

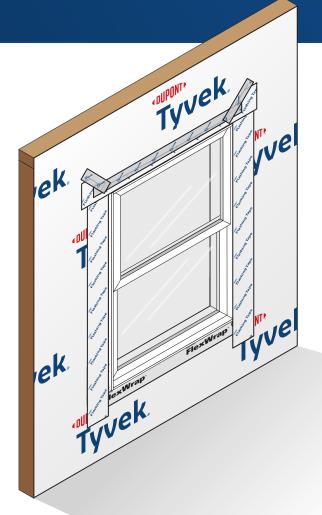
# DuPont Self-Adhered Flashing Products Installation Guidelines

Windows and Doors Installed **AFTER** the **DuPont**<sup>™</sup> **Tyvek**<sup>®</sup> Water-Resistive and Air Barrier (WRB)





For Buildings Less Than 5 Stories and Low-Rise Multi-Family Residential Buildings Less Than 6 Stories



September 2020

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This installation guideline outlines recommended installation techniques and details for DuPont™ Tyvek® HomeWrap®, Tyvek® StuccoWrap®, Tyvek® DrainWrap™, Tyvek® ThermaWrap® LE, Tyvek® CommercialWrap® and/or Tyvek® CommercialWrap® D, referred to in this document as DuPont™ Tyvek® Water-Resistive and Air Barriers (Tyvek® 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 Residential Code (IRC) and the 2018 International Building Code (IBC).

This Installation Guideline pertains to **buildings less than 5 stories and low-rise multi- family residential buildings less than 6 stories**. For additional information regarding DuPont Installation Guidelines usage for wood framed multi-family buildings, please refer to the <u>Multi-Family User's Bulletin for Installation of DuPont Building Envelope Solutions Products</u>.

### **Applicable Products**

#### Water-Resistive and Air Barriers (Tyvek® WRBs)

Product	Dimensions	Area
DuPont™ Tyvek® HomeWrap®	3 ft x 100 ft 3 ft x 165 ft 5 ft x 200 ft 9 ft x 100 ft 9 ft x 150 ft 10 ft x 150 ft 10 ft x 150 ft	300 sq ft 495 sq ft 1,000 sq ft 900 sq ft 1,350 sq ft 1,000 sq ft 1,500 sq ft
DuPont <sup>™</sup> Tyvek <sup>®</sup> StuccoWrap <sup>®</sup>	5 ft x 200 ft	1,000 sq ft
DuPont™ Tyvek® DrainWrap™	9 ft x 125 ft 10 ft x 125 ft	1,125 sq ft 1,250 sq ft
DuPont™ Tyvek® ThermaWrap® LE	5 ft x 150 ft 9 ft x 100 ft	750 sq ft 900 sq ft
DuPont™ Tyvek® CommercialWrap®	5 ft x 200 ft 10 ft x 125 ft	1,000 sq ft 1,250 sq ft
DuPont™ Tyvek® CommercialWrap® D	5 ft x 200 ft 10 ft x 125 ft	1,000 sq ft 1,250 sq ft

#### **Self-Adhered Flashing Products**

Product	Width
<b>DuPont™ FlexWrap™</b> (Formerly DuPont™ FlexWrap™ NF)	6 in, 9 in
<b>DuPont™ StraightFlash™</b>	4 in, 9 in
<b>DuPont™ VersaFlange™</b> (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*	28 oz

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

#### **Installation Accessories**

Product	Туре	Quantity
DuPont™ Adhesive/Primer	Can	13.5 oz
DuPont™ Tyvek® Tape	2" Bulk Pack 3" Bulk Pack	36 rolls/case 24 rolls/case
DuPont <sup>™</sup> Tyvek <sup>®</sup> Wrap Cap Fasteners		
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
Tower® Residential Sealant (formerly DuPont™ Residential Sealant)		

# Required Materials Based on Project Requirements, Details, and Specifications<sup>1</sup>

- Backer Rod
- Sealant<sup>2</sup>
- · Brushes for Surface Preparation
- I-Roller
- Trowels
- Rodenhouse Grip-Deck® screws with Thermal-Grip FastCap™ washers³

'Apply per manufacturers' guidelines. For non DuPont products, DuPont assumes no liability in use of recommended products; installers need to evaluate suitability of recommended products in their end-use applications.

<sup>2</sup>For information regarding chemically compatibility of sealants, see technical bulletin <u>Chemical Compatibility</u> of Representative Building Sealants and Adhesives/Primers.

³For information regarding installation of Rodenhouse fasteners, refer to the <u>DuPont™ Tyvek® Water-Resistive</u> and Air Barrier Installation Guidelines For Buildings Less Than 5 Stories and Low-Rise Multi-Family Residential <u>Buildings Less than 6 Stories</u>.

#### Warranty

Please refer to the <u>DuPont Building Envelope Solutions Products 10-Year Limited</u>
<u>Warranty for Buildings Less Than 5 Stories and Low-Rise Multi-Family Buildings Less</u>
<u>Than 6 Stories</u>. For buildings greater than 4 stories, please refer to the <u>DuPont Building</u>
<u>Envelope Solutions Products 10-Year Limited Warranty for Buildings Greater Than 4</u>
Stories.

**NOTE:** In order to make a claim under the DuPont Performance Building Solutions 10-Year Limited Product and Labor Warranty, you must have met all of the terms and conditions of the warranty, 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 outlined in this document must have been followed in order to make a claim under the warranty. It is in the sole discretion of DuPont to determine if full compliance with the Key Installation Requirements exists. Please contact DuPont or a DuPont Representative if you have any questions regarding any DuPont Installation Guideline.

### **Special Considerations**

- When performance requirements exceed ASTM E1677, 65 mph equivalent structural load and 15 mph equivalent wind-driven rain water infiltration for buildings less than 5 stories, it is recommended to install a high pressure skirt to help prevent water intrusion at the sill or threshold and follow the <u>DuPont™ Tyvek® Mechanically-Fastened Weather-Resistive Barrier Installation Guidelines For Buildings Greater Than 4 Stories and High Performance Installations of Any Height and the <u>DuPont Self-Adhered Flashing Systems Installation Guidelines For Buildings Greater Than 4 Stories and High Performance Installations of Any Height.</u>
  </u>
- 2. **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.
- 3. **DuPont Self-Adhered Flashing Products** perform best when installed at temperatures above 25°F (-4°C).
- 4. Adverse weather conditions or cold temperatures may require use of a primer to promote adhesion of **DuPont Self-Adhered Flashing Products** to most common building materials. Concrete, masonry, and fiber-faced exterior gypsum board require the use of **DuPont™ Adhesive/Primer** or recommended primer.
- 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 during installation of **DuPont** Self-Adhered Flashing Products.
- 6. Remove all wrinkles and bubbles by smoothing surface and repositioning as necessary.
- 7. **DuPont Self-Adhered Flashing Products** are not intended for through-wall flashing applications.

- 8. When flashing the sill area for windows and doors, DuPont recommends the use of 6" wide **DuPont™ FlexWrap™** for 2"x 4" framing and 9" wide **FlexWrap™** for 2" x 6" framing. When rigid back dams are required or desired, an option would be to use a ¾" corner guard (back dam) cut to the length of the sill and nail into place on the interior edge of the sill prior to installation of 9" wide **FlexWrap™**. Then install 9" wide **FlexWrap™** over sill and corner guard back dam.
- 9. **DO NOT STRETCH FlexWrap**™ when installing along sills or jambs. **FlexWrap**™ is only intended to be stretched when covering corners or curved sections.
- 10. Avoid placing **DuPont™ Tyvek® Wrap Cap Fasteners**, or recommended fasteners, where flashing will be installed; however, fasteners can be installed over the flashing.
- 11. Great Stuff Pro™ Window and Door Polyurethane Foam Sealant can be used in lieu of sealant to create a continuous seal around the interior perimeter of the window openings. When using Great Stuff Pro™ Window and Door Polyurethane Foam Sealant in perimeter openings less than ½", apply using the plastic extension tip for the Great Stuff™ Dispenser Gun during installation.
- 12. For high performance installations exceeding ASTM E1677 wind loading pressures (10.8 psf, 65 mph equivalent structural load) and ASTM E331 water infiltration resistance of 6.24 psf, it is necessary to install sealant over the cured foam when using **Great Stuff Pro™ Polyurethane Foam Sealant** or other recommended foam. Sealant should be installed over the foam between the window frame and rough opening around the entire interior perimeter. If **Great Stuff Pro™ Polyurethane Foam Sealant**, or other recommended foam, extends beyond the window frame, shave the excess cured foam flush with the window frame before applying sealant. Avoid damaging the **DuPont Self-Adhered Flashing**, **DuPont™ Tyvek® Fluid Applied Products** or **DuPont™ Tyvek® WRB**.
- 13. For extreme/coastal exposures installation of a high-pressure skirt is recommended to help prevent water intrusion at the sill or threshold.
- 14. For high pressure design loads, the use of **DuPont™ StraightFlash™** with **Tyvek® Wrap Cap Fasteners**, or recommended fasteners is required to secure the head flap of the windows.
- 15. Before applying **DuPont™ Tyvek® Tape**, surfaces should be dry and clean. During installation apply firm, even pressure with hand or "J" roller.
- 16. In lieu of temporarily taping, **Tyvek**® **WRB** flaps at window head and jambs can be tucked under the installed **Tyvek**® **WRB**.
- 17. Door and window rough sill framing must be level or slightly sloped to the exterior to ensure proper drainage to the exterior. This best practice ensures continuous support with positive slope to the exterior.
- 18. Packaged Terminal Air Conditioners (PTAC) units can be flashed in accordance with the non-flanged window section or with the **DuPont™ VersaFlange™** for brick mold window sections of this installation guideline.

### **Special Considerations (continued)**

- 19. Suitable substrates for **DuPont™ 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 Representative for use with pressure treated or fire retardant treated wood (FRT).
- 20. 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.
- 21. Uncured **Tyvek**® **Fluid Applied Products** must not come in contact with building wraps due to potential impact on performance properties.
- 22. **DuPont**™ **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.
- 23. **DuPont™ Tyvek® HomeWrap®**, **Tyvek® StuccoWrap®**, and/or **Tyvek® DrainWrap™** should not come in direct contact with cured or uncured **Tyvek® Fluid Applied Products**.
- 24. **Tyvek** Fluid Applied Products can be applied to damp surfaces. A surface is considered damp if there is no visible water on the surface and no transfer of water to the skin when touched.
- 25. **DuPont**™ **Tyvek**® **Fluid Applied Flashing and Joint Compound+** can be troweled or brushed to the required thickness in any application outlined in the guide.
- 26. **Tyvek**° **Fluid Applied Products** should be applied when air and surface temperatures are above 25°F. Do not install once the ambient temperature exceeds 95°F (35°C), unless the application surface is shaded. The maximum surface temperature for application is 140°F (60°C).
- 27. **Tyvek® Fluid Applied Products** may be overcoated once a tack-free skin has formed. Exterior insulation and/or exterior facade may be installed after **Tyvek® Fluid Applied Products** have cured for 48 hours. Please refer to Drying/Curing information in the <u>DuPont™ Tyvek® Fluid Applied WB+™ Wall and Substrate Guidelines</u>.
- 28.Performance testing, included but not limited to peel adhesion, pull strength analysis, field or third-party testing of air and/or water barrier properties, should be conducted after **Tyvek® Fluid Applied Products** are fully cured (~14 days).
- 29. **Tyvek® WRBs** must not come in direct contact with other manufacturers' cured or uncured fluid-applied and/or deck coating waterproofing products due to potential impact on performance properties. **StraightFlash**™ can be used as transitional membrane.

- 30. DuPont requires Tyvek® HomeWrap®, Tyvek® StuccoWrap®, and Tyvek® DrainWrap™ be covered within four months (120 days) of installation. DuPont requires Tyvek® CommercialWrap® and Tyvek® CommercialWrap® D and Tyvek® Fluid Applied Products be covered within nine months (270 days) of installation.
- 31. The maximum in-service temperature for Tyvek® WRBs, DuPont Self-Adhered Flashing Products, and Tyvek® Fluid Applied Products is 180°F.
- 32. Tower® Residential Sealant (formerly DuPont™ Residential Sealant) is designed for use with DuPont products and can be used where sealant is outlined in this guide. This change represents a branding change only—chemical composition and performance characteristics of the sealant are unchanged.
- 33. For details regarding flashing garage door openings, refer to <u>Installation Instructions</u> for Garage Doors Installed AFTER the <u>DuPont™ Tyvek® Water-Resistive and Air</u>
  <u>Barrier (WRB) is Installed for Buildings Less Than 5 Stories and Low-Rise Multi-</u>
  Family Residential Buildings Less Than 6 Stories.

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

### Key Installation Requirements for Drainable Window/Door Installation

When flashing windows or doors, the following principles must be followed:

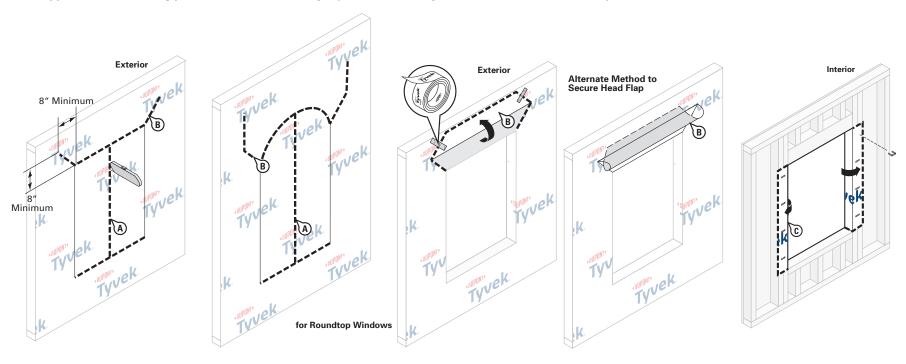
- When installed properly, DuPont™ StraightFlash™, DuPont™ VersaFlange™, DuPont™ FlexWrap™, and DuPont™ Flashing Tape provide nail sealability at window/door openings to help protect critical window-wall interfaces. Metal sill pan flashing may be used, but must not replace flexible sill flashing that provides nail sealability.
- **DuPont Self-Adhered Flashing Products** comply with AAMA 711-13, *Voluntary Specification for Self Adhering Flashing Used for Installation of Exterior Wall Fenestration Products*, which has a modified version of ASTM D 1970 and it is more representative for vertical wall applications.
- Tyvek® Fluid Applied Flashing and Joint Compound+ complies with AAMA 714-19,
   Voluntary Specification for Liquid Applied Flashing Used to Create a Water-Resistive
   Seal around Exterior Wall Openings in Buildings.
- Ensure that sill flashing does not slope to the interior. An exterior slope is recommended, but not required.
- Direct water onto an acceptable air and water barrier drainage plane with an
  unobstructed path to the exterior of the wall. Provide a drainage path for any water
  intrusion through the window/door attachment system that collects at the sill.
- Properly integrate flashing with acceptable DuPont<sup>™</sup> Tyvek<sup>®</sup> WRB. DuPont Self-Adhered Flashing Products must be applied with a minimum 2" lap onto the WRB.
- DuPont requires that FlexWrap<sup>™</sup>, FlexWrap<sup>™</sup> EZ, StraightFlash<sup>™</sup>, and VersaFlange<sup>™</sup> be covered within nine months (270 days) of installation. DuPont requires that DuPont<sup>™</sup> Flashing Tape be covered within four months (120 days) of installation.
- Properly prepare all surfaces (remove dirt, dust, or moisture, etc.) per manufacturer's recommendations.
- Barrier installations (full perimeter seal on exterior) are acceptable only in the following instances: Slab on grade doors, store front windows, or other systems with built-in drainage mechanisms that have potential for exposure to standing water
  - Surface barrier wall systems with non-water sensitive framing material (i.e., CMU walls)
  - Very low wind / rain exposure regions (southwest / desert) that follow AAMA
     2400 installation guideline

- Ensure that window / door and flashing system design takes into account common factors that will impact performance, such as:
  - Climate considerations: Rainfall, Wind, Temperature (hot / cold cycles), Humidity
  - Building design: Window / Wall Design (overhangs, recessed openings, bumpouts), Wall Assembly (wood frame or masonry), Window System (wood or vinyl), New Construction or Replacement Window drainage path
  - UV exposure prior to the construction of the exterior facade
  - Compliance with fire resistance code requirements. For more information about NFPA 285 compliant wall assemblies utilizing Tyvek® WRBs visit <u>building.dupont.com</u>.
- Field testing the window / door and wall installation as a complete system is a recommended best practice.
- · Use of trained installers is highly recommended.

#### 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. Ensure the sealant materials meet the installation temperature requirements of the sealant manufacturer. Refer to Chemical Compatibility of Representative Building Sealants and Adhesives/Primers for more information about chemical compatibility.

This method applies to the following products: DuPont™ Flashing Tape, DuPont™ StraightFlash™, and DuPont™ FlexWrap™



### STEP 1

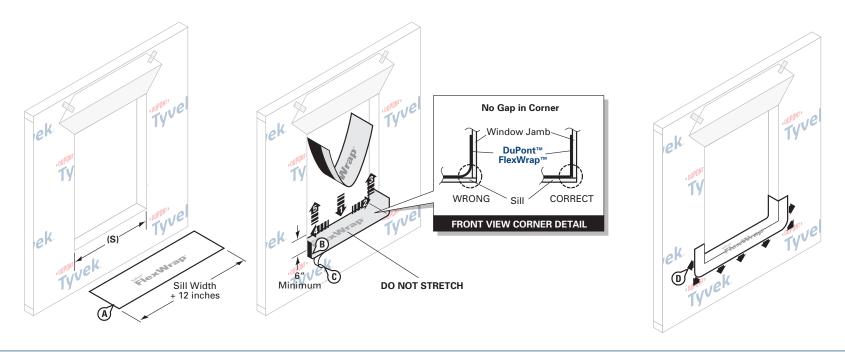
Prepare the Tyvek® WRB for window installation:

- A. Make an "I-Cut" (Standard I-Cut) in the **Tyvek® WRB** (modified I-Cut is also accepted). For an "I-Cut", begin with a horizontal cut across the bottom and the top of the window frame (for round top windows, the cut should begin above the mull joint). From the center, cut straight down to the sill.
- B. Cut two 45 degree slits a minimum of 8" extending from the corner of the window head, up and away from the window opening. This will create a flap above the rough opening to expose sheathing or framing members to allow head flashing installation (see step 4). Flip head flap up and temporarily secure with **DuPont**™ **Tyvek**® **Tape**.

**ALTERNATE METHOD TO SECURE HEAD FLAP**: In lieu of temporarily taping, the head flap can be tucked under the **Tyvek**° **WRB**.

**NOTE**: Some windows and flashing widths may require longer slits.

 Fold side flaps into rough opening and secure to inside wall. Cut off excess flaps if desired.

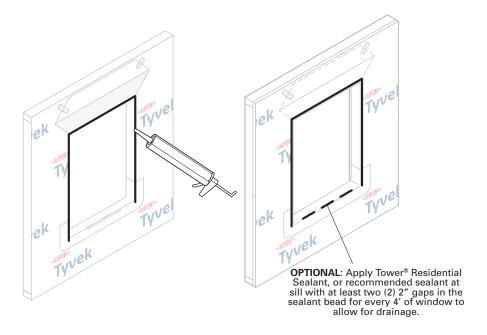


### STEP 2

- A. Cut **DuPont™ FlexWrap™** at least 12″ **LONGER** than width of rough opening sill (S). Use roll widths sufficient to achieve a minimum of 1″ adhesion **BEYOND** where the window frame will be located, ensuring 2″− 3″ adhesion onto the face of the wall.
- B. Remove wide piece of release paper. Position on horizontal sill by aligning the inside edge of the narrow release paper with the face of the wall to ensure 2"–3" of the **FlexWrap**" will be adhered to the face of the wall with a minimum of 6" up each jamb. Adhere into rough opening.
- C. Remove narrow release paper.
- D. Fan out the **FlexWrap**<sup>™</sup> at corners and adhere onto face of wall. Continue adhering onto face of wall along sill. Coverage of **FlexWrap**<sup>™</sup> should be 2″– 3″ onto the face of the wall.

### Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont<sup>™</sup> Tyvek<sup>®</sup> WRB

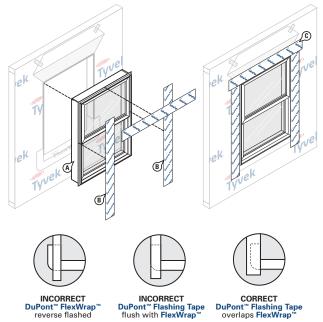
**Integral Flanged Window** 



### STEP 3

Apply Tower® Residential Sealant, or recommended sealant, on three sides (jambs and head) as shown above.

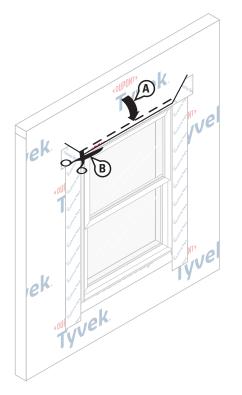
#### For Rectangular Windows

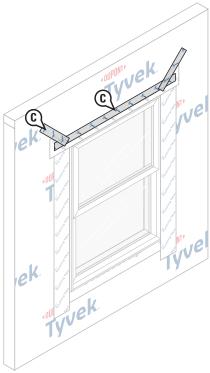


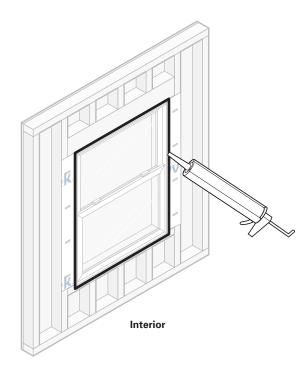
#### STEP 4

- A. Install window according to manufacturer's instructions.
- B. Cut two pieces of DuPont™ Flashing Tape or DuPont™ StraightFlash™ for jamb flashing extending 1" above window head flange and below bottom edge of sill flashing. Remove release paper and press tightly along sides of window frame. OPTIONAL: If installing a drip cap as part of the window installation before the DuPont Self-Adhered Flashing membrane at the window head flange, see Drip Cap Installation Section and refer to Option 1. NOTE: The vertical leg of the drip cap must not be taller than the window head flange when installing drip cap according to Option 1.
- C. Cut a piece of **DuPont™ Flashing Tape** or **StraightFlash™** for head flashing long enough to extend beyond outer edges of jamb flashings. Remove release paper and install completely covering flange and adhering to exposed sheathing or framing members. **OPTIONAL**: If installing a drip cap as part of the window installation, but after the window head flashing, see *Drip Cap Installation Section* and refer to Option 2.

**NOTE**: Ensure proper shingling. **DuPont™ Flashing Tape** or **StraightFlash™** at jambs must overlap the **DuPont™ FlexWrap™** at the sill and adhere to the **Tyvek® WRB** below the sill.







#### STFP 5

- A. Flip down upper flap of **Tyvek® WRB** so it lays flat across head flashing.
- B. Cut ~1" strip of the **Tyvek**® **WRB** at lower horizontal edge of head flap.
- C. At the head, continuous tape seams as shown with DuPont™ Tyvek® Tape or DuPont™ Flashing Tape. DO NOT TAPE at bottom of window.

**NOTE**: Skip-taping at head with a maximum of two (2) 2" gaps for every 3' of window is acceptable if an air barrier is not required or if additional drainage is desired.

**OPTIONAL**: If installing a drip cap AFTER the **Tyvek**° **WRB** head flap is flipped down and sealed, see *Drip Cap Installation Section* and refer to Option 3.

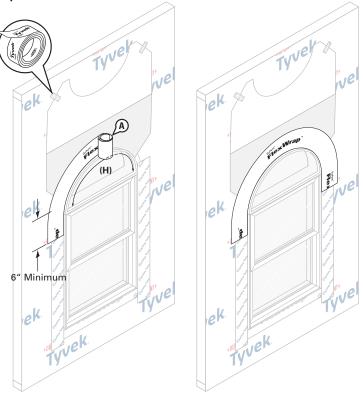
#### STEP 6

Final Step

Install Tower® Residential Sealant or recommended sealant (and backer rod as necessary) around the window opening at the interior. It is also acceptable to use **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant**, or recommended foam. When using Tower® Residential Sealant, tool sealant bead flat to allow the natural curing process to create a concave shape. Be sure that the sealant penetrates the grooves of the **DuPont™ FlexWrap™** around the sill. When using **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant** in perimeter openings less than 1/2", apply using the plastic extension tip for the **Great Stuff Pro™ Dispensing Gun** during installation.

**NOTE**: Installations that specify a window/door design rating of DP45 or greater require extra precautions. See *Special Considerations* for performance requirements exceeding this design rating.

#### For Roundtop Windows

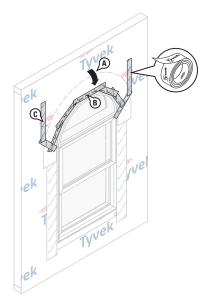


#### STFP 4

**NOTE**: Follow rectangular window instructions (Steps 1 through 4B) for proper installation of sill and jamb flashing prior to head flashing installation.

Install head flashing

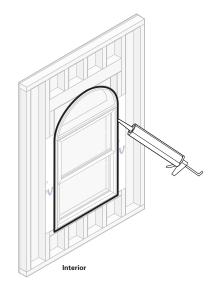
- A. Cut **DuPont™ FlexWrap™** head flashing at least 12" longer than the arc length (H) of round-top window.
- B. Remove both release papers and install to conform around top of window, covering entire mounting flange and adhering to exposed sheathing or framing members. Head flashing should overlap jamb flashings by at least 6".



### STEP 5

- A. Flip down upper flap of **Tyvek® WRB** so it lays flat across head flashing.
- B. Cut ~1" strip of the Tyvek® WRB at lower horizontal edge of head flap.
- C. Tape seams as shown. **DO NOT TAPE** at bottom of window. At the head, continuous tape seams as shown with **DuPont™ Tyvek® Tape**. Skip-taping at the head is acceptable if an air barrier is not required or if additional drainage is desired.

**NOTE**: Installations that specify a window/door design rating of DP45 or greater require extra precautions. See *Special Considerations* for performance requirements exceeding this design rating.



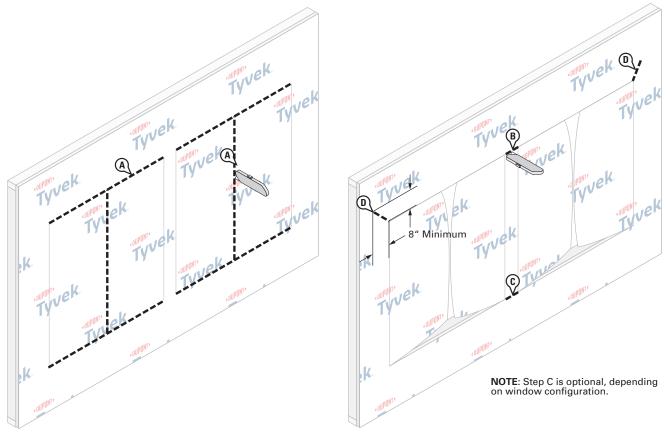
#### STEP 6

Final Step

Install Tower® Residential Sealant or recommended sealant (and backer rod as necessary) around the window opening at the interior. It is also acceptable to use Great Stuff Pro™ Window & Door Polyurethane Foam Sealant, or recommended foam. When using Tower® Residential Sealant, tool sealant bead flat to allow the natural curing process to create a concave shape. Be sure that the sealant penetrates the grooves of the **FlexWrap**™ around the sill. When using **Great Stuff Pro**™ **Window & Door** Polyurethane Foam Sealant in perimeter openings less than 1/2", apply using the plastic extension tip for the Great Stuff **Pro**<sup>™</sup> **Dispensing Gun** during installation.

