", 2", 2-1/2", and 3" screws can be installed with standard hand drill or Grip-Lok® Autofeed Fastening System* with modified nose adaptor.
- 3-1/2" to 6" screws should be installed with standard hand drill
- A minimum of 4 threads screw penetration through the steel stud is required.

Wood frame construction:

- 1-5/8" – 6" Rodenhouse Grip-Deck® HiLo Thread Screws with 2" Thermal-Grip FastCap™ washer
- 1-5/8" screws can be used for structural loading performance requirements per ASTM E2357 and water infiltration resistance up to 9 psf, installed with standard hand drill or Grip-Lok® Autofeed Fastening System* with modified nose adaptor.
- 2" or longer screws must be used for structural loading performance requirements per ASTM E2357 and water infiltration resistance up to 15 psf installed with standard hand drill or Grip-Lok® Autofeed Fastening System* with modified nose adaptor. A minimum 1" of screw penetration into the wood stud is required for assemblies requiring 15 psf water infiltration resistance.
- 3-1/2" to 6" screws should be installed with standard hand drill.

NOTE: In order to make a claim under the DuPont 10-Year Limited Product and Labor Warranty on DuPont Building Envelope Solutions Products, all terms and conditions of the warranty must be met, including use of the applicable DuPont Installation Guidelines available at the date of original installation. In the event that a specific detail or installation technique is not covered in the DuPont Installation Guidelines at the time of construction, then the *Key Installation Requirements* must have been followed in order to make a claim under the warranty. Compliance prior, during and post construction with the *Key Installation Requirements* are at the sole discretion of DuPont. Please contact DuPont or a DuPont™ Tyvek® Specialist if you have any questions in connection with any DuPont Installation Guideline.

Installation Instructions

STEP 1

- A. Starting at a corner of the building unroll **DuPont™ Tyvek® WRB** keeping the roll plumb. Extend approximately 12" past either the inside or outside corner of the wall.
- B. Vertically overlap the next sheet of **Tyvek® WRB** by at least 6". Vertical grid lines have been provided every 8" on **DuPont™ Tyvek® CommercialWrap®** to assist in alignment with stud spacing.

NOTES:

- It is important that proper shingling is maintained. **Tyvek® WRBs** should be installed from the bottom of the building up to ensure proper shingling.
- Vertical installation of **Tyvek® CommercialWrap®** is acceptable. 6" overlap and proper shingling of vertical and horizontal seams is required. This installation is not permitted for **DuPont™ Tyvek® CommercialWrap® D**.

STEP 2

The **Tyvek® WRB** should overlap through wall flashing by a minimum of 6". Terminate the **Tyvek® WRB** at the bottom of the wall with 3" **DuPont™ Tyvek® Tape**, or **DuPont Self-Adhered Flashing Products**.

STEP 3

Secure the **Tyvek® WRB** by fastening into the studs. For fastener type and spacing refer to the *Recommended Fasteners and Spacing* section of this document.

NOTE: In order to keep the **Tyvek® WRB** from being damaged by cladding installation, special attention should be taken to ensure that the product is pressed tightly into any inside corners before fastening.

STEP 4

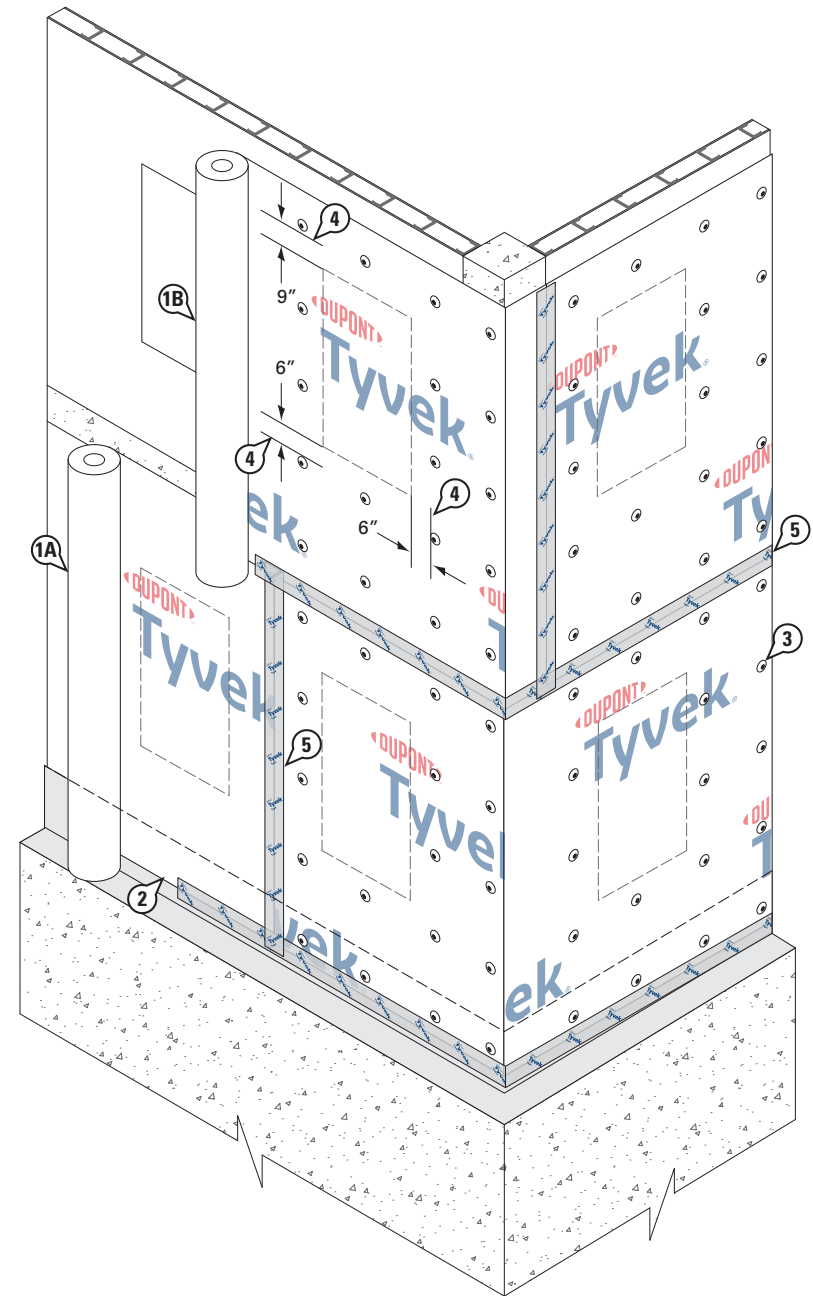
Unroll the **Tyvek® WRB** directly over window and door rough openings. Upper layer of **Tyvek® WRB** should overlap bottom layer of **Tyvek® WRB** by a minimum of 6". Do not install fasteners within 6" of the sills and jambs of the openings and within 9" of the head of the openings. The **Tyvek® WRB** will be secured at these locations during flashing installation.

STEP 5

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

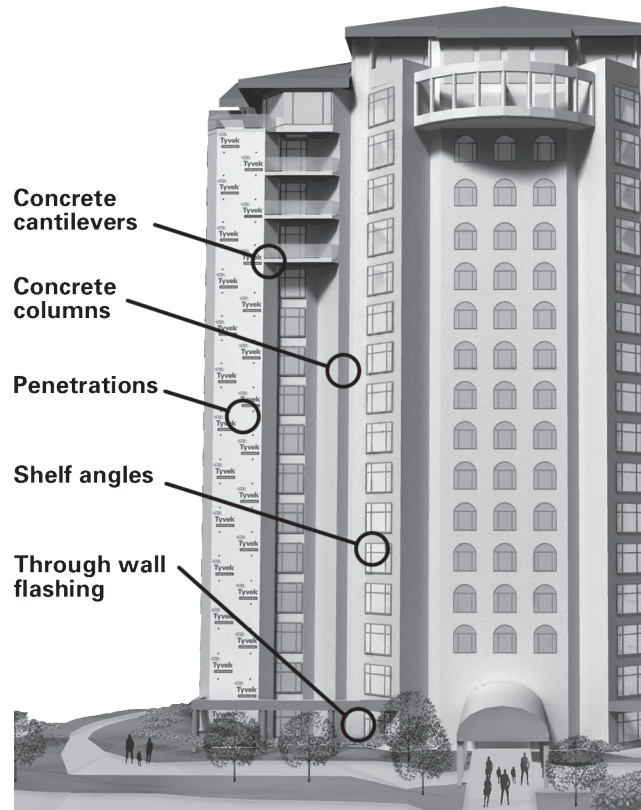
STEP 6

After the **Tyvek® WRB** is installed, refer to the *DuPont Self-Adhered Flashing Products Installation Guidelines for Buildings Greater Than 4 Stories* to prepare and flash windows and doors.



