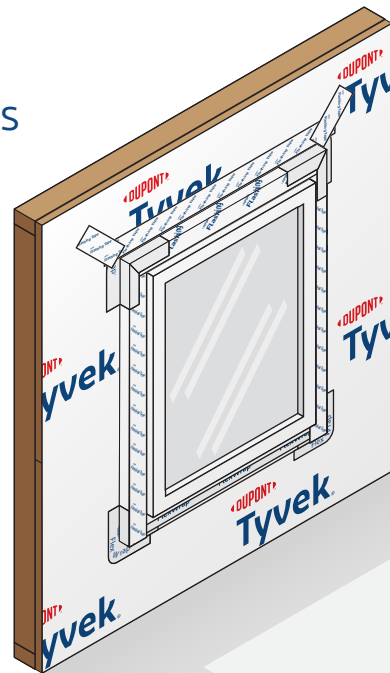


# DuPont Flashing Products Installation Guidelines

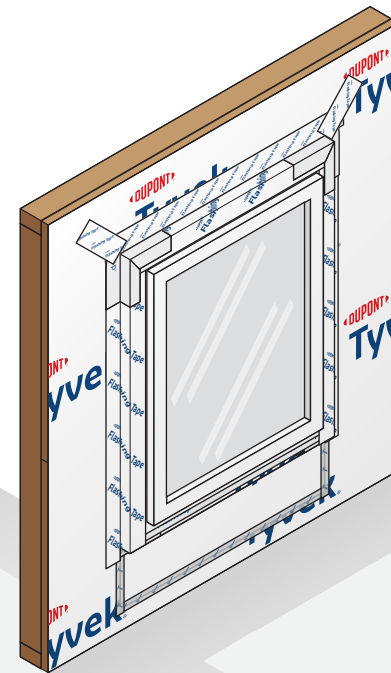
Integral Flanged and  
Non-Integral Flanged Windows  
with Wood Bump-Out Frames



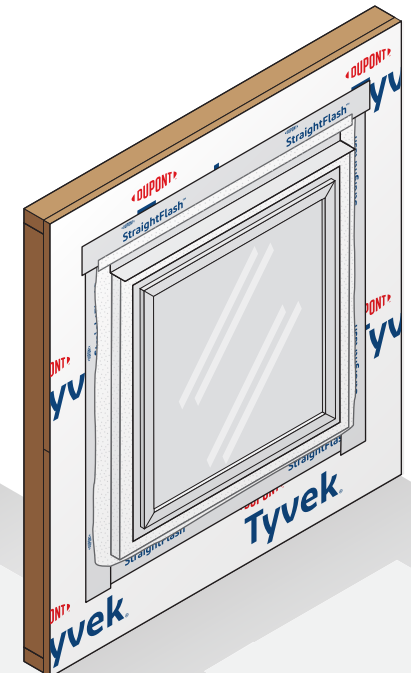
**For Single-Family Residential and  
Wood-Framed Multi-Family/Light  
Commercial Buildings**



Bump-Out Frame Installed  
**BEFORE** the DuPont™  
Tyvek® WRB



Bump-Out Frame Installed  
**AFTER** the Tyvek® WRB

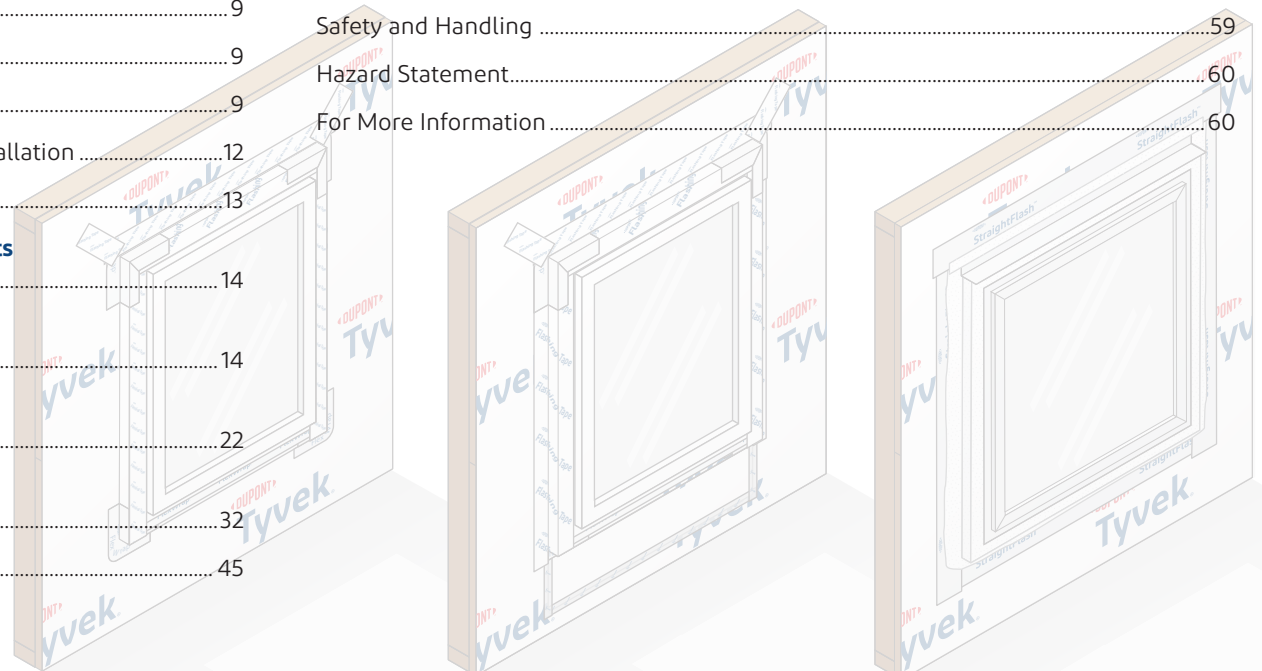


Bump-Out Frame Installed  
**BEFORE** the Tyvek® WRB  
Hybrid Condition Using  
DuPont™ Tyvek® Fluid  
Applied Flashing and Joint  
Compound+