Option 1 – When Using Tyvek® WRB at Sheathing/Framing Separating Adjacent Windows

This method applies to DuPont™ Flashing Tape, DuPont™ StraightFlash™, and DuPont™ FlexWrap™



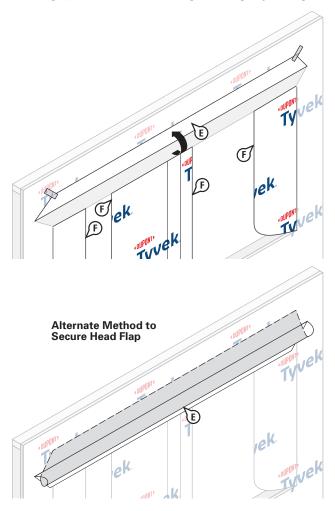
#### STEP 1

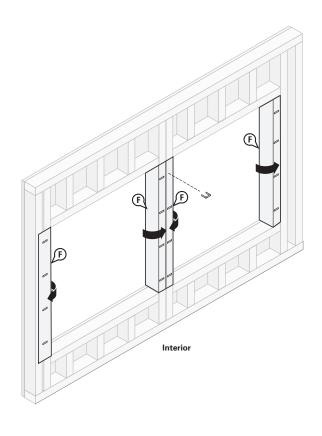
Prepare **Tyvek**® **WRB** for window installation:

- A. Make "I-Cuts" (Standard I-Cut) in the **Tyvek® WRB** (modified I-Cuts are also accepted) for each adjacent window rough opening. For an "I-Cut", begin with a horizontal cut across the bottom and the top of the window frame. From the center, cut straight down to the sill.
- B. Cut the **Tyvek® WRB** along the top of the shared window framing and/or sheathing to connect the "I-Cuts" as shown.
- C. OPTIONAL: For some applications, it may be practical to remove the Tyvek® WRB covering the shared sheathing/framing. Cut the Tyvek® WRB along the bottom of the shared window framing and/or sheathing to connect the "I-Cuts" and remove the Tyvek® WRB to expose the vertical sheathing/framing (see OPTIONAL Step 2).
- D. Cut two 45 degree slits a minimum of 8" extending from each outside corners of the window rough openings, up and away from the window opening. This will create a flap above the adjacent window rough openings to expose sheathing or framing members to allow head flashing installation (see Step 5).

NOTE: Some windows and flashing widths may require longer slits.

Option 1 – When Using Tyvek® WRB at Sheathing/Framing Separating Adjacent Windows





### STEP 1 - CONTINUED

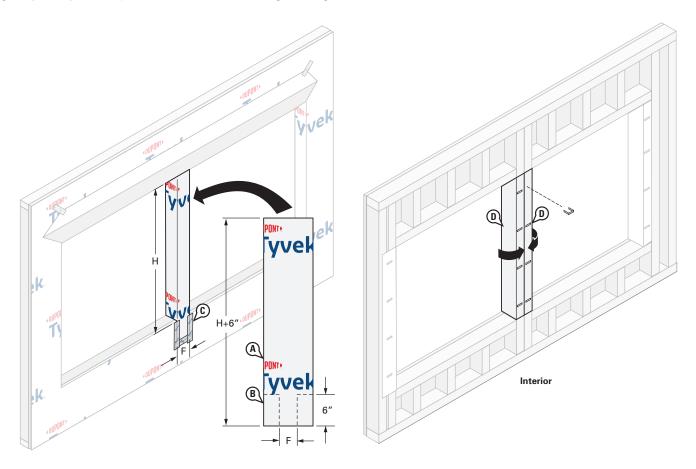
E. Flip head flap up and temporarily secure with **DuPont™ Tyvek® Tape**.

**ALTERNATE METHOD TO SECURE HEAD FLAP**: In lieu of temporarily taping, the head flap can be tucked under the **Tyvek**°**WRB**.

F. Fold the flaps into rough opening and secure to inside wall. Cut off excess flaps if desired.

#### Option 1 - When Using Tyvek® WRB at Sheathing/Framing Separating Adjacent Windows

Follow STEP 2 when using a separate piece of Tyvek® WRB to cover sheathing/framing between the window.

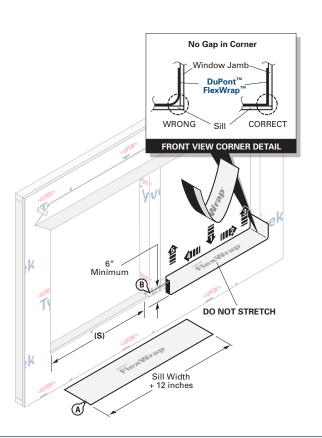


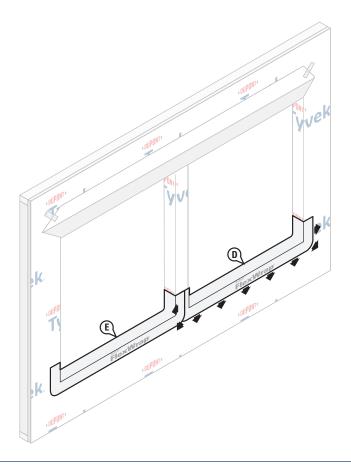
### OPTIONAL STEP 2 - FOLLOW IF TYVEK® WRB WAS REMOVED FROM CENTER SHEATHING/FRAMING PER STEP 1C.

Preparation of framing/sheathing separating adjacent windows using Tyvek® WRB.

- A. Cut a piece of **Tyvek® WRB** wide enough to cover the framing/sheathing between windows when wrapped into the window rough openings and 6" longer than the height of the rough opening.
- B. Cut corners to create side flaps that will fold into adjacent window rough openings with 6" of the **Tyvek**° **WRB** piece extending below the rough openings.
- C. Install Tyvek® WRB piece onto the framing/sheathing between windows. Do not install fasteners within 6" of the rough openings. DuPont™ Tyvek® Tape may be used if necessary to hold Tyvek® WRB piece in place. Seal vertical seams below window with Tyvek® Tape.
- D. Fold the two side flaps into rough opening, and secure. Cut off excess flaps if necessary.

Option 1 - When Using Tyvek® WRB at Sheathing/Framing Separating Adjacent Windows



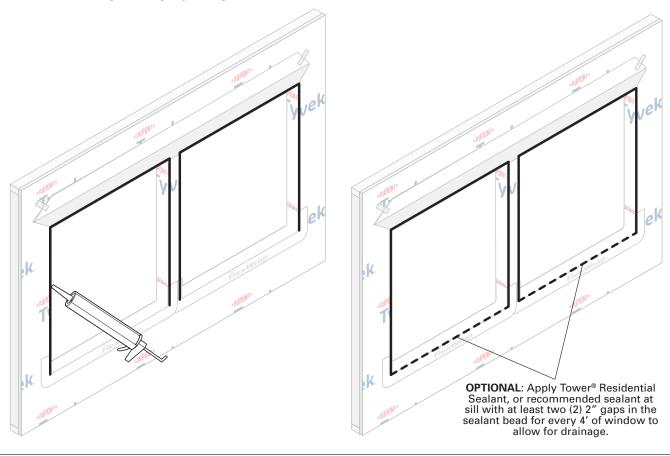


#### STFP 3

- A. Cut 2 pieces of **DuPont™ FlexWrap™** at least 12″ **LONGER** than width of rough opening sill (S). Use roll widths sufficient to achieve a minimum of 1″ adhesion **BEYOND** where the window frame will be located, ensuring 2″− 3″ adhesion onto the face of the wall.
- B. Remove wide piece of release paper from the first piece of **FlexWrap**<sup>™</sup>. Position on horizontal sill by aligning the inside edge of the narrow release paper with the face of the wall to ensure 2″–3″ of the **FlexWrap**<sup>™</sup> will be adhered to the face of the wall with a minimum of 6″ up each jamb. Adhere into rough opening.
- C. Remove narrow release paper from the **FlexWrap**™.

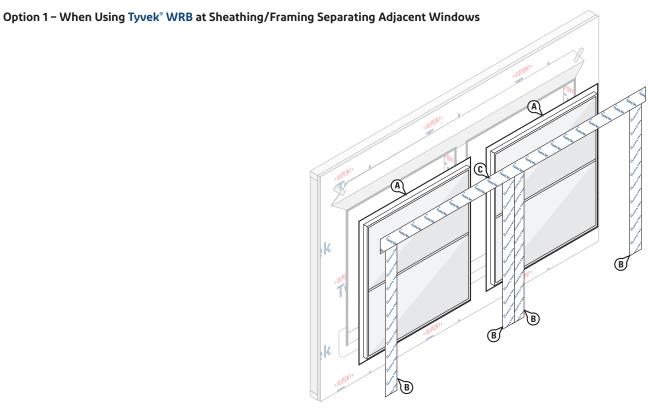
- D. Fan out the **FlexWrap**™ at bottom corners onto face of wall and framing/sheathing between windows. Coverage of **FlexWrap**™ should be 2″ 3″ onto the face of the wall.
- E. Repeat Steps B-D for second window. **NOTE**: The **FlexWrap**™ installed in the second window may overlap the **FlexWrap**™ installed in the first window at the vertical exposed sheathing/framing separating the windows.

Option 1 - When Using Tyvek® WRB at Sheathing/Framing Separating Adjacent Windows



#### STEP 4

Apply Tower® Residential Sealant, or recommended sealant, on three sides (jambs and head) of each window as shown above.



### STEP 5

- A. Install windows according to manufacturer's instructions.
- B. Cut four pieces of **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** for jamb flashing extending 1″ above window head flanges and below bottom edge of sill flashing. Remove release paper and press tightly along sides of window frame. **NOTE**: The **DuPont Self-Adhered Flashing Product** for the inside jamb flashing of one window may overlap the **DuPont™ Flashing Tape** or **StraightFlash™** on the inside jamb of the other window.

**NOTE:** If the inside jamb flanges of the two windows are sufficiently close, it is acceptable to use a single piece of **DuPont™ Flashing Tape** or **StraightFlash™** to cover both inside jamb flanges. Select roll width wide enough to fully cover both jamb flanges.

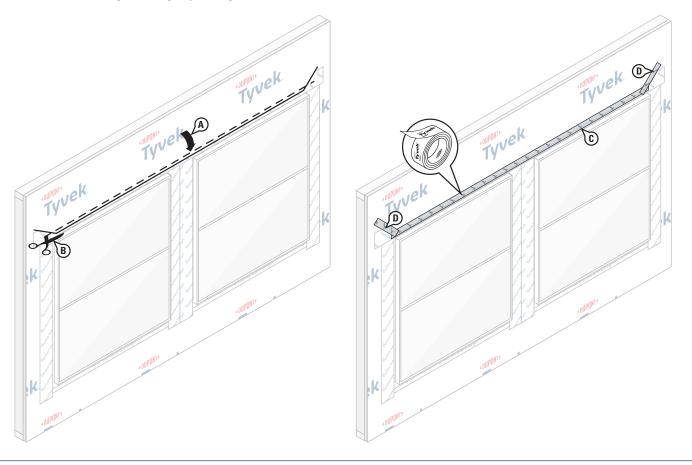
**OPTIONAL**: If installing a drip cap as part of the window installation before the **DuPont Self-Adhered Flashing** membrane at the window head flange, see *Drip Cap Installation Section* and refer to Option 1. The vertical leg of the drip cap must not be taller than the window head flange when installing drip cap according to Option 1.

C. Cut a piece of **DuPont™ Flashing Tape** or **StraightFlash™** for head flashing long enough to extend beyond edges of flashing at outer jambs. Remove release paper and adhere to head flanges, extending onto sheathing. The **DuPont Self-Adhered Flashing** membrane over the window must extend beyond the top edge of the DuPont self-adhered flashing membrane previously installed between windows.

**NOTE**: Ensure proper shingling. **DuPont**<sup>™</sup> **Flashing Tape** or **StraightFlash**<sup>™</sup> at jambs must overlap the **DuPont**<sup>™</sup> **FlexWrap**<sup>™</sup> at the sill and adhere to the **Tyvek**<sup>®</sup> **WRB** below the sill.

**OPTIONAL**: If installing a drip cap as part of the window installation, but after the window head flashing, see *Drip Cap Installation Section* and refer to Option 2.

Option 1 - When Using Tyvek® WRB at Sheathing/Framing Separating Adjacent Windows



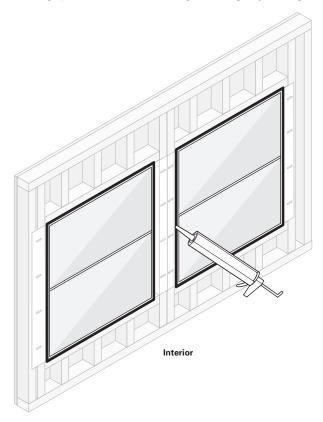
#### STEP 6

- A. Flip down upper flap of Tyvek® WRB so it lays flat across head flashing.
- B. Cut ~1" strip of the **Tyvek**® **WRB** at lower horizontal edge of head flap.
- C. Tape seams as shown. **DO NOT TAPE** at bottom of window. At the head, continuous tape seams as shown with **DuPont™ Tyvek® Tape**. Skip-taping at the head is acceptable if an air barrier is not required or if additional drainage is desired.

D. Tape down diagonal seams of the **Tyvek**® **WRB**.

**OPTIONAL**: If installing a drip cap AFTER the **Tyvek® WRB** head flap is flipped down and sealed, see *Drip Cap Installation Section* and refer to Option 3.

Option 1 - When Using Tyvek® WRB at Sheathing/Framing Separating Adjacent Windows



### STEP 7

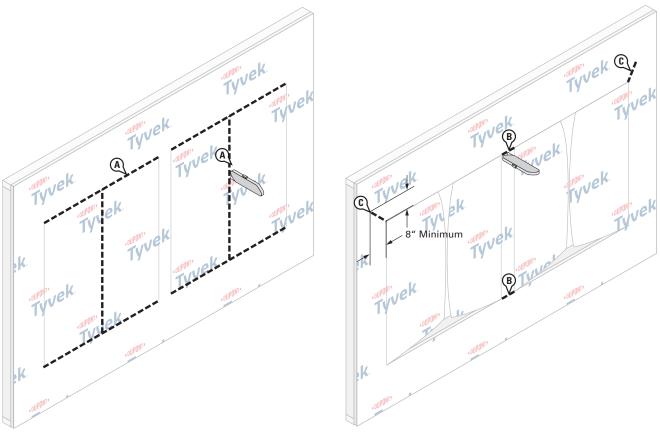
Final Step

Install Tower® Residential Sealant or recommended sealant (and backer rod as necessary) around the window opening at the interior. It is also acceptable to use **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant**, or recommended foam. When using Tower® Residential Sealant, tool sealant bead flat to allow the natural curing process to create a concave shape. Be sure that the sealant penetrates the grooves of the **DuPont™ FlexWrap™** around the sill. When using **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant** in perimeter openings less than 1/2", apply using the plastic extension tip for the **Great Stuff Pro™ Dispensing Gun** during installation.

**NOTE**: Installations that specify a window/door design rating of DP45 or greater require extra precautions. See *Special Considerations* for performance requirements exceeding this design rating.

Option 2 – When using DuPont Self-Adhered Flashing Products at Sheathing/Framing Separating Adjacent Windows

This method applies to DuPont™ Flashing Tape, DuPont™ StraightFlash™, and DuPont™ FlexWrap™



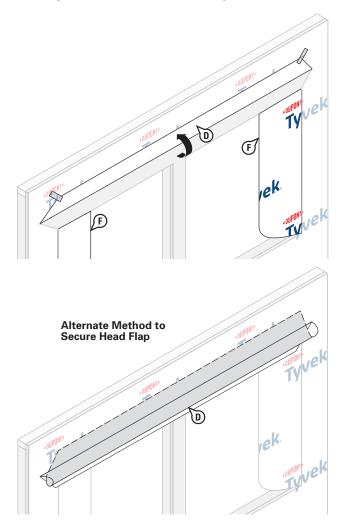
### STEP 1

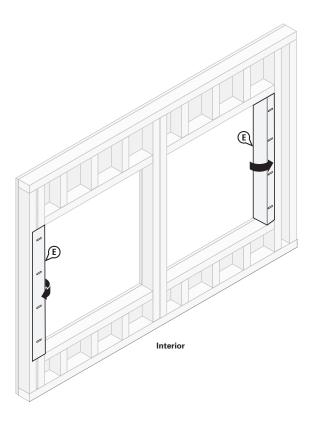
Prepare Tyvek® WRB for window installation:

- A. Make "I-Cuts" (Standard I-Cut) in the **Tyvek® WRB** (modified I-Cuts are also accepted) for each adjacent window rough opening. For an "I-Cut", begin with a horizontal cut across the bottom and the top of the window frame. From the center, cut straight down to the sill.
- B. Cut the **Tyvek® WRB** along the top and bottom of the shared window framing and/ or sheathing to connect the top and bottom of the "I-Cuts" as shown. Remove the **Tyvek® WRB** to expose the vertical sheathing/framing.
- C. Cut two 45 degree slits a minimum of 8" extending from each outside corners of the window rough openings, up and away from the window opening. This will create a flap above the adjacent window rough openings to expose sheathing or framing members to allow head flashing installation (see step 5).

**NOTE**: Some windows and flashing widths may require longer slits.

Option 2 - When using DuPont Self-Adhered Flashing Products at Sheathing/Framing Separating Adjacent Windows





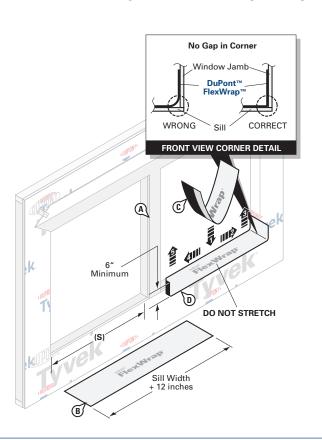
### STEP 1 – CONTINUED

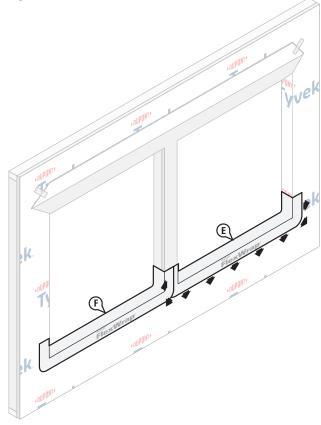
D. Flip head flap up and temporarily secure with **DuPont™ Tyvek® Tape**.

**ALTERNATE METHOD TO SECURE HEAD FLAP**: In lieu of temporarily taping, the head flap can be tucked under the **Tyvek**°**WRB**.

E. Fold side flaps into rough opening and secure to inside wall. Cut off excess flaps if desired.

Option 2 - When using DuPont Self-Adhered Flashing Products at Sheathing/Framing Separating Adjacent Windows



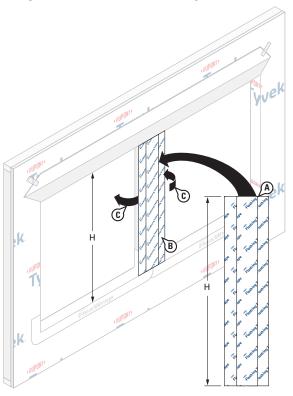


#### STEP 2

- A. Follow Step 1B to remove **Tyvek**® **WRB** from shared sheathing/framing between windows.
- B. Cut 2 pieces of **DuPont** FlexWrap at least 12" LONGER than width of rough opening sill (S). Use roll widths sufficient to achieve a minimum of 1" adhesion **BEYOND** where the window frame will be located, ensuring 2"–3" adhesion onto the face of the wall.
- C. Remove wide piece of release paper from the first piece of **FlexWrap**<sup>™</sup>. Position on horizontal sill by aligning the inside edge of the narrow release paper with the face of the wall to ensure 2″− 3″ of the **FlexWrap**<sup>™</sup> will be adhered to the face of the wall with a minimum of 6″ up each jamb. Adhere into rough opening.

- D. Remove narrow release paper from the **FlexWrap**™.
- E. Fan out the **FlexWrap**™ at bottom corners onto face of wall and framing/sheathing between windows. Coverage of **FlexWrap**™ should be 2″-3″ onto the face of the wall.
- F. Repeat Steps B–D for second window. **NOTE**: The **FlexWrap**™ installed in the second window may overlap the **FlexWrap**™ installed in the first window at the vertical exposed sheathing/framing separating the windows.

Option 2 - When using DuPont Self-Adhered Flashing Products at Sheathing/Framing Separating Adjacent Windows

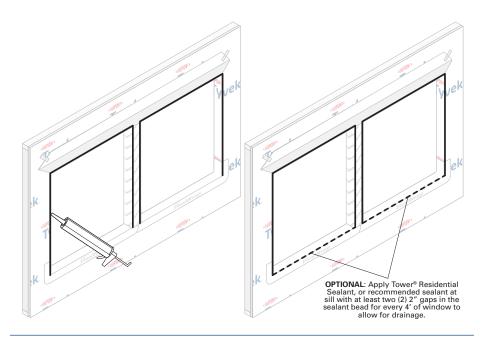


### STEP 3

A. Cut a piece of 9" wide **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** 4" longer than the height of the rough opening.

**NOTE:** For adjacent windows separated by a wider shared sheathing/framing, two overlapping pieces of **DuPont Flashing Tape** or **StraightFlash** may be required. When the flashing is folded into the opening per Step C. below, it should extend minimum 1" beyond where the window frame will be located.

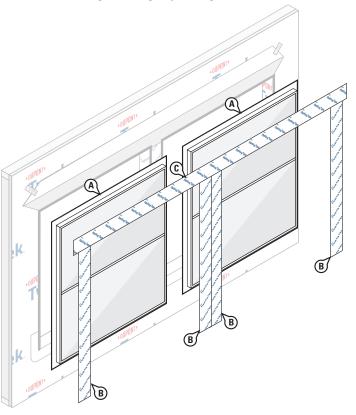
- B. Remove release paper and center the **DuPont**™ **Flashing Tape** or **StraightFlash**™ onto the face of the vertical exposed framing/sheathing with the bottom edge aligned with the sill rough opening. Adhere the exposed butyl onto the face of the vertical exposed framing sheathing.
- C. Fold the resulting **DuPont™ Flashing Tape** or **StraightFlash™** flaps into the rough opening and adhere.



### STEP 4

Apply Tower® Residential Sealant, or recommended sealant, on three sides (jambs and head) of each window as shown above.

Option 2 - When using DuPont Self-Adhered Flashing Products at Sheathing/Framing Separating Adjacent Windows



#### STEP 5

A. Install windows according to manufacturer's instructions.

B. Cut four pieces of **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** for jamb flashing extending 1" above window head flanges and below bottom edge of sill flashing. Remove release paper and press tightly along sides of window frame. **NOTE**: The **DuPont™ Flashing Tape** or **StraightFlash™** for the inside jamb flashing of one window may overlap the **DuPont™ Flashing Tape** or **StraightFlash™** on the inside jamb of the other window.

**NOTE:** If the inside jamb flanges of the two windows are sufficiently close, it is acceptable to use a single piece of **DuPont™ Flashing Tape** or **StraightFlash™** to cover both inside jamb flanges. Select roll width wide enough to fully cover both jamb flanges.

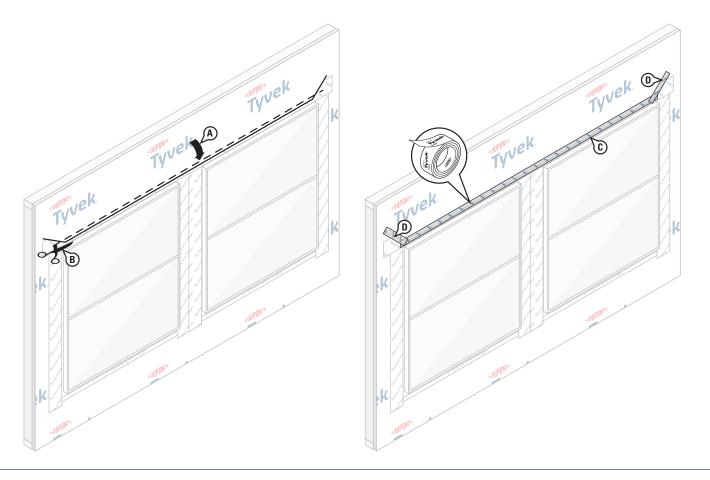
**OPTIONAL**: If installing a drip cap as part of the window installation before the DuPont self-adhered flashing membrane at the window head flange, see *Drip Cap Installation Section* and refer to Option 1. The vertical leg of the drip cap must not be taller than the window head flange when installing drip cap according to Option 1.

C. Cut a piece of **DuPont™ Flashing Tape** or **StraightFlash™** for head flashing long enough to extend beyond edges of flashing at outer jambs. Remove release paper and adhere to head flanges, extending onto sheathing. **DuPont Self-Adhered Flashing Product** over the window must extend beyond the top edge of the DuPont Self-Adhered Flashing Product membrane previously installed between windows.

**NOTE**: Ensure proper shingling. **DuPont**<sup>™</sup> **Flashing Tape** or **StraightFlash**<sup>™</sup> at jambs must overlap the **DuPont**<sup>™</sup> **FlexWrap**<sup>™</sup> at the sill and adhere to the **Tyvek**<sup>®</sup> **WRB** below the sill.

**OPTIONAL**: If installing a drip cap as part of the window installation, but after the window head flashing, see *Drip Cap Installation Section* and refer to Option 2.

Option 2 - When using DuPont Self-Adhered Flashing Products at Sheathing/Framing Separating Adjacent Windows



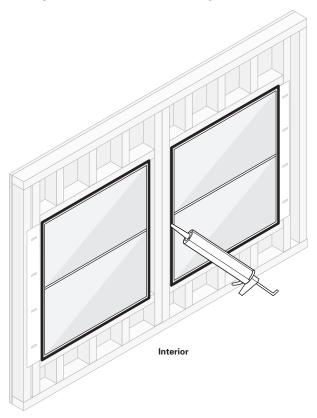
### STEP 6

- A. Flip down upper flap of **Tyvek® WRB** so it lays flat across head flashing.
- B. Cut ~1" strip of the **Tyvek**® **WRB** at lower horizontal edge of head flap.
- C. Tape seams as shown. **DO NOT TAPE** at bottom of window. At the head, continuous tape seams as shown with **DuPont™ Tyvek® Tape**. Skip-taping at the head is acceptable if an air barrier is not required or if additional drainage is desired.

D. Tape down diagonal seams of the **Tyvek**® **WRB**.

**OPTIONAL**: If installing a drip cap AFTER the **Tyvek**° **WRB** head flap is flipped down and sealed, see *Drip Cap Installation Section* and refer to Option 3.

Option 2 - When using DuPont Self-Adhered Flashing Products at Sheathing/Framing Separating Adjacent Windows



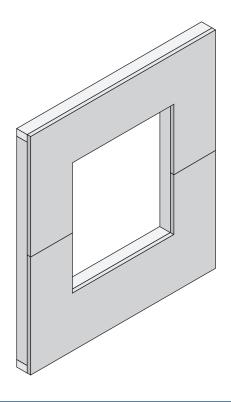
### STEP 7

Final Step

Install Tower® Residential Sealant or recommended sealant (and backer rod as necessary) around the window opening at the interior. It is also acceptable to use **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant**, or recommended foam. When using Tower® Residential Sealant, tool sealant bead flat to allow the natural curing process to create a concave shape. Be sure that the sealant penetrates the grooves of the **DuPont™ FlexWrap™** around the sill. When using **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant** in perimeter openings less than 1/2", apply using the plastic extension tip for the **Great Stuff Pro™ Dispensing Gun** during installation.

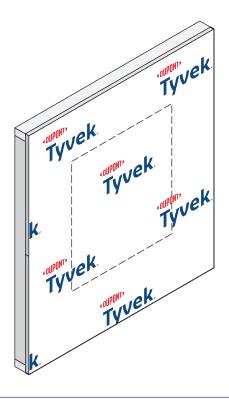
**NOTE**: Installations that specify a window/door design rating of DP45 or greater require extra precautions. See *Special Considerations* for performance requirements exceeding this design rating.

Method applies to following products DuPont™ Flashing Tape, DuPont™ StraightFlash™, and DuPont™ FlexWrap™



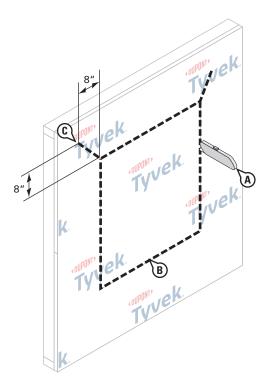
### STEP 1

Cut rough opening in sheathing for window. Ensure that sheathing is cut flush with, or slightly below the sill framing to allow for positive drainage.



