

DuPont Self-Adhered Flashing Products Installation Guidelines

3-Piece Sill Flashing Method for **DuPont Self-Adhered Flashing Products** Installed **BEFORE** and **AFTER** the **DuPont™ Tyvek® WRB** 

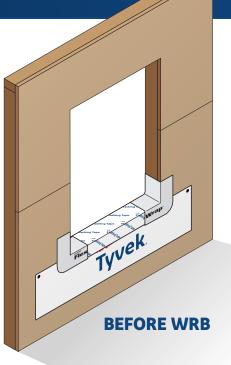
For Installation by a DuPont™ Tyvek® Residential Certified Installer

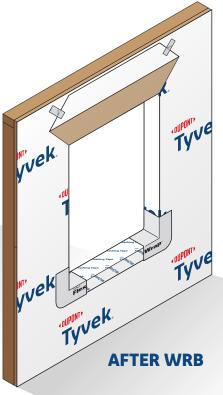






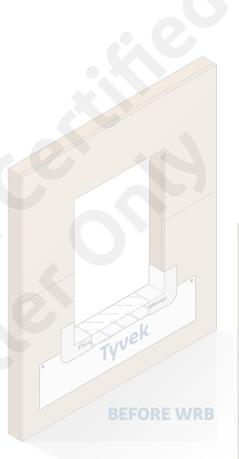
For Buildings Less Than 5 Stories and Low-Rise Multi-Family Residential Buildings Less Than 6 Stories

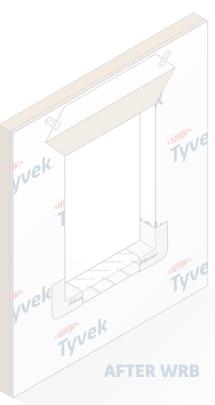




### **Table of Contents**

| Applicable Products   | 4  |
|---|----|
| Required Materials Based on Project Requirements, Details, and Specifications   | 4  |
| Warranty  | 5  |
| Special Considerations  | 5  |
| Key Installation Requirements for Drainable Window/Door Installation  | 6  |
| Installation Methods for <b>DuPont Self-Adhered Flashing Products</b> Installed <b>BEFORE</b> the <b>DuPont</b> ™ <b>Tyvek</b> ® <b>WRB</b> | 7  |
| Integral Flanged Window   | 7  |
| Installation Methods for <b>DuPont Self-Adhered Flashing Products</b> Installed <b>AFTER</b> the <b>DuPont™ Tyvek® WRB</b>                  | 13 |
| Integral Flanged Window   | 13 |
| Product Composition and UV Stability  | 17 |
| Design Considerations   | 17 |
| Safety and Handling   | 17 |
| For More Information  | 18 |





This installation guideline outlines recommended installation techniques and details for DuPont Self-Adhered Flashing Products, and where applicable, 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). Tyvek® WRBs 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</u>
Solutions Products.

### **Applicable Products**

Water-Resistive and Air Barriers (Tyvek® WRBs)

|                                  |   | ,   |
|----------------------------------|---|---|
| Product                          | Dimensions  | Агеа  |
| DuPont™ Tyvek® HomeWrap®         | 3 ft x 100 ft<br>3 ft x 165 ft<br>5 ft x 200 ft<br>9 ft x 100 ft<br>9 ft x 150 ft<br>10 ft x 150 ft<br>10 ft x 150 ft | 300 sq ft<br>495 sq ft<br>1,000 sq ft<br>900 sq ft<br>1,350 sq ft<br>1,000 sq ft<br>1,500 sq ft |
| DuPont™ Tyvek® StuccoWrap®       | 5 ft x 200 ft   | 1,000 sq ft   |
| DuPont™ Tyvek® DrainWrap™        | 9 ft x 125 ft<br>10 ft x 125 ft   | 1,125 sq ft<br>1,250 sq ft  |
| DuPont™ Tyvek® ThermaWrap® LE    | 5 ft x 150 ft<br>9 ft x 100 ft  | 750 sq ft<br>900 sq ft  |
| DuPont™ Tyvek® CommercialWrap®   | 5 ft x 200 ft<br>10 ft x 125 ft   | 1,000 sq ft<br>1,250 sq ft  |
| DuPont™ Tyvek® CommercialWrap® D | 5 ft x 200 ft<br>10 ft x 125 ft   | 1,000 sq ft<br>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              |
| DuPont™ Flashing Tape                                    | 4 in, 6 in, 9 in, 12 in |