November 2023

## Table of Contents

Introduction.....	3	Hybrid Installation Method for <b>DuPont Self-Adhered Flashing Products</b> and <b>DuPont™ Tyvek® Fluid Applied Flashing Products</b> Installed <b>BEFORE</b> the <b>DuPont™ Tyvek® WRB</b> .....	48
Applicable Products.....	3	Integral Flanged Window with Wood Bump-Out Frame Installed <b>BEFORE</b> the Tyvek® WRB.....	48
Additional Materials Based on Project Requirements, Details, and Specifications.....	4	Installation of DuPont Exterior Continuous Insulation .....	58
Warranty.....	4	DuPont™ Tyvek® WRB Installed <b>UNDER</b> DuPont Exterior Continuous Insulation.....	58
Applicable Structures and Performance Criteria.....	5	Product Composition and UV Stability.....	59
Flashing Products Code Requirements.....	8	Design Considerations.....	59
Water-Resistive Barrier (WRB) Code Requirements.....	8	Safety and Handling .....	59
Additional Codes and Standards Information for DuPont™ Tyvek® Commercial Air and Water Barrier Systems.....	9	Hazard Statement.....	60
General Instructions.....	9	For More Information.....	60
Special Considerations.....	9		
Key Installation Requirements for Drainable Window/Door Installation .....	12		
Alternate Installation Considerations.....	13		
Installation Methods for <b>DuPont Self-Adhered Flashing Products</b> Installed <b>AFTER</b> the <b>DuPont™ Tyvek® WRB</b> .....	14		
Integral Flanged Window with Wood Bump-Out Frame Installed <b>AFTER</b> the Tyvek® WRB.....	14		
Integral Flanged Window with Wood Bump-Out Frame Installed <b>AFTER</b> the Tyvek® WRB.....	22		
Non-Integral Flanged Window with Wood Bump-Out Frame Installed <b>AFTER</b> the Tyvek® WRB.....	32		
Drip Cap Installation for Windows and Doors.....	45		



## Introduction

This Installation Guideline pertains to wood-framed buildings of any height of Type III and Type V construction, including single-family homes, multi-family buildings and light commercial buildings. See [Applicable Structures and Performance Criteria](#) for more information regarding building types and building envelope performance.

This Installation Guideline outlines recommended installation techniques and details for bump-out conditions with **DuPont Self-Adhered Flashing Products** installed **AFTER** **DuPont™ Tyvek® Water Resistive and Air Barriers**, referred to in this document as **DuPont™ Tyvek® WRBs**. This includes **DuPont™ Tyvek® HomeWrap®**, **Tyvek® StuccoWrap®**, **Tyvek® DrainWrap™**, **Tyvek® CommercialWrap®** and/or **Tyvek® CommercialWrap® D**. Where applicable, **DuPont™ Tyvek® Fluid Applied Products** are shown installed in conjunction with **Tyvek® WRBs** in hybrid conditions. Both **Tyvek® WRBs** and **Tyvek® Fluid Applied Products** meet or exceed the requirements of a water-resistive barrier as defined in the 2018 International Building Code (IBC).

Always check [building.dupont.com](http://building.dupont.com) for the latest versions of DuPont Installation Guidelines and other product literature.

## Applicable Products

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

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

### Fluid Applied Products

Product	Quantity
<b>DuPont™ Tyvek® Fluid Applied WB+™</b>	5 gal, 50 gal
<b>DuPont™ Tyvek® Fluid Applied Flashing and Joint Compound+</b>	28 oz, 3.5 gal

### Self-Adhered Flashing Products

Product	Width
<b>DuPont™ FlexWrap™</b>	6 in
	9 in
<b>DuPont™ StraightFlash™</b>	4 in
	9 in
<b>DuPont™ Flashing Tape</b>	4 in
	6 in
	9 in
	12 in

### Installation Accessories

Product	Type	Quantity
<b>DuPont™ Tyvek® Tape</b>	2 in Bulk Pack	6 rolls/bulk pack
	3 in Bulk Pack	
<b>DuPont™ Tyvek® Wrap Cap Staples</b> or other cap staples for Stinger® Cap Stapler	7/8 in, 1-1/4 in, and 1-1/2 in lengths	2,000/box
	3/8 in and 5/8 in lengths	2,016/box
<b>DuPont™ Tyvek® Wrap Cap Nails</b>	1 in electro-galvanized ring shank nail	2,000/box
<b>DuPont™ Tyvek® Wrap Cap Screws</b>	2 in dia. plastic cap, 1-3/4 in screw length	1,000/box
<b>Great Stuff Pro™ Window &amp; Door Polyurethane Foam Sealant</b>	Can (reusable dispensing gun sold separately)	20 oz
<b>Great Stuff Pro™ Gaps &amp; Cracks Polyurethane Foam Sealant</b>	Can (reusable dispensing gun sold separately)	20 oz
<b>DuPont™ RainVent™ Battens</b>	5/8 in x 3/8 in x 8 ft	40/pack
<b>DuPont™ Tyvek® DrainVent™ Rainscreen</b>	4 ft x 50 ft roll	
Tower® Residential Sealant (formerly DuPont™ Residential Sealant)		
TRUFAST® Walls Grip-Deck® screws with Thermal-Grip FastCap™ washers (TRUFAST® Walls formerly Rodenhouse)¹		

¹For information regarding installation of TRUFAST® Walls fasteners, refer to the applicable **Tyvek® WRB** Installation Guideline that can be found on [building.dupont.com](http://building.dupont.com).

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

- Backer Rod
- Sealant<sup>2</sup>
- Adhesive/Primer<sup>2</sup>
- Brushes for Surface Preparation
- J-Roller
- Trowels

## Warranty

Please refer to the [\*DuPont Building Envelope Solutions Products 10-Year Limited Warranty for Single-Family, Wood-Framed Multi-Family, and Light Commercial Buildings.\*](#)

**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.

<sup>1</sup>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 chemical compatibility of sealants, see technical bulletin [\*Chemical Compatibility of Representative Building Sealants and Adhesives/Primers.\*](#)

## Applicable Structures and Performance Criteria

### Applicable Structures

#### These Installation Guidelines pertain to Single-Family Residential, and Wood-Framed Multi-Family and Light Commercial Buildings as defined below.

DuPont categorizes structures into three primary groups:

- i.) **“Single-Family Residential Buildings”** are defined as fully-detached one or two family structures, as well as townhouse structures not more than three stories above grade plane as defined in the 2018 International Residential Code (IRC) Section R101.2, both to the extent they are exclusively Residential Use building structures.
- ii.) **“Wood-Framed Multi-Family and Light Commercial Buildings”** are defined as the following (must meet **ALL** criteria):
  - a. Constructed of wood-based structural exterior framing of Type III or Type V Construction\* (International Building Code (IBC) (Chapter 6)); and
  - b. Does not exceed 2018 IBC max height (Table 504.3) for Type V construction (70 ft.) or Type III construction (85 ft.), including allowances for Automatic Sprinkler height increase (IBC 504.1 and Table 504.4) and ‘podium’ structures outlined in the Special Provisions\* (IBC Section 510); and
  - c. Design requirements for the building envelope do not exceed air barrier performance of ASTM E1677 (10.8 psf structural load, 65 mph equivalent wind load), and water infiltration resistance criteria of 6.24 psf (50 mph equivalent wind-driven rain) when tested in accordance with ASTM E331, ASTM E1105, or equivalent.
- iii.) **“Commercial and High-Performance Buildings of Any Height”** can be defined as any of the following:
  - a. Structures constructed of steel-based structural exterior framing and any exterior sheathing, or
  - b. Structures with exterior above grade walls constructed of concrete or concrete masonry units (CMU), or
  - c. Structures of any height and construction type (including any framing type) that are designated as high-performance. “High-performance” is defined as air barrier performance exceeding ASTM E1677 and/or water infiltration resistance criteria exceeding 6.24 psf when tested in accordance with ASTM E331, ASTM E1105, or equivalent.