### STEP 2

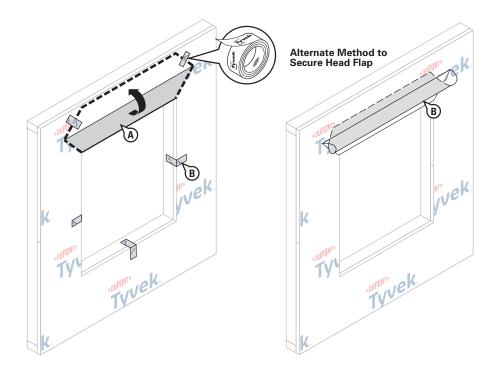
Wrap wall as shown in <u>DuPont™ Tyvek® Water-Resistive and Air Barrier (WRB)</u>
<u>Installation Guidelines for Buildings Less Than 5 Stories and Low-Rise Multi-Family Residential Buildings Less Than 6 Stories</u> that can be found at <u>building.dupont.com</u>. Do not install fasteners within 6" of the sills and jambs of the openings and within 9" of the head of the openings.



#### STEP 3

Prepare the **DuPont™ Tyvek® WRB** for window installation.

- A. Cut an opening in the **Tyvek® WRB** using a square cut around the perimeter of the rough opening.
- B. Cuts should be made along the dashed indicated lines. (Ensure that the **Tyvek® WRB** is cut flush with the sheathing and is not wrapped into the rough opening.)
- C. Cut a head flap at a 45° angle to expose 8" of sheathing to allow for head flashing installation.

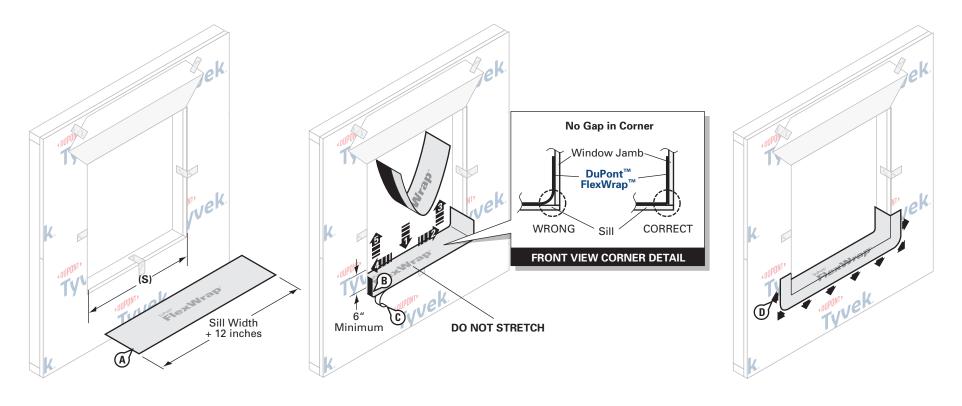


### STEP 4

- A. Flip the head flap up to expose the sheathing and temporarily secure with tape.
- B. Temporarily secure the **Tyvek**° **WRB** with **Tyvek**° **Tape** around rough opening before flashing is installed to help facilitate flashing installation.

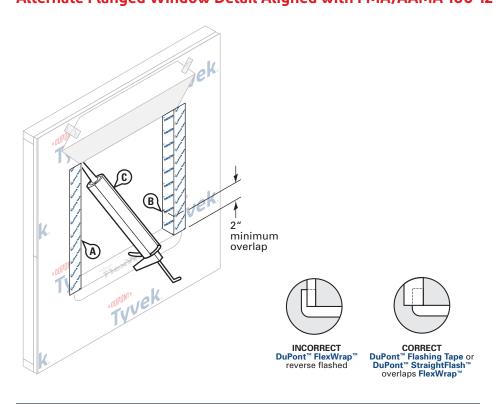
**ALTERNATE METHOD TO SECURE HEAD FLAP**: In lieu of temporarily taping, the head flap can be tucked under the **Tyvek**° **WRB**.

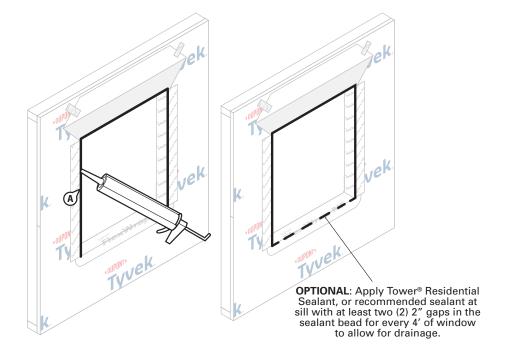
**NOTE**: Some windows and flashing widths may require longer slits.



#### STEP 5

- A. Cut **DuPont™ FlexWrap™** at least 12″ LONGER than width of rough opening sill (S). Use roll widths sufficient to achieve a minimum of 1″ adhesion BEYOND where the window frame will be located, ensuring 2″–3″ adhesion onto the face of the wall.
- B. Remove wide piece of release paper. Position on horizontal sill by aligning the inside edge of the narrow release paper with the face of the wall to ensure 2"–3" of the **FlexWrap**" will be adhered to the face of the wall with a minimum of 6" up each jamb. Adhere into rough opening.
- C. Remove narrow release paper.
- D. Fan out **FlexWrap**™ at corners and adhere onto face of wall. Continue adhering onto face of wall along sill. Coverage of **FlexWrap**™ should be 2″–3″ onto the face of the wall.



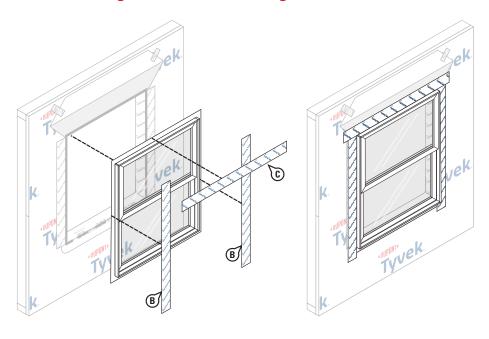


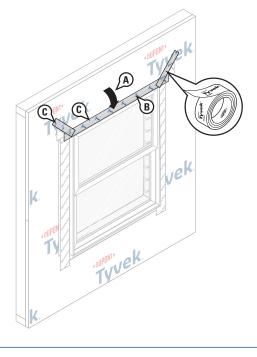
### STEP 6

- A. Install **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** into the rough opening at each jamb and onto wall face. The flashing does not need to align with the interior edge of the jamb framing. Cut the jamb flashing the vertical length of the rough opening.
- B. Jamb flashing should be long enough to overlap the sill flashing by at least 2".
- C. Apply Tower® Residential Sealant, or recommended sealant, to inside corners of rough opening at jamb/head.

#### STEP 7

Apply Tower® Residential Sealant, or recommended sealant, on three sides (jambs and head) as shown above.





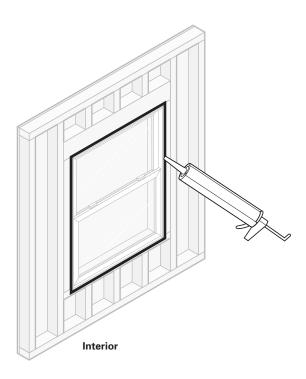
#### STEP 8

- A. Install window according to manufacturer's instructions.
- B. Cut two pieces of **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** for jamb flashing extending 1" above window head flange and 4" to 6" below bottom edge of sill flashing. Remove release paper and press tightly along sides of window frame.
- C. Cut a piece of **DuPont™ Flashing Tape** or **StraightFlash™** for head flashing, which extends beyond outer edges of jamb flashings. Remove release paper and install completely covering mounting flange and adhering to exposed sheathing or framing members.

#### STEP 9

- A. Flip down upper flap of **DuPont™ Tyvek® WRB** so it lays flat across head flashing.
- B. Cut ~1" strip of the  $Tyvek^{\circ}$  WRB at lower horizontal edge of head flap.
- C. At the head, continuous tape seams as shown with **DuPont™ Tyvek® Tape**. DO NOT TAPE at bottom of window.

**NOTE**: Skip-taping at head with a maximum of two (2) 2" gaps for every 3' of window is acceptable if an air barrier is not required or if additional drainage is desired.



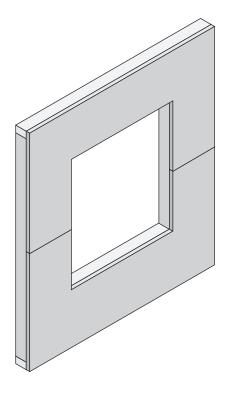
### STEP 10

Final Step

Install Tower® Residential Sealant or recommended sealant (and backer rod as necessary) around the window opening at the interior. It is also acceptable to use **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant**, or recommended foam. When using Tower® Residential Sealant, tool sealant bead flat to allow the natural curing process to create a concave shape. Be sure that the sealant penetrates the grooves of the **DuPont™ FlexWrap™** around the sill. When using **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant** in perimeter openings less than 1/2", apply using the plastic extension tip for the **Great Stuff Pro™ Dispensing Gun** during installation.

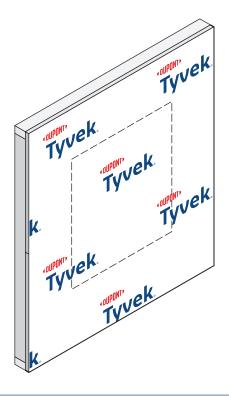
**NOTE**: Installations that specify a window/door design rating of DP45 or greater require extra precautions. See *Special Considerations* for performance requirements exceeding this design rating.

Method applies to following products, DuPont™ StraightFlash™, DuPont™ FlexWrap™, and DuPont™ Flashing Tape



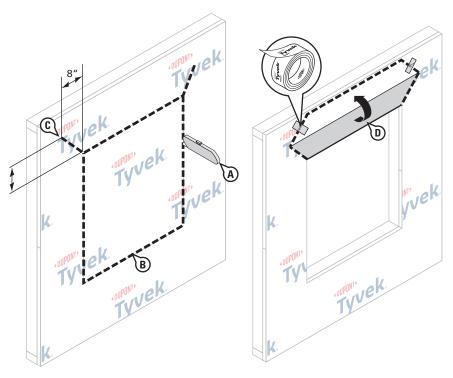
### STEP 1

Cut rough opening in sheathing for window. Ensure that sheathing is cut flush with, or slightly below the sill framing to allow for positive drainage.



### STEP 2

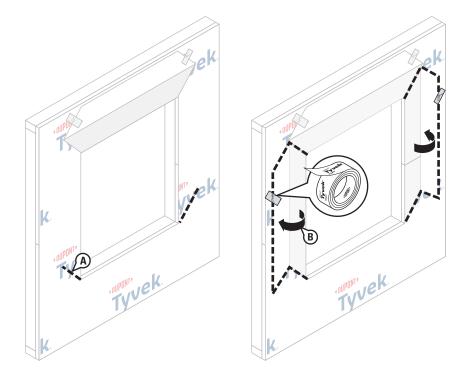
Wrap wall as shown in <u>DuPont™ Tyvek® Water-Resistive</u> and Air Barrier (WRB). <u>Installation Guidelines for Buildings Less Than 5 Stories and Low-Rise Multi-Family Residential Buildings Less Than 6 Stories</u> that can be found at <u>building.dupont.com</u>. Do not install fasteners within 6" of the sills and jambs of the openings and within 9" of the head of the openings.





Prepare the **DuPont™ Tyvek® WRB** for window installation.

- A. Cut an opening in the **Tyvek® WRB** using a square cut around the perimeter of the rough opening.
- B. Cuts should be made along the dashed indicated lines. (Ensure that the **Tyvek® WRB** is cut flush with the sheathing and is not wrapped into the rough opening.)
- C. Cut a head flap at a 45° angle to expose 8" of sheathing to allow for head flashing installation.
- D. Flip the head flap up to expose the sheathing and temporarily secure with **DuPont™**Tyvek® Tape.

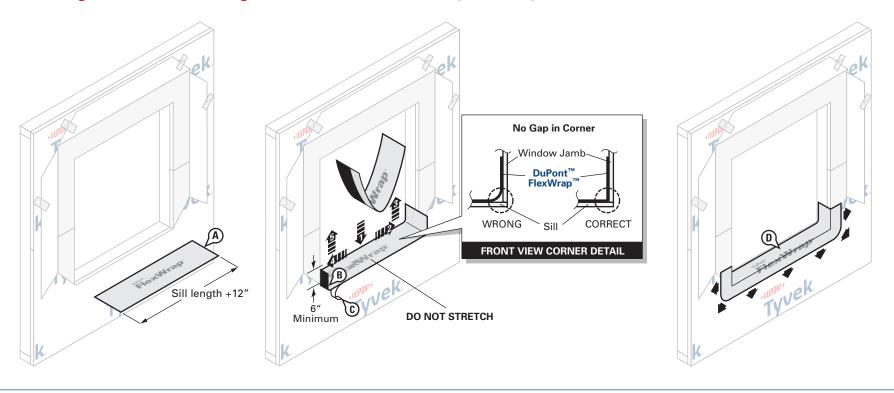


#### STEP 4

- A. Cut two 45° slits extending from the bottom corner up and away from the window opening to expose approximately 8" of sheathing. This will create a flap at each jamb to allow for jamb flashing installation.
- B. Flip the flaps to the side to expose the sheathing and temporarily secure with **Tyvek**® **Tape**.

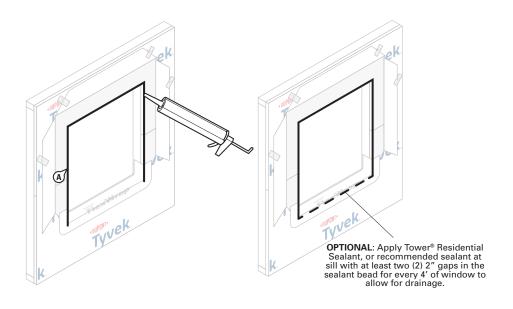
**ALTERNATE METHOD TO SECURE FLAPS**: In lieu of temporarily taping, the **Tyvek**° **WRB** flaps at the window head and jambs can be tucked under the **Tyvek**° **WRB**.

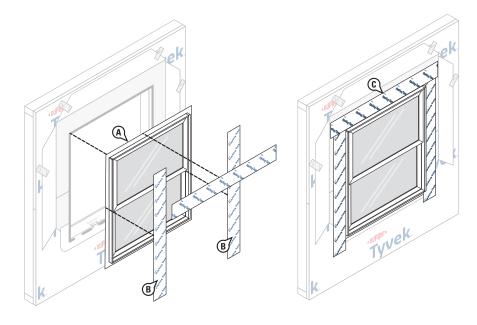
NOTE: Some windows and flashing widths may require longer slits.



#### STEP 5

- A. Cut **DuPont™ FlexWrap™** at least 12″ LONGER than width of rough opening sill (S). Use roll widths sufficient to achieve a minimum of 1″ adhesion BEYOND where the window frame will be located, ensuring 2″–3″ adhesion onto the face of the wall.
- B. Remove wide piece of release paper. Position on horizontal sill by aligning the inside edge of the narrow release paper with the face of the wall to ensure 2"–3" of the **FlexWrap**" will be adhered to the face of the wall with a minimum of 6" up each jamb. Adhere into rough opening.
- C. Remove narrow release paper.
- D. Fan out **FlexWrap**<sup>™</sup> at corners and adhere onto face of wall. Continue adhering onto face of wall along sill. Coverage of **FlexWrap**<sup>™</sup> should be 2"–3" onto the face of the wall.





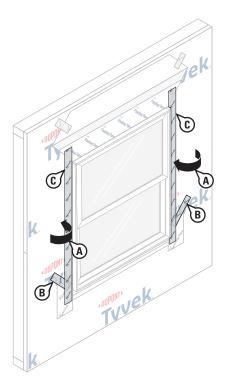
### STEP 6

A. Apply Tower® Residential Sealant, or recommended sealant, on three sides (jambs and head) as shown below.

### STEP 7

A. Install window according to manufacturer's instructions.

- B. Cut two pieces of **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** for jamb flashing extending 1" above window head flange and 4" to 6" below bottom edge of sill flashing. Remove release paper and press tightly along sides of window frame.
- C. Cut a piece of **DuPont™ Flashing Tape** or **StraightFlash™** for head flashing, which extends beyond outer edges of jamb flashings. Remove release paper and install completely covering mounting flange and adhering to exposed sheathing or framing members.

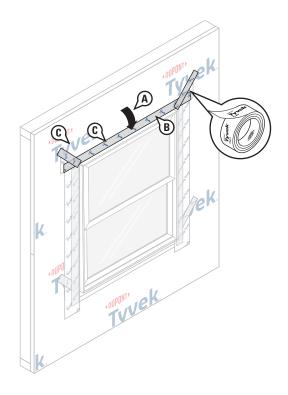


### STEP 8

- A. Flip over side flaps of DuPont™ Tyvek® WRB so each lays flat across jamb flashing, then trim 1"- 2" from the window opening using shears so as not to damage the DuPont Self-Adhered Flashing Product below.
- B. Starting at the bottom of the window, install **DuPont™ Tyvek® Tape** along the angled cut in in the **Tyvek® WRB**.
- C. Install **DuPont™ Flashing Tape**, **DuPont™ StraightFlash™** or **DuPont™ Tyvek® Tape** along the jamb flap.

Repeat on other side of window.

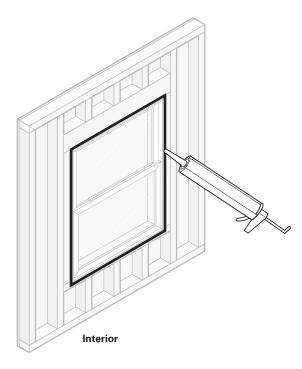
**NOTE**: Additional mechanical fasteners may be installed through the flashing at head flap and perimeter of window for application in areas of extreme exposure. For extreme weather conditions, performance requirements exceeding ASTM E1677, or window/door design ratings of DP45 or greater, see *Special Considerations*.



### STEP 9

- A. Flip down upper flap of **Tyvek® WRB** so it lays flat across head flashing.
- B. Cut ~1" strip of the **Tyvek**° **WRB** at lower horizontal edge of head flap.
- C. At the head, continuous tape seams as shown with **Tyvek® Tape**. DO NOT TAPE at bottom of window.

**NOTE**: Skip-taping at head with a maximum of two (2) 2" gaps for every 3' of window is acceptable if an air barrier is not required or if additional drainage is desired.



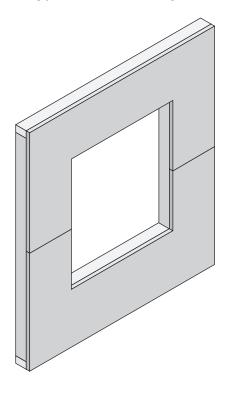
### STEP 10

Final Step

Install Tower® Residential Sealant or recommended sealant (and backer rod as necessary) around the window opening at the interior. It is also acceptable to use **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant**, or recommended foam. When using Tower® Residential Sealant, tool sealant bead flat to allow the natural curing process to create a concave shape. Be sure that the sealant penetrates the grooves of the **DuPont™ FlexWrap™** around the sill. When using **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant** in perimeter openings less than 1/2", apply using the plastic extension tip for the **Great Stuff Pro™ Dispensing Gun** during installation.

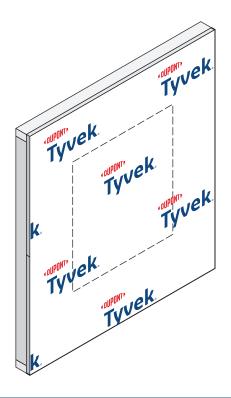
**NOTE**: Installations that specify a window/door design rating of DP45 or greater require extra precautions. See *Special Considerations* for performance requirements exceeding this design rating.

Method applies to following products DuPont™ StraightFlash™, DuPont™ FlexWrap™, and DuPont™ Flashing Tape



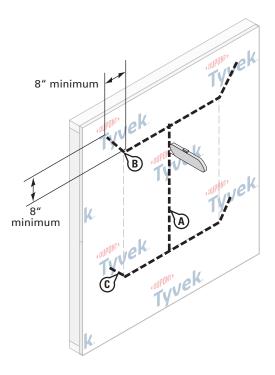
### STEP 1

Cut rough opening in sheathing for window. Ensure that sheathing is cut flush with, or slightly below the sill framing to allow for positive drainage.



### STEP 2

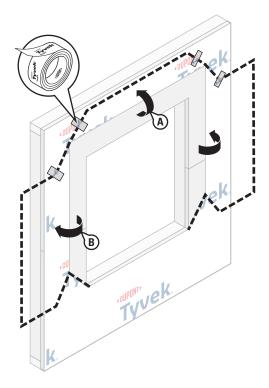
Wrap wall as shown in <u>DuPont™ Tyvek® Water-Resistive and Air Barrier (WRB)</u>
<u>Installation Guidelines for Buildings Less Than 5 Stories and Low-Rise Multi-Family Residential Buildings Less Than 6 Stories</u> that can be found at <u>building.dupont.com</u>. Do not install fasteners within 6" of the sills and jambs of the openings and within 9" of the head of the openings.



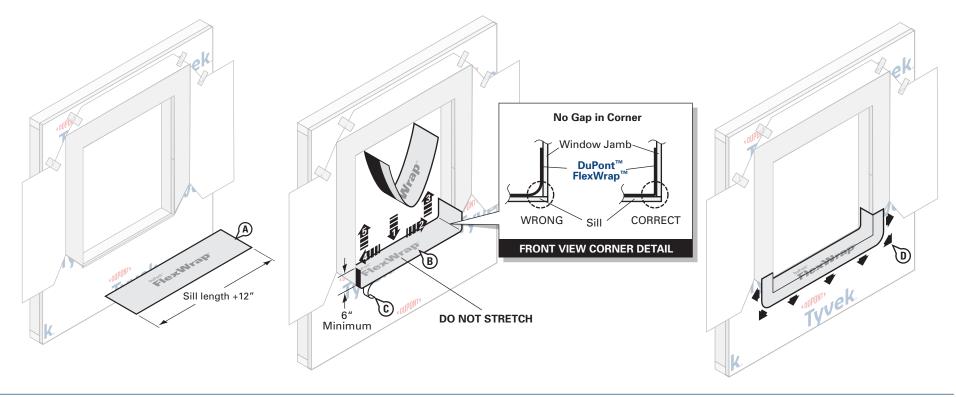
### STEP 3

Prepare air and water barrier for window installation.

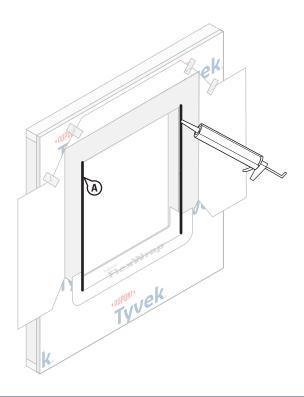
- A. Make an "I-Cut" in the **DuPont™ Tyvek® WRB**. For an "I-Cut" begin with a horizontal cut across the bottom and the top of the window frame (for round top windows, cut from the center cut straight down to the sill.
- B. Cut a head flap at a 45° angle to expose 8" of sheathing to allow for head flashing installation.
- C. Cut two  $45^{\circ}$  slits extending from the bottom corner up and away from the window opening to expose 6''-8'' of sheathing. This will create a flap at each jamb to allow for jamb flashing installation.

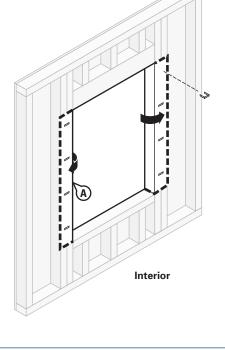


- A. Flip the head flap up to expose the sheathing and temporarily secure with **DuPont™**Tyvek® Tape.
- B. Flip the flaps to the side to expose the sheathing and temporarily secure with **Tyvek**° **Tape**.



- A. Cut **DuPont™ FlexWrap™** at least 12″ LONGER than width of rough opening sill (S). Use roll widths sufficient to achieve a minimum of 1″ adhesion BEYOND where the window frame will be located, ensuring 2″–3″ adhesion onto the face of the wall.
- B. Remove wide piece of release paper. Position on horizontal sill by aligning the inside edge of the narrow release paper with the face of the wall to ensure 2"–3" of the **FlexWrap**<sup>™</sup> will be adhered to the face of the wall with a minimum of 6" up each jamb. Adhere into rough opening.
- C. Remove narrow release paper.
- D. Fan out **FlexWrap**<sup>™</sup> at corners and adhere onto face of wall. Continue adhering onto face of wall along sill. Coverage of **FlexWrap**<sup>™</sup> should be 2"–3" onto the face of the wall.



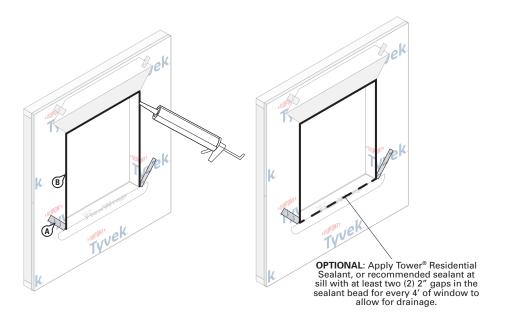


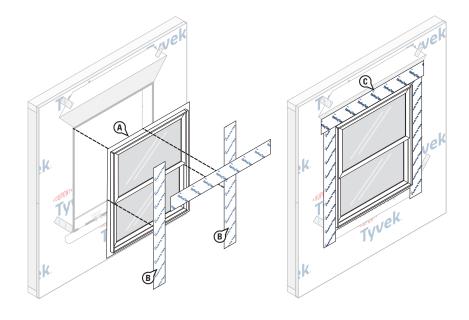
### STEP 6

A. Apply continuous bead of Tower® Residential Sealant, or recommended sealant, to wall at the window jambs.

### STEP 7

A. Fold flaps into rough opening and secure to inside wall. Cut off excess flaps if desired.

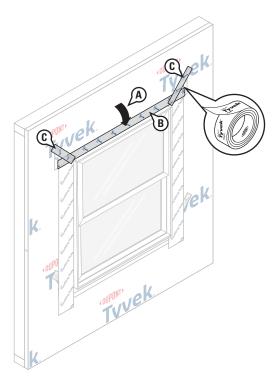




#### STEP 8

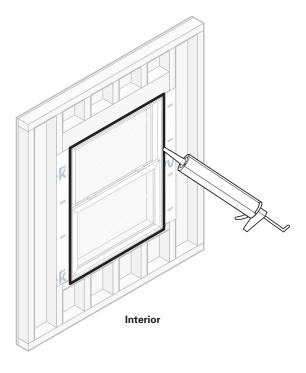
- A. Starting at the bottom of the window, install **DuPont™ Tyvek® Tape** or **DuPont™ Flashing Tape** along the angled cut in the **DuPont™ Tyvek® WRB**.
- B. Apply Tower® Residential Sealant, or recommended sealant, on three sides (jambs and head) of each window as shown above.

- A. Install window according to manufacturer's instructions.
- B. Cut two pieces of **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** for jamb flashing extending 1" above window head flange and 4" to 6" below bottom edge of sill flashing. Remove release paper and press tightly along sides of window frame.
- C. Cut a piece of **DuPont™ Flashing Tape** or **StraightFlash™** for head flashing, which extends beyond outer edges of jamb flashings. Remove release paper and install completely covering mounting flange and adhering to exposed sheathing or framing members.



### STEP 10

- A. Flip down upper flap of **DuPont™ Tyvek® WRB** so it lays flat across head flashing, then trim 1"– 2" above the window opening.
- B. Tape Seams as shown. DO NOT TAPE at bottom of window. At the head, continuous tape seams with **DuPont™ Tyvek® Tape** or **DuPont™ Flashing Tape**. Skip taping at the head is acceptable if an air barrier is not required or if additional drainage is desired.
- C. Tape diagonal seams of Tyvek® WRB with Tyvek® Tape or DuPont™ Flashing Tape.