Continuity

Terminations

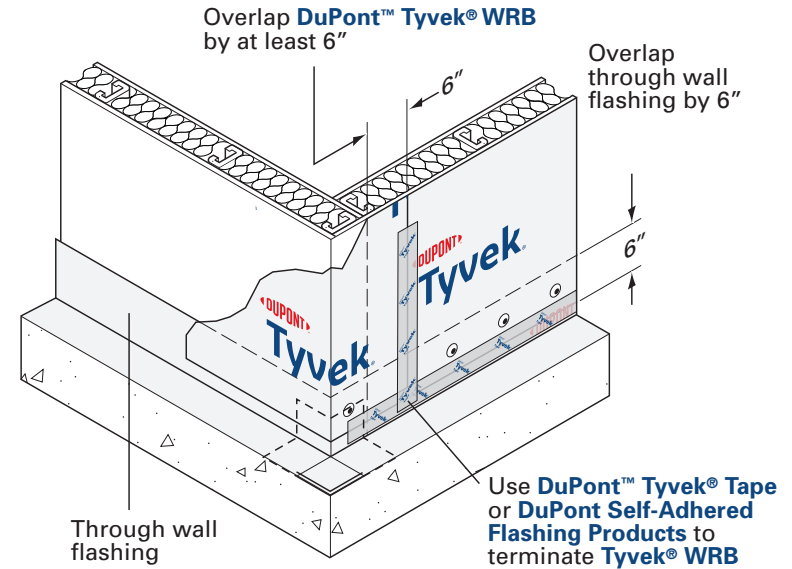


It is important to maintain the continuity of the **DuPont™ Tyvek® WRB** from top to bottom with proper shingling. The entire wall surface shall be wrapped, including unconditioned spaces.

Special attention should be given to all terminations and transitions to ensure a proper drainage plane and a continuous air and water barrier is maintained.

For high performance installations exceeding ASTM E1677, or areas of extreme exposure, install mechanical fasteners through the **Tyvek® WRB** terminated at the base of the wall of each floorline where applicable. Use appropriate fastener for each substrate.

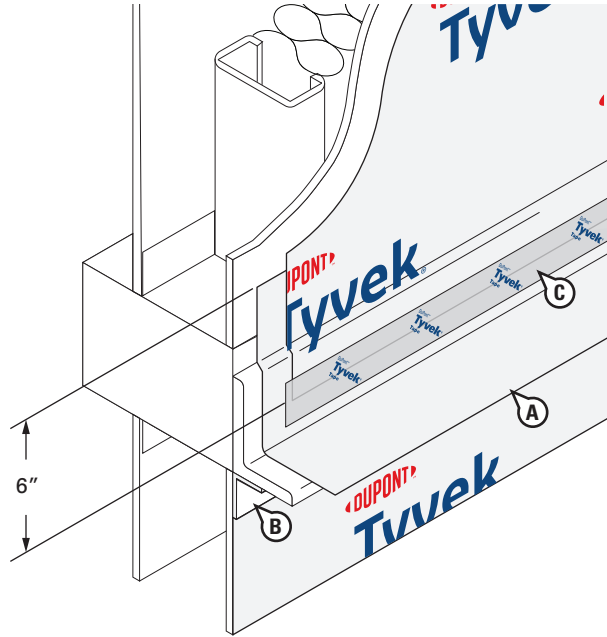
Through Wall Flashing



- A. Install through wall flashing per manufacturer's instructions. The through wall flashing may be terminated by using a reglet, counterflashing, termination bar or by embedding in a mortar joint.
- B. Overlap through wall flashing with **Tyvek® WRB** by 6\".
- C. Mechanically fasten bottom of the **Tyvek® WRB** through top of through wall flashing.
- D. Seal vertical and horizontal seams using 3\" **DuPont™ Tyvek® Tape** or a **DuPont Self-Adhered Flashing Product**.

Continuity

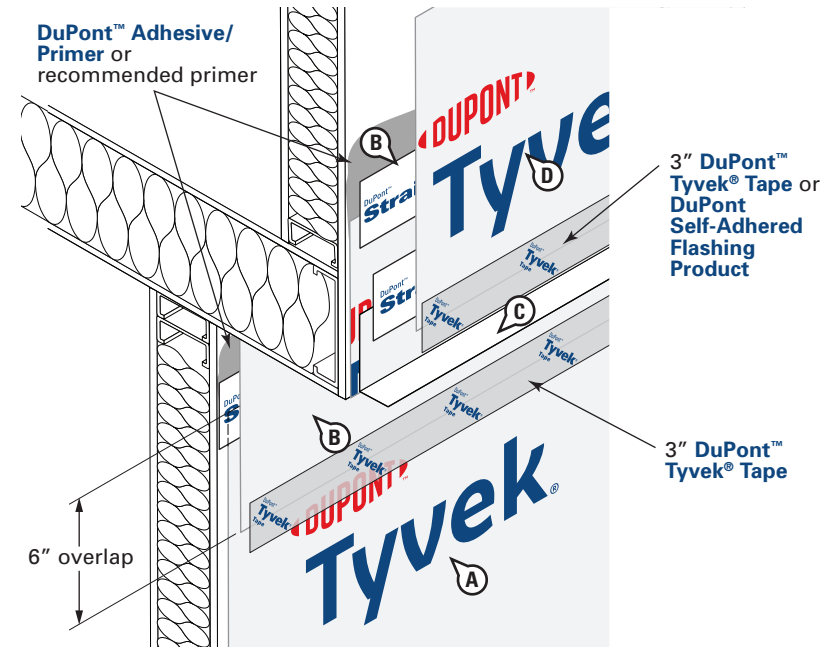
Shelf Angles



- A. Through wall flashing should be applied to the top of the shelf angle and the **DuPont™ Tyvek® WRB** should be properly shingled over by at least 6".
- B. Seal the **Tyvek® WRB** to the bottom of the shelf angle using **DuPont™ StraightFlash™**.
- C. Seal bottom of the **Tyvek® WRB** to through wall flashing using 3" **DuPont™ Tyvek® Tape** or a **DuPont Self-Adhered Flashing Product**.

Horizontal Plane Transition

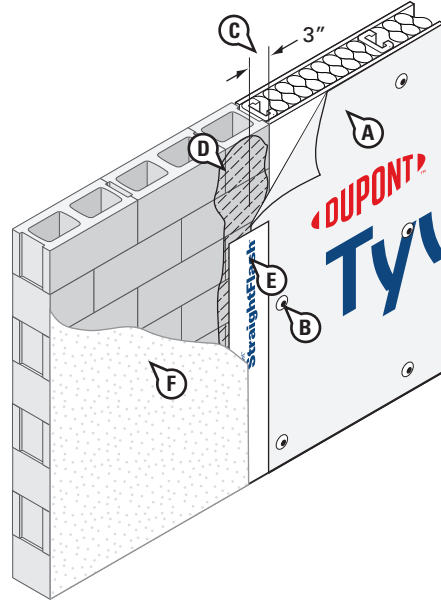
Detail isolates horizontal plane from vertical walls for water management



- A. Install **Tyvek® WRB** on wall below horizontal plane and terminate with **StraightFlash™**. Prime sheathing as necessary with **DuPont™ Adhesive/Primer** or recommended primer.
- B. Install **Tyvek® WRB** on horizontal plane, overlapping the **Tyvek® WRB** below by 6", and extend a minimum of 6" onto the vertical wall above. Install 3" **Tyvek® Tape** to seal horizontal seam below and terminate onto upper wall with **StraightFlash™**. Prime sheathing as necessary with **DuPont™ Adhesive/Primer** or recommended primer.
- C. **Optional:** Install a kick-out flashing at outside corner as recommended best practice per plans and specifications. Terminate vertical leg of kick-out flashing with **StraightFlash™**.
- D. Install **Tyvek® WRB** on wall above horizontal plane and terminate onto kick-out flashing with **StraightFlash™** or **Tyvek® Tape**. **NOTE:** If kick-out flashing is not used, ensure a 6" overlap and seal the horizontal **Tyvek® WRB** seam with 3" **Tyvek® Tape**.