\*Special Provisions (IBC Section 510) allows for a “horizontal building separation”, or ‘podium’, to be built under the wood-framed Type III or Type V building. The podium is typically constructed of steel framing or concrete. Podium-style buildings are included under “Wood-Framed Multi-Family and Light Commercial Buildings”, as long as all other definition criteria (a. through c. above) are met.

**NOTE:** “Podium” style structures with wood-framed floors built above steel-framed or concrete/CMU floors are covered under “Wood-Framed Multi-Family and Light Commercial Buildings” unless they are “high-performance”.

### Water-Resistive Barrier Performance Requirements

These Installation Guidelines pertain to single family residential, wood-framed multi-family and light commercial buildings with air barrier performance not exceeding ASTM E1677 (10.8 psf structural load, 65 mph equivalent wind load), and water infiltration resistance criteria not exceeding 6.24 psf (50 mph equivalent wind-driven rain) when tested in accordance with ASTM E331, ASTM E1105, or equivalent.

Buildings with high-performance air barrier designs are defined by DuPont as those with air barrier performance equivalent to ASTM E2357 (or other exceeding ASTM E1677), and/or water infiltration resistance criteria greater than 6.24 psf when tested in accordance with ASTM E331, ASTM E1105, or equivalent.

### Allowable Building Height and Number of Stories

Chapter 5 of the 2018 IBC contains information regarding the maximum height and number of stories for buildings of Group R Occupancy Classification (IBC Section 310). Including increased allowances for automatic sprinklers and a “podium” horizontal building separation (Section 510), Group R buildings of Type III or Type V construction can have the following **maximum heights above grade plane**:

#### Buildings with Group R (Residential) Occupancy Classification

Type of Construction	Maximum Building Height in Feet Per 2018 IBC Table 504.3
VA	70
VB	60
IIIA	85
IIIB	75

**For Wood-Framed Multi-Family and Light Commercial Buildings up to 70 feet in height, any DuPont™ Tyvek® WRB can be used. For buildings between 70 and 85 feet in height, DuPont™ Tyvek® CommercialWrap® or DuPont™ Tyvek® CommercialWrap® D must be used on all above grade wood-framed exterior walls, and 3” Tyvek® Tape must be used.**

**NOTE:** In general, **Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D** are recommended for Wood-Framed Multi-Family and Light Commercial Buildings due to their increased durability and UV exposure limit which can help accommodate longer construction times. See [Product Composition and UV Stability](#) section for more information.

## Applicable Structures and Performance Criteria

### DuPont Building Envelope Solutions Products Installation Considerations for **Single-Family Residential Buildings**

These Installation Guidelines should be used for buildings which meet the applicable structures definitions and performance criteria on the previous page. The following table provides a summary of typical installation information.

Installation Considerations	Non-Air Barrier Installations (water details only)	Air Barrier Installations
<b>Tyvek® WRB</b>	<b>DuPont™ Tyvek® HomeWrap®, Tyvek® DrainWrap™, Tyvek® StuccoWrap®, Tyvek® CommercialWrap®, and Tyvek® CommercialWrap® D</b>	
<b>DuPont™ Tyvek® Fluid Applied Products</b>	Can be used on any above grade exterior wall where specified in hybrid details in this guide. Recommended for use on above grade exterior CMU and/or concrete walls. Refer to the <a href="#">DuPont™ Tyvek® Fluid Applied WB+™ and DuPont Flashing Products Installation Guidelines</a> for additional information.	
<b>DuPont™ Tyvek® Tape</b>	2" (3" <b>required</b> when using <b>Tyvek® DrainWrap™, Tyvek® StuccoWrap®, or Tyvek® CommercialWrap® D</b> )	
<b>Typical Recommended Fasteners and Spacing<sup>1</sup></b>	1" <b>DuPont™ Tyvek® Wrap Cap Staples or Nails</b> (or equivalent) fastened along stud lines spaced at 6"– 18" vertically	
<b>Tyvek® WRB Top of Wall Termination</b>	Skip-sealing along top of wall using Tower® Residential Sealant, a recommended sealant <sup>2</sup> , or <b>Tyvek® Tape</b>	Full seal along top of wall using Tower® Residential Sealant, a recommended sealant <sup>2</sup> , or <b>Tyvek® Tape</b> .
<b>Tyvek® WRB Bottom of Wall Termination</b>	Skip-sealing along bottom of wall using Tower® Residential Sealant, a recommended sealant <sup>2</sup> , or <b>Tyvek® Tape</b>	Full seal along bottom of wall using Tower® Residential Sealant, a recommended sealant <sup>2</sup> , or <b>Tyvek® Tape</b> .
<b>Recommended Window/Door Head Flap Treatment</b>	Skip-sealing along horizontal edge using <b>Tyvek® Tape</b> is acceptable	Full seal along horizontal edge and 45° cuts using <b>Tyvek® Tape</b> .

<sup>1</sup>For increased holding power and for higher air and water holdout performance, DuPont recommends fasteners of sufficient length to penetrate securely into the stud. Temporary Fastening methods can be used. For more information, refer to the applicable **Tyvek® WRB** Installation Guideline that can be found on [building.dupont.com](http://building.dupont.com).

<sup>2</sup>For information regarding chemical compatibility of sealants, see technical bulletin [Chemical Compatibility of Representative Building Sealants and Adhesives/Primers](#).

## Applicable Structures and Performance Criteria

### DuPont Building Envelope Solutions Products Installation Considerations for Wood-Framed Multi-Family and Light Commercial Buildings

These Installation Guidelines should be used for buildings which meet the applicable structures definitions and performance criteria on the previous page. The following table provides a summary of typical installation information.