#### STEP 11

Final Step

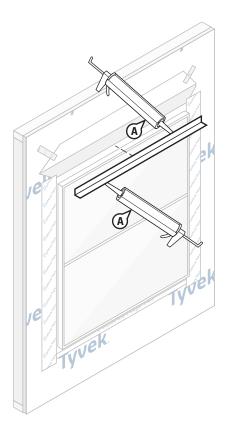
Install Tower® Residential Sealant or recommended sealant (and backer rod as necessary) around the window opening at the interior. It is also acceptable to use **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant**, or recommended foam. When using Tower® Residential Sealant, tool sealant bead flat to allow the natural curing process to create a concave shape. Be sure that the sealant penetrates the grooves of the **DuPont™ FlexWrap™** around the sill. When using **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant** in perimeter openings less than 1/2″, apply using the plastic extension tip for the **Great Stuff Pro™ Dispensing Gun** during installation.

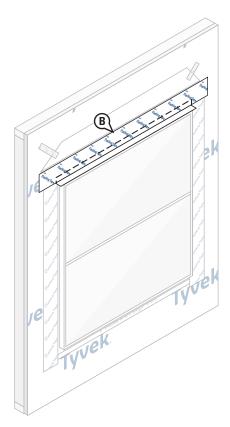
**NOTE**: Installations that specify a window/door design rating of DP45 or greater require extra precautions. See *Special Considerations* for performance requirements exceeding this design rating.

The following drip cap options can also be used for integral flanged doors.

#### Option 1

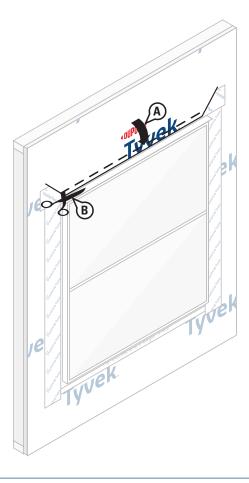
A drip cap with a short vertical leg can be installed at the window head flange so it is integrated with the DuPont self-adhered flashing membrane installed at the head of the window BEFORE the **DuPont** Tyvek WRB head flap is flipped down and sealed. **NOTE**: When using this method, the vertical leg of the drip cap **must not** be taller than the window head flange when installed.

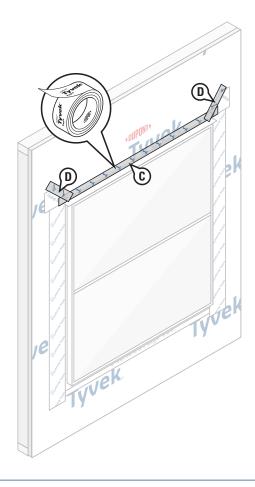




- A. After the window is installed and jamb flashing applied, cut a piece of metal or vinyl drip cap slightly **LONGER** than the width of the window. Place a bead of Tower® Residential Sealant, or recommended sealant, on the rear side of the vertical leg **AND** a bead on the rear side of the bottom horizontal leg. Install the drip cap tight against the window head flange.
- B. Cover the head flange and top edge of the drip cap with a piece of **DuPont™**Flashing Tape or **DuPont™ StraightFlash™**. The **DuPont Self- Adhered Flashing**Product should be long enough to extend beyond the jamb flashing and adhere a minimum of 2″ onto the wall.

Option 1 (continued)



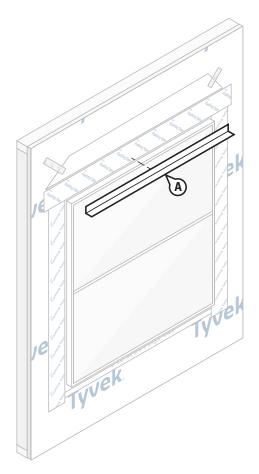


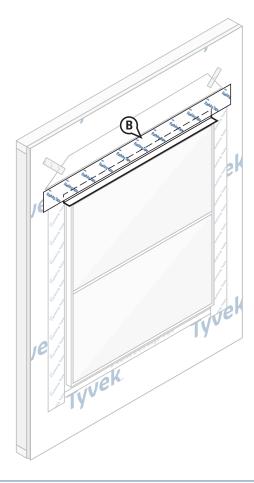
- A. Flip down **DuPont™ Tyvek® WRB** head flap so it lays flat across the **DuPont™ Flashing**Tape or **DuPont™ StraightFlash™** covering the drip cap and window head flange.
- B. Cut ~1" strip of the **Tyvek**° **WRB** at lower horizontal edge of head flap.

- C. Tape seams as shown. **DO NOT TAPE** at bottom of window. At the head, continuous tape seams as shown with **DuPont™ Tyvek® Tape**. Skip-taping at the head is acceptable if an air barrier is not required or if additional drainage is desired.
- D. Tape down diagonal seams of the **Tyvek**® **WRB**.

### Option 2

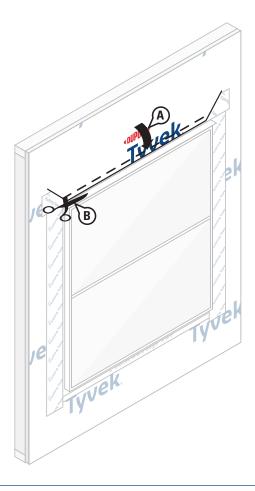
A drip cap can be installed over the head flashing above the window head BEFORE the **DuPont™ Tyvek® WRB** head flap is flipped down and sealed.

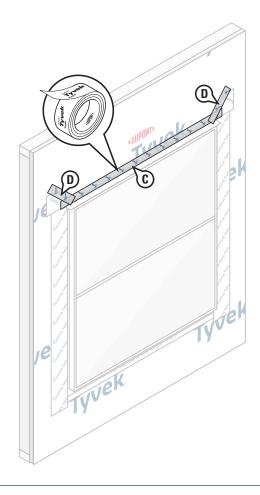




- A. After the **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** is installed over window head flange, cut metal or vinyl drip cap slightly **LONGER** than the width of the window.
- B. Install the drip cap tight against the window head flashing and cover the top edge with **DuPont™ Flashing Tape** or **StraightFlash™** extending past the top and sides of the drip cap.

Option 2 (continued)



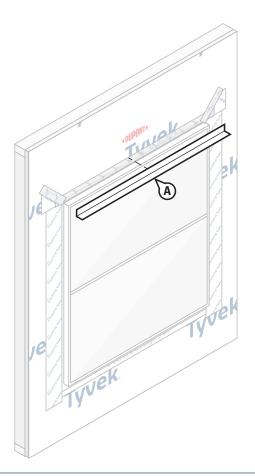


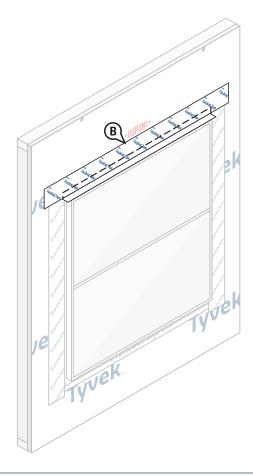
- A. Flip down **DuPont™ Tyvek® WRB** head flap so it lays flat across the **DuPont™ Flashing**Tape or **DuPont™ StraightFlash**™ covering the drip cap.
- B. Cut ~1" strip of the **Tyvek**® **WRB** at lower horizontal edge of head flap.

- C. Tape seams as shown. **DO NOT TAPE** at bottom of window. At the head, continuous tape seams as shown with **DuPont™ Tyvek® Tape**. Skip-taping at the head is acceptable if an air barrier is not required or if additional drainage is desired.
- D. Tape down diagonal seams of the **Tyvek**® **WRB**.

#### Option 3

A drip cap can be installed over the **DuPont™ Tyvek® WRB** above the window head AFTER the **Tyvek® WRB** head flap is flipped down and sealed.



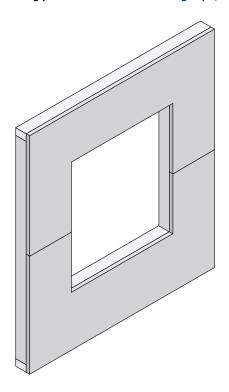


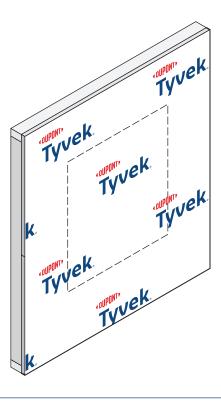
- A. After **Tyvek**° **WRB** head flap is flipped down and sealed, cut metal or vinyl drip cap slightly **LONGER** than the width of the window and install.
- B. As a recommended best practice, cover the top edge of the drip cap with **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** extending past the top and sides of the drip cap and side edges of the window head flashing.

For wood-framed buildings not exceeding ASTM E1677 wind loading pressures (10.8 psf, 65 mph equivalent structural load) and ASTM E331 water infiltration resistance of 6.24 psf, based on window design not exceeding DP 45, **DuPont** Flashing Tape can be used in lieu of **DuPont** StraightFlash for protecting the jambs of rough openings in the "wrap the cavity" method typically used in commercial construction.

When these performance criteria are met, the use of **DuPont™ Flashing Tape** as shown in the steps below can be used for the following details: Non-Flanged Window, Non-Flanged Door, Brick Mold Window, Brick Mold Door, Storefront Window on Slab, Storefront Window on Knee Wall, and/or PTAC Units.\*

Method applies to following products: DuPont™ Flashing Tape, StraightFlash™, and DuPont™ FlexWrap™





### STEP 1

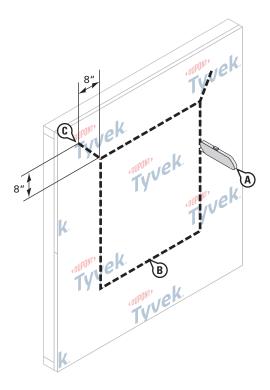
C. Cut rough opening in sheathing for window. Ensure that sheathing is cut flush with, or slightly below the sill framing to allow for positive drainage.

#### STEP 2

A. Wrap wall as shown in <u>DuPont™ Tyvek® Water-Resistive and Air Barrier (WRB)</u>
<u>Installation Guidelines for Buildings Less Than 5 Stories and Low-Rise Multi-Family Residential Buildings Less than 6 Stories</u> that can be found at <u>building.dupont.com</u>.
Do not install fasteners within 6" of the sills and jambs of the openings and within 9" of the head of the openings.

\*NOTE: For installation methods using DuPont<sup>™</sup> VersaFlange<sup>™</sup>, DuPont<sup>™</sup> Flashing Tape can be used in the wrap the cavity method as an alternate method when the above performance criteria are met.

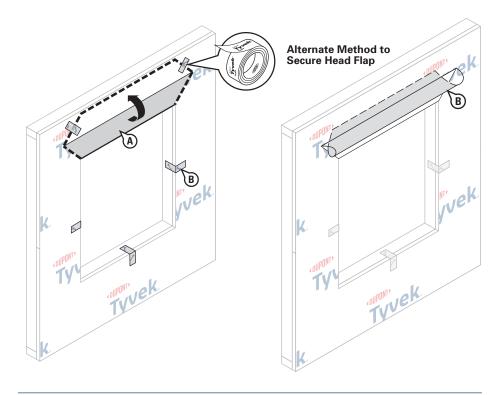
NOTE: When using **DuPont™ Flashing Tape** in lieu of **StraightFlash™** for the wrap the cavity method, Tower® Residential Sealant cannot be used as the primary water seal, as it was not designed to be used for non-flanged units. Refer to Chemical Compatibility of Representative Building Sealants and Adhesives/Primers for more information.



#### STEP 3

Prepare the **Tyvek**® **WRB** for window installation.

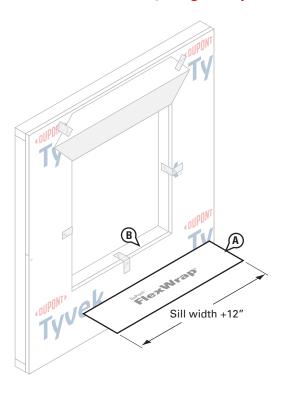
- A. Cut an opening in the **Tyvek® WRB** using a square cut around the perimeter of the rough opening.
- B. Cuts should be made along the dashed indicated lines. (Ensure that the **Tyvek® WRB** is cut flush with the sheathing and is not wrapped into the rough opening.)
- C. Cut a head flap at a 45° angle to expose 8" of sheathing to allow for head flashing installation.

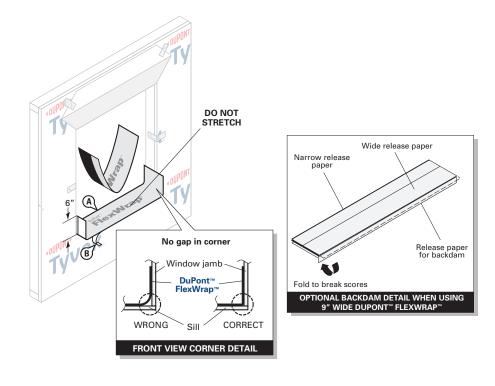


#### STEP 4

- A. Flip the head flap up to expose the sheathing and temporarily secure flap with tape.
- B. Temporarily secure the **Tyvek® WRB** with **DuPont™ Tyvek® Tape** around rough opening before flashing is installed to help facilitate flashing installation.

**ALTERNATE METHOD TO SECURE HEAD FLAP**: In lieu of temporarily taping, the head flap can be tucked under the **Tyvek**° **WRB**.





### STEP 5

- A. Cut **DuPont™ FlexWrap™** at least 12″ **LONGER** than width of rough opening sill (S). Use roll widths sufficient to achieve a minimum of 1″ adhesion **BEYOND** where the window frame will be located, ensuring 2″–3″ adhesion onto the face of the wall.
- B. Inspect installation surface to ensure surface is free of dirt or substances that could interfere with adhesion as well as any sharp protrusions.

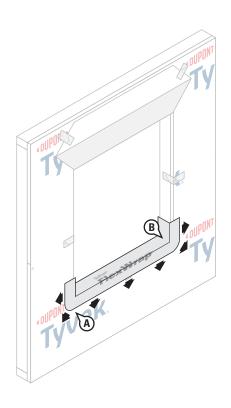
### STEP 6

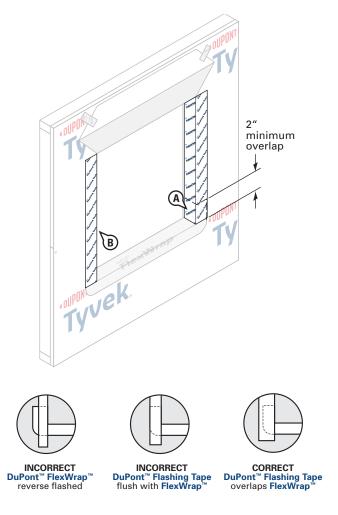
A. Remove wide piece of release paper. Position on horizontal sill by aligning the inside edge of the narrow release paper with the face of the wall to ensure 2"–3" of the **FlexWrap**<sup>™</sup> will be adhered to the face of the wall with a minimum of 6" up each jamb. Adhere into rough opening.

**Optional Back Dam**: Fold 9" **FlexWrap**™ to break perforation. Remove center piece of release paper. Cover horizontal sill to accommodate back dam as appropriate, and adhere into rough opening along sill and up jambs (min 6" on each side). Leave 1" release paper on **FlexWrap**™ inside rough opening to finish back dam after window installation.

B. Remove narrow release paper.

DO NOT STRETCH MATERIAL ALONG THE SILL OR JAMBS.

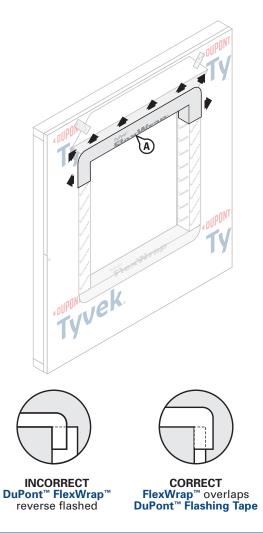




### STEP 7

- A. Fan out the **DuPont™ FlexWrap™** at corners and adhere onto face of wall. Continue adhering onto face of wall along sill. Coverage of **FlexWrap™** should be 2″– 3″ onto the face of the wall.
- B. Firmly press sill flashing to ensure full adhesion on all surfaces. Eliminate wrinkles and bubbles by smoothing surface and repositioning as necessary.

- A. Cut the jamb flashing the vertical length of the rough opening. Jamb flashing should be long enough to overlap the sill flashing by at least 2" and be overlapped by future head flashing by at least 2".
- B. Wrap **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** into the rough opening at each jamb and onto wall face. The flashing should align with the interior edge of the jamb framing.





### STEP 9

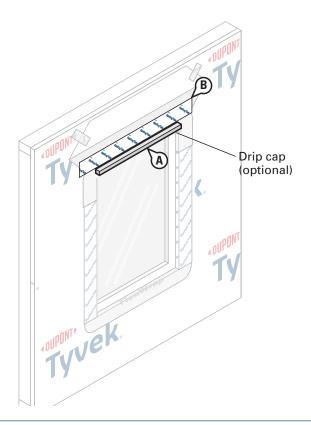
A. Adhere **DuPont™ FlexWrap™** to the head using the same installation process as shown in steps 6 and 7 for the sill flashing. Make sure the **FlexWrap™** is cut long enough to overlap the jamb flashing by at least 2″.

#### STEP 10

A. Install window/door per manufacturer's installation instructions. Apply an exterior perimeter seal using backer rod and sealant along the jambs and head of the window opening.

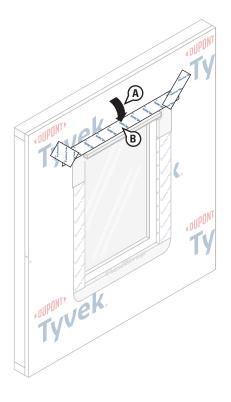
Tyvekl

**NOTE**: Ensure window and sealant installation allows for drainage at the sill. If sealant is applied at the sill, as a best practice, ensure that there are at least two (2) 2" gaps in the sealant bead for every 4" of window to allow for drainage.

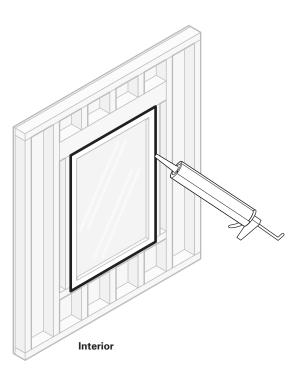


### STEP 11 - OPTIONAL

- A. As a best practice for high exposure areas, install metal drip cap above the head joint when specified.
- B. Apply a strip of **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** over the drip cap.



- A. Flip down the head flap and **trim 1"-2" above the window opening**. Terminate flap along the top of the window with **DuPont™ Flashing Tape**, **DuPont™ StraightFlash™**, or **DuPont™ Tyvek® Tape**.
- B. Apply DuPont™ Flashing Tape, StraightFlash™, or Tyvek® Tape over the diagonal seams.



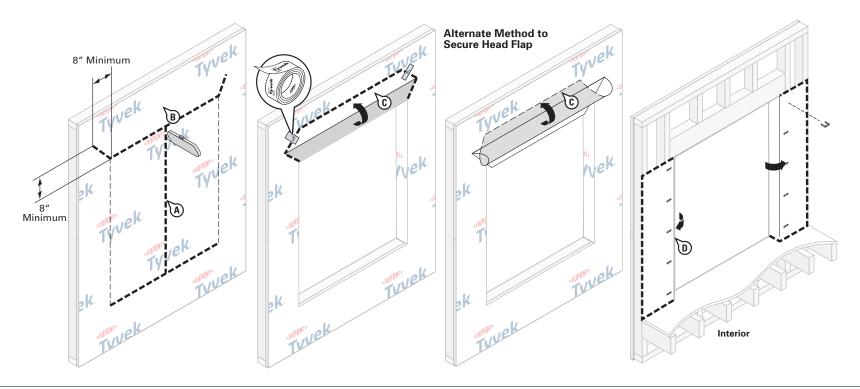
#### STEP 13

A. Install Tower® Residential Sealant or recommended sealant (and backer rod as necessary) around the window opening at the interior. It is also acceptable to use Great Stuff Pro™ Window & Door Polyurethane Foam Sealant, or recommended foam. When using Tower® Residential Sealant, tool sealant bead flat to allow the natural curing process to create a concave shape. Be sure that the sealant penetrates the grooves of the DuPont™ FlexWrap™ around the sill. When using Great Stuff Pro™ Window & Door Polyurethane Foam Sealant in perimeter openings less than 1/2", apply using the plastic extension tip for the Great Stuff Pro™ Dispensing Gun during installation.

**NOTE**: Installations that specify a window/door design rating of DP45 or greater require extra precautions. See *Special Considerations* for performance requirements exceeding this design rating.

This installation quideline is intended for doors installed above grade and/or with wood floor construction.

This method applies to the following products: DuPont™ Flashing Tape, DuPont™ StraightFlash™, and DuPont™ FlexWrap™



### STEP 1

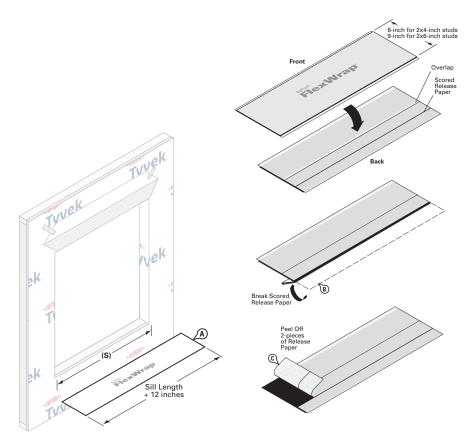
Prepare **Tyvek**® **WRB** for door installation:

- A. Make an "I-Cut" (Standard I-Cut) in the WRB. For an "I-Cut", begin with a horizontal cut across the bottom and the top of the door frame. From the center, cut straight down to the sill.
- B. Cut two 45 degree slits a minimum of 8" extending from the corner of the door head up and away from door opening from the corner of the header, to create a flap above the rough opening to expose sheathing or framing members, to allow head flashing installation (see step 8). **NOTE**: Some doors and flashing widths may require longer slits.

C. Flip head flap up and temporarily secure with  $\textbf{DuPont}^{\text{\tiny{th}}}\,\textbf{Tyvek}^{\text{\tiny{g}}}\,\textbf{Tape}.$ 

**ALTERNATE METHOD TO SECURE HEAD FLAP**: In lieu of temporarily taping, the head flap can be tucked under the **Tyvek**° **WRB**.

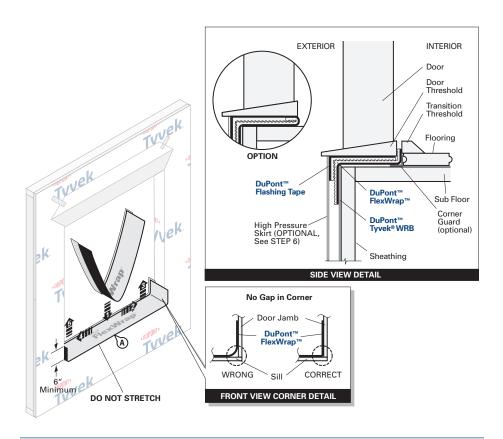
D. Fold side flaps into rough opening and secure to inside wall. Cut off excess flaps if desired.





Preparation of sill flashing:

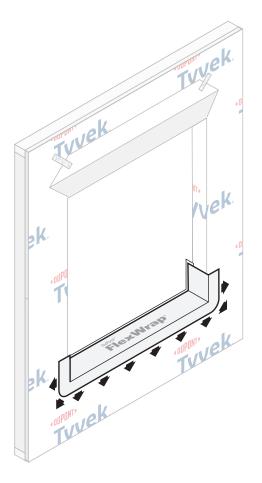
- A. Cut **DuPont™ FlexWrap™** at least 12" **LONGER** than width of rough opening sill (S). Use roll widths sufficient to achieve a minimum of 1" adhesion **BEYOND** where the window frame will be located, ensuring 2"–3" adhesion onto the face of the wall.
- B. 9" **FlexWrap**™ has perforated release paper to help with the formation of the back dam (see Step 9). To ensure that the perforation tears cleanly, fold the perforation 180° and crease the flashing.
- C. Remove the two widest pieces of release paper leaving the narrowest release paper on the flashing. When the finished floor is applied, the release paper can be removed and the back dam can be completed.



### STEP 3

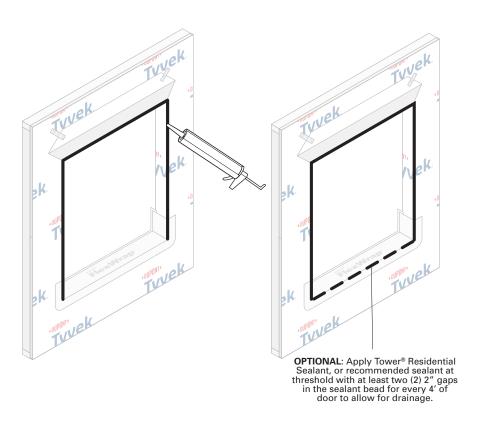
A. Position the sill flashing as indicated so the section with the release paper still attached extends past the door threshold on the inside. Ensure that 2"−3" of the FlexWrap™ will be adhered to the face of the wall with a minimum of 6" up each jamb. Adhere into rough opening. When the 1" of release paper is removed, the remaining section of FlexWrap™ can be used to form a back dam.

**OPTIONAL**: **Create back dam by folding back narrow section of FlexWrap**<sup>™</sup>: Some flooring cannot accomodate a back dam. In that case fold the back dam on top of **FlexWrap**<sup>™</sup> in the sill. The door will be installed on top of the fold to create a back dam (see Side View Detail above).



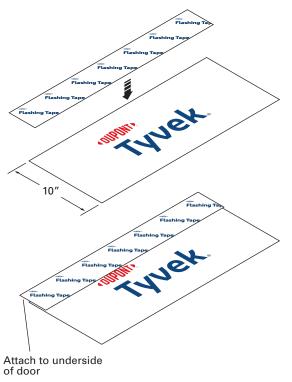
### STEP 4

Fan out the **DuPont™ FlexWrap™** at corners and adhere onto face of wall. Continue adhering onto face of wall along sill. Coverage of **FlexWrap™** should be 2″– 3″ onto the face of the wall.



### STEP 5

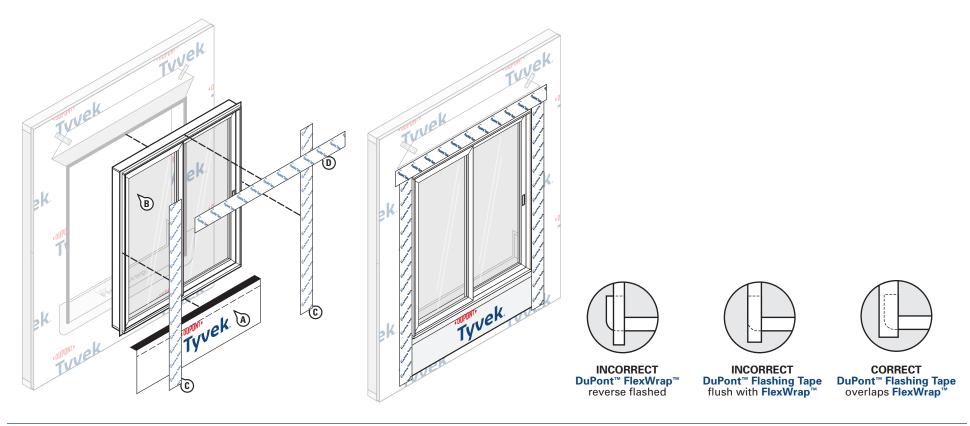
Apply Tower® Residential Sealant, or recommended sealant, on three sides (jambs and head) as shown above.



### STEP 6 (OPTIONAL)

For extreme weather conditions, performance requirements exceeding ASTM E1677, or window/door design ratings of DP45 or greater, see *Special Considerations*.