#### Installation Accessories

| Product   | Туре  | Quantity                       |
|---|---|--------------------------------|
| DuPont™ Adhesive/Primer   | Can   | 13.5 oz                        |
| DuPont™ Tyvek® Tape   | 2" Bulk Pack<br>3" Bulk Pack                  | 36 rolls/case<br>24 rolls/case |
| DuPont™ Tyvek® Wrap Cap Fasteners                                       |   |                                |
| Great Stuff Pro™ Window & Door<br>Polyurethane Foam Sealant             | Can (reusable dispensing gun sold separately) | 20 oz                          |
| Great Stuff Pro™ Gaps & Cracks<br>Polyurethane Foam Sealant             | Can (reusable dispensing gun sold separately) | 20 oz                          |
| Tower® Residential Sealant<br>(formerly DuPont™ Residential<br>Sealant) |   |                                |

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

- Backer Rod
- Sealant<sup>2</sup>
- Brushes for Surface Preparation
- J-Roller
- 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.

<sup>3</sup>For information regarding installation of Rodenhouse fasteners, refer to the <u>DuPont™ Tyvek® Water-Resistive</u> and Air Barrier (WRB) Installation <u>Guidelines for Buildings Less Than 5 Stories and Low-Rise Multi-Family</u>
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 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 for Drainable Window/Door Installation* 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 for Drainable Window/Door Installation* exists. Please contact DuPont or a DuPont Representative if you have any questions regarding any DuPont Installation Guideline.

### **Special Considerations**

- 1. 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>
- 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 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™ Flashing Tape** or **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. **Tyvek® WRBs** must not come in direct contact with 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.

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

- 19. DuPont requires **DuPont**™ **Tyvek**® **HomeWrap**®, **Tyvek**® **StuccoWrap**®, and **Tyvek**® **DrainWrap**™ be covered within 4 months (120 days) of installation. DuPont requires **DuPont**™ **Tyvek**® **CommercialWrap**® and **Tyvek**® **CommercialWrap**® **D** be covered within 9 months (270 days) of installation.
- 20.The maximum in-service temperature for **Tyvek**° **WRBs** and **DuPont Self-Adhered Flashing Products** is 180°F.
- 21. 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.

For additional guidance, please call 1-833-338-7668, visit our website at <u>building.dupont.com</u>, 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™ 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 D1970 and it is more
   representative for vertical wall applications.
- 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™ Tyvek® WRB. DuPont Self-Adhered Flashing Products must be applied with a minimum 2" lap onto the WRB.
- DuPont requires that DuPont<sup>™</sup> FlexWrap<sup>™</sup> and StraightFlash<sup>™</sup> be covered within 9 months (270 days) of installation. DuPont requires that DuPont<sup>™</sup> Flashing Tape be covered within 4 months (120 days) of installation.
- Properly prepare all surfaces (remove dirt, dust, or moisture, etc.) per manufacturer's recommendations.

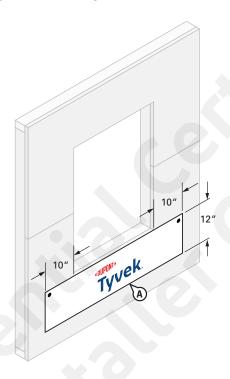
- Barrier installations (full perimeter seal on exterior) are acceptable only in the following instances: Slab on grade doors, store front windows, or other systems with built-in drainage mechanisms that have potential for exposure to standing water
  - Surface barrier wall systems with non-water sensitive 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** and **DuPont Self-Adhered Flashing Products**. Ensure the sealant materials meet the installation temperature requirements of the sealant manufacturer. Refer to <u>Chemical Compatibility of Representative Building Sealants and Adhesives/Primers</u> for more information about chemical compatibility.