Continuity

Hybrid Wall – Transition to DuPont™ Tyvek® Fluid Applied Products



- A. Install **DuPont™ Tyvek® WRB** prior to application of **DuPont™ Tyvek® Fluid Applied WB+™**.
- B. Fasten the **Tyvek® WRB** to the stud adjoining the transition substrate.
- C. Cut the **Tyvek® WRB** so that approximately 3" will overlap the adjoining substrate.
- D. Fold back the 3" flap of **Tyvek® WRB** and prime adjoining substrate with **DuPont™ Adhesive/Primer** or recommended primer.
- E. Fold the **Tyvek® WRB** back down over the interface and seal it to the primed substrate using 4" **DuPont™ StraightFlash™**, overlapping both surfaces evenly by approximately 2". Apply pressure along entire surface of flashing. Refer to the Special Consideration section for additional information.
- F. Apply **Tyvek® Fluid Applied WB+™** onto wall surface, overlapping the **StraightFlash™** by a minimum of 2". Refer to the *DuPont™ Tyvek™ Fluid Applied WB+™ Wall and Substrate Guidelines* for additional information.

Uncured DuPont™ Tyvek® Fluid Applied Products must not come in contact with Tyvek® WRBs due to potential impact on performance properties. Therefore, use of a spray guard or other physical barrier to avoid overspray onto the Tyvek® WRB is recommended.

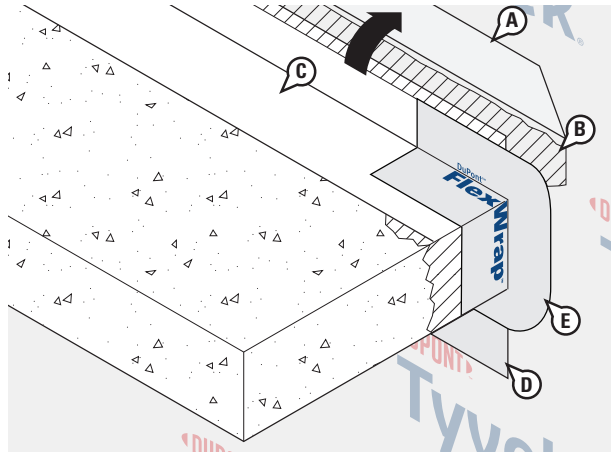
- G. Upon completion, inspect surface to ensure that **Tyvek® Fluid Applied WB+™** is continuous and free of any voids or pinholes.

NOTE: When spraying, the outer edge of **DuPont Self-Adhered Flashing Product** at the interface with the **Tyvek® Fluid Applied WB+™** can be treated with **DuPont™ Tyvek® Fluid Applied Flashing and Joint Compound+** tapered to the wall substrate to help ensure installation is free of pinholes and voids..

Continuity

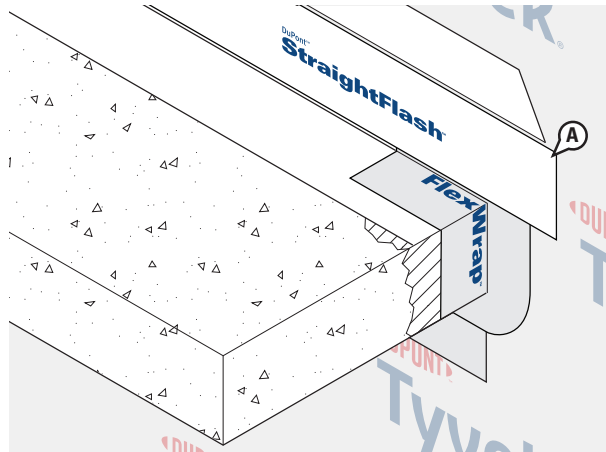
Concrete Cantilevers

Seal to concrete cantilevers using **DuPont™ Adhesive/Primer** or recommended primer and **DuPont Self-Adhered Flashing Products**.



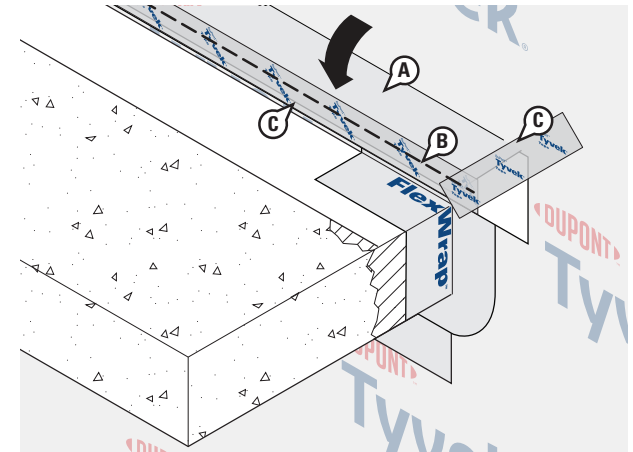
STEP 1

- A. Cut and flip up **DuPont™ Tyvek® WRB** flap.
- B. Prime substrates with **DuPont™ Adhesive/Primer** or recommended primer.
- C. Install waterproofing sheet membrane or metal flashing.
- D. Before applying **DuPont™ FlexWrap™**, seal the **Tyvek® WRB** to bottom of cantilever with **DuPont™ StraightFlash™**.
- E. Wrap **FlexWrap™** around cantilever.



STEP 2

- A. Apply 4" **StraightFlash™** over **FlexWrap™** and top edge of the metal flashing, when used.



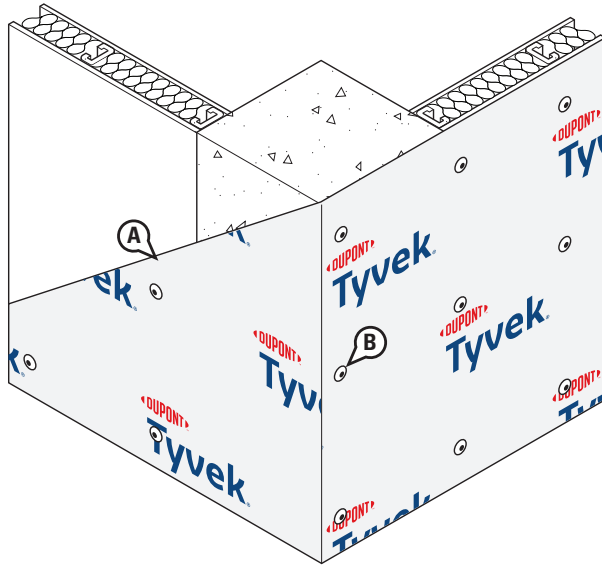
STEP 3

- A. Flip down **Tyvek® WRB** flap.
- B. Cut ~1" strip along horizontal edge of **Tyvek® WRB** flap
- C. Tape seams using a minimum 3" width **DuPont™ Tyvek® Tape** or a **DuPont Self-Adhered Flashing Product**.

Continuity

Concrete Column

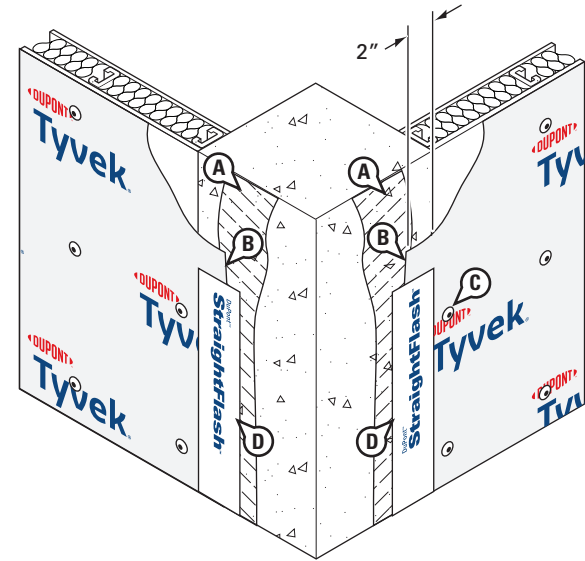
Method 1



- A. Wrap **DuPont™ Tyvek® WRB** around concrete column.
- B. Mechanically fasten **Tyvek® WRB** at recommended spacing. (See Recommended Fasteners and Spacing section of this document)

NOTE: Mechanically fasten **Tyvek® WRB** to concrete column if necessary to maintain recommended fastener spacing.