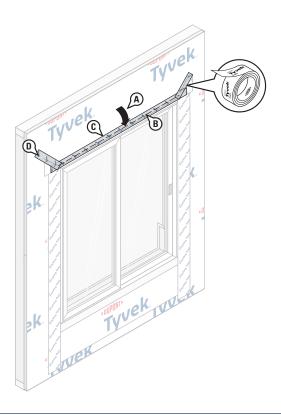
- A. Create the high pressure skirt by cutting a piece of **Tyvek® WRB** 1" wider than the width of door opening and approximately 10" in depth.
- B. Cut a 4" piece of **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** to the same width as the skirt. Remove two pieces of release paper and adhere to the **Tyvek® WRB**.
- C. Remove the last piece of release paper and attach the skirt to the underside of the door. This skirt may be made with **DuPont™ Flashing Tape**, **StraightFlash™**, or **DuPont™ VersaFlange™**.



#### STEP 7

- A. **OPTIONAL**: Adhere high pressure skirt to the bottom threshold of the door.
- B. Install door according to manufacturer's instructions.
- C. Cut two pieces of **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** for jamb flashing extending 1" above door head flange and below bottom edge of sill flashing. Remove release paper and press tightly along sides of door frame. **OPTIONAL**: If installing a drip cap as part of the door installation before the DuPont self-adhered flashing membrane at the door head flange, see *Drip Cap Installation Section* and refer to Option 1. The vertical leg of the drip cap must not be taller than the door head flange when installing drip cap according to Option 1.
- D. Cut a piece of **DuPont**™ **Flashing Tape** or **StraightFlash**™ for head flashing, which extends beyond outer edges of jamb flashings. Remove release paper and install completely covering mounting flange and adhering to exposed sheathing or framing members (see D). **OPTIONAL**: If installing a drip cap as part of the door installation, but after the door head flashing, see *Drip Cap Installation Section* and refer to Option 2.

**NOTE**: Ensure proper shingling. **DuPont**™ **Flashing Tape** or **StraightFlash**™ must overlap **DuPont**™ **FlexWrap**™ and adhere to the **Tyvek**® **WRB**.

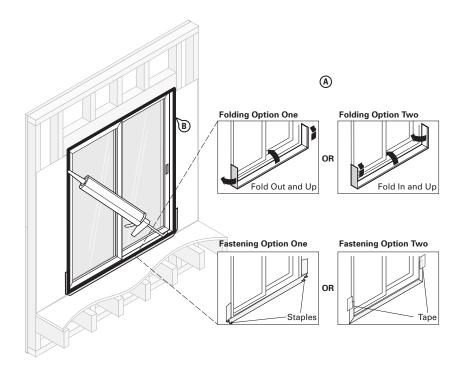


#### STFP 8

- A. Flip down upper flap of **Tyvek®WRB** so it lays flat across head flashing.
- B. Cut ~1" strip of the **Tyvek**® **WRB** at lower horizontal edge of head flap.
- C. At the head, continuous tape seams as shown with DuPont™ Tyvek® Tape. Skiptaping at the head is acceptable if an air barrier is not required or if additional drainage is desired.

#### **DO NOT TAPE** at bottom of door.

D. Tape down diagonal seams of the **Tyvek**® **WRB**. **OPTIONAL**: If installing a drip cap AFTER the **Tyvek**® **WRB** head flap is flipped down and sealed, see *Drip Cap Installation Section* and refer to Option 3.



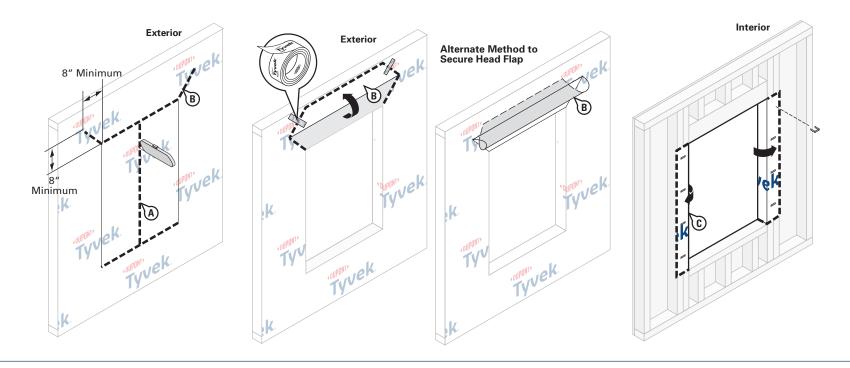
### STEP 9

Final Step

- A. **OPTIONAL**: When the interior flooring is ready to install, remove release paper and use Folding Option One or Two (shown above) to form back dam.
- B. Install Tower® Residential Sealant or recommended sealant (and backer rod as necessary) around the window opening at the interior. It is also acceptable to use **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant**, or recommended foam. When using Tower® Residential Sealant, tool sealant bead flat to allow the natural curing process to create a concave shape. Be sure that the sealant penetrates the grooves of the **DuPont™ FlexWrap™** around the sill. When using **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant** in perimeter openings less than 1/2", apply using the plastic extension tip for the **Great Stuff Pro™ Dispensing Gun** during installation.

**NOTE**: Installations that specify a window/door design rating of DP45 or greater require extra precautions. See *Special Considerations* for performance requirements exceeding this design rating.

This method applies to the following products: DuPont™ Flashing Tape, DuPont™ StraightFlash™, DuPont™ VersaFlange™, and DuPont™ FlexWrap™



### STEP 1

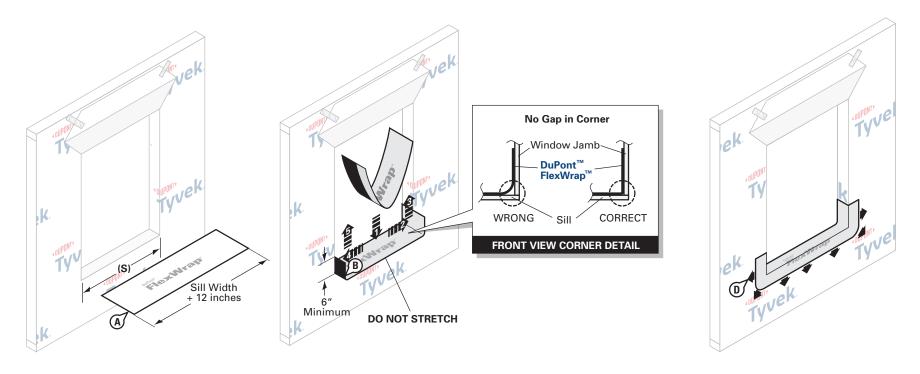
Prepare Tyvek® WRB for window installation:

- A. Make an "I-Cut" (Standard I-Cut) in the **Tyvek® WRB** (modified I-Cut is also accepted). For an "I-Cut", begin with a horizontal cut across the bottom and the top of the window frame. From the center, cut straight down to the sill.
- B. Cut two 45 degree slits a minimum of 8" extending from the corner of the window head, up and away from the window opening. This will create a flap above the rough opening to expose sheathing or framing members to allow head flashing installation. Flip head flap up and temporarily secure with **DuPont™ Tyvek® Tape**.

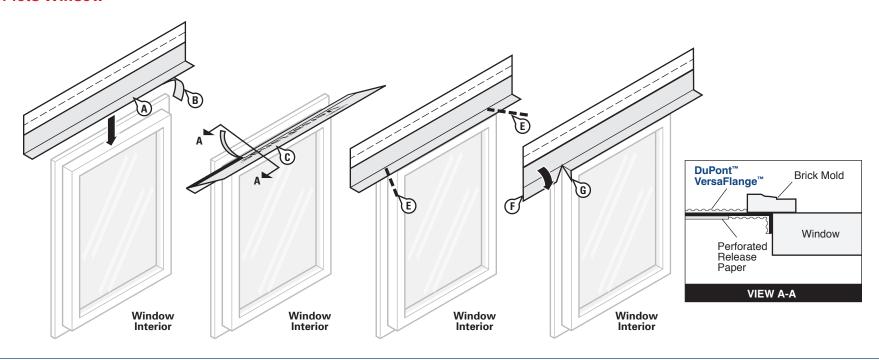
**ALTERNATE METHOD TO SECURE HEAD FLAP**: In lieu of temporarily taping, the head flap can be tucked under the **Tyvek**° **WRB**.

NOTE: Some windows and flashing widths may require longer slits.

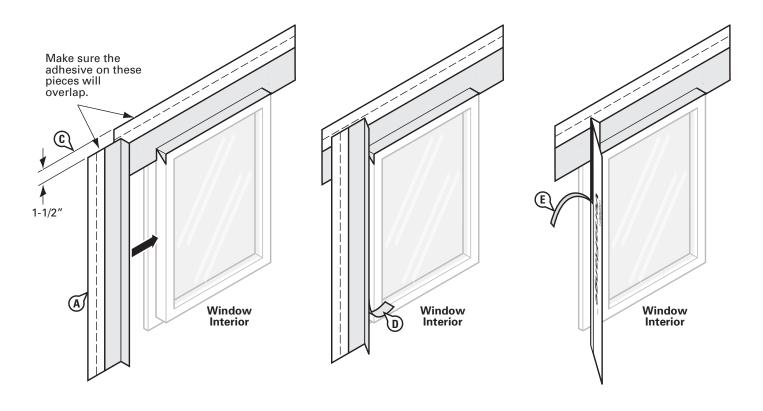
C. Fold side flaps into rough opening and secure to inside wall. Cut off excess flaps if desired.



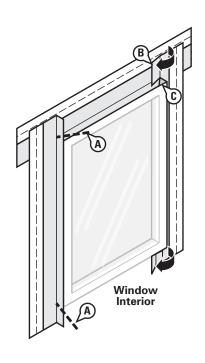
- A. Cut **DuPont™ FlexWrap™** at least 12″ **LONGER** than width of rough opening sill (S). Use roll widths sufficient to achieve a minimum of 1″ adhesion **BEYOND** where the window frame will be located, ensuring 2″–3″ adhesion onto the face of the wall.
- B. Remove wide piece of release paper. Position on horizontal sill by aligning the inside edge of the narrow release paper with the face of the wall to ensure 2"–3" of the **FlexWrap**" will be adhered to the face of the wall with a minimum of 6" up each jamb. Adhere into rough opening.
- C. Remove narrow release paper.
- D. Fan out the **FlexWrap**™ at corners and adhere onto face of wall. Continue adhering onto face of wall along sill. Coverage of **FlexWrap**™ should be 2″– 3″ onto the face of the wall.

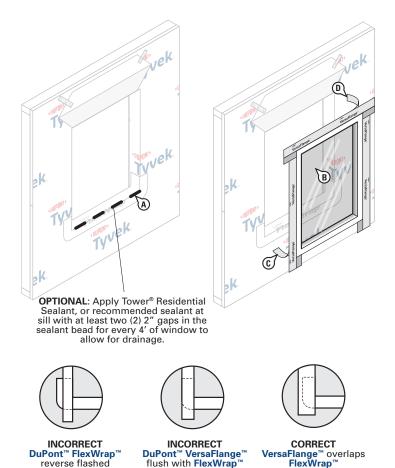


- A. Prepare head flashing by cutting a piece of **DuPont™ VersaFlange™** at least 12″ **LONGER** than the head length.
- B. Break the scored release paper on one side of the head flashing by folding it back and forth upon itself.
- C. Center the VersaFlange™ on the window head and position so that it contacts the window frame and interior side of the brick mold. Remove the outer release paper and adhere the flashing to the window frame. Use the inner release paper to form a tight seal in the corner.
- D. Remove the inner release paper and adhere the flashing to the back of the brick mold.
- E. Beginning at the junction of the jamb and head, and away from the corner, cut the **VersaFlange**™ at a 45° angle.
- F. Fold the newly created flashing flap down flat against the brick mold.
- G. Fold remaining head flashing flaps down and adhere to the jamb frame.



- A. Prepare jamb flashing by cutting a piece of **DuPont™ VersaFlange™** at least 6" **LONGER** than the jamb.
- B. Break the scored release paper on one side of the jamb flashing by folding it back and forth upon itself.
- C. Position so that the VersaFlange™ contacts the window frame and interior side of the brick mold. Ensure that the jamb flashing is positioned 1-1/2 inch below the top edge of the head flashing. Jamb flashing adhesive must come in contact with head flashing adhesive and overlap by one-inch.
- D. Remove the outer release paper and adhere the flashing to the window frame. Use the inner release paper to form a tight seal in the corner.
- E. Remove the inner release paper and adhere the flashing to the back of the brick mold.
- F. Repeat on opposite jamb.





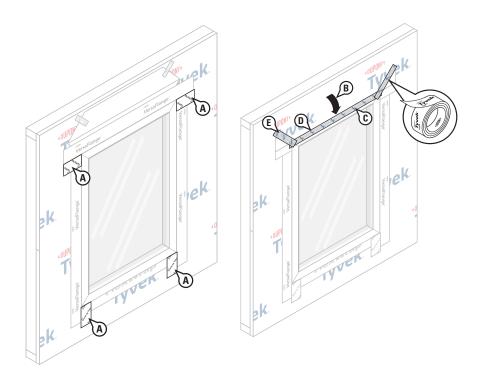
### STEP 5

- A. Beginning at the junction of the jamb and head, and away from the corner, cut the **DuPont™ VersaFlange™** at a 45° angle. Repeat this procedure at the junction of the sill and jamb.
- B. Fold cut jamb, sill and head corners flashing parallel to the window frame so that the jamb flashing lies flat.
- C. Fold the newly created jamb flashing flaps down at all corners and adhere to the window frame.

#### STEP 6

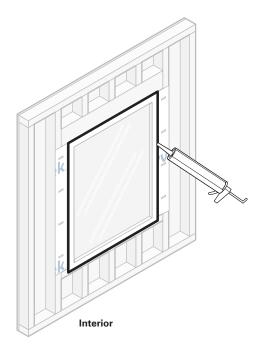
- A. **OPTIONAL**: Apply Tower® Residential Sealant or recommended sealant along the sill as shown above.
- B. Install the window per manufacturer's instructions.
- C. Remove the remaining release paper from the **VersaFlange™** jamb flashing and press firmly to adhere the butyl adhesive to the **Tyvek® WRB**.
- D. Remove the release paper at the head and adhere the **VersaFlange**™ to the wall surface.

**NOTE**: Do not reverse shingle. **VersaFlange**™ must overlap **DuPont**™ **FlexWrap**™ and adhere to the substrate.





- A. **OPTIONAL**: Cover exposed butyl with **DuPont™ Flashing Tape**, **DuPont™ StraightFlash™**, or **DuPont™ Tyvek® Tape**.
- B. **OPTIONAL**: If installing a drip cap as part of the window installation BEFORE the **Tyvek**® **WRB** head flap is flipped down and sealed, see *Drip Cap Installation Section* and refer to Option 2.
- C. Flip down upper flap of **Tyvek® WRB** so it lays flat across head flashing.
- D. Cut ~1" strip of the **Tyvek**® **WRB** at lower horizontal edge of head flap.
- E. Tape seams as shown. **DO NOT TAPE** at bottom of window. At the head, continuous tape seams as shown with **Tyvek**° **Tape**. Skip-taping at the head is acceptable if an air barrier is not required or if additional drainage is desired.
- F. Tape down diagonal seams of the **Tyvek**® **WRB**. **OPTIONAL**: If installing a drip cap AFTER the **Tyvek**® **WRB** head flap is flipped down and sealed, see *Drip Cap Installation Section* and refer to Option 3.



### STEP 8

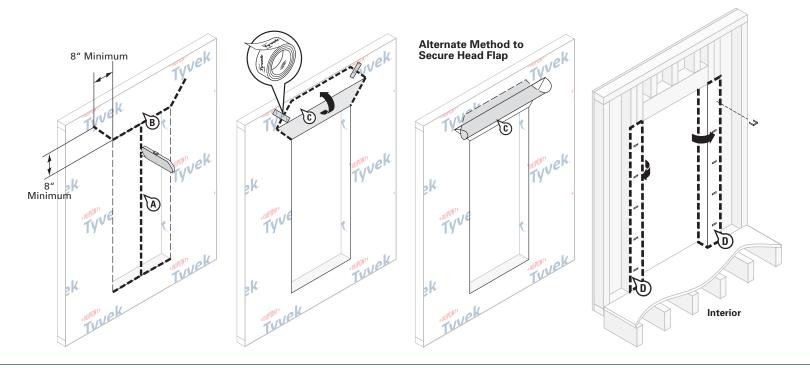
Final Step

Install Tower® Residential Sealant or recommended sealant (and backer rod as necessary) around the window opening at the interior. It is also acceptable to use **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant**, or recommended foam. When using Tower® Residential Sealant, tool sealant bead flat to allow the natural curing process to create a concave shape. Be sure that the sealant penetrates the grooves of the **DuPont™ FlexWrap™** around the sill. When using **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant** in perimeter openings less than 1/2″, apply using the plastic extension tip for the **Great Stuff Pro™ Dispensing Gun** during installation.

**NOTE**: Installations that specify a window/door design rating of DP45 or greater require extra precautions. See *Special Considerations* for performance requirements exceeding this design rating.

This installation quide is intended for doors installed above grade and/or with wood floor construction.

This method applies to the following products: DuPont™ Flashing Tape, DuPont™ StraightFlash™, DuPont™ VersaFlange™, and DuPont™ FlexWrap™



### STEP 1

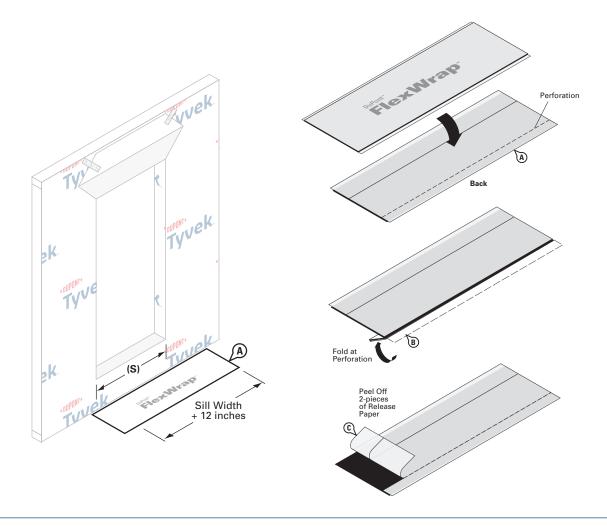
Prepare the **Tyvek**® **WRB** for door installation:

- A. Make an "I-Cut" (Standard I-Cut) in the **Tyvek**® **WRB**. For an "I-Cut", begin with a horizontal cut across the bottom and the top of the door frame. From the center, cut straight down to the sill.
- B. Cut two 45 degree slits a minimum of 8" extending from the corner of the door head, up and away from door opening. This will create a flap above the rough opening to expose sheathing or framing members to allow head flashing installation (see step 8). **NOTE**: Some doors and flashing widths may require longer slits.

C. Flip head flap up and temporarily secure with **DuPont™ Tyvek® Tape**.

**ALTERNATE METHOD TO SECURE HEAD FLAP**: In lieu of temporarily taping, the head flap can be tucked under the **Tyvek**° **WRB**.

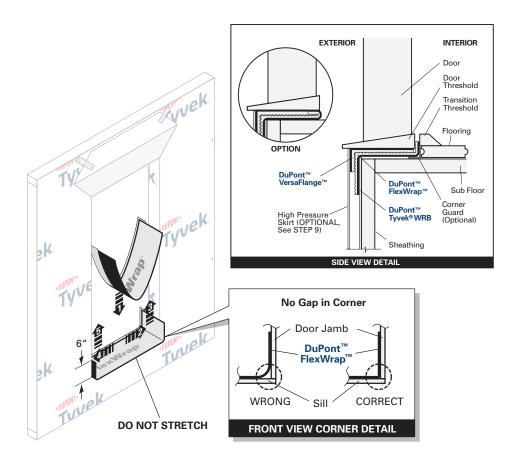
D. Fold side flaps into rough opening, and secure to inside wall framing. Cut off excess flaps if desired.

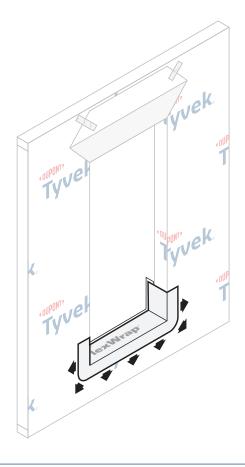


### STEP 2

Preparation of sill flashing:

- A. Cut 9" **DuPont™ FlexWrap™** at least 12" longer than width of the sill (S).
- B. 9" **FlexWrap**™ has perforated release paper to help with the formation of the back back dam (see Step 9). To ensure that the perforation tears cleanly, fold the perforation 180° and crease the flashing.
- C. Remove the two widest pieces of release paper leaving the narrowest release paper on the flashing. When the finished floor is applied, the release paper can be removed and the back dam can be completed.





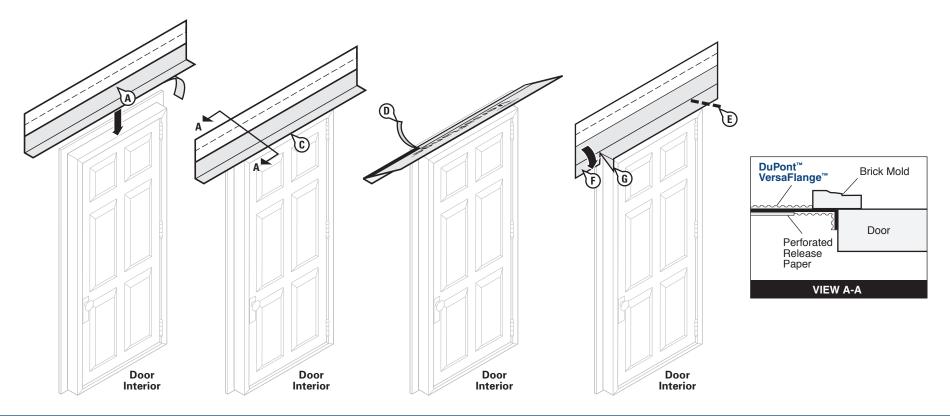
### STEP 3

Position the sill flashing as indicated so the section with the release paper still attached extends past the door threshold on the inside. Ensure that 2"–3" of the **DuPont**<sup>™</sup> **FlexWrap**<sup>™</sup> will be adhered to the face of the wall with a minimum of 6" up each jamb. Adhere into rough opening. When the 1" of release paper is removed, the remaining section of **FlexWrap**<sup>™</sup> can be used to form a back dam.

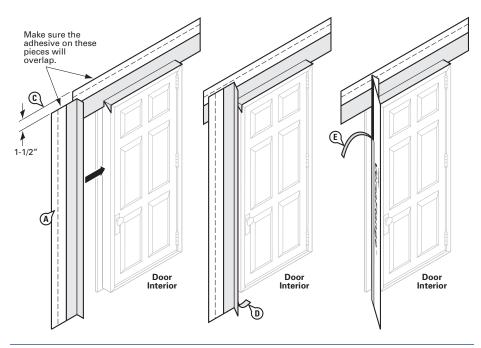
**OPTIONAL**: Create back dam by folding back narrow section of **FlexWrap**™: Some flooring cannot accommodate a back dam. In that case fold the back dam on top of **FlexWrap**™ in the sill. The door will be installed on top of the fold to create a back dam (see Side View Detail above).

### STEP 4

Fan **FlexWrap**<sup> $^{\text{m}}$ </sup> at bottom corners onto face of wall. Coverage of **FlexWrap**<sup> $^{\text{m}}$ </sup> should be 2"–3" onto the face of the wall.

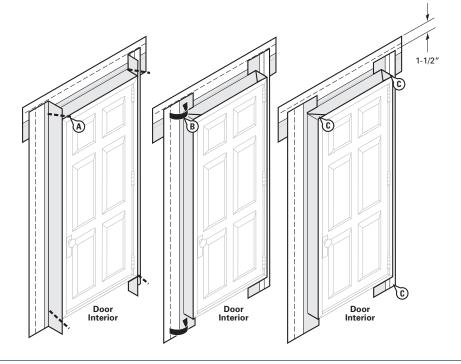


- A. Prepare head flashing by cutting a piece of **DuPont™ VersaFlange™** at least 12″ **LONGER** than the head length.
- B. Break the scored release paper on one edge of the head flashing by folding it back and forth upon itself.
- C. Center the VersaFlange™ along the length of the door head and position so that it contacts the door frame and interior side of the brick mold. Remove the outer release paper and adhere the flashing to the door frame. Use the inner release paper to form a tight seal in the corner.
- D. Remove the inner release paper strip and adhere the flashing to the back of the brick mold.
- E. Beginning at the junction of the jamb and head, and away from the corner, cut the **VersaFlange**™ at a 45° angle.
- F. Fold the newly created flashing flap down flat against the brick mold.
- G. Fold remaining head flashing flaps down onto the jamb frame.



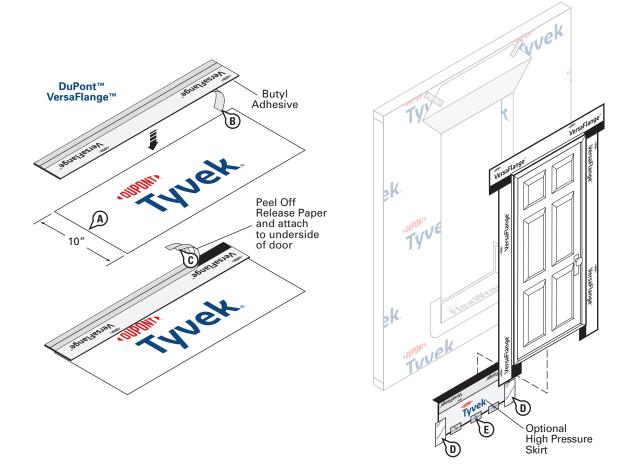


- A. Prepare jamb flashing by cutting a piece of **DuPont™ VersaFlange™** at least 6″ **LONGER** than the jamb.
- B. Break the scored release paper on one side of the jamb flashing by folding it back and forth upon itself.
- C. Position so that the VersaFlange™ contacts the door frame and interior side of the brick mold. Ensure that the jamb flashing is positioned 1-1/2 inch below the top edge of the head flashing. Jamb flashing adhesive must come in contact with head flashing adhesive by one inch.
- D. Remove the outer release paper and adhere the flashing to the door frame. Use the inner release paper to form a tight seal in the corner.
- E. Remove the inner release paper and adhere the flashing to the back of the brick mold.
- F. Repeat on for opposite jamb.



#### STFP 7

- A. Beginning at the junction of the jamb and head, and away from the corner, cut the VersaFlange™ at a 45° angle. Repeat the procedure at the junction of the sill and jamb.
- B. Fold cut jamb flashing parallel to the door frame so that the jamb flashing lies flat.
- C. Fold remaining jamb flashing flaps down at all corners and adhere to the door frame.



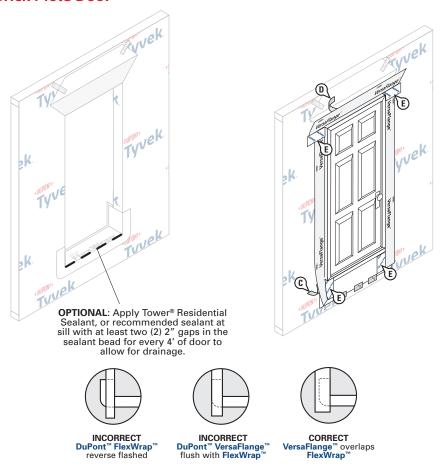
### STEP 8 (OPTIONAL) - HIGH PRESSURE SKIRT

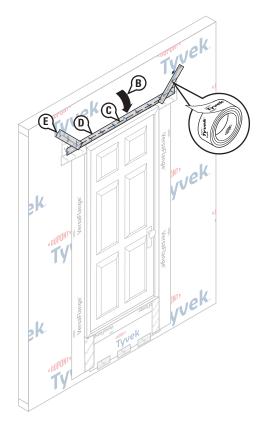
For extreme weather conditions, performance requirements exceeding ASTM E1677, or window/door design ratings of DP45 or greater, see *Special Considerations*.