The following details show the 3-piece sill flashing method for integral flanged windows; however, the method can also be used for other window or door details found in the <u>DuPont Self-Adhered Flashing Products Installation Guidelines for Windows and Doors Installed BEFORE the DuPont™ Tyvek® Water-Resistive and Air Barrier (WRB)</u>. Use the 3-piece sill flashing method shown in Step 2 in this quide in place of the steps for installation of a single piece of **DuPont™ FlexWrap™** at the sill.

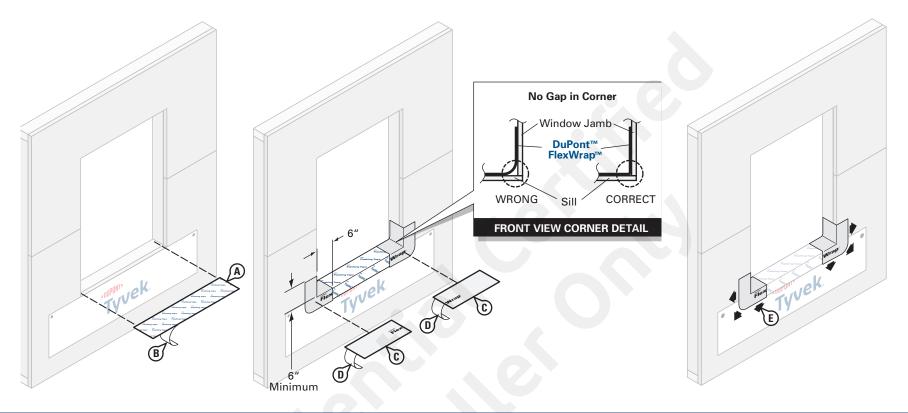
This method applies to the following products: DuPont™ Flashing Tape, DuPont™ StraightFlash™, and DuPont™ FlexWrap™



### STEP 1

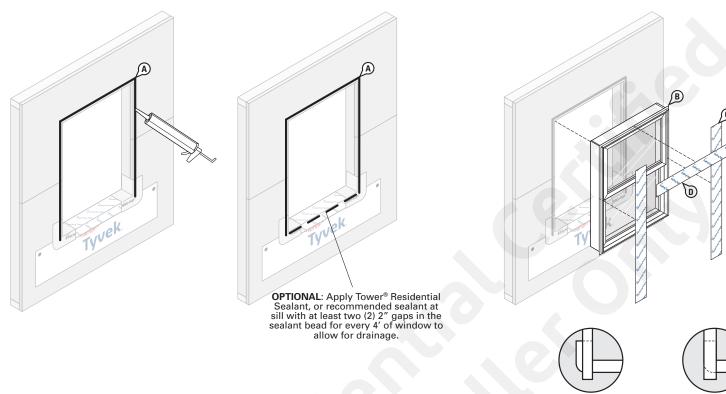
A. Cut an apron made of **Tyvek® WRB** for attachment under sill of rough opening. Apron should extend at least 10" beyond sides of rough opening jambs (or to first stud in open stud construction) and at least 12" below sill of rough opening, or extend far enough below the sill rough opening to overlap the sill plate, base of wall flashing, or the **Tyvek® WRB** below. The top of the apron should be securely