Method 2



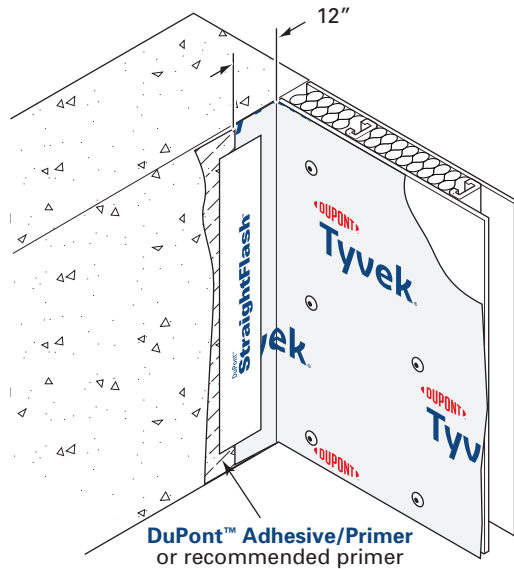
- A. Prime concrete column with **DuPont™ Adhesive/Primer** or recommended primer.
- B. Cut **Tyvek® WRB** at concrete column, leaving approximately 2" overlapping column.
- C. Mechanically fasten **Tyvek® WRB** into studs.
- D. Seal **Tyvek® WRB** to concrete using **DuPont™ StraightFlash™**.

NOTE: For high performance installations, additional fasteners may be necessary to secure **StraightFlash™**. Use appropriate fastener for each substrate.

Continuity

Inside Corner Transition to Concrete

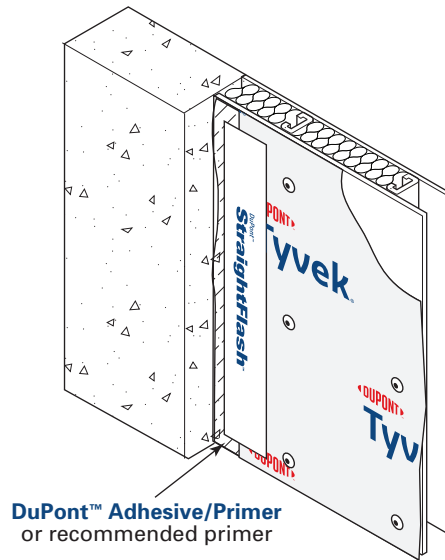
Method 1



- Cut **DuPont™ Tyvek® WRB** so there is approximately 12" overlapping concrete.
- Mechanically fasten **Tyvek® WRB** to studs.
- Prime concrete with **DuPont™ Adhesive/Primer** or recommended primer.
- Seal **Tyvek® WRB** to concrete using **DuPont™ StraightFlash™**.

NOTE: For high performance installations, additional fasteners may be necessary to secure **StraightFlash™**. Use appropriate fastener for each substrate.

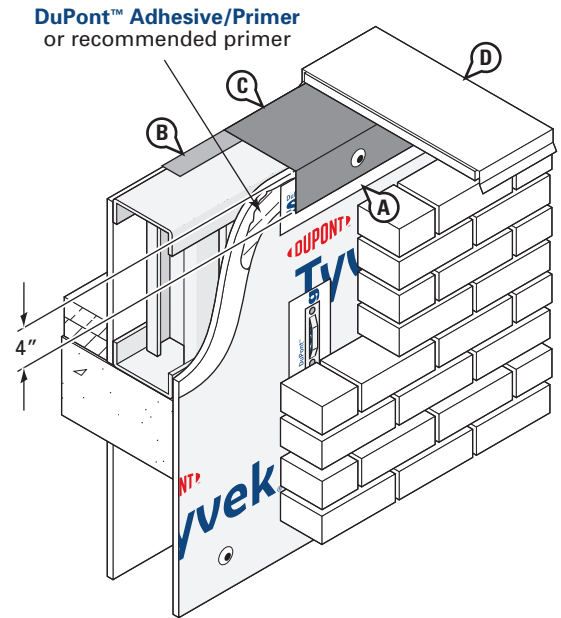
Method 2



- Cut **Tyvek® WRB** to expose approximately 2" of the wall.
- Mechanically fasten **Tyvek® WRB** to studs.
- If necessary, prime wall adjacent to concrete with **DuPont™ Adhesive/Primer** or recommended primer.
- Seal **Tyvek® WRB** to the wall using **StraightFlash™**.

NOTE: For high performance installations, additional fasteners may be necessary to secure **StraightFlash™**.

Parapet wall with brick



- Apply **DuPont™ Adhesive/Primer** or recommended primer to wall surface or sheathing at top of wall and install a minimum 4" **StraightFlash™** to terminate the **Tyvek® WRB**.
- Install roofing membrane
- Install through wall flashing over parapet wall, overlapping the **Tyvek® WRB** and the roofing membrane by a minimum of 4" in the proper shingling manner.
- Install coping cap.

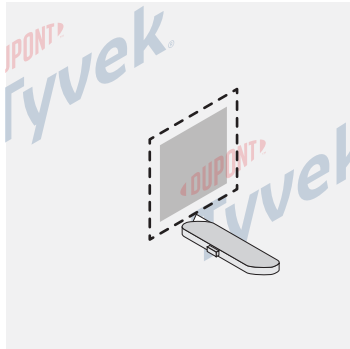
NOTE: Additional CAD details are available in the Technical Information section of building.dupont.com.

Penetrations

Seal around plumbing pipes, HVAC components, electrical outlets, exterior lights, flashing panels, and other objects that penetrate the **DuPont™ Tyvek® WRB**. Always use positive shingling by installing **Tyvek® WRBs** and **DuPont Self-Adhered Flashing Products** from bottom to top, with upper layer installed over lower layer.

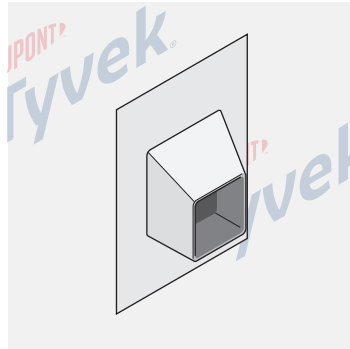
Flashing Integral Flanged Products Installed AFTER DuPont™ Tyvek™ WRB

Method 1



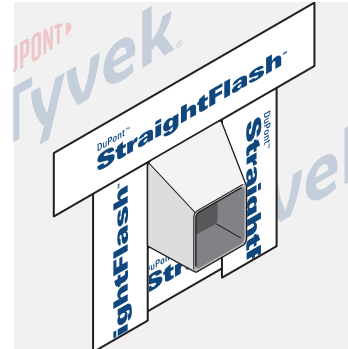
STEP 1

Install **Tyvek® WRB** and cut as necessary to accommodate integral flanged product.



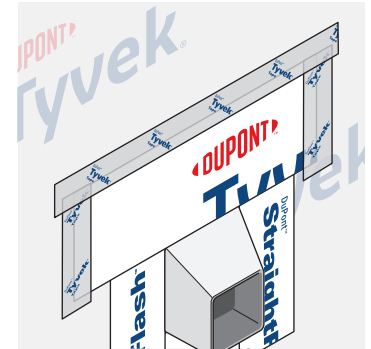
STEP 2

Install integral flanged product per manufacturer's instructions.



STEP 3

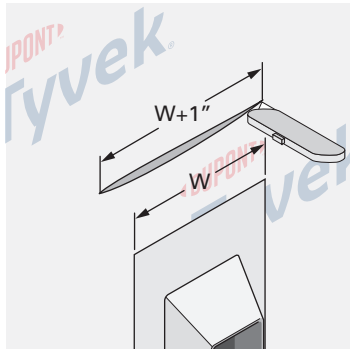
Install **DuPont Self-Adhered Flashing Product** onto bottom, sides, and top flanges, extending onto **Tyvek® WRB** by a minimum of 2".