- A. Create the high pressure skirt by cutting a piece of **Tyvek® WRB** 1" wider than the width of door opening and approximately 10" in height.
- B. Cut a piece of **DuPont™ VersaFlange™** to the same width of skirt. Remove release paper from one side of the **VersaFlange™** and adhere to **Tyvek® WRB**. The skirt may be made with either **VersaFlange™** or **DuPont™ StraightFlash™**.
- C. Remove the release paper from the other side of the **VersaFlange**™ and adhere the

butyl adhesive at the sill skirt to the underside of the door threshold behind the jamb flashing.

- D. After installation of door, secure edges of the optional skirt with two 4" pieces of **StraightFlash**™.
- E. Tape the bottom of the optional skirt to allow for drainage and to minimize wind damage during construction.





### STEP 9

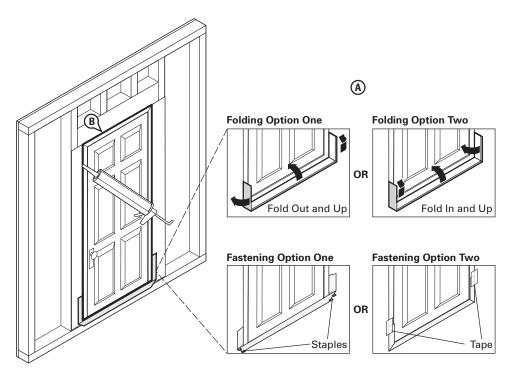
- A. **OPTIONAL**: Apply Tower® Residential Sealant or recommended sealant along the sill as shown above.
- B. Install door according to manufacturer's installation instructions.
- C. Remove the remaining release paper from the **DuPont™ VersaFlange™** jamb flashing and press firmly to adhere the butyl adhesive to the **Tyvek® WRB**.
- D. Remove the release paper at the head and adhere the **VersaFlange**™ to the wall surface.

**NOTE**: Do not reverse shingle. **VersaFlange**™ must overlap **DuPont**™ **FlexWrap**™ and adhere to the substrate.

E. **OPTIONAL**: Cover exposed butyl with **DuPont**™ **Flashing Tape** or **DuPont**™ **StraightFlash**™

### STEP 10 (RECOMMENDED BEST PRACTICE)

- A. **OPTIONAL**: If installing a drip cap as part of the door installation BEFORE the **Tyvek**® **WRB** head flap is flipped down and sealed, see *Drip Cap Installation Section* and refer to Option 2.
- B. Flip down upper flap of Tyvek® WRB so it lays flat across head flashing.
- C. Cut ~1" strip of the **Tyvek® WRB** at lower horizontal edge of head flap.
- D. Tape seams as shown. **DO NOT TAPE** at bottom of door. At the head, continuous tape seams as shown with **DuPont™ Tyvek® Tape**; if an air barrier is not required or if additional drainage is desired. Skip-taping at the head is acceptable.
- E. Tape down diagonal seams of the **Tyvek**® **WRB**. **OPTIONAL**: If installing a drip cap AFTER the **Tyvek**® **WRB** head flap is flipped down and sealed, see *Drip Cap Installation Section* and refer to Option 3.



#### STEP 11

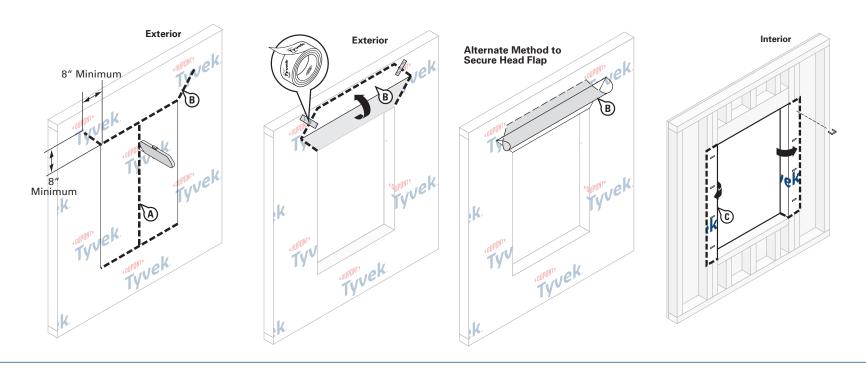
Final Step

- A. When the interior flooring is ready to install, remove release paper and use Folding Option One or Two to form back dam.
- B. Install Tower® Residential Sealant or recommended sealant (and backer rod as necessary) around the window opening at the interior. It is also acceptable to use Great Stuff Pro™ Window & Door Polyurethane Foam Sealant, or recommended foam. When using Tower® Residential Sealant, tool sealant bead flat to allow the natural curing process to create a concave shape. Be sure that the sealant penetrates the grooves of the DuPont™ FlexWrap™ around the sill. When using Great Stuff Pro™ Window & Door Polyurethane Foam Sealant in perimeter openings less than 1/2", apply using the plastic extension tip for the Great Stuff Pro™ Dispensing Gun during installation.

**NOTE**: Installations that specify a window/door design rating of DP45 or greater require extra precautions. See *Special Considerations* for performance requirements exceeding this design rating.

Ensure **DuPont™ VersaFlange™** logo side faces the exterior.

This method applies to the following products: DuPont™ Flashing Tape, DuPont™ StraightFlash™, DuPont™ VersaFlange™, DuPont™ FlexWrap™ EZ



#### STEP 1

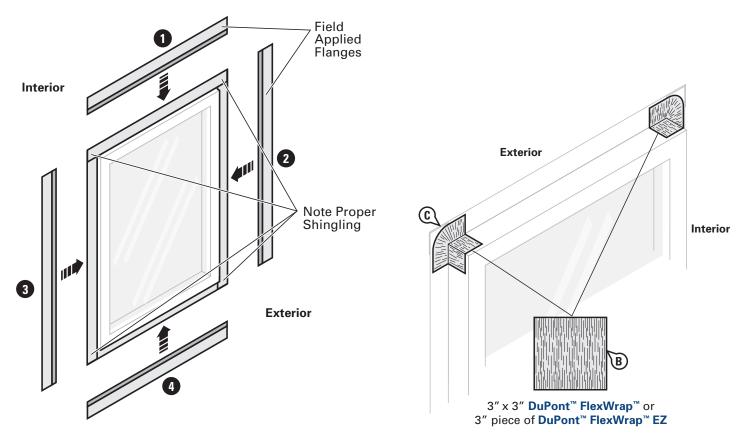
Prepare the **Tyvek**° **WRB** for window installation:

- A. Make an "I-Cut" (Standard I-Cut) in the **Tyvek® WRB** (modified I-Cut is also accepted). For an "I-Cut", begin with a horizontal cut across the bottom and the top of the window frame. From the center, cut straight down to the sill.
- B. Cut two 45 degree slits a minimum of 8" extending from the corner of the window head, up and away from the window opening. This will create a flap above the rough opening to expose sheathing or framing members to allow head flashing installation. Flip head flap up and temporarily secure with **DuPont™ Tyvek® Tape**.

**ALTERNATE METHOD TO SECURE HEAD FLAP**: In lieu of temporarily taping, the head flap can be tucked under the **Tyvek**° **WRB**.

NOTE: Some windows and flashing widths may require longer slits.

C. Fold side flaps into rough opening and secure to inside wall. Cut off excess flaps if desired.

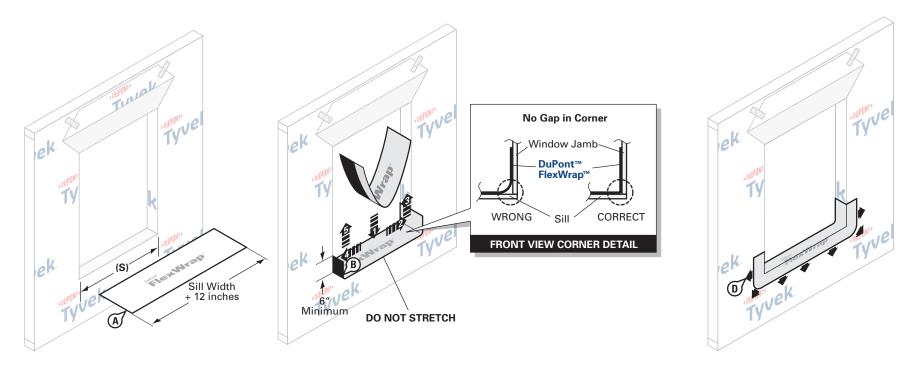


### STEP 2

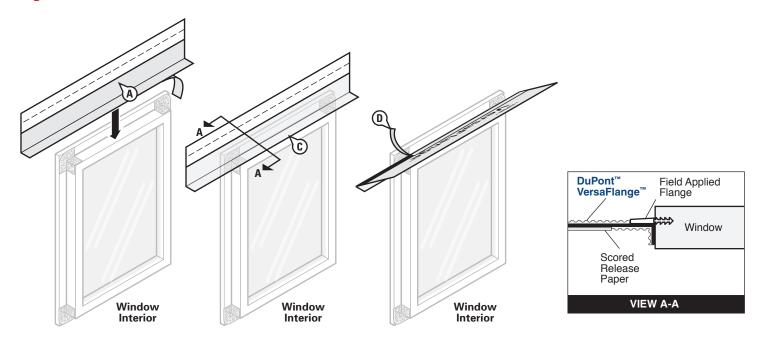
A. Apply field applied flanges in the correct shingling fashion per manufacturer's installation instructions.

DO NOT REVERSE SHINGLE.

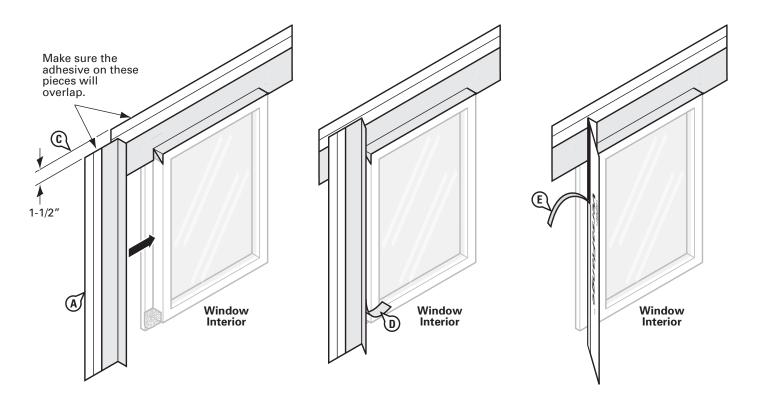
- B. Cut a 3" x 3" piece of **DuPont**™ **FlexWrap**™ or a 3" piece of **DuPont**™ **FlexWrap**™ **EZ**.
- C. Apply **FlexWrap**™ or **FlexWrap**™ **EZ** patches to back of flange corners before applying **DuPont**™ **VersaFlange**™.



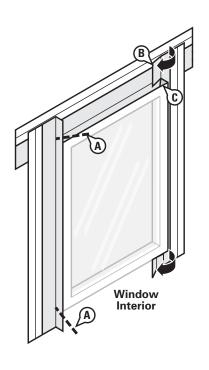
- A. Cut **DuPont™ FlexWrap™** at least 12″ **LONGER** than width of rough opening sill (S). Use roll widths sufficient to achieve a minimum of 1″ adhesion **BEYOND** where the window frame will be located, ensuring 2″–3″ adhesion onto the face of the wall.
- B. Remove wide piece of release paper. Position on horizontal sill by aligning the inside edge of the narrow release paper with the face of the wall to ensure 2"–3" of the **FlexWrap**" will be adhered to the face of the wall with a minimum of 6" up each jamb. Adhere into rough opening.
- C. Remove narrow release paper.
- D. Fan out the **FlexWrap**™ at corners and adhere onto face of wall. Continue adhering onto face of wall along sill. Coverage of **FlexWrap**™ should be 2″– 3″ onto the face of the wall.

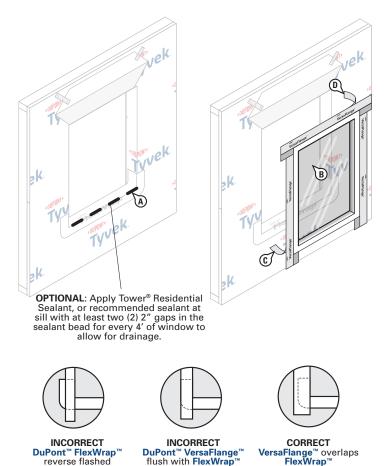


- A. Prepare head flashing by cutting a piece of **DuPont™ VersaFlange™** at least 12″ **LONGER** than the head length.
- B. Break the scored release paper on one side of the head flashing by folding it back and forth upon itself.
- C. Center the **VersaFlange™** on the window head and position so that it contacts the window frame and interior side of the flange. Remove the outer release paper and adhere the flashing to the window frame. Use the inner release paper to form a tight seal in the corner.
- D. Remove the inner release paper and adhere the flashing to the back of the flange.
- E. Beginning at the junction of the jamb and head, and away from the corner, cut the **VersaFlange**™ at a 45° angle.
- F. Fold the newly created flashing flap down flat against the flange.
- G. Fold remaining head flashing flaps down onto the jamb frame.



- A. Prepare jamb flashing by cutting a piece of **DuPont™ VersaFlange™** at least 6″ **LONGER** than the jamb.
- B. Break the scored release paper on one side of the jamb flashing by folding it back and forth upon itself.
- C. Position so that VersaFlange™ contacts the window frame and interior side of the brick mold or flange. Ensure that the jamb flashing is positioned 1-1/2 inch below the top edge of the head flashing. Jamb flashing adhesive must come in contact with head flashing adhesive and overlap by one inch.
- D. Remove the outer release paper and adhere the flashing to the window frame. Use the inner release paper to form a tight seal in the corner.
- E. Remove the inner release paper and adhere the flashing to the back of the flange.
- F. Repeat on opposite jamb.





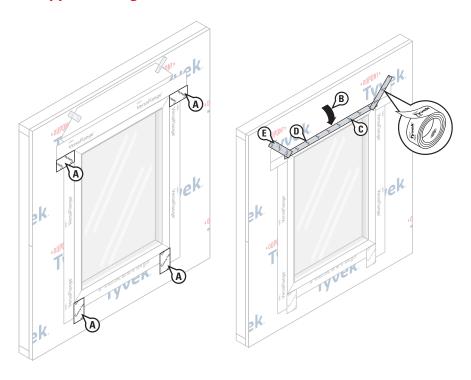
#### STEP 6

- A. Beginning at the junction of the jamb and head, and away from the corner, cut the **DuPont™ VersaFlange™** at a 45° angle. Repeat this procedure at the junction of the sill and jamb.
- B. Fold cut jamb, sill and head corners flashing parallel to the window frame so that the jamb flashing lies flat.
- C. Fold the remaining flaps down at corner and adhere to the window frame.

#### STEP 7

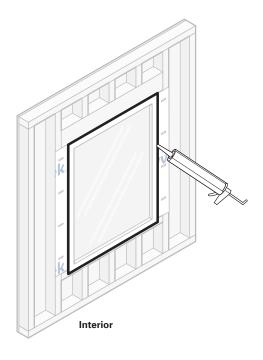
- A. **OPTIONAL**: Apply Tower® Residential Sealant or recommended sealant along the sill as shown above.
- B. Install the window per manufacturer's instructions.
- C. Remove the remaining release paper from the VersaFlange™ jamb flashing and press firmly to adhere the butyl adhesive to the Tyvek® WRB.
- D. Remove the release paper at the head and adhere the **VersaFlange**™ to the wall surface.

**NOTE**: Do not reverse shingle. **VersaFlange**™ must overlap **DuPont**™ **FlexWrap**™ and adhere to the substrate.





- A. **OPTIONAL**: Cover exposed butyl with **DuPont™ Flashing Tape**, **DuPont™ StraightFlash™**, **or DuPont™ Tyvek® Tape**. **OPTIONAL**: If installing a drip cap as part of the door installation BEFORE the **Tyvek® WRB** head flap is flipped down and sealed, see *Drip Cap Installation Section* and refer to Option 2.
- B. Flip down upper flap of **Tyvek®WRB** so it lays flat across head flashing.
- C. Cut ~1" strip of the **Tyvek**® **WRB** at lower horizontal edge of head flap.
- D. Tape seams as shown. **DO NOT TAPE** at bottom of window. At the head, continuous tape seams as shown with **Tyvek**° **Tape**. Skip-taping at the head is acceptable if an air barrier is not required or if additional drainage is desired.
- E. Tape down diagonal seams of the **Tyvek**® **WRB**. **OPTIONAL**: If installing a drip cap AFTER the **Tyvek**® **WRB** head flap is flipped down and sealed, see *Drip Cap Installation Section* and refer to Option 3.



#### STEP 9

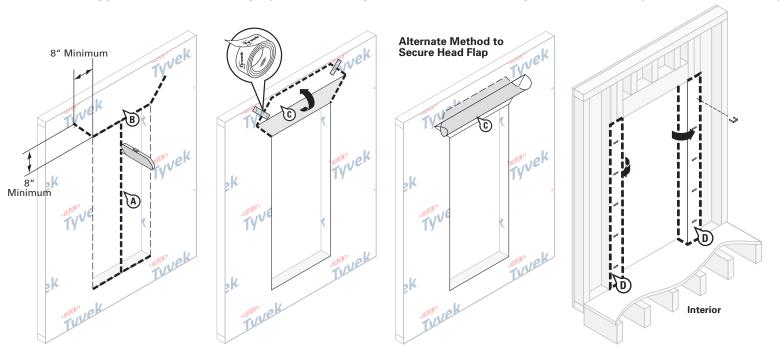
Final Step

Install Tower® Residential Sealant or recommended sealant (and backer rod as necessary) around the window opening at the interior. It is also acceptable to use **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant**, or recommended foam. When using Tower® Residential Sealant, tool sealant bead flat to allow the natural curing process to create a concave shape. Be sure that the sealant penetrates the grooves of the **DuPont™ FlexWrap™** around the sill. When using **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant** in perimeter openings less than 1/2″, apply using the plastic extension tip for the **Great Stuff Pro™ Dispensing Gun** during installation.

**NOTE**: Installations that specify a window/door design rating of DP45 or greater require extra precautions. See *Special Considerations* for performance requirements exceeding this design rating.

This installation quide is intended for doors installed above grade and/or with wood floor construction.

This method applies to the following products: DuPont™ Flashing Tape, DuPont™ StraightFlash™, DuPont™ VersaFlange™, DuPont™ FlexWrap™ EZ



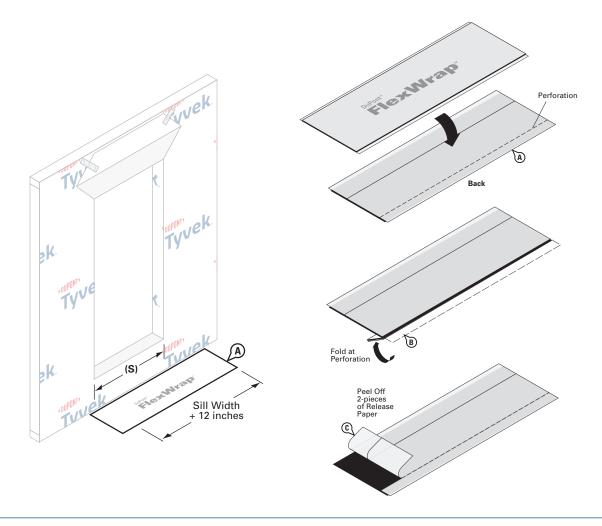
### STEP 1

Prepare the **Tyvek**° **WRB** for door installation:

- A. Make an "I-Cut" (Standard I-Cut) in the **Tyvek**® **WRB**. For an "I-Cut", begin with a horizontal cut across the bottom and the top of the door frame. From the center, cut straight down to the sill.
- B. Cut two 45 degree slits a minimum of 8" extending from the corner of the door head, up and away from door opening. This will create a flap above the rough opening to expose sheathing or framing members to allow head flashing installation (see step 8). **NOTE**: Some doors and flashing widths may require longer slits.
- C. Flip head flap up and temporarily secure with **DuPont**™ **Tyvek**® **Tape**.

**ALTERNATE METHOD TO SECURE HEAD FLAP**: In lieu of temporarily taping, the head flap can be tucked under the **Tyvek**° **WRB**.

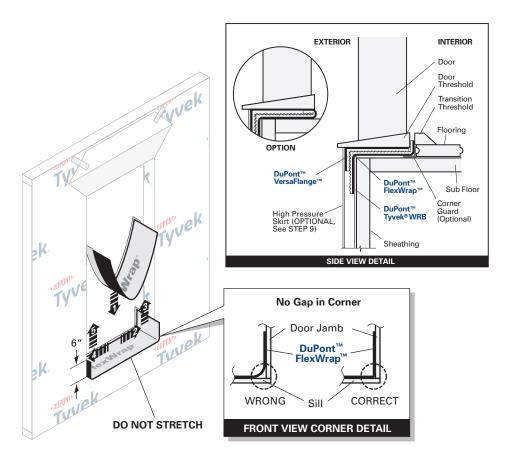
D. Fold side flaps into rough opening, and secure to inside wall framing. Cut off excess flaps if desired.

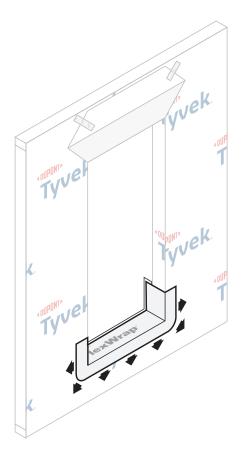


### STEP 2

Preparation of sill flashing:

- A. Cut **DuPont**™ **FlexWrap**™ at least 12" longer than width of the sill (S).
- B. 9" **FlexWrap™** has perforated release paper to help with the formation of the back dam (see Step 10). To ensure that the perforation tears cleanly, fold the perforation 180° and crease the flashing.
- C. Remove the two widest pieces of release paper leaving the narrowest release paper on the flashing. When the finished floor is applied, the release paper can be removed and the back dam can be completed.





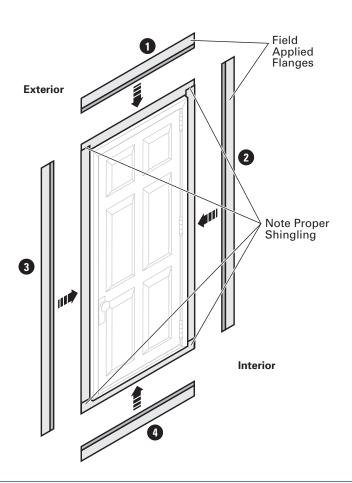
#### STEP 3

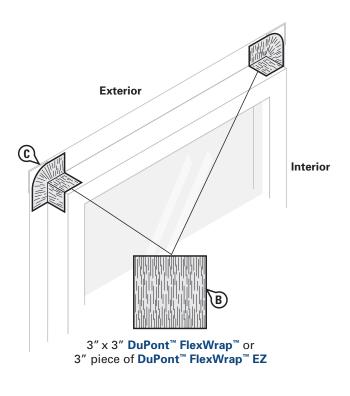
Position the sill flashing as indicated so the section with the release paper still attached extends past the door threshold on the inside. Ensure that 2"-3" of the **DuPont** FlexWrap will be adhered to the face of the wall with a minimum of 6" up each jamb. Adhere into rough opening. When the narrow release paper is removed, the remaining section of FlexWrap can be used to form a back dam (see Step 10).

**OPTIONAL**: **Create back dam by folding back narrow section of FlexWrap**<sup>™</sup>: Some flooring cannot accomodate a back dam. In that case fold the back dam on top of **FlexWrap**<sup>™</sup> in the sill. The door will be installed on top of the fold to create a back dam (see Side View Detail above).

### STEP 4

Fan out the **FlexWrap**™ at corners and adhere onto face of wall. Continue adhering onto face of wall along sill. Coverage of **FlexWrap**™ should be 2″– 3″ onto the face of the wall.



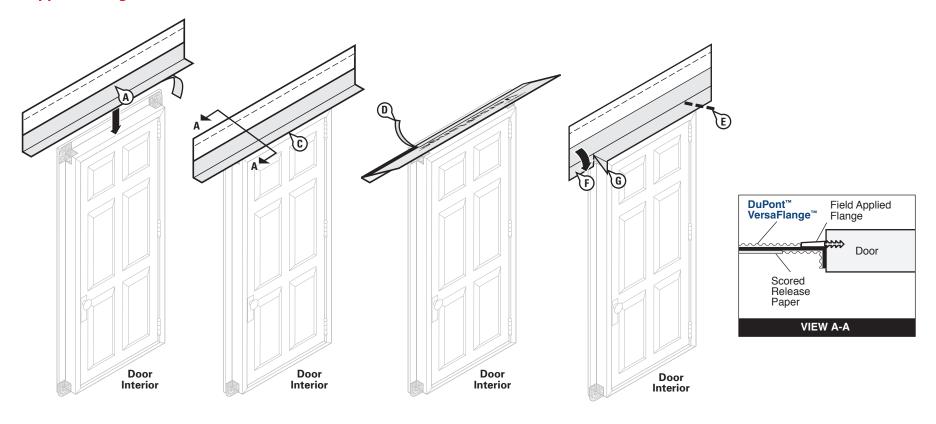


### STEP 5

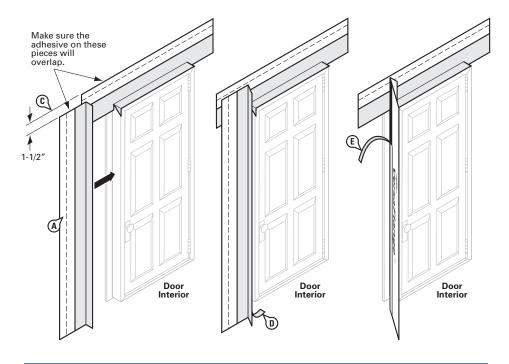
A. Apply field applied flanges in the correct shingling fashion as per manufacturer's installation instructions.

DO NOT REVERSE SHINGLE.

- B. Cut a 3" x 3" piece of **DuPont**™ **FlexWrap**™ or a 3" piece of **DuPont**™ **FlexWrap**™ **EZ**.
- C. Apply **FlexWrap**™ or **FlexWrap**™ **EZ** patches to back of flange corners before applying **DuPont**™ **VersaFlange**™.

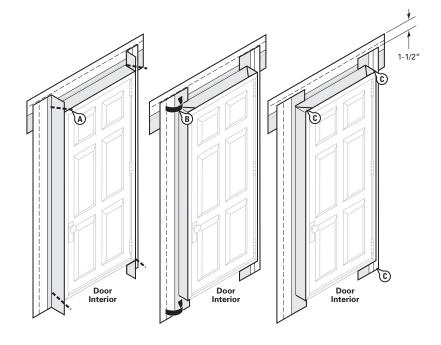


- A. Prepare head flashing by cutting a piece of **DuPont™ VersaFlange™** at least 12" **LONGER** than the head length.
- B. Break the scored release paper on one edge of the head flashing by folding it back and forth upon itself.
- C. Center the VersaFlange™ along the length of the door head and position so that it contacts the door frame and interior side of the flange. Remove the outer release paper and adhere the flashing to the door frame. Use the inner release paper to form a tight seal in the corner.
- D. Remove the inner release paper strip and adhere the flashing to the back of the flange.
- E. Beginning at the junction of the jamb and head, and away from the corner, cut the **VersaFlange**™ at a 45° angle.
- F. Fold the newly created flashing flaps down flat against the flange.
- G. Fold remaining head flashing flaps down onto the jamb frame.

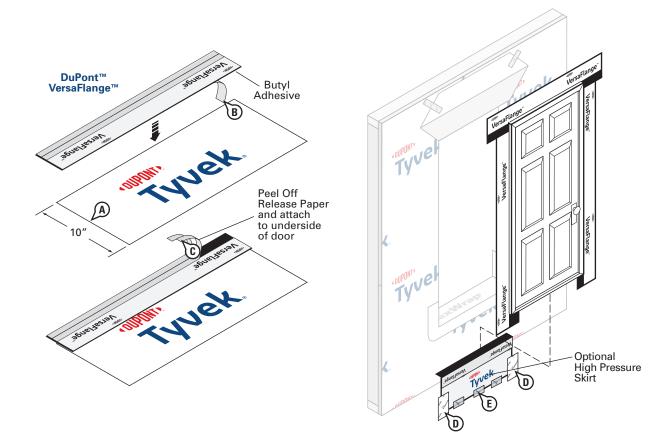




- A. Prepare jamb flashing by cutting a piece of **DuPont™ VersaFlange™** at least 6″ **LONGER** than the jamb.
- B. Break the scored release paper on one side of the jamb flashing by folding it back and forth upon itself.
- C. Position so that the VersaFlange™ contacts the door frame and interior side of the flange. Ensure that the jamb flashing is positioned 1-1/2 inch below the top edge of the head flashing. Jamb flashing adhesive must come in contact with head flashing adhesive by one inch.
- D. Remove the outer release paper and adhere the flashing to the door frame. Use the inner release paper to form a tight seal in the corner.
- E. Remove the inner release paper and adhere the flashing to the back of the flange.
- F. Repeat on opposite jamb.