Installation Considerations	Total Building Height Above Grade Plane <sup>1</sup>	
	70 Feet and Under	70 – 85 Feet
<b>Performance Criteria</b>	Building air barrier performance not exceeding ASTM E1677, <b>AND</b> WRB and self-adhered flashing water infiltration resistance criteria not exceeding 6.24 psf when tested in accordance with ASTM E331, ASTM E1105, or equivalent.	
<b>Tyvek® WRB<sup>2</sup></b>	<b>DuPont™ Tyvek® HomeWrap®, Tyvek® DrainWrap™, Tyvek® StuccoWrap®, Tyvek® CommercialWrap®, and Tyvek® CommercialWrap® D</b>	<b>Tyvek® CommercialWrap®, Tyvek® CommercialWrap® D</b> (required on all above grade wood-framed exterior walls)
<b>DuPont™ Tyvek® Fluid Applied Products</b>	Can be used on any above grade exterior wall where specified in hybrid details in this guide. Recommended for use on above grade exterior CMU and/or concrete walls. Refer to the <a href="#">DuPont™ Tyvek® Fluid Applied WB+™ and DuPont Flashing Products Installation Guidelines</a> for additional information.	
<b>DuPont™ Tyvek® Tape</b>	2" (3" <b>required</b> when using <b>Tyvek® DrainWrap™, Tyvek® StuccoWrap®, or Tyvek® CommercialWrap® D</b> )	3"
<b>Typical Recommended Fasteners and Spacing<sup>3</sup></b>	1" <b>DuPont™ Tyvek® Wrap Cap Staples or Nails</b> (or equivalent) fastened along stud lines spaced at 6" – 18" vertically	2" <b>DuPont™ Tyvek® Wrap Cap Screws</b> or approved TRUFAST® Walls Fasteners (formerly Rodenhouse) 1" plastic cap fasteners are considered temporary fasteners
<b>Air Barrier Details</b>	Required when the designated building envelope performance requirements are equivalent to ASTM E1677	
<b>Tyvek® WRB Terminations to Sheathing</b>	<b>DuPont Self-Adhered Flashing Products</b>	
<b>Self-Adhered Flashing Patches behind Cladding Fasteners</b>	Required when water infiltration resistance criteria for the building envelope exceeds 0.56 psf (15 mph equivalent wind-driven rain), nominal test pressure per ASTM E1677.	
<b>Recommended Window/Door Head Flap Treatment</b>	<b>DuPont™ Tyvek® Tape or DuPont Self-Adhered Flashing Products</b>	<b>DuPont Self-Adhered Flashing Products</b> Install mechanical fasteners through flashing as needed for increased holding power

<sup>1</sup>Height above grade plane based on the approved calculation method as defined in architectural plans/construction documents.

<sup>2</sup>Buildings requiring NFPA 285 compliance must use **Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D** in accordance with [DuPont NFPA 285 documentation](#).

<sup>3</sup>For increased holding power and for higher air and water holdout performance, DuPont recommends fasteners of sufficient length to penetrate securely into the stud. Temporary Fastening methods can be used. For more information, refer to the applicable **Tyvek® WRB** Installation Guideline that can be found on [building.dupont.com](http://building.dupont.com).

## Flashing Products Code Requirements

The 2018 International Residential Code (Section R703.4 Flashing) requires that “approved corrosion-resistant flashing shall be applied shingle-fashion in a manner to prevent entry of water into the wall cavity or penetration of water to the building structural framing components. Self-adhered membrane used as flashing shall comply with **AAMA 711**. Fluid-applied membranes used as flashing in exterior walls shall comply with **AAMA 714**. The flashing shall extend to the surface of the exterior wall finish.

The 2018 International Building Code (Section 1404.4 Flashing) requires that “flashing shall be installed in such a manner so as to prevent moisture from entering the wall or to redirect that moisture to the exterior. Flashing shall be installed at the perimeters of exterior door and window assemblies, penetrations and terminations of exterior wall assemblies, exterior wall intersections with roofs, chimneys, porches, decks, balconies and similar projections and at built-in gutters and similar locations where moisture could enter the wall. Flashing with projecting flanges shall be installed on both sides and the ends of copings, under sills and continuously above projecting trim. Where self-adhered membranes are used as flashings of fenestration in wall assemblies, those self-adhered flashings shall comply with **AAMA 711**. Where fluid applied membranes are used as flashing for exterior wall openings, those fluid applied membrane flashings shall comply with **AAMA 714**.”

**DuPont Self-Adhered Flashing Products** comply with AAMA 711 (an FGIA Specification) *Specification for Self Adhering Flashing Used for Installation of Exterior Wall Fenestration Products*.

**DuPont™ Tyvek® Fluid Applied Flashing and Joint Compound+** complies with AAMA 714, *Voluntary Specification for Liquid Applied Flashing Used to Create a Water-Resistive Seal around Exterior Wall*.

## Water-Resistive Barrier (WRB) Code Requirements

The 2018 International Residential Code (Section R703.1.1 Water Resistance) requires that “the exterior wall envelope shall be designed and constructed in a manner that prevents the accumulation of water within the wall assembly by providing a water-resistant barrier behind the exterior cladding as required by Section R703.2 and a means of draining to the exterior water that penetrates the exterior cladding.” Section R703.2 (Water-resistive barrier) states that “one layer of No. 15 asphalt felt, free from holes and breaks, complying with ASTM D 226 for Type 1 felt or other approved water-resistive barrier shall be applied over studs or sheathing of all exterior walls. No. 15 asphalt felt shall be applied horizontally, with the upper layer lapped over the lower layer not less than 2 inches (51 mm). Where joints occur, felt shall be lapped not less than 6 inches (152 mm). Other approved materials shall be installed in accordance with the water-resistive barrier manufacturer’s installation instructions. The No. 15 asphalt felt or other approved water-resistive barrier shall be continuous to the top of walls and terminated at penetrations and building appendages in a manner to meet the requirements of the exterior wall envelope as described in Section R703.1.”

The 2018 International Building Code (Section 1402.2 Weather Protection) requires that “exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall be designed and constructed in such a manner as to prevent the accumulation of water within the wall assembly by providing a water-resistive barrier behind the exterior veneer, as described in Section 1403.2, and a means for draining water that enters the assembly to the exterior. The exterior wall envelope shall include flashing, as described in Section 1404.4. Section 1403.2 (Water-resistive barrier) states that “not fewer than one layer of No. 15 asphalt felt, complying with ASTM D226 for Type 1 felt or other approved materials, shall be attached to the studs or sheathing, with flashing as described in Section 1404.4 in such a manner as to provide a continuous water-resistive barrier behind the exterior veneer.”