STEP 4 (OPTIONAL)

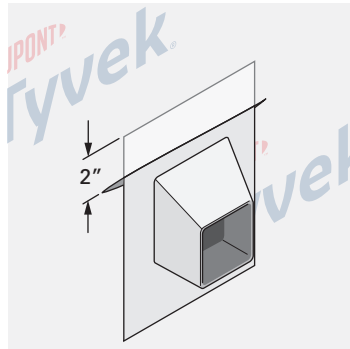
Install a piece of **Tyvek® WRB** to overlap the top edge of the **DuPont Self-Adhered Flashing Product**. Seal sides and top with **DuPont™ Tyvek® Tape**.

Method 2



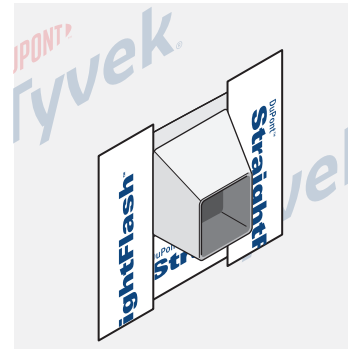
STEP 1

Install **Tyvek® WRB** and make horizontal cut a minimum of 1" wider than flange.



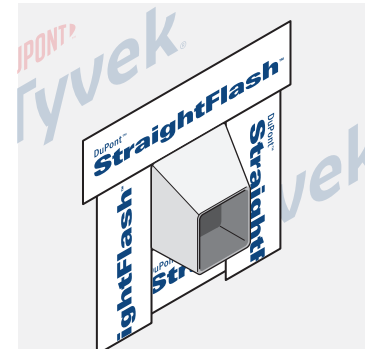
STEP 2

Slide top flange into slit with minimum 2" overlap of **Tyvek® WRB**, and install per manufacturer's instructions.



STEP 3

Adhere **DuPont Self-Adhered Flashing Product** onto bottom and side flanges, extending onto **Tyvek® WRB** by 2".



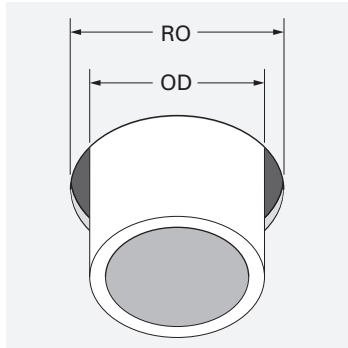
STEP 4

Install **DuPont Self-Adhered Flashing Product** to top flange, extending beyond **DuPont Self-Adhered Flashing Product** on side flanges.

Penetrations

Option 1: Flashing Non-Flanged AFTER Installation of DuPont™ Tyvek® WRB Using DuPont™ FlexWrap™ EZ

For non-flanged products with **OD GREATER** than 2"



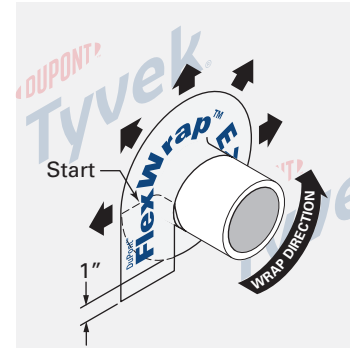
Use **FlexWrap™ EZ** only when penetration rough opening (RO) is not more than ½" larger than the outside diameter/ dimension (OD) of non-flanged product.

NOTE: For more information regarding the installation of **FlexWrap™ EZ**, refer to the Installation Information Bulletin for **FlexWrap™ EZ**.



STEP 1

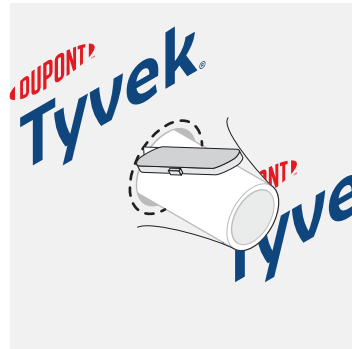
Install **Tyvek® WRB** over non-flanged product and cut around penetration.



STEP 2

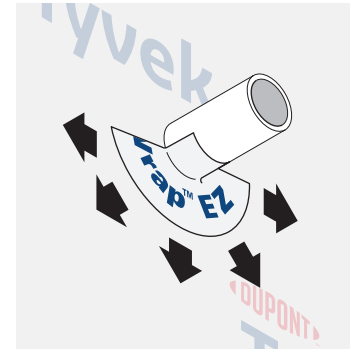
Cut a piece of **FlexWrap™ EZ** longer than circumference of non-flanged product to ensure a minimum 1" overlap onto the **Tyvek® WRB**. Starting at the horizontal position on either side, adhere around penetration and onto **Tyvek® WRB**.

For non-flanged products with **OD LESS** than 2"



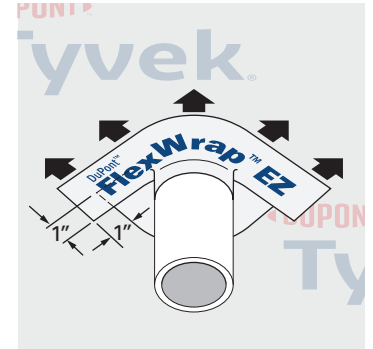
STEP 1

Install **Tyvek® WRB** over non-flanged product and cut around penetration.



STEP 2

Cut a piece of **FlexWrap™ EZ** the length of ½ the circumference of the non-flanged product. Adhere onto bottom section and fan out onto **Tyvek® WRB**.

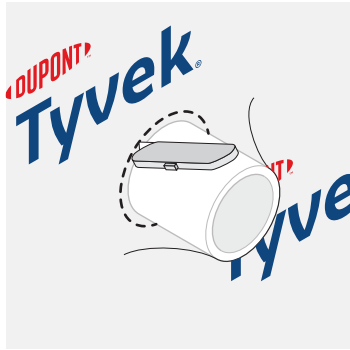


STEP 3

Cut a second piece of **FlexWrap™ EZ** the length of the pipe circumference. Adhere onto top section and fan out onto face of wall with a minimum of 1" overlap of the edges of **FlexWrap™ EZ** below.

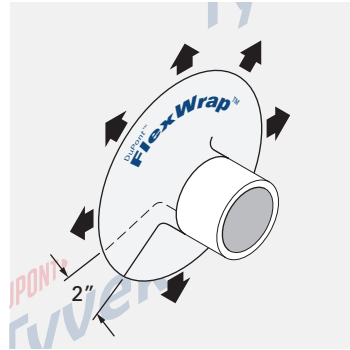
Penetrations

Option 2: Flashing Non-Flanged Products AFTER Installation of DuPont™ Tyvek® WRB Using DuPont™ FlexWrap™



STEP 1

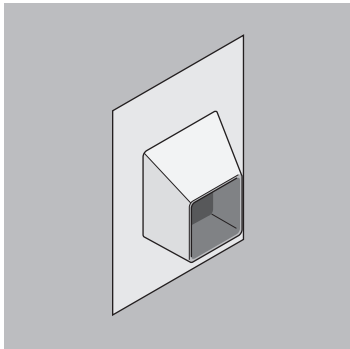
Install **Tyvek® WRB** over non-flanged product and cut around penetration.



STEP 2

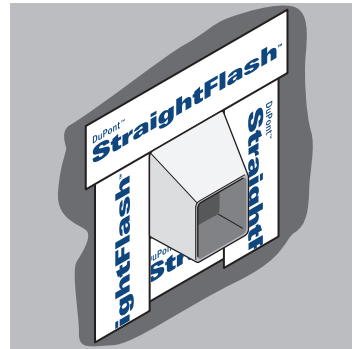
Working counterclockwise, install **FlexWrap™** around penetration with a minimum 2" overlap.

Flashing Integral Flanged Products BEFORE Installation of DuPont™ Tyvek® WRB



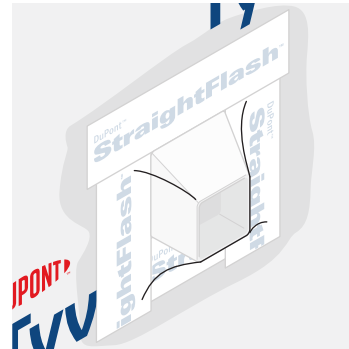
STEP 1

Install integral flanged product onto sheathing per manufacturer's instructions.