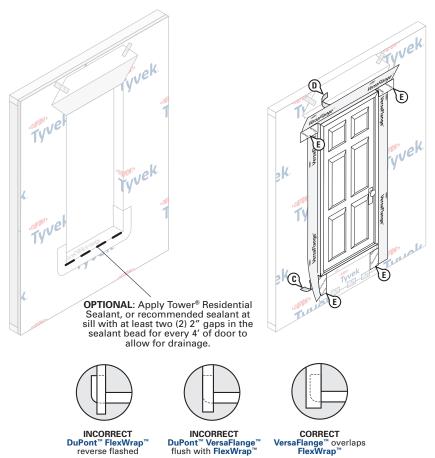
- A. Beginning at the junction of the jamb and head, and away from the corner, cut the **VersaFlange**™ at a 45° angle. Repeat the procedure at the junction of the sill and jamb.
- B. Fold cut jamb flashing parallel to the door frame so that the jamb flashing lies flat.
- C. Fold remaining jamb flashing flaps down at all corners and adhere to the door frame.

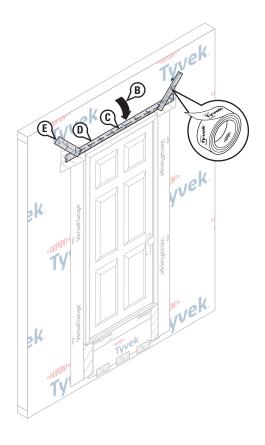


### STEP 9 (OPTIONAL) - HIGH PRESSURE SKIRT

For extreme weather conditions, performance requirements exceeding ASTM E1677, or window/door design ratings of DP45 or greater, see *Special Considerations*.

- A. Create the high pressure skirt by cutting a piece of **Tyvek® WRB** 1" wider than the width of door opening and approximately 10" in height.
- B. Cut a piece of **DuPont™ VersaFlange™** to the same width of skirt. Remove release paper from one side of the **VersaFlange™** and adhere to **Tyvek® WRB**. The skirt may be made with either **VersaFlange™** or **DuPont™ StraightFlash™**.
- C. Remove the release paper from the other side of the VersaFlange™ and adhere the butyl adhesive at the sill skirt to the underside of the door threshold behind the jamb flashing.
- D. After installation of door, secure edges of the optional skirt with two 4" pieces of **DuPont™ Flashing Tape** or **StraightFlash™**.
- E. Tape the bottom of the optional skirt to allow for drainage and to minimize wind damage during construction.





#### STEP 10

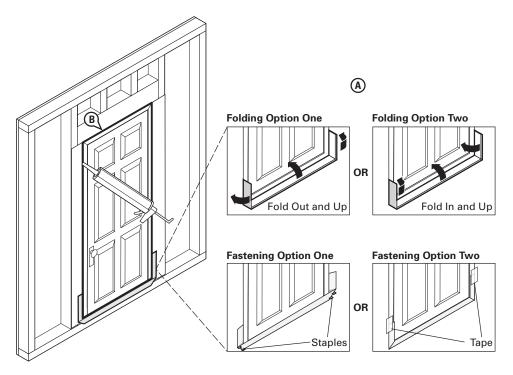
- A. **OPTIONAL**: Apply Tower® Residential Sealant or recommended sealant along the sill as shown above.
- B. Install door according to manufacturer's installation instructions.
- C. Remove the remaining release paper from the **DuPont™ VersaFlange™** jamb flashing and press firmly to adhere the butyl adhesive to the **Tyvek® WRB**.
- D. Remove the release paper at the head and adhere the **VersaFlange**™ to the wall surface.

**NOTE**: Do not reverse shingle. **VersaFlange**<sup>™</sup> must overlap **DuPont**<sup>™</sup> **FlexWrap**<sup>™</sup> and adhere to the substrate.

E. **OPTIONAL**: Cover exposed butyl with **DuPont**™ **Flashing Tape** or **DuPont**™ **StraightFlash**™

### STEP 11 (RECOMMENDED BEST PRACTICE)

- A. **OPTIONAL**: If installing a drip cap as part of the door installation BEFORE the **Tyvek**® **WRB** head flap is flipped down and sealed, see *Drip Cap Installation Section* and refer to Option 2.
- B. Flip down upper flap of Tyvek® WRB so it lays flat across head flashing.
- C. Cut ~1" strip of the **Tyvek**® **WRB** at lower horizontal edge of head flap.
- D. Tape seams as shown. **DO NOT TAPE** at bottom of door. At the head, continuous tape seams as shown with **Tyvek**° **Tape**; if an air barrier is not required or if additional drainage is desired. Skip-taping at the head is acceptable.
- E. Tape down diagonal seams of the **Tyvek**° **WRB**. **OPTIONAL**: If installing a drip cap AFTER the **Tyvek**° **WRB** head flap is flipped down and sealed, see *Drip Cap Installation Section* and refer to Option 3.



#### STEP 12

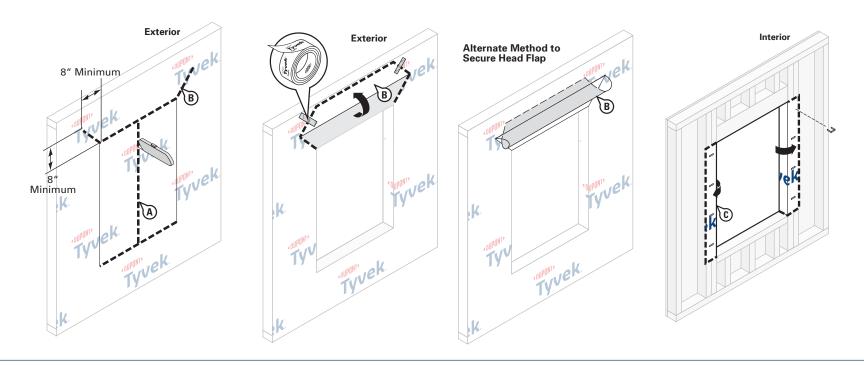
Final Step

- A. When the interior flooring is ready to install, remove release paper and use Folding Option One or Two to form back dam.
- B. Install Tower® Residential Sealant or recommended sealant (and backer rod as necessary) around the window opening at the interior. It is also acceptable to use Great Stuff Pro™ Window & Door Polyurethane Foam Sealant, or recommended foam. When using Tower® Residential Sealant, tool sealant bead flat to allow the natural curing process to create a concave shape. Be sure that the sealant penetrates the grooves of the DuPont™ FlexWrap™ around the sill. When using Great Stuff Pro™ Window & Door Polyurethane Foam Sealant in perimeter openings less than 1/2", apply using the plastic extension tip for the Great Stuff Pro™ Dispensing Gun during installation.

**NOTE**: Installations that specify a window/door design rating of DP45 or greater require extra precautions. See *Special Considerations* for performance requirements exceeding this design rating.

Ensure **DuPont**™ **VersaFlange**™ logo side faces the exterior.

This method applies to the following products: DuPont™ Flashing Tape, DuPont™ StraightFlash™, DuPont™ VersaFlange™, DuPont™ FlexWrap™ EZ



### STEP 1

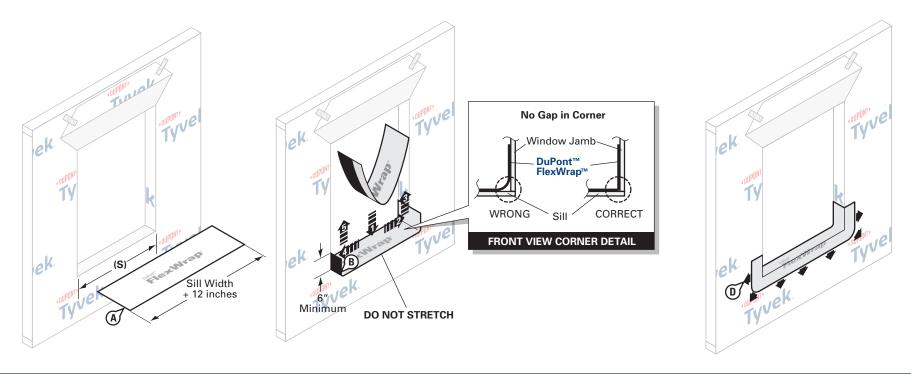
Prepare the **Tyvek® WRB** for window installation:

- A. Make an "I-Cut" (Standard I-Cut) in the **Tyvek® WRB** (modified I-Cut is also accepted). For an "I-Cut", begin with a horizontal cut across the bottom and the top of the window frame. From the center, cut straight down to the sill.
- B. Cut two 45 degree slits a minimum of 8" extending from the corner of the window head, up and away from the window opening. This will create a flap above the rough opening to expose sheathing or framing members to allow head flashing installation. Flip head flap up and temporarily secure with **DuPont**" **Tyvek Tape**.

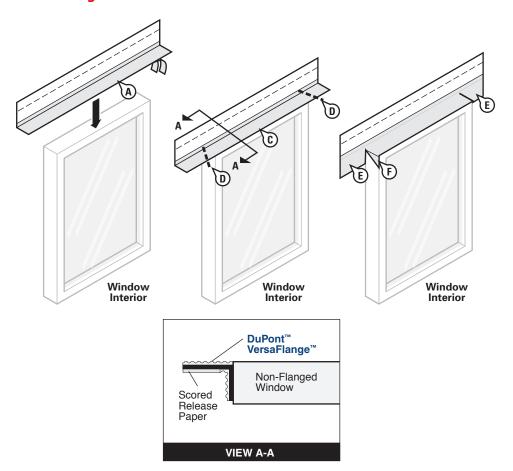
**ALTERNATE METHOD TO SECURE HEAD FLAP**: In lieu of temporarily taping, the head flap can be tucked under the **Tyvek**° **WRB**.

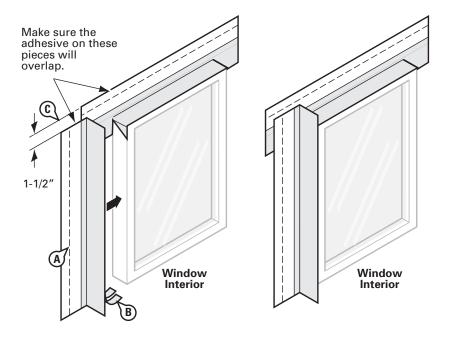
**NOTE**: Some windows and flashing widths may require longer slits.

C. Fold side flaps into rough opening and secure to inside wall. Cut off excess flaps if desired.



- A. Cut **DuPont™ FlexWrap™** at least 12″ **LONGER** than width of rough opening sill (S). Use roll widths sufficient to achieve a minimum of 1″ adhesion **BEYOND** where the window frame will be located, ensuring 2″–3″ adhesion onto the face of the wall.
- B. Remove wide piece of release paper. Position on horizontal sill by aligning the inside edge of the narrow release paper with the face of the wall to ensure 2"–3" of the **FlexWrap**" will be adhered to the face of the wall with a minimum of 6" up each jamb. Adhere into rough opening.
- C. Remove narrow release paper.
- D. Fan out the **FlexWrap**™ at corners and adhere onto face of wall. Continue adhering onto face of wall along sill. Coverage of **FlexWrap**™ should be 2″– 3″ onto the face of the wall.



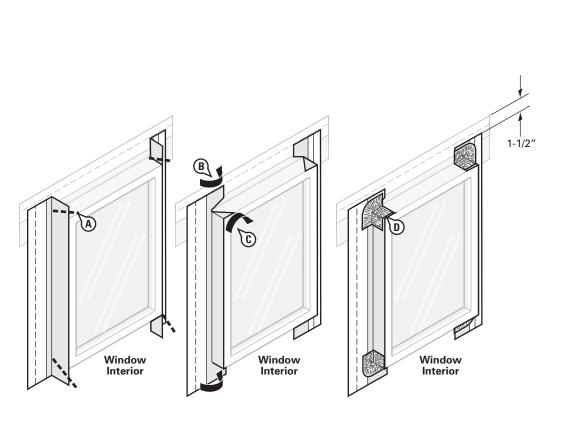


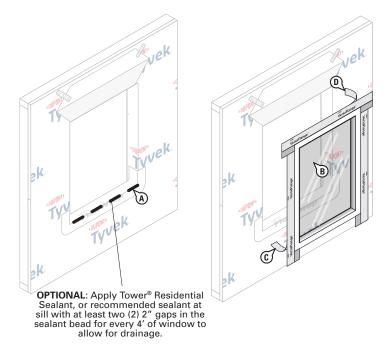
#### STEP 3

- A. Prepare head flashing by cutting a piece of **DuPont™ VersaFlange™** at least 12″ longer than the head length.
- B. Remove the release paper from one side of the **VersaFlange**™.
- C. Center the flashing along the length of the window and position so that it contacts the window frame.
- D. Beginning at the junction of the jamb and head and away from the corners, cut the **VersaFlange**™ at a 45° angle.
- $\hbox{E. Fold the newly created flashing flaps down parallel to the window frame.}\\$
- F. Fold remaining head flashing flaps down onto the jamb.

- A. Prepare jamb flashing by cutting a piece of **VersaFlange**™ at least 6" **LONGER** than the jamb length.
- B. Remove the release paper from one side of the **VersaFlange**™.
- C. Position the VersaFlange™ so that it contacts the window frame up to the exterior face of the window. Ensure that the jamb flashing is positioned 1-1/2 inches below top of head flashing. Jamb flashing adhesive must come in contact with head flashing adhesive and overlap by one inch.
- D. Repeat on opposite jamb.

Non-Flanged Window







INCORRECT
DuPont™ FlexWrap™
reverse flashed



INCORRECT
DuPont™ VersaFlange™
flush with FlexWrap™



CORRECT VersaFlange™ overlaps FlexWrap™

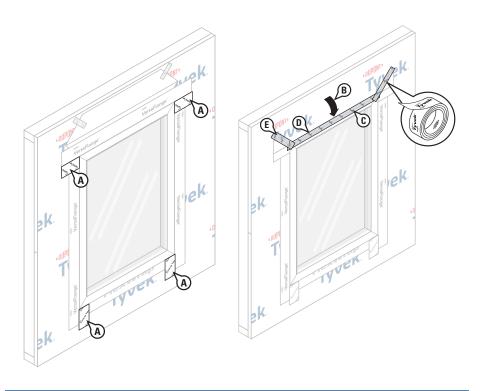
#### STEP 5

- A. Beginning at the junction of the jambs and the head, and away from the corners, cut the **DuPont™ VersaFlange™** at a 45° angle. Repeat the procedure at the junction of the sill and jambs.
- B. Fold cut jamb flashing parallel to the window frame so that the jamb flashing lies flat.
- C. Fold remaining jamb flashing flaps down at all corners and adhere to the window frame.
- D. Cut four 3" x 3" pieces of **DuPont**™ **FlexWrap**™, or four 3" pieces of **DuPont**™ **FlexWrap**™ **EZ**, and add patches to corners of the window.

#### STEP 6

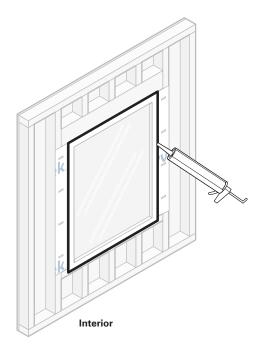
- A. **OPTIONAL**: Apply Tower® Residential Sealant or recommended sealant along the sill as shown above.
- B. Install the window per manufacturer's instructions.
- C. Remove the remaining release paper from the **VersaFlange™** jamb flashing and press firmly to adhere the butyl adhesive to the **Tyvek® WRB**.
- D. Remove the release paper at the head and adhere the **VersaFlange**™ to the wall surface

**NOTE**: Do not reverse shingle. **VersaFlange**™ must overlap **DuPont**™ **FlexWrap**™ and adhere to the substrate.





- A. **OPTIONAL**: Cover exposed butyl with **DuPont™ Flashing Tape**, **DuPont™ StraightFlash™**, or **DuPont™ Tyvek® Tape**.
- B. **OPTIONAL**: If installing a drip cap as part of the window installation BEFORE the **Tyvek® WRB** head flap is flipped down and sealed, see *Drip Cap Installation Section* and refer to Option 2.
- C. Flip down upper flap of **Tyvek**° **WRB** so it lays flat across head flashing.
- D. Cut ~1" strip of the **Tyvek**® **WRB** at lower horizontal edge of head flap.
- E. Tape seams as shown. **DO NOT TAPE** at bottom of window. At the head, continuous tape seams as shown with **Tyvek® Tape**. Skip-taping at the head is acceptable if an air barrier is not required or if additional drainage is desired.
- F. Tape down diagonal seams of the **Tyvek**® **WRB**. **OPTIONAL**: If installing a drip cap AFTER the **Tyvek**® **WRB** head flap is flipped down and sealed, see *Drip Cap Installation Section* and refer to Option 3.



### STEP 8

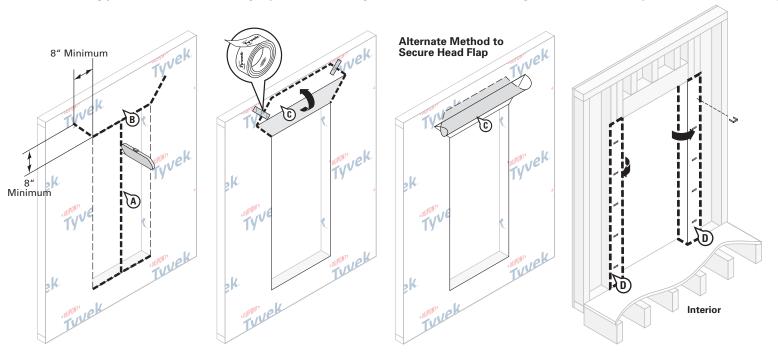
Final Step

Install Tower® Residential Sealant or recommended sealant (and backer rod as necessary) around the window opening at the interior. It is also acceptable to use **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant**, or recommended foam. When using Tower® Residential Sealant, tool sealant bead flat to allow the natural curing process to create a concave shape. Be sure that the sealant penetrates the grooves of the **DuPont™ FlexWrap™** around the sill. When using **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant** in perimeter openings less than 1/2″, apply using the plastic extension tip for the **Great Stuff Pro™ Dispensing Gun** during installation.

**NOTE**: Installations that specify a window/door design rating of DP45 or greater require extra precautions. See *Special Considerations* for performance requirements exceeding this design rating.

This installation quide is intended for doors installed above grade and/or with wood floor construction.

This method applies to the following products: DuPont™ Flashing Tape, DuPont™ StraightFlash™, DuPont™ VersaFlange™, DuPont™ FlexWrap™ EZ



#### STEP 1

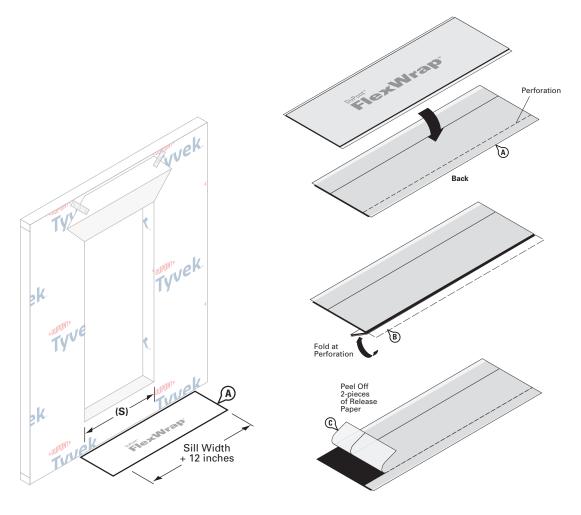
Prepare the **Tyvek® WRB** for door installation:

- A. Make an "I-Cut" (Standard I-Cut) in the **Tyvek**® **WRB**. For an "I-Cut", begin with a horizontal cut across the bottom and the top of the door frame. From the center, cut straight down to the sill.
- B. Cut two 45 degree slits a minimum of 8" extending from the corner of the door head, up and away from door opening. This will create a flap above the rough opening to expose sheathing or framing members to allow head flashing installation (see step 9). **NOTE**: Some doors and flashing widths may require longer slits.

C. Flip head flap up and temporarily secure with **DuPont™ Tyvek® Tape**.

**ALTERNATE METHOD TO SECURE HEAD FLAP**: In lieu of temporarily taping, the head flap can be tucked under the **Tyvek**° **WRB**.

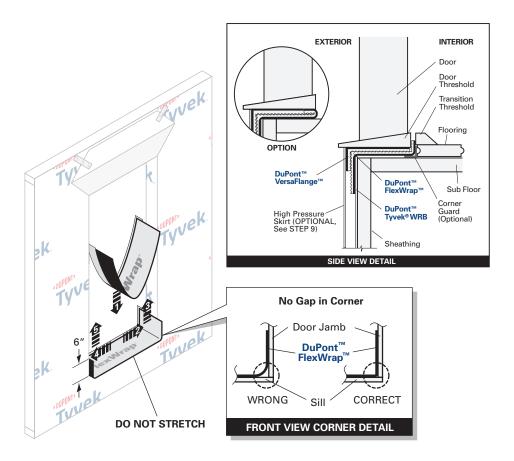
D. Fold side flaps into rough opening, and secure to inside wall framing. Cut off excess flaps if desired.

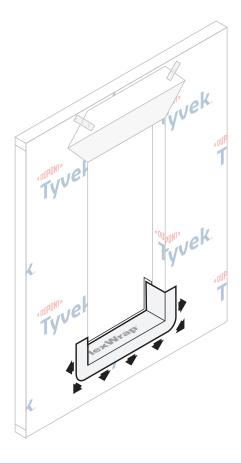


### STEP 2

Preparation of sill flashing:

- A. Cut 9" **DuPont**™ **FlexWrap**™ at least 12" **LONGER** than width of the sill (S).
- B. 9" **FlexWrap**™ has perforated release paper to help with the formation of the back back dam (see Step 9). To ensure that the perforation tears cleanly, fold the perforation 180° and crease the flashing.
- C. Remove the two widest pieces of release paper leaving the narrowest release paper on the flashing. When the finished floor is applied, the release paper can be removed and the back dam can be completed.





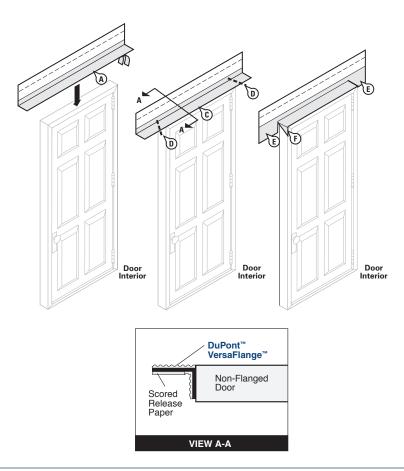
#### STEP 3

Position the sill flashing as indicated so the section with the release paper still attached extends past the door threshold on the inside. Ensure that 2"− 3" of the **DuPont™ FlexWrap™** will be adhered to the face of the wall with a minimum of 6" up each jamb. Adhere into rough opening. When the 1" of release paper is removed, the remaining section of **FlexWrap™** can be used to form a back dam.

**OPTIONAL**: **Create back dam by folding back narrow section of FlexWrap**<sup>™</sup>: Some flooring cannot accomodate a back dam. In that case fold the back dam on top of **FlexWrap**<sup>™</sup> in the sill. The door will be installed on top of the fold to create a back dam (see Side View Detail above).

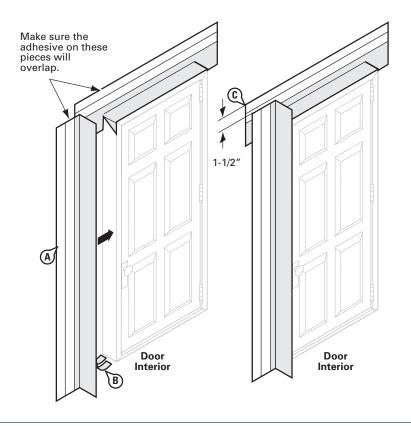
### STEP 4

Fan **FlexWrap**<sup> $^{\text{m}}$ </sup> at bottom corners onto face of wall. Coverage of **FlexWrap**<sup> $^{\text{m}}$ </sup> should be 2"–3" onto the face of the wall.

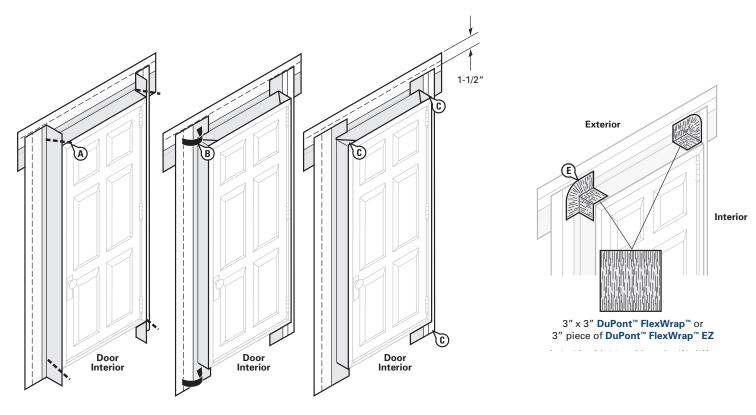


### STEP 5

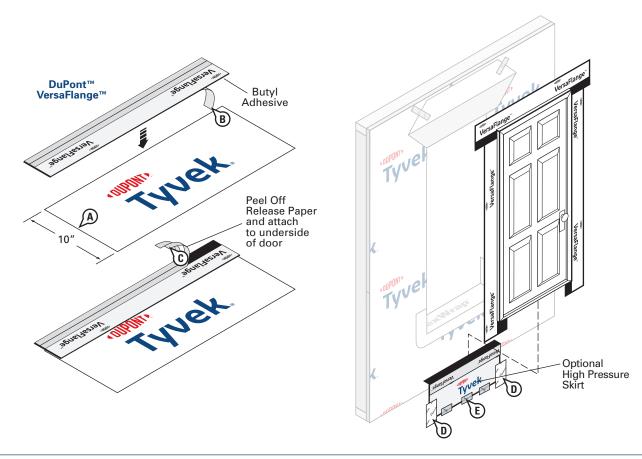
- A. Prepare head flashing by cutting a piece of **DuPont™ VersaFlange™** at least 12" **LONGER** than the head length.
- B. Remove the release paper from one side of the **VersaFlange**™.
- C. Center the VersaFlange™ along the length of the door and position so that it contacts the door frame.
- D. Beginning at the junction of the jamb and head, and away from the corners, cut the **VersaFlange**™ at a 45° angle.
- E. Fold the newly created flashing flaps down flat.
- F. Fold the remaining head flashing flaps down and adhere to the jamb frame.



- A. Prepare jamb flashing by cutting a piece of **VersaFlange**™ at least 6" **LONGER** than the jamb length.
- B. Remove the release paper from one side of the **VersaFlange**™.
- C. Position the VersaFlange™ so that it contacts the door frame up to the exterior face of the door. Ensure that the jamb flashing is positioned 1-1/2 inches below top of head flashing. Jamb flashing adhesive must come in contact with head flashing adhesive and overlap by one inch.
- D. Repeat on opposite jamb.