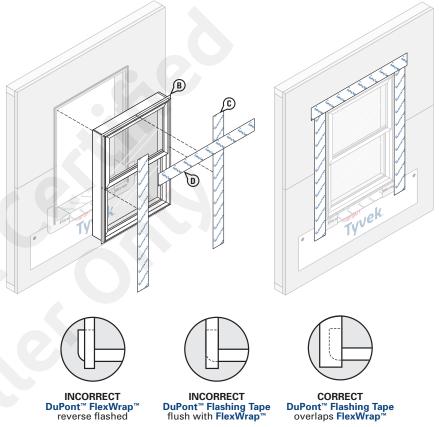
attached to the wall and the bottom of the apron should be left unsecured so it can overlap the Tyvek® WRB which will be installed after the window. Avoid placing DuPont™ Tyvek® Wrap Cap Fasteners, or recommended fasteners, where DuPont Self-Adhered Flashing Products will be installed.



### STEP 2

- A. Cut a piece of **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** the width of the sill rough opening. Use roll widths sufficient to achieve a minimum of 1" adhesion **BEYOND** where the window frame will be located, ensuring 2"– 3" of adhesion onto the face of the wall.
- B. Remove release paper and adhere first onto flat part of sill, then onto the **Tyvek® WRB** below.
- C. Cut 2 pieces of **DuPont™ FlexWrap™** a minimum of 12" for each corner. 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.
- D. Remove wide piece of release paper and adhere onto inside framing at corner, with at least 6" up the jamb and 6" onto the sill, overlapping onto the **DuPont™ Flashing**Tape or StraightFlash™. NOTE: Align 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.
- E. Remove narrow release paper, fan out **FlexWrap**™, and adhere. Repeat for opposite corner.



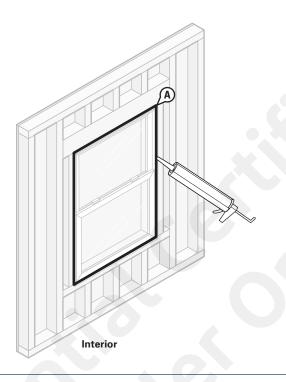


### STEP 3

- A. Apply Tower® Residential Sealant, or recommended sealant, on three sides (jambs and head) as shown.
- B. Install window according to manufacturer's instructions.
- C. Cut two pieces of **DuPont<sup>™</sup> Flashing Tape** or **DuPont<sup>™</sup> StraightFlash<sup>™</sup>** 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.

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

D. 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.

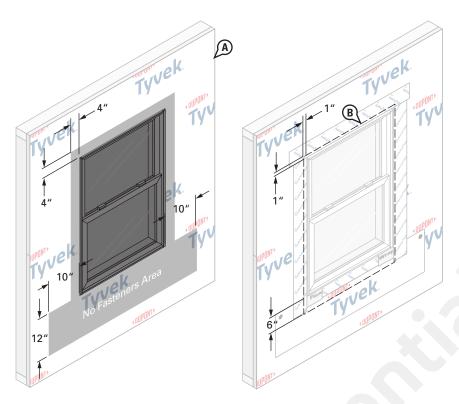


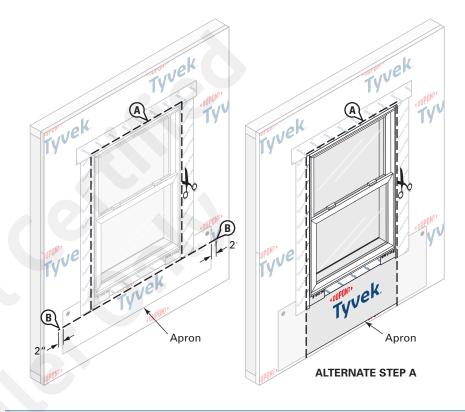
#### STEP 4

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 <u>Special Considerations</u> for performance requirements exceeding this design rating.

Refer to the <u>DuPont Self-Adhered Flashing Products Installation Guidelines for</u>
<u>Windows and Doors Installed BEFORE the DuPont™ Tyvek® Water-Resistive and Air</u>
<u>Barrier (WRB)</u> for window types other than rectangular integral flanged windows.