The **DuPont™ Tyvek® WRBs** listed below qualify as approved water-resistive barriers based on ICC-ES AC38 Acceptance Criteria according to the associated Evaluation Reports:

- ICC-ES Evaluation Report ESR 2375
  - **DuPont™ Tyvek® HomeWrap®**
  - **DuPont™ Tyvek® StuccoWrap®**
  - **DuPont™ Tyvek® DrainWrap™**
  - **DuPont™ Tyvek® CommercialWrap®**
  - **DuPont™ Tyvek® CommercialWrap® D**

All **DuPont™ Tyvek® WRBs** have been tested to the following standards:

- ASTM E2556 *Type II Standard Specification for Vapor Permeable Flexible Sheet Water-Resistive Barriers Intended for Mechanical Attachment*
- ASTM E1677 *Standard Specification for an Air Retarder (AR) Material or System for Low-Rise Framed Building Walls*



- ASTM E2178 *Standard Test Method for Air Permeance of Building Materials*
- ASTM E96 *Standard Test Methods for Water Vapor Transmission of Materials*
- AATCC 127 *Test Method for Water Resistance: Hydrostatic Pressure*
- ASTM E84 *Standard Test Method for Surface Burning Characteristics of Building Materials*
- ASTM E2273 *Standard Test Method for Determining the Drainage Efficiency of Exterior Insulation and Finish Systems (EIFS) Clad Wall Assemblies* (excludes **DuPont™ Tyvek® Fluid Applied WB+™**)

The application of **DuPont™ Tyvek® WRBs** is governed by the code adopted and enforced by the local jurisdiction. Consult your jurisdiction to assure compliance with the local building code.

## Additional Codes and Standards Information for DuPont™ Tyvek® Commercial Air and Water Barrier Systems

**DuPont™ Tyvek® CommercialWrap®, Tyvek® CommercialWrap® D, DuPont™ StraightFlash™, DuPont™ FlexWrap™, and DuPont™ Tyvek® Fluid Applied Products** were designed for the rigors of heavy commercial construction. These commercial products have been tested to the following standards:

- ABAA Evaluated
- ASTM E2357 *Standard Test Method for Determining Air Leakage of Air Barrier Assemblies*
- ASTM E331 *Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Pressure*
- ASTM E1105 *Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Door, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference*
- ASTM E283 *Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen*
- AAMA 501.5 *Test Method for Thermal Cycling of Exterior Walls*
- NFPA 285 *Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components*

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

- ASHRAE 90.1 Model Energy Code air barrier requirements
- 2018 International Energy Conservation Code® (IECC)
- 2018 International Green Construction Code® (IgCC)

## General Instructions

The best time to install **Tyvek® WRBs** is:

- **AFTER** the roof sheathing is installed
- **AFTER** the step flashings and kickout flashings have been installed
- **BEFORE** the windows and doors are installed.

**DuPont Self-Adhered Flashing Products and Tyvek® Fluid Applied Products are not intended for through-wall flashing applications.**

## Special Considerations

1. These Installation Guidelines, including the allowable use of DuPont Products, are based on building air barrier performance not exceeding ASTM E1677, and **Tyvek® WRBs** and self-adhered flashing water infiltration resistance criteria not exceeding 6.24 psf when tested in accordance with ASTM E331, ASTM E1105, or equivalent.
2. Buildings requiring NFPA 285 compliance must use **Tyvek® CommercialWrap®** or **Tyvek® CommercialWrap® D** in accordance with DuPont NFPA 285 documentation. See [NFPA 285 Compliant Wall Assemblies with DuPont™ Tyvek® Commercial Air and Water Barrier Systems](#) and [building.dupont.com](http://building.dupont.com) for more information.
3. **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.
4. **DuPont Self-Adhered Flashing Products** perform best when installed at temperatures above 25°F (-4°C).
5. 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 a recommended primer.** Do not apply the recommended primer, to exterior continuous insulation due to potential sheathing degradation.
6. Remove all wrinkles and bubbles that may allow for water intrusion by smoothing surface and repositioning as necessary during installation of **DuPont Self-Adhered Flashing Products**. Apply pressure along entire surface of flashing for a good bond using firm hand pressure, J-roller, or alternate tool without sharp edges (such as a plastic carpet tuck tool) to assist with application of uniform pressure.
7. Building envelope design requirements exceeding 0.56 psf (15 mph equivalent wind-driven rain) water infiltration resistance per ASTM E1677 require **DuPont™ StraightFlash™, DuPont™ Flashing Tape** or recommended alternate patches behind fastening plates (brick tie base plates, metal fastening clips, metal channels, etc.). When used behind the cladding fasteners and/or fastening plates, the flashing patch must be adhered to the **Tyvek® WRB**.
8. **DuPont Self-Adhered Flashing Products** are not intended for through-wall flashing applications.
9. When using mechanically fastened through-wall flashing, DuPont recommends sealing top edge with **DuPont™ Flashing Tape** or **StraightFlash™**.

10. 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 3/4" 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.
11. Use **DuPont Self-Adhered Flashing Products** with roll widths sufficient to achieve a minimum of 1" adhesion **BEYOND** where the back of the window or door frame will be located to allow for the creation of the interior perimeter seal.
12. **DO NOT STRETCH FlexWrap™** when installing along sills or jambs. **FlexWrap™** is only intended to be stretched when covering corners or curved sections.
13. When installing **DuPont™ FlexWrap™ EZ** and **FlexWrap™** on penetrations or other wall conditions, ensure the flashing will not be exposed after completion of cladding.
14. **DuPont Self-Adhered Flashing Products** can be used to bridge non-movement gaps up to 1" unsupported. Flashing must maintain a 2" adhesive lap on the wall substrate.
15. **DO NOT APPLY DuPont™ Tyvek® Tape** or **DuPont Self-Adhered Flashing Products** over **DuPont™ Tyvek® Wrap Cap Fasteners**, or recommended fasteners however, fasteners can be installed over the flashing.
16. When installing the **DuPont™ Tyvek® WRB**, **DO NOT INSTALL** fasteners within 6" of the sills and jambs of the openings and within 9" of the head of the openings.
17. **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 1/2", apply using the plastic extension tip for the **Great Stuff™ Dispenser Gun** during installation.
18. For additional wind load resistance, the use of **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** with **Tyvek® Wrap Cap Fasteners**, or recommended fasteners can be installed to secure the head flap of the windows.
19. **DuPont™ Tyvek® Tape** is a seam tape primarily designed to seal **Tyvek® WRB** seams. **Tyvek® Tape** is **NOT** a flashing product, and should not be used in applications where a flashing product is required.
20. Before applying **Tyvek® Tape**, surfaces should be dry and clean. During installation apply firm, even pressure with hand or "J" roller.
21. In lieu of temporarily taping, **Tyvek® WRB** flaps at window head and jambs can be tucked under the installed **Tyvek® WRB**.
22. 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.
23. For window or door openings greater than 6 feet wide, **DuPont™ Flashing Tape** or **StraightFlash™** can be used with **FlexWrap™** in 3-piece sill applications. **DuPont™ Flashing Tape** or **StraightFlash™** should be applied the length of the sill prior to placing the **FlexWrap™** corners. The **FlexWrap™** corners should be at least 12" long allowing for 6" up the jamb and 6" of overlap on the **FlexWrap™** sill flashing. When applying the 3-piece flashing detail to the head of the opening, the **DuPont™ Flashing Tape** or **StraightFlash™** head piece should be applied prior to installing the **FlexWrap™** corner flashing. Minimum overlapping of the **FlexWrap™** head flashing and jamb flashing should be a minimum of 6".
24. **DuPont™ Tyvek® DrainWrap™**, **DuPont™ Tyvek® StuccoWrap®**, and **DuPont™ Tyvek® CommercialWrap® D** must be installed with the grooves going up and down.
25. **DuPont™ Tyvek® HomeWrap®** and **DuPont™ Tyvek® CommercialWrap®** provide >90% drainage efficiency, and **Tyvek® DrainWrap™**, **Tyvek® StuccoWrap®**, and **Tyvek® CommercialWrap® D** provide >98% drainage efficiency when tested in accordance with ASTM E2273.
26. No surface preparation is needed for the installation of **Tyvek® WRBs**.
27. Suitable substrates for **DuPont™ Tyvek® Fluid Applied Products** include concrete masonry unit (CMU), concrete (48 hr. cure 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).
28. DuPont recommends the use of the **DuPont™ Tyvek® Fluid Applied Air Barrier System** for CMU walls with embedded brick ties. Please refer to the [DuPont™ Tyvek® Fluid Applied WB+™ and DuPont Flashing Products Installation Guidelines](#) for specific installation instructions.
29. **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.
30. When **Tyvek® Fluid Applied Products** are used as the air and water barrier, **Tyvek® WRBs** may be installed as an "intervening layer" over **Tyvek® Fluid Applied Products** after 48 hours of curing at 70°F (20°C) and 50% RH. For additional information about the use of "intervening layers" see the Stucco section under *Facade Considerations* in the applicable **Tyvek® WRB** Installation Guideline.
31. Uncured **Tyvek® Fluid Applied Products** must not come in contact with building wraps due to potential impact on performance properties.
32. **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.
33. **Tyvek® HomeWrap®**, **Tyvek® StuccoWrap®**, and/or **Tyvek® DrainWrap™** should not come in direct contact with cured or uncured **Tyvek® Fluid Applied Products**.
34. **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.
35. **DuPont™ Tyvek® Fluid Applied Flashing and Joint Compound+** can be troweled or brushed to the required thickness in any application outlined in the guide.
36. **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).
37. **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 [DuPont™ Tyvek® Fluid Applied WB+™ Wall and Substrate Guidelines](#).