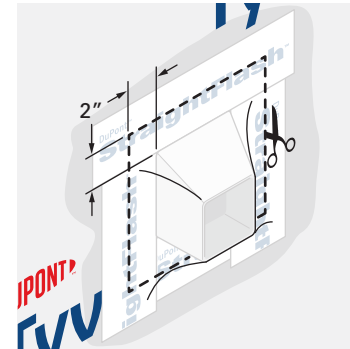
STEP 2

Prime as necessary with **DuPont™ Adhesive/Primer** or recommended primer. Install **DuPont™ StraightFlash™** or **DuPont™ Flashing Tape*** onto flanges, extending onto sheathing by a minimum of 2".



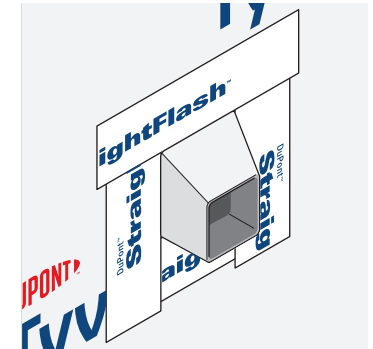
STEP 3

Install **Tyvek® WRB**.



STEP 4

Make cut in **Tyvek® WRB**, ensuring a minimum of 2" gap for adhesion of **StraightFlash™**.



STEP 5

Seal edges of **Tyvek® WRB** with **StraightFlash™**.

*DuPont™ Flashing Tape is only permitted for Residential-Use building structures. Residential-Use (Group R) is defined by the 2015/2018 International Building Code.

Recommended Fasteners and Spacing

- 2" DuPont™ Tyvek® Wrap Cap Screws (for steel or wood frame construction)
- 1-1/4" metal gasketed washers with screws (for steel frame construction)
- 2" metal gasketed washers with screws (for steel frame construction)
- Tapcon® fasteners with 2" plastic caps (for masonry construction)
- Rodenhouse Grip-Deck® screws with Thermal-Grip FastCap™ washers installed at 16" vertical spacing along stud lines for 16" o.c. framing.

Metal frame construction:

- 1 5/8" – 6" Rodenhouse Grip-Deck® Self-Drilling screws with 2" dia. Thermal-Grip FastCap™ washer.
- 1-5/8", 2", 2-1/2", and 3" screws can be installed with standard hand drill or Grip-Lok® Autofeed Fastening System* with modified nose adaptor.
- 3-1/2" to 6" screws should be installed with standard hand drill
- A minimum of 4 threads screw penetration through the steel stud is required.

Wood frame construction:

- 1-5/8" – 6" Rodenhouse Grip-Deck® HiLo Thread Screws with 2" Thermal-Grip FastCap™ washer
- 1-5/8" screws can be used for structural loading performance requirements per ASTM E2357 and water infiltration resistance up to 9 psf, installed with standard hand drill or Grip-Lok® Autofeed Fastening System* with modified nose adaptor.
- 2" or longer screws must be used for structural loading performance requirements per ASTM E2357 and water infiltration resistance up to 15 psf installed with standard hand drill or Grip-Lok® Autofeed Fastening System* with modified nose adaptor. A minimum 1" of screw penetration into the wood stud is required for assemblies requiring 15 psf water infiltration resistance.
- 3-1/2" to 6" screws should be installed with standard hand drill.

*For more information about the Grip-Lok® Autofeed Fastening System, refer to manufacturer's instructions and contact your local DuPont™ Tyvek® Specialist.

Table 1 – DuPont™ Tyvek® WRB with Screw Fasteners and 16" and 24" O.C. Steel Stud Spacing

Washer Size	Fastener Spacing inches	Vertical Stud Spacing O.C. inches	Allowable Pressure	
			psf	mph
2" Metal Gasketed Washer	8	24	90	188
	12	16	90	188
	12	24	60	153
	18	16	60	153
	16	24	45	133
2" DuPont™ Wrap Cap Screw	24	16	45	133
	8	24	60	153
	12	16	60	153
	12	24	45	133
1.25" Metal Gasketed Washer	18	16	45	133
	12	16	60	153
	18	16	40	125

Temporary Fastening

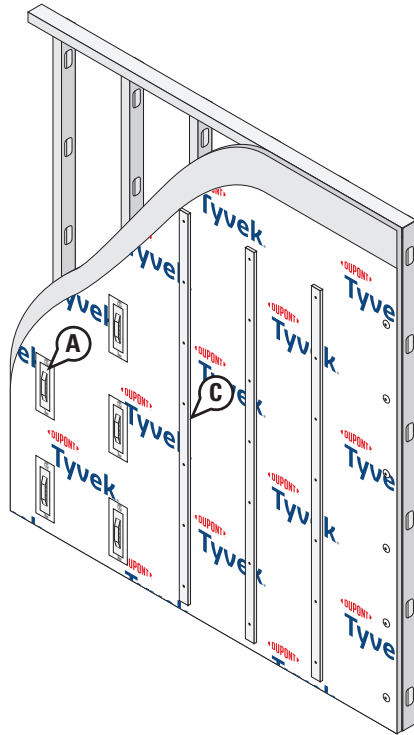
Selection and use of temporary fastening methods is an option dependent on building schedule, cladding options, and local building practices. Temporary fasteners should not be relied upon to permanently attach the **Tyvek® WRB** due to the limited holding power of these fastening methods. If temporary fasteners are used, permanent fastening should be applied as soon as practically possible in order to maintain the integrity and performance of the **Tyvek® WRB**.

Temporary fastening methods:

- DuPont recommended fasteners at a reduced schedule 24" to 48".
- **DuPont™ Adhesive/Primer** or other recommended adhesive applied in vertical strips at 24" to 36" spacing or along every other stud line. Vertical strips may be applied to the outer face of the sheathing or directly to the studs for open stud construction. When using adhesives, care must be taken to avoid excessive surface coverage as this may impact the vapor permeability of the **Tyvek® WRB** in that area. Refer to *Chemical Compatibility of Representative Building Sealants and Adhesives/Primers* for more information about recommended adhesives.
- #4 nails with 1" plastic cap (for wood frame construction)
- 1" plastic cap staple with leg length sufficient to achieve 5/8" penetration into wood stud (for wood frame construction).
- If staples without caps are used to temporarily fasten **Tyvek® WRBs** to exterior sheathing, the fastening schedule must not exceed 4 per square yard and each staple must be covered with 3" **DuPont™ Tyvek® Tape**. Covering the staples underneath a taped WRB seam is acceptable.

Temporary fastening methods may not be suitable for high performance installations. For additional guidance, please consult your local DuPont™ Tyvek® Specialist.

Alternate Fastening

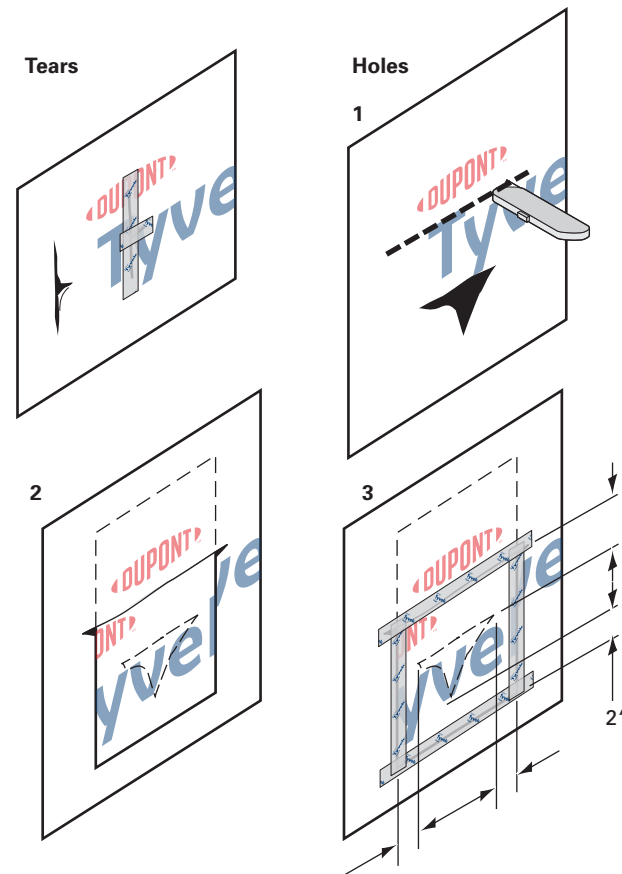


- A. Standard brick tie base plates and metal plates with **DuPont™ StraightFlash™**, **DuPont™ Flashing Tape** or recommended alternate patches behind.
- B. Metal channels, horizontal z-girts, etc. with **StraightFlash™**, **DuPont™ Flashing Tape** or recommended alternate patches behind.
- C. Wood furring strips mounted vertically.