### STEP 5

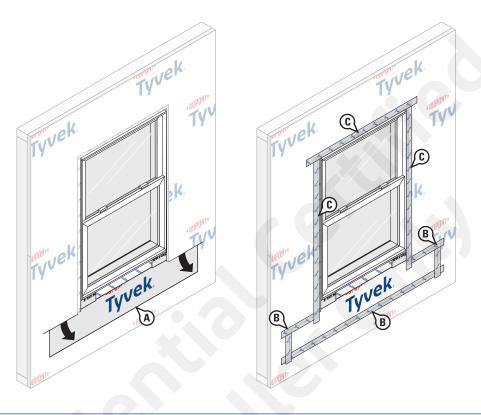
- A. Install the **Tyvek® WRB** according to the <u>DuPont™ Tyvek® Water-Resistive</u> and Air <u>Barrier</u> (WRB) Installation <u>Guidelines for Buildings Less Than 5 Stories and Low-Rise Multi-Family Residential Buildings Less than 6 Stories</u> that can be found at <u>buildings dupont.com</u>. Do not install fasteners within 4" of the window frame at jambs and head and within 12" of the window frame at sill or location of apron.
- B. Mark a perimeter on the **Tyvek**° **WRB** around the rough opening a minimum of 1" from the jambs and head of the window frame, and 6" below the sill of the window frame.

#### STEP 6

A. Cut the Tyvek® WRB along perimeter marking to expose window. Do not cut through the DuPont Self-Adhered Flashing Products or Tyvek® WRB apron underneath.

**ALTERNATE STEP A**: If apron extends far enough below the sill rough opening to overlap the sill plate, base of wall flashing, or the **Tyvek**° **WRB** below, the **Tyvek**° **WRB** can be cut along jambs and head only to overlap apron.

B. Create horizontal slits in the **Tyvek**° **WRB** at each lower corner of the perimeter cut that extend a minimum of 2" beyond **Tyvek**° **WRB** apron.



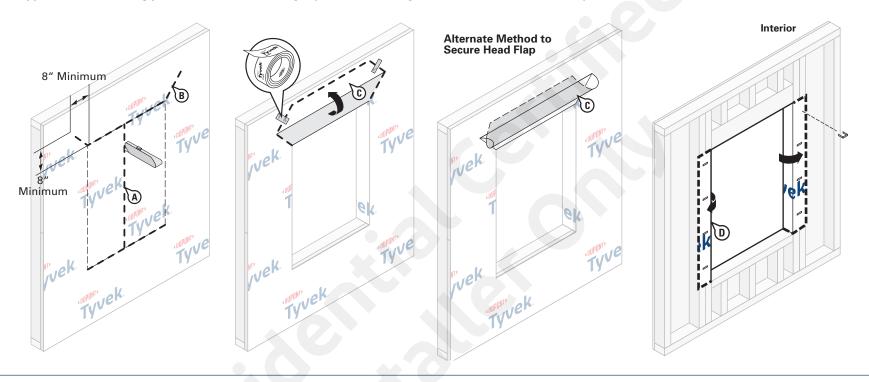
### STEP 7

- A. Bring the bottom portion of the **Tyvek**° **WRB** apron through the sill perimeter cut and horizontal slits so it laps over the top layer of **Tyvek**° **WRB**.
- B. Working from bottom to top, install **DuPont™ Tyvek® Tape** to secure horizontal and vertical seams of **Tyvek® WRB** apron.
- C. Install **Tyvek**° **Tape** along jambs and head to seal **Tyvek**° **WRB** around window.

Refer to the <u>Special Considerations</u> prior to installation. For extreme exposure areas, see the <u>DuPont-Self-Adhered Flashing Products Installation Guidelines For Buildings Greater</u>
<u>Than 4 Stories and High Performance Installations of Any Height.</u>

The following details show the 3-piece sill flashing method for integral flanged windows; however, the method can also be used for other window or door details found in the <u>DuPont Self-Adhered Flashing Products Installation Guidelines for Windows and Doors Installed AFTER the DuPont<sup>TM</sup> Tyvek® Water-Resistive and Air Barrier (WRB)</u>. Use the 3-piece sill flashing method shown in Step 2 in this guide in place of the steps for installation of a single piece of **DuPont<sup>TM</sup> FlexWrap**<sup>TM</sup> at the sill.