38. 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 **DuPont™ Tyvek® Fluid Applied Products** are fully cured (~14 days).
39. **DuPont™ 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. **DuPont™ StraightFlash™** can be used as transitional membrane.
40. DuPont requires **DuPont™ Tyvek® HomeWrap®**, **DuPont™ Tyvek® StuccoWrap®**, and **DuPont™ Tyvek® DrainWrap™** be covered within 4 months (120 days) of installation. DuPont requires **DuPont™ Tyvek® CommercialWrap®** and **DuPont™ Tyvek® CommercialWrap® D** and **Tyvek® Fluid Applied Products** be covered within 9 months (270 days) of installation.
41. DuPont requires that **DuPont™ FlexWrap™**, **DuPont™ FlexWrap™ EZ**, and **StraightFlash™** be covered within 9 months (270 days) of installation. DuPont requires that **DuPont™ Flashing Tape** be covered within four months (120 days) of installation.
42. The maximum in-service temperature for **Tyvek® WRBs**, **DuPont Self-Adhered Flashing Products**, and **Tyvek® Fluid Applied Products** is 180°F.
43. 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.
44. For details regarding flashing garage door openings, refer to [\*Installation Instructions for Garage Doors Installed AFTER the DuPont™ Tyvek® Water-Resistive and Air Barrier \(WRB\) is Installed.\*](#)
45. When applying Tower® Residential Sealant or recommended sealant during window installation, DuPont recommends minimizing or removing excess sealant that may interfere with adhesion of **DuPont Self-Adhered Flashing Products**.

For additional guidance, please call 1-833-338-7668, visit our website at [building.dupont.com](http://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:

- An integral flanged window/door is defined as a window/door unit with a nailing fin or flange that is continuous around the perimeter of the window and that is a direct extrusion of the window frame.
- Any window/door that has a nailing fin or flange that is **not continuous around the perimeter** of the window/door or the fin/flange is **not a direct extrusion of the frame** (e.g. field-applied flanges) is considered a **non-integral flanged unit**.
- 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.
- 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.
- When applying recommended sealant during window installation, DuPont recommends minimizing or removing excess sealant that may interfere with adhesion of **DuPont Self-Adhered Flashing Products**.
- DuPont requires that **FlexWrap™**, **FlexWrap™ EZ**, and **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.
- 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, bump-outs), 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 [building.dupont.com](http://building.dupont.com).
- Field testing the window/door and wall installation as a complete system is a recommended best practice.
- DuPont recommends DuPont Building Envelope Solutions Products be installed by a DuPont Certified Installer. Contact your local Building Envelope Specialist for more information about the DuPont Certified Installer program.