NOTES:

- It is important to consider minimizing the total number of fasteners used to attach the **DuPont™ Tyvek® WRB**. When using cladding fasteners such as brick ties, metal plates, or furring strips to secure the **Tyvek® WRB**, additional fasteners may be needed between the cladding or alternate fasteners to maintain recommended fastener spacing. Refer to the Temporary Fastening section for information about reducing the recommended fastener schedule.
- **StraightFlash™**, **DuPont™ Flashing Tape** or recommended alternate patches must be adhered to the **Tyvek® WRB** behind fastening plates (brick tie base plates, metal fastening clips, metal channels, z-girts, shimmed furring strips, etc.) when building envelope design requirements exceed ASTM E1677, 65 mph equivalent structural load and 15 mph equivalent wind-driven rain water infiltration resistance.

Handling Tears and Holes



- During the course of installing the **DuPont™ Tyvek® WRB**, minor tears may occur. Be sure to tape all tears. Tears can easily be covered with 3" **DuPont™ Tyvek® Tape** or **DuPont Self-Adhered Flashing Products**.
- Larger tears may require cutting a piece of **Tyvek® WRB** to repair the tear. Measure and cut a piece of **Tyvek® WRB** large enough to cover tear with an excess of 2" around the tear plus an extra 6" in height. Cut a slit 2" above the tear large enough to accommodate the patch. Tuck patch into slit at least 6" and shingle over lower **Tyvek® WRB**. 3" **Tyvek® Tape** must be applied along the perimeter by starting at bottom of tear and shingling the upper tape over the bottom tape.

Facade/Exterior Considerations

Brick

The Brick Industry Association recommends a 1" air space in front of wood stud construction and a 2" air space in front of steel stud construction. Consistent with these requirements and recommendations, **DuPont™ Tyvek® WRBs** shall be separated from the brick veneer by a minimum 1" air space. Window and door flashing, and through wall flashing shall be integrated with the **Tyvek® WRB** layer ensuring proper shingling. For maximum moisture management and drying of the wall system the air space in front of the **Tyvek® WRB** shall be vented to the exterior at the top and bottom of the wall. Some types of brick ties can act as alternate fasteners for **Tyvek® WRBs** and may reduce the required number of fasteners if installed as soon as practically possible. **DuPont Self-Adhered Flashing Products** or recommended alternate patch is required for high performance installations.

EIFS

Tyvek® WRBs and EIFS cladding shall be installed according to manufacturer's instructions and industry standards. In order to promote drainage, it is recommended that **DuPont™ Tyvek® CommercialWrap® D** be installed behind the exterior insulation. Window and door flashing, and through wall flashing shall be integrated with the **Tyvek® WRB** layer ensuring proper shingling. The successful installation and performance of EIFS cladding is dependent upon the proper design and construction of the adjacent materials and systems of the structure.

Exterior Insulation

When using **Tyvek® WRBs** with **DuPont Exterior Continuous Insulation Products**, please refer the applicable Commercial Wall² Installation Bulletin for guidance on fasteners and product installation. **Tyvek® WRBs** and exterior continuous insulation shall be installed according to the manufacturer's instructions and industry standards. **Tyvek® WRBs** can be installed either over the exterior continuous insulation or underneath between the sheathing and the exterior insulation. In order to promote drainage, it is recommended that **Tyvek® CommercialWrap® D** be used when installing the **Tyvek® WRB** between the sheathing and the exterior continuous insulation. Window flashing, door flashing, and through wall flashing shall be integrated with the **Tyvek® WRB** layer ensuring proper shingling. The successful installation and performance of exterior continuous insulation is dependent upon the proper design and construction of adjacent materials and systems of the structure.

Stucco

When stucco is installed over wood-based sheathing, the 2018 International Building Code (Section 2510.6) requires a water-resistive vapor-permeable barrier with performance at least equivalent to two layers of water resistive barrier complying with ASTM E 2556, Type I, or a water resistive barrier which is separated from the stucco by an intervening, substantially non water-absorbing layer or drainage space.

"The individual layers shall be installed independently such that each layer provides a separate continuous plane and any flashing intended to drain to the water-resistive barrier is directed between the layers." **Tyvek® WRBs** used behind stucco should be separated from the stucco by a second layer of **Tyvek® WRB**, a layer of Grade D building paper, felt, exterior continuous foam insulation or the paper backing of paper-backed lath. The first layer (directly over sheathing or studs) serves as the wall system's air and water barrier and is integrated with window and door flashings, the weep screed at the bottom of the wall and any through wall flashing or expansion joints. Lath shall be installed over the intervening layer (second layer) in accordance with ASTM C1063-03 *Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster* and applicable codes. When exterior continuous foam insulation is installed over **Tyvek® WRB** as an intervening layer, may provide enhanced structural support to the **Tyvek® WRB** layer and may reduce the required number of fasteners used for the attachment of the **Tyvek® WRB** if installed as soon as practically possible. **DuPont Self-Adhered Flashing Products** or recommended alternate may be required for high performance installations.

Metal Panel

Tyvek® WRBs and metal panel cladding systems shall be installed according to manufacturer's instructions and industry standards. **DuPont™ StraightFlash™**, **DuPont™ Flashing Tape**, or recommended alternate patch must be installed behind all metal installation brackets and hat-channels fasteners. **NOTE:** The maximum in-service temperature for **Tyvek® WRBs**, **DuPont Self-Adhered Flashing Products**, and **DuPont™ Tyvek® Fluid Applied Products** is 180°F.

Stone Veneer

The 2018 International Building Code (Section 1404.7) requires two layers of air and water barrier behind stone veneers over wood frame construction. When used behind stone veneer, **Tyvek® WRBs** shall be installed in a similar manner as they are installed behind stucco. The **Tyvek® WRB** should be separated from the stone and mortar by a second layer of **Tyvek® WRB**, a layer of grade D building paper, felt, exterior continuous foam insulation or the paper backing of paper-backed lath. The first layer (directly over sheathing or studs) serves as the wall system's air and water barrier and shall be integrated with window and door flashings, the weep screed at the bottom of the wall and any through wall flashing or expansion joints. Lath shall be installed over the intervening layer (second layer) in accordance with ASTM C1063-03 *Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster* and applicable codes. When exterior continuous foam insulation is used as the second layer, it is installed over the **Tyvek® WRB**. **Tyvek® CommercialWrap® D** is recommended for this application. **DuPont Self-Adhered Flashing Products** or recommended alternate patch is required for high performance installations.

Wood Siding

DuPont™ Tyvek® WRBs and wood siding shall be installed according to manufacturer's instructions, industry standards and applicable codes. As recommended by the Western Red Cedar Lumber Association and U. S. Forest Product Laboratory, wood siding should be primed on all six sides before installation. When installed over exterior continuous insulation, the Western Red Cedar Lumber Association and other wood siding manufacturers recommend that furring strips are used to create an air space between the exterior continuous insulation and siding. Other recommendations that should be followed to minimize potential problems are:

- Use thicker siding patterns in widths of 8 inches or less. Thick, narrow siding is more stable than thinner, wider patterns and better able to resist dimensional changes.
- Use kiln-dried siding over exterior continuous insulation.
- Proper pre-finishing is essential.
- Use light color finish coats to maximize heat reflection and reduce dimensional movement.
- **DuPont™ Tyvek® CommercialWrap®** applied over the exterior continuous insulation is recommended for this application.

In high exposure installations, enhanced drainage and water management may be provided by using **DuPont™ Tyvek® CommercialWrap® D**, by installing a drainage mesh over the **Tyvek® WRB**, or by creating a rain screen cladding with a larger air space behind the siding using furring strips. **Tyvek® CommercialWrap® D** offers > 98% drainage efficiency when tested in accordance with ASTM E2273. See the *Alternate Fastening* section for additional information.

Fiber Cement Siding

Tyvek® WRBs and fiber cement siding shall be installed according to manufacturer's instructions and industry standards. In high exposure installations, enhanced drainage and water management may be provided by using **Tyvek® CommercialWrap® D**, by installing a drainage mesh over the water-resistive barrier, or by creating rain screen cladding with a larger air space behind the siding using furring strips. **Tyvek® WRBs** and fiber cement siding shall be installed according to manufacturer's instructions, industry standards and applicable codes. **Tyvek® CommercialWrap® D** offers > 98% drainage efficiency when tested in accordance with ASTM E2273. See *Alternate Fastening* section, for additional information.