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



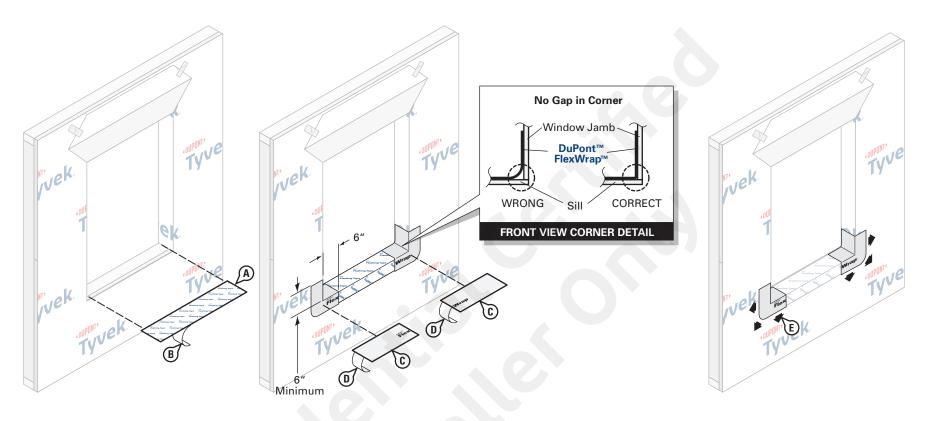
### STEP 1

Prepare the **Tyvek® WRB** for window installation. Refer to the <u>DuPont™ Tyvek® Water-Resistive and Air Barrier (WRB) Installation Guidelines for Buildings Less Than 5 Stories and Low-Rise Multi-Family Residential Buildings Less than 6 Stories that can be found at <u>building.dupont.com</u> to install the **Tyvek® WRB** properly.</u>

- 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 (see step 3). **NOTE**: Some windows and flashing widths may require longer slits.
- C. Flip head flap up and temporarily secure with **DuPont**™ **Tyvek**® **Tape**.

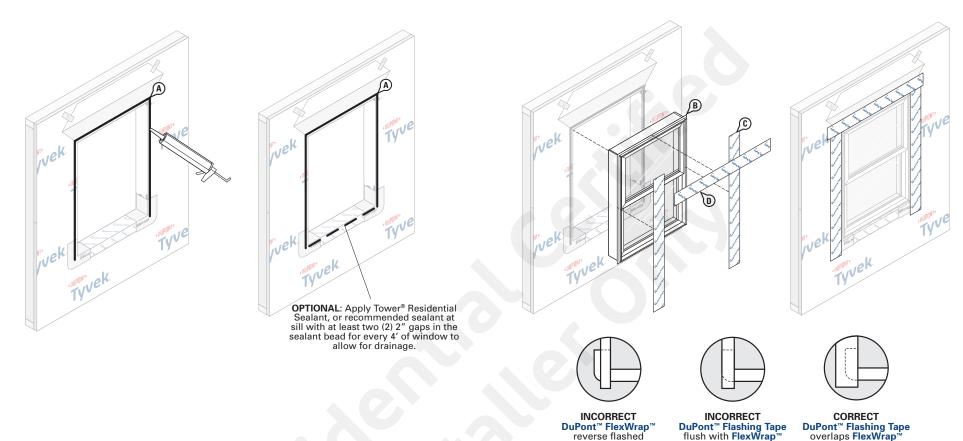
**ALTERNATE METHOD TO SECURE HEAD FLAP**: In lieu of temporarily taping, the head flap can be tucked under the **Tyvek**° **WRB**.