### Sealants and Adhesives/Primers

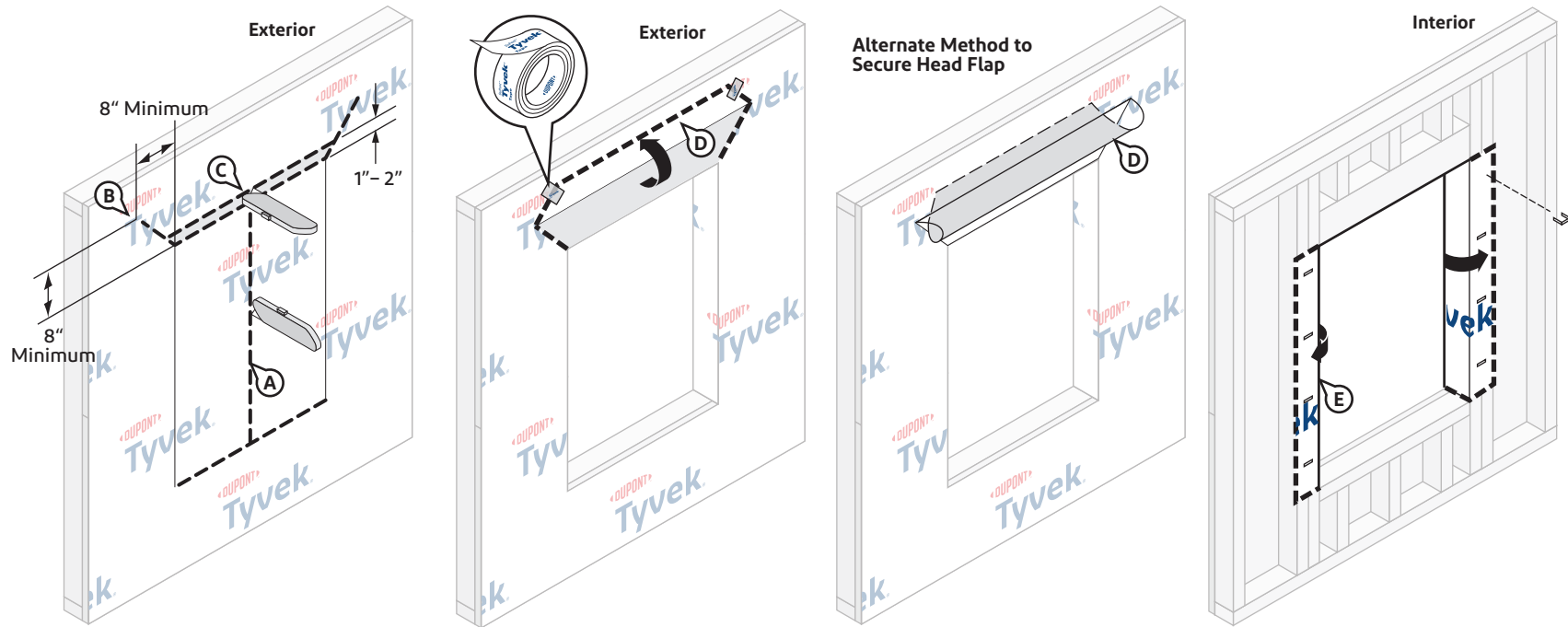
Review the manufacturers' literature or label to confirm that the product(s) used have the chemical and adhesive properties necessary for use with **Tyvek® WRBs**, **DuPont Self-Adhered Flashing Products**, and **DuPont™ Tyvek® Fluid Applied Products**. Ensure the sealant materials meet the installation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

# Installation Methods for DuPont Self-Adhered Flashing Products Installed AFTER the DuPont™ Tyvek® WRB

## Alternate Installation Considerations

### Alternate Tyvek® WRB Head Flap Preparation Method

This optional method of creating the Tyvek® WRB head flap involves trimming the flap prior to the window or door installation. This installation method can be used in lieu of the standard head flap preparation shown throughout this guide.



### Prepare the Tyvek® WRB for Window or Door Installation

A. Make an “I-Cut” or “O-Cut”/flush cut in the Tyvek® WRB based on the type of window or door being installed. Follow the steps in the applicable section within this guide.

**NOTE:** An “I-Cut” for an integral flanged window/door is shown.

B. Cut two 45 degree slits a minimum of 8” extending from the corner of the window/door head, up and away from the rough opening. This will create a flap above the rough opening to expose sheathing or framing members to allow head flashing installation.

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

C. Create another horizontal cut 1”– 2” above the lower horizontal edge of the head flap.

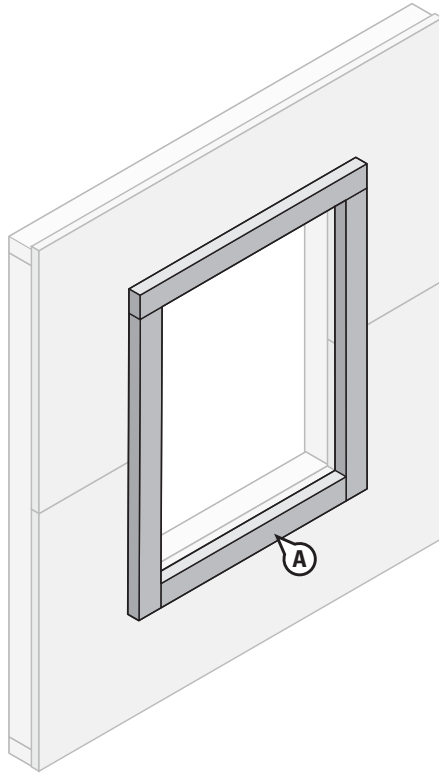
D. Flip head flap up and temporarily secure with DuPont™ Tyvek® Tape.

**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 (if an “I-Cut” was created previously) and secure to inside wall. Cut off excess flaps if desired.

## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB

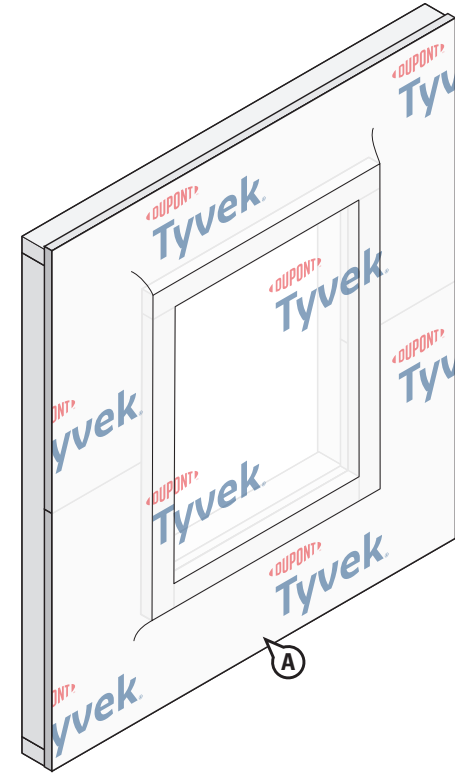
This method applies to the following products: DuPont™ FlexWrap™, DuPont™ Flashing Tape, and DuPont™ StraightFlash™