Product Composition and UV Stability

DuPont™ Tyvek® WRBs used in construction products are made from 100% flash spunbonded high density polyethylene fibers which have been bonded together by heat and pressure, without binders or fillers, into a tough durable sheet structure. Additives have been incorporated into the polyethylene to provide ultraviolet light resistance. DuPont requires that **DuPont™ Tyvek® CommercialWrap®** and **Tyvek® CommercialWrap® D** be covered within 9 months (270 days) of installation.

DuPont Self-Adhered Flashing Products are made from a synthetic rubber adhesive and a laminate of polyethylene film, polypropylene film, elastic fiber, synthetic rubber adhesive, polyurethane adhesive, and a top sheet of flash spunbonded high density polyethylene fibers or polypropylene film. Additives have been incorporated into these materials to provide ultraviolet light resistance. DuPont requires that **DuPont™ FlexWrap™**, **DuPont™ FlexWrap™ EZ**, **DuPont™ StraightFlash™** and **DuPont™ VersaFlange™** be covered within nine months (270 days) of installation. DuPont requires that **DuPont™ Flashing Tape** be covered within 4 months (120 days) of installation.

DuPont™ Tyvek® Fluid Applied Products are formulated to include elastomeric polymers that cure to a continuous, fully-adhered, tough, durable membrane. Additives have been incorporated to provide ultraviolet light resistance. DuPont requires that the **DuPont™ Tyvek® Fluid Applied WB+™** and **DuPont™ Tyvek® Fluid Applied Flashing and Joint Compound+™** are to be covered within 9 months (270 days) of installation.

Design Considerations

When installed in conjunction with other building materials, **Tyvek® WRBs**, **DuPont Self-Adhered Flashing Products**, and **Tyvek® Fluid Applied Products** must be properly shingled with these materials such that water is diverted to the exterior of the wall system. **Tyvek® WRBs** and **Tyvek® Fluid Applied WB+™** are secondary weather barriers. The outer facade is the primary barrier. Follow facade manufacturer's installation and maintenance requirements for all facade systems in order to maintain water holdout properties and ensure performance of **Tyvek® WRBs** and **Tyvek® Fluid Applied WB+™**. Do not install on a wall that does not feature a continuous path for moisture drainage. Any standing water must be allowed to drain off the membrane. Follow facade manufacturer's installation and maintenance requirements for all facade systems in order to maintain water holdout properties and ensure performance of **DuPont™ Tyvek® WRBs** and **Tyvek® Fluid Applied WB+™**. Use of additives, coatings or cleansers on or in the facade system may impact the performance of **DuPont™ Tyvek® WRBs** and **Tyvek® Fluid Applied WB+™**. DuPont Building Envelope Solutions Products are to be used as outlined in this installation guideline. **DuPont Self-Adhered Flashing** and **Tyvek® Fluid Applied Flashing and Joint Compound+™** should only be used to seal penetrations and flash openings in buildings. **Tyvek® WRBs**, **Tyvek® Fluid Applied Products**, and **DuPont Self-Adhered Flashing Products** are not to be used in roofing applications. For superior protection against bulk water penetration, DuPont suggests a system combining a quality exterior facade, a good secondary air and water barrier and exterior

sheathing, high quality windows and doors, and appropriate flashing materials paying attention to proper installation of each component.

In a system where no exterior sheathing is used and **Tyvek® WRBs** are installed directly over the wall studs, exterior facade materials should be selected to ensure maximum protection against water intrusion. Careful workmanship and proper installation of each component is very important.

Depending on job site conditions, it is possible that stains may appear, but will not alter performance of the **Tyvek® Fluid Applied Product**.

Safety and Handling

Warning

Tyvek® WRBs are slippery and should not be used in any application where they will be walked on. In addition, because they are slippery, DuPont recommends using kickjacks, scaffolding, or lifts for exterior work above the first floor. If ladders must be used, extra caution must be taken to use them safely by following the requirements set forth in ANSI Standards 14.1, 14.2, and 14.5 for ladders made of wood, aluminum, and fiberglass, respectively. **DuPont™ Tyvek®** is combustible and should be protected from flames and other high heat sources. **DuPont™ Tyvek®** will melt at 275°F (135°C) and if the temperature of **DuPont™ Tyvek®** reaches 750°F (400°C), it will burn and the fire may spread and fall away from the point of ignition. For more information, call 1-833-338-7668.

DuPont Self-Adhered Flashing Products and their release paper are slippery and should not be walked on. Remove release paper from work area immediately.

DuPont Self-Adhered Flashing Products will melt at temperatures greater than 250°F (121°C). **DuPont Self-Adhered Flashing Products** are combustible and should be protected from flames and other high heat sources. **DuPont Self-Adhered Flashing Products** will not support combustion if the heat source is removed. However, if burning occurs, ignited droplets may fall away from the point of ignition. For more information, call 1-833-338-7668.

Tyvek® Fluid Applied Products may cause irritation. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. May cause irritation of respiratory tract. This product is a mixture. Health Hazard information is based on its components. Refer to Safety Data Sheet (SDS) for further information.

KEEP OUT OF REACH OF CHILDREN.

Children can fall in to bucket and drown. Keep children away from bucket with even a small amount of liquid.

Use only as directed. Avoid inhalation of vapor aerosol.

Caution

Obtain special instructions for **Tyvek® Fluid Applied Products** before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fumes/gas/mist/vapors/spray. Vapor and aerosols are harmful if using spray application. Use in a well-ventilated area. Use NIOSH approved respirator. NIOSH-approved particulate filtering full-face respirator with a P95 particulate filter or half-mask respirator with a P95 particulate filter and splash impact goggles when spraying. NIOSH-approved N95 disposable safety mask with splash impact goggles for manual

application such as troweling or rolling, and for clean-up. If vapors are inhaled, immediately move from exposure to fresh air and contact a physician. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. Immediately call a POISON CENTER/doctor. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. Store locked up. Dispose of contents/container to an approved waste disposal plant. Avoid contact with eyes and skin.

When cured, **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant** is combustible and will burn if exposed to open flame or sparks from high-energy sources. Do not expose to temperatures above 240°F (116°C). For more information, consult (Material) Safety Data Sheet ((M)SDS), call DuPont at 1-866-583-2583. When air sealing buildings, ensure that combustion appliances, such as furnaces, water heaters, wood burning stoves, gas stoves and gas dryers are properly vented to the outside. See website: <http://www.epa.gov/iaq/homes/hip-ventilation.html>.

In Canada visit: <http://archive.nrc-cnrc.gc.ca/eng/ibp/irc/bsi/83-house-ventilation.html>.

Great Stuff Pro™ polyurethane foam sealant and adhesive products contain isocyanate and a flammable blowing agent. Read all instructions and (Material) Safety Data Sheet ((M)SDS), carefully before use. Eliminate all sources of ignition before use. Cover all skin. Wear long sleeves, gloves, and safety glasses or goggles. Not for use in aviation, or food/beverage contact, or as structural support in marine applications. Provide adequate ventilation or wear proper respiratory protection. Contents under pressure. Not to be used for filling closed cavities or voids such as behind walls and under tub surrounds; this improper use of the product could result in the accumulation of flammable vapors and/or uncured material. Failure to follow the warnings and instructions provided with the product, and/or all applicable rules and regulations, can result in injury or death.

Building and/or construction practices unrelated to building materials could greatly affect moisture and the potential for mold formation. No material supplied by DuPont can give assurance that mold will not develop in any specific system.

Read all instructions and (Material) Safety Data Sheet ((M)SDS) carefully before use.

For more information, visit greatstuffpro.com or building.dupont.com

Hazard Statement

Tyvek® Fluid Applied Products may cause an allergic skin reaction. May cause serious eye damage. May cause genetic defects. May damage fertility or the unborn child. As it relates to California Prop 65, Tyvek® Fluid Applied Products can expose you to substances including Crystalline silica, which is /are known to the State of California to cause cancer. For more information, visit p65Warnings.ca.gov.

For complete warranty information please call 1-833-338-7668 or visit us at building.dupont.com.

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