- A. Beginning at the junction of the jamb and the head, and away from the corner, cut the **DuPont™ VersaFlange™** at a 45° angle. Repeat the procedure at the junction of the sill and jambs.
- B. Fold cut jamb flashing parallel to the door frame so that the jamb flashing lies flat.
- $\hbox{C. Fold remaining jamb flashing flaps down at all corners and adhere to the door frame.}\\$
- D. Repeat on opposite jamb.
- E. Cut two 3" x 3" pieces of **DuPont**™ **FlexWrap**™, or two 3" pieces of **DuPont**™ **FlexWrap**™ **EZ**, squares and add patches to corners of the door.

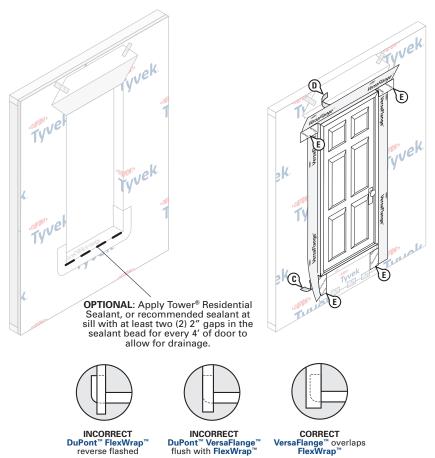


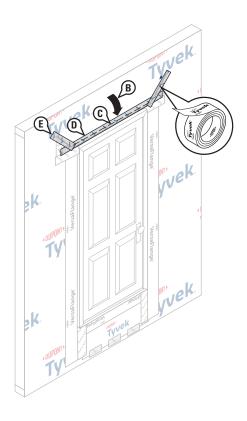
### STEP 8 (OPTIONAL) - HIGH PRESSURE SKIRT

#### (Completing installation of flashing for non-flanged door)

For extreme weather conditions, performance requirements exceeding ASTM E1677, or window/door design ratings of DP45 or greater, see Special Considerations.

- A. Create the high pressure skirt by cutting a piece of **Tyvek® WRB** 1" wider than the width of door opening and approximately 10" in height.
- B. Cut a piece of **DuPont™ VersaFlange™** to the same width of skirt. Remove release paper from one side of the **VersaFlange™** and adhere to **Tyvek® WRB**. The skirt may be made with either **VersaFlange™** or **DuPont™ StraightFlash™**.
- C. Remove the release paper from the other side of the **VersaFlange**™ and adhere the butyl adhesive at the sill skirt to the underside of the door threshold behind the jamb flashing.
- D. After installation of door, secure edges of the optional skirt with two 4" pieces of **StraightFlash**™.
- E. Tape the bottom of the optional skirt to allow for drainage and to minimize wind damage during construction.





#### STEP 9

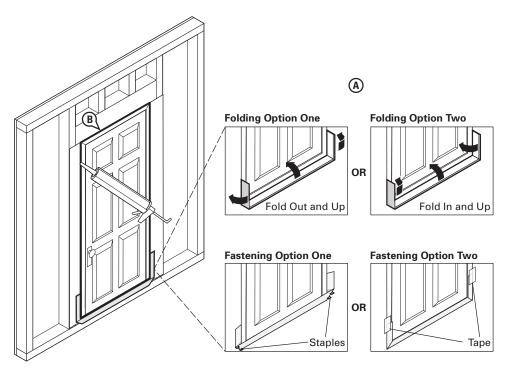
- A. **OPTIONAL**: Apply Tower® Residential Sealant or recommended sealant along the sill as shown above.
- B. Install door according to manufacturer's installation instructions.
- C. Remove the remaining release paper from the **DuPont™ VersaFlange™** jamb flashing and press firmly to adhere the butyl adhesive to the **Tyvek® WRB**.
- D. Remove the release paper at the head and adhere the **VersaFlange**™ to the wall surface.

**NOTE**: Do not reverse shingle. **VersaFlange**<sup>™</sup> must overlap **DuPont**<sup>™</sup> **FlexWrap**<sup>™</sup> and adhere to the substrate.

E. **OPTIONAL**: Cover exposed butyl with **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** 

### STEP 10 (RECOMMENDED BEST PRACTICE)

- A. **OPTIONAL**: If installing a drip cap as part of the door installation BEFORE the **Tyvek**® **WRB** head flap is flipped down and sealed, see *Drip Cap Installation Section* and refer to Option 2.
- B. Flip down upper flap of Tyvek® WRB so it lays flat across head flashing.
- C. Cut ~1" strip of the **Tyvek**® **WRB** at lower horizontal edge of head flap.
- D. Tape seams as shown. **DO NOT TAPE** at bottom of door. At the head, continuous tape seams as shown with **DuPont™ Tyvek® Tape**. Skip-taping at the head is acceptable if an air barrier is not required or if additional drainage is desired.
- E. Tape down diagonal seams of the **Tyvek**° **WRB**. **OPTIONAL**: If installing a drip cap AFTER the **Tyvek**° **WRB** head flap is flipped down and sealed, see *Drip Cap Installation Section* and refer to Option 3.



#### STEP 11

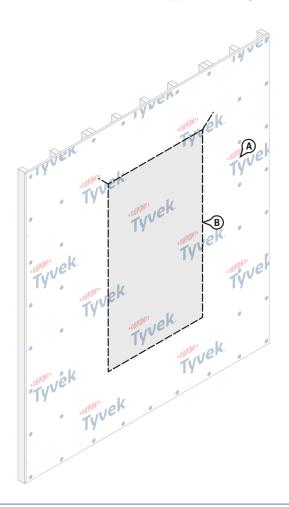
Final Step

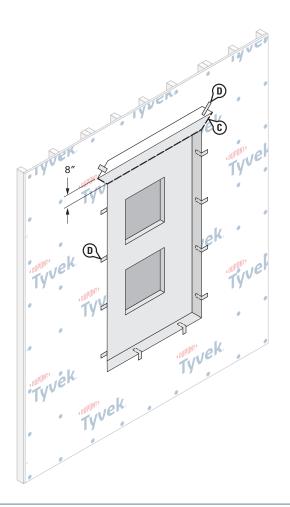
- A. When the interior flooring is ready to install, remove release paper and use Folding Option One or Two to form back dam.
- B. Install Tower® Residential Sealant or recommended sealant (and backer rod as necessary) around the window opening at the interior. It is also acceptable to use Great Stuff Pro™ Window & Door Polyurethane Foam Sealant, or recommended foam. When using Tower® Residential Sealant, tool sealant bead flat to allow the natural curing process to create a concave shape. Be sure that the sealant penetrates the grooves of the DuPont™ FlexWrap™ around the sill. When using Great Stuff Pro™ Window & Door Polyurethane Foam Sealant in perimeter openings less than 1/2", apply using the plastic extension tip for the Great Stuff Pro™ Dispensing Gun during installation.

**NOTE**: Installations that specify a window/door design rating of DP45 or greater require extra precautions. See *Special Considerations* for performance requirements exceeding this design rating.

# Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Hybrid Condition – DuPont™ Tyvek® WRB Terminated with DuPont™ StraightFlash™ and/or DuPont™ FlexWrap™ and Integrated with DuPont™ Tyvek® Fluid Applied Products

Complex wall and window flashing conditions may require the use of **Tyvek® Fluid Applied Products** for part of a wall or window and/or door flashing. While there are many variations of this condition, it is important to properly integrate the **Tyvek® WRB** with the **Tyvek® Fluid Applied Products** using **StraightFlash™** and **FlexWrap™**. The following example shows a recessed wall plane treated with **DuPont™ Tyvek® Fluid Applied WB+™** with a window flashed with **Tyvek® Fluid Applied Products** and integrated with the **Tyvek® WRB** on the face of the wall. Refer to the <u>DuPont™ Tyvek® Fluid Applied Flashing Installation Guidelines</u> for more information.



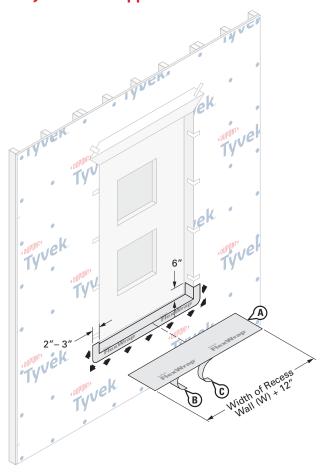


- A. Install **Tyvek® WRB** on wall per <u>DuPont™ Tyvek® Mechanically-Fastened Water-Resistive and Air Barrier (WRB) Installation Guidelines for Buildings Greater Than 4

  <u>Stories</u> that can be found at <u>building.dupont.com</u>. Do not install fasteners within 6" of the bottom and sides of the openings and within 9" of the top of the recessed wall.</u>
- B. Cut along perimeter of recessed wall plane.

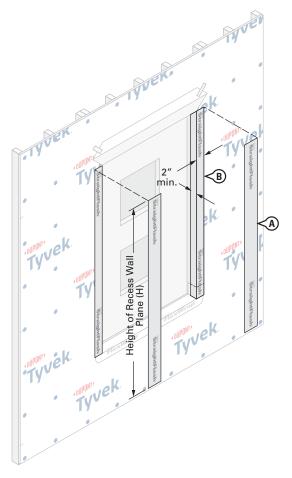
- C. Cut a flap at top of recessed wall plane at a 45° angle to expose 8" of sheathing to allow for installation of transition flashing in Step 4. Flip up to expose the sheathing and temporarily secure flap with **DuPont**™ **Tyvek**® **Tape**..
- D. Temporarily secure **Tyvek**® **WRB** with **Tyvek**® **Tape** at perimeter of recessed wall plane to facilitate transition flashing installation.

Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Hybrid Condition – DuPont™ Tyvek® WRB Terminated with DuPont™ StraightFlash™ and/or DuPont™ FlexWrap™ and Integrated with DuPont™ Tyvek® Fluid Applied Products





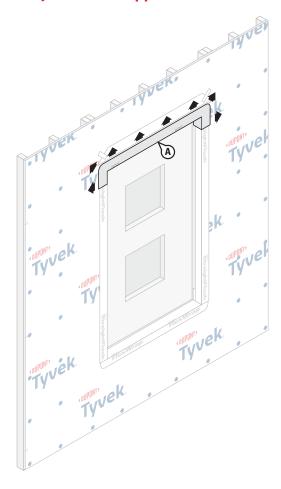
- A. Cut the **FlexWrap**<sup>™</sup> at least 12" **LONGER** than width of recessed wall plane (W).
- B. Remove wide piece of release paper and adhere on horizontal ledge by aligning the inside edge of the narrow release paper with the face of the wall to ensure 2"-3" of the FlexWrap™ will be adhered to the face of the wall with a minimum of 6" up each side.
- C. Remove narrow piece of release paper. Fan out the **FlexWrap**™ at corners and adhere onto face of wall. Continue adhering onto face of wall along sill. Coverage of **FlexWrap**™ should be 2″-3″ onto the face of the wall.\*



- A. Cut (2) pieces of **StraightFlash**™ the height of the recessed wall plane (H) or long enough to overlap the bottom of recessed wall flashing by at least 2" and be overlapped by future top of recess wall flashing by at least 2".
- B. Terminate the **Tyvek® WRB** along each side of recessed wall, ensuring the StraightFlash™ extends 2" onto the face of the wall and 2" into the recess.

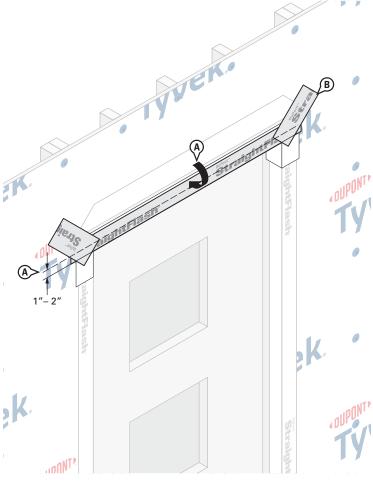
<sup>\*</sup>A 3-piece transition flashing method can also be used with StraightFlash™ in combination with FlexWrap™ corners. The StraightFlash™ in installed the width of the bottom or top of recessed wall plane prior to placing the FlexWrap™ corners. The FlexWrap™ corners should be at least 12″ long allowing for 6″ overlap onto the StraightFlash™ at bottom, top, and sides of recessed wall plane.

Hybrid Condition – DuPont<sup>™</sup> Tyvek<sup>®</sup> WRB Terminated with DuPont<sup>™</sup> StraightFlash<sup>™</sup> and/or DuPont<sup>™</sup> FlexWrap<sup>™</sup> and Integrated with DuPont<sup>™</sup> Tyvek<sup>®</sup> Fluid Applied Products





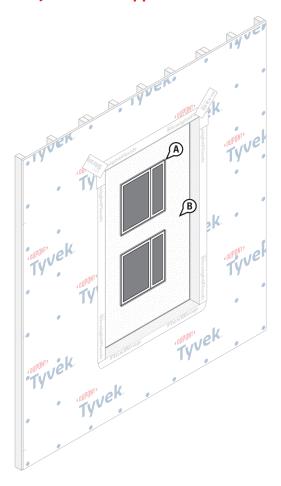
A. Install **FlexWrap**™ at top of recess wall using method shown in Step 2.\*



- A. Flip down **Tyvek**° **WRB** flap and trim 1"- 2" above top edge of recessed wall plane.
- B. Terminate flap along the top of the recessed wall plane and along diagonal seams with **DuPont™ Tyvek® Tape**, **DuPont™ Flashing Tape**, or **DuPont™ StraightFlash™**.

<sup>\*</sup>A 3-piece transition flashing method can also be used with StraightFlash\*\* in combination with FlexWrap\*\* corners. The StraightFlash\*\* in installed the width of the bottom or top of recessed wall plane prior to placing the FlexWrap\*\* corners. The FlexWrap\*\* corners should be at least 12" long allowing for 6" overlap onto the StraightFlash\*\* at bottom, top, and sides of recessed wall plane.

Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Hybrid Condition – DuPont™ Tyvek® WRB Terminated with DuPont™ StraightFlash™ and/or DuPont™ FlexWrap™ and Integrated with DuPont™ Tyvek® Fluid Applied Products



## STEP 6

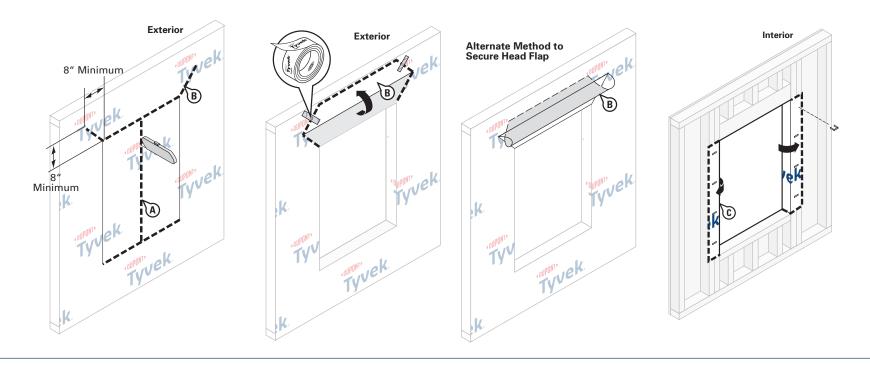
A. Install **DuPont**™ **Tyvek**® **Fluid Applied Flashing and Joint Compound+** and/or **DuPont Self-Adhered Flashing Products** and window per the <u>DuPont™ Tyvek® Fluid Applied</u> Flashing Installation Guidelines.

**NOTE:** Window/flashing installation sequence will vary by project and window type. All installations must allow for drainage at window sill.

B. Install **DuPont**™ **Tyvek**® **Fluid Applied WB+**™ per the <u>DuPont™ Tyvek® Fluid Applied</u>

<u>WB+™ Wall and Substrate Guidelines</u>. Overlap the **Tyvek**® **Fluid Applied WB+**™ onto the **StraightFlash**™ and **FlexWrap**™ at recess wall transition by a minimum of 2″.

This method applies to the following products: DuPont™ StraightFlash™, DuPont™ FlexWrap™ and DuPont™ Flashing Tape



## STEP 1

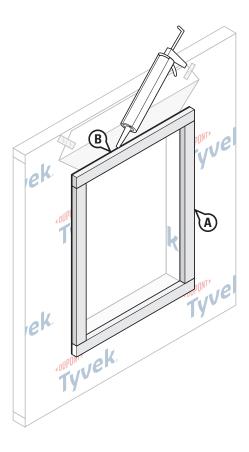
Prepare WRB for window installation:

- A. Make an "I-Cut" (Standard I-Cut) in the WRB (modified I-Cut is also accepted). For an "I-Cut", begin with a horizontal cut across the bottom and the top of the window frame (for round top windows, the cut should begin above the mull joint). From the center, cut straight down to the sill.
- B. Cut two 45 degree slits a minimum of 8" extending from the corner of the window head, up and away from the window opening. This will create a flap above the rough opening to expose sheathing or framing members to allow head flashing installation. Flip head flap up and temporarily secure with **DuPont Tyvek Tape**.

**ALTERNATE METHOD TO SECURE HEAD FLAP**: In lieu of temporarily taping, the head flap can be tucked under the **Tyvek**° **WRB**.

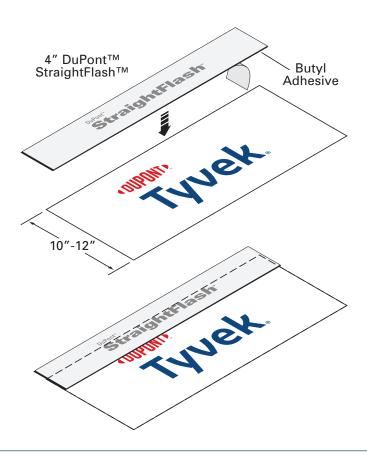
**NOTE**: Some windows and flashing widths may require longer slits.

C. Fold side flaps into rough opening and secure to inside wall. Cut off excess flaps if desired.



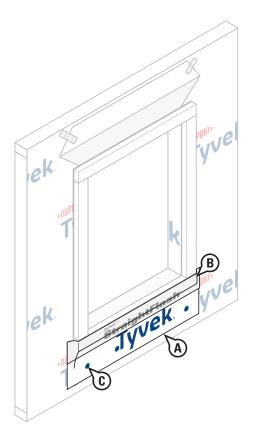
### STEP 2

- A. Install wood buck bump-out per Architect's guides. Securely fasten in place.
- B. Apply Tower® Residential Sealant, or recommended sealant, on 3 sides (jambs and head) of wood buck, and seal wood buck to wall. Tower® Residential Sealant, or recommended sealant, should be tooled flat to allow the natural curing process to create a concave shape.



### STEP 3

- A. Cut **Tyvek® WRB** a minimum of 10"-12" wide and minimum 12" longer than the width of the window.
- B. Cut 4" wide **DuPont™ StraightFlash™** or **DuPont™ Flashing Tape** the same length as the **Tyvek® WRB**.\*
- C. Remove release paper and 2" of the exposed butyl onto the Tyvek® WRB.

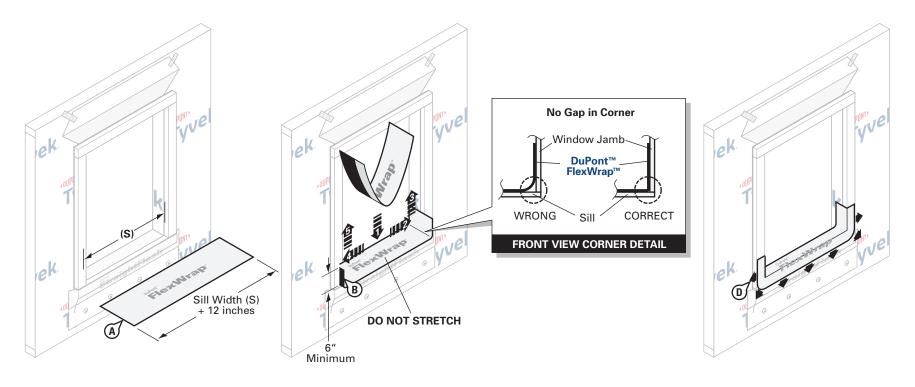


## STEP 4

After **Tyvek® WRB** skirt is constructed, remove remaining release paper and install onto face of sill wood buck bump-out just below the horizontal sill.

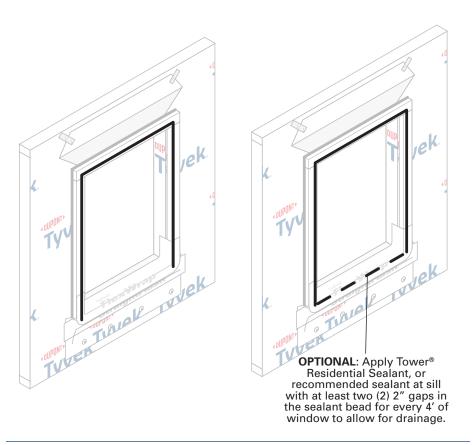
Fold excess flashing around the corner of the wood buck bump-out and onto the face of the wall.

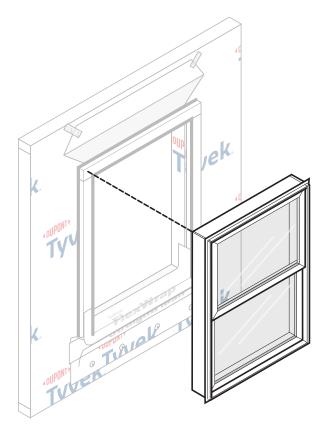
Apply **DuPont™ Tyvek® Wrap Cap** screws or appropriate fasteners at each stud line to secure **Tyvek® WRB** skirt.



### STEP 5

- A. Cut **DuPont™ FlexWrap™** at least 12" **LONGER** than width of rough opening sill (S). Use roll widths sufficient to achieve a minimum of 1" adhesion **BEYOND** where the window frame will be located, ensuring 2"- 3" adhesion onto the face of the wood buck bump-out.
- B. Remove wide piece of release paper. Position on horizontal sill by aligning the inside edge of the narrow release paper with the face of the wall to ensure 2"–3" of the **FlexWrap**" will be adhered to the face of the wall with a minimum of 6" up each jamb. Adhere into rough opening.
- C. Remove narrow release paper.
- D. Fan out the **FlexWrap**<sup>™</sup> at corners and adhere onto wood buck bump out. Continue adhering onto face of wall along sill. Coverage of **FlexWrap**<sup>™</sup> should be 2″–3″ onto the face of the wood buck bump-out.



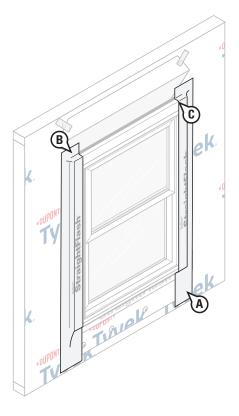


# STEP 6

Apply Tower® Residential Sealant, or recommended sealant, on three sides (jambs and head) as shown above.

## STEP 7

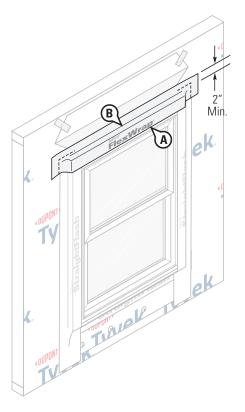
Install window according to manufacturer's instructions.



## STEP 8

Cut 2 pieces of 9" **DuPont™ StraightFlash™** for the jamb flashing. It is also acceptable to use 6" or 9" **DuPont™ Flashing Tape** depending on the size of the wood buck bump-out.

- A. Flashing should extend to the bottom of the **Tyvek**® **WRB** skirt.
- B. The flashing should extend 1"- 2" above the head of the wood buck bump-out.
- C. Fold the jamb flashing at the head. To minimize puckering, install as tightly as possible so the **StraightFlash**™ lies flat against the flange and wood buck bump out.

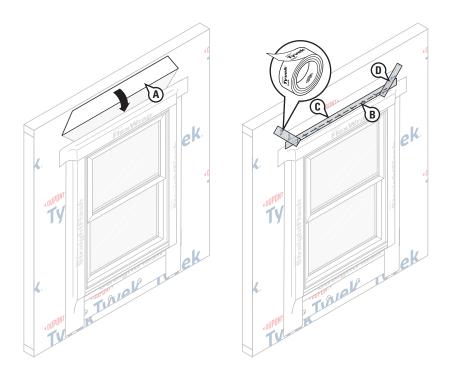


### STEP 9

A. Install **DuPont™ FlexWrap™\*** at head of window and onto the flange of the window.

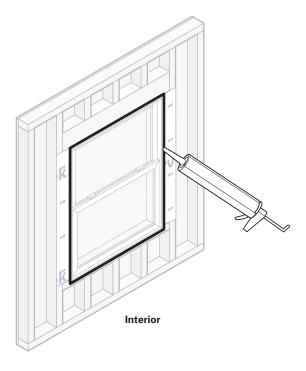
B. Make sure at least 2" of **FlexWrap**™ is adhered to the face of the sheathing.

\*StraightFlash™ or DuPont™ Flashing Tape may be substituted for the FlexWrap™ at the head of the window.





- A. Flip down upper flap of Tyvek® WRB so it lays flat across head flashing.
- B. Cut ~1" strip of the **Tyvek**® **WRB** at lower horizontal edge of head flap.
- C. At the head, continuously tape seams as shown with **DuPont™ Tyvek® Tape**. Skiptaping at the head is acceptable if an air barrier is not required or if additional drainage is desired.
- D. Tape down diagonal seams of the the Tyvek® WRB.



### STEP 11

Final Step

Install Tower® Residential Sealant or recommended sealant (and backer rod as necessary) around the window opening at the interior. It is also acceptable to use **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant**, or recommended foam. When using Tower® Residential Sealant, tool sealant bead flat to allow the natural curing process to create a concave shape. Be sure that the sealant penetrates the grooves of the **DuPont™ FlexWrap™** around the sill. When using **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant** in perimeter openings less than 1/2″, apply using the plastic extension tip for the **Great Stuff Pro™ Dispensing Gun** during installation.

**NOTE**: Installations that specify a window/door design rating of DP45 or greater require extra precautions. See *Special Considerations* for performance requirements exceeding this design rating.

# Product Composition and UV Stability

**DuPont**™ **Tvvek**® **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®** HomeWrap®, Tyvek® DrainWrap™, Tyvek® StuccoWrap®, and Tyvek® ThermaWrap® LE be covered within 4 months (120 days) of installation. 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, polypropelene film, elastic fiber, synthetic rubber adhesive, polyurethane adhesive, and a top sheet of flash spunbonded high density polyethylene fibers or polypropelene 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**<sup>™</sup> **VersaFlange**<sup>™</sup> be covered within nine months (270 days) of installation. DuPont requires that **DuPont**™ **Flashing Tape** be covered within 4 months (120 davs) 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. Tvvek® 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 Tyvek® WRBs and Tyvek® Fluid Applied **WB+**<sup>™</sup>. Use of additives, coatings or cleansers on or in the facade system may impact the performance of Tyvek® WRBs and **Tyvek® Fluid Applied WB+™**. DuPont Building Envelope Solutions Products are to be used as outlined in this installation quideline. DuPont Self-Adhered Flashing and Tyvek® 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**<sup>™</sup> **Tyvek**<sup>®</sup> 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

**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.

point of ignition. For more information.

call 1-833-338-7668

Tower® Residential Sealant is irritating to skin, eyes, and respiratory tract. For proper usage, follow directions stated on the product label. For health information, refer to the Material Safety Data Sheet or call Chemtrec at 1-800-424-9300.

#### 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 wellventilated 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. NIOSHapproved 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: <a href="https://www.nrel.gov/docs/fy14osti/61326.pdf">https://www.nrel.gov/docs/fy14osti/61326.pdf</a>.

In Canada visit: <a href="https://nrc-publications.canada.ca/eng/view/ft/?id=96acba7c-afd4-4ea1-94b0-1f8f3500c582">https://nrc-publications.canada.ca/eng/view/ft/?id=96acba7c-afd4-4ea1-94b0-1f8f3500c582</a>.

**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 More Information

Visit the *Quick Links* section of our website (https://www.dupont.com/building/resources.html) where you'll find links to essential documents and resources to help you get the job done right:

- Installation Guidelines
- Safety Data Sheets (SDS)
- CAD Drawings
- DuPont Performance Building Solutions Document Library

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

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For more information about DuPont Performance Building Solutions, please call 1-833-338-7668 or visit us at building.dupont.com