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



### STEP 2

- A. Cut a piece of **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** the width of the sill rough opening. 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 release paper and adhere first onto flat part of sill, then onto the **Tyvek® WRB** below.
- C. Cut 2 pieces of **DuPont™ FlexWrap™** a minimum of 12" for each corner. 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.
- D. Remove wide piece of release paper and adhere onto inside framing at corner, with at least 6" up the jamb and 6" onto the sill, overlapping onto the **DuPont™ Flashing**Tape or StraightFlash™. NOTE: Align 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.
- E. Remove narrow release paper, fan out **FlexWrap**™, and adhere. Repeat for opposite corner.

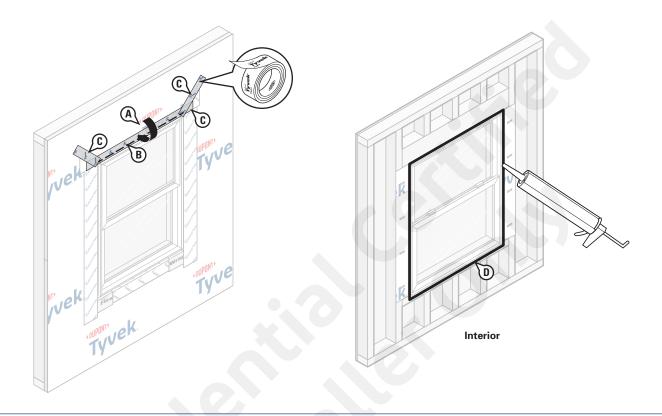


### STEP 3

- A. Apply Tower® Residential Sealant, or recommended sealant, on three sides (jambs and head) as shown below.
- B. Install window according to manufacturer's instructions.

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

- C. Cut two pieces of **DuPont™ Flashing Tape** or **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.
- 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.



#### STEP 4

- A. Flip down upper flap of the **Tyvek**° **WRB** so that 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. 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

D. 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 <u>Special Considerations</u> for performance requirements exceeding this design rating.

Refer to the <u>DuPont Self-Adhered Flashing Products Installation Guidelines for</u>
<u>Windows and Doors Installed AFTER the DuPont™ Tyvek® Water-Resistive and Air</u>
<u>Barrier (WRB)</u> for window types other than rectangular integral flanged windows.

## 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™** and **DuPont™ StraightFlash™** be covered within 9 months (270 days) of installation. DuPont requires that **DuPont™ Flashing Tape** be covered within 4 months (120 days) of installation.

### **Design Considerations**

When installed in conjunction with other building materials, Tyvek® WRBs and **DuPont Self-Adhered Flashing Products** must be properly shingled with these materials such that water is diverted to the exterior of the wall system. Tyvek® WRBs 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. 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. Use of additives, coatings or cleansers on or in the facade system may impact the performance of Tyvek® WRBs. DuPont Building Envelope Solutions Products are to be used as outlined in this installation quideline. DuPont Self-Adhered Flashing should only be used to seal penetrations and flash openings in buildings. Tyvek® WRBs 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.

### 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**<sup>™</sup> **Tyvek**<sup>®</sup> reaches 750°F (400°C), it will burn and the fire may spread and fall away from the point of ignition. For more information, call 1-833-338-7668.

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

and their release paper are slippery and should not be walked on. Remove release paper from work area immediately. **DuPont Self-Adhered Flashing Products**will melt at temperatures greater than 250°F (121°C). **DuPont Self-Adhered Flashing Products** are combustible and should be protected from flames and other high heat sources. **DuPont Self-Adhered Flashing Products** will not

support combustion if the heat source is removed. However, if burning occurs, ignited droplets may fall away from the point of ignition. For more information, call 1-833-338-7668.

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

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

#### For More Information

Visit the *Quick Links* section of our website (<a href="https://www.dupont.com/building/resources.html">https://www.dupont.com/building/resources.html</a>) 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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Tyvek.

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