### STEP 1

#### Install 2"x 4" Wood Bump-Out Frame

A. Install wood bump-out frame per plans and specifications. Securely fasten in place.

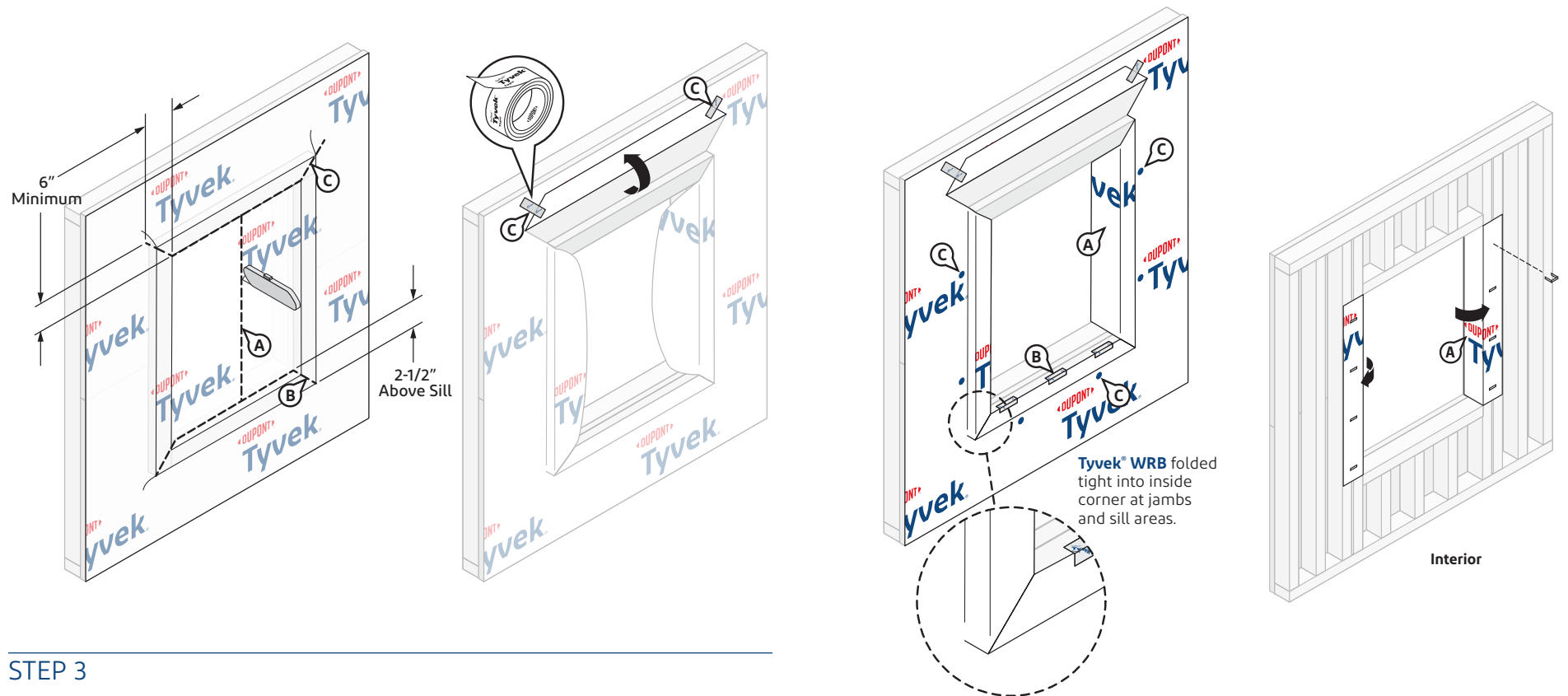


### STEP 2

#### Install Tyvek® WRB

A. Wrap wall as shown in the applicable **Tyvek® WRB** Installation Guideline found on [building.dupont.com](https://building.dupont.com). Do not install fasteners within 9" of the perimeter of the bump-out. Roll out the **Tyvek® WRB** over the rough opening ensuring that the membrane is tight.

## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Integral Flanged Window with Wood Bump-Out Frame Installed **BEFORE** the Tyvek® WRB



### STEP 3

#### Prepare the DuPont™ Tyvek® WRB for Window Installation

**OPTIONAL:** Refer to the [Alternative Installation Considerations](#) section for guidance regarding trimming the head flap while preparing the Tyvek® WRB if desired instead.

- Make an "I-Cut" in the Tyvek® WRB. For an "I-Cut" begin with a horizontal cut across the top of the window rough opening. For 2" x 4" wood bump-outs, make the bottom horizontal cut 2-1/2" above the bottom of the sill. Then cut vertically from the center straight down between the top and bottom horizontal cuts to create two jamb flaps.
- To create a sill flap, make diagonal cuts from corner of rough opening sill to bottom corner edge of wood bump-out frame on each side.
- To create a head flap, cut two 45° slits extending from the corners of the head of the rough opening a minimum of 6" **BEYOND** the bump-out to expose the sheathing above the bump-out and to allow for future head flashing installation. Flip head flap up and temporarily secure with **DuPont™ Tyvek® Tape**.

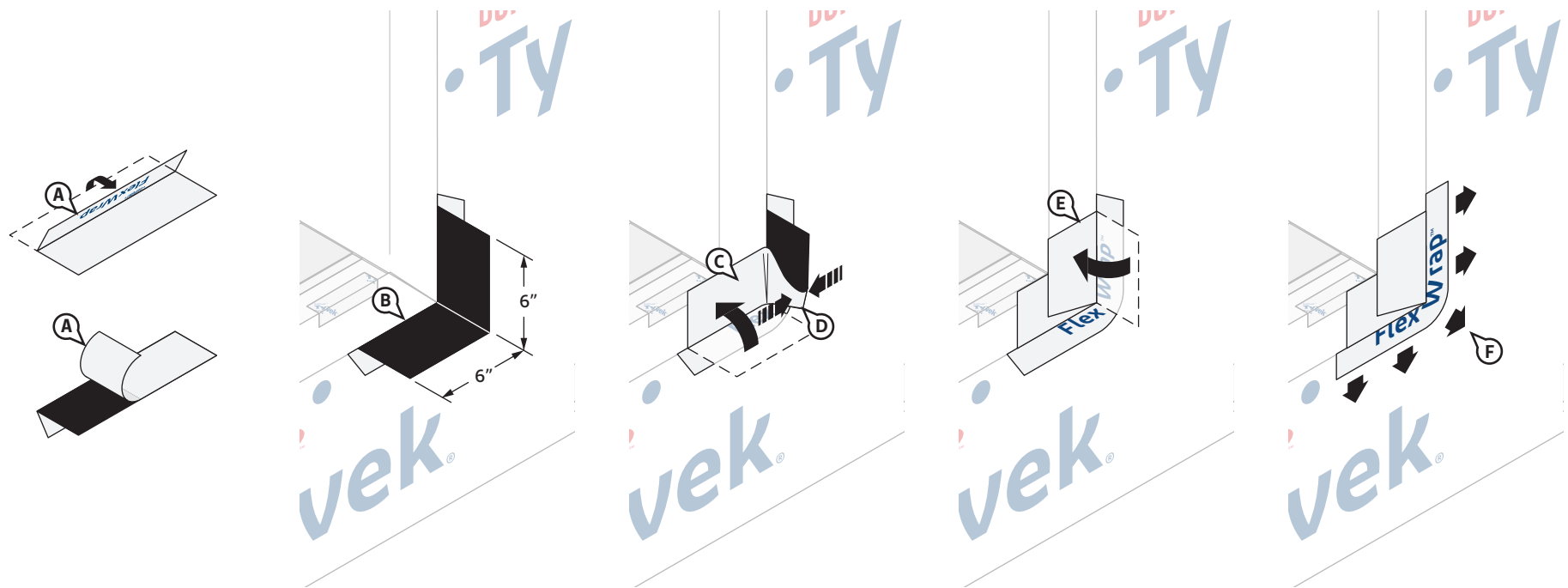
### STEP 4

#### Secure Sill and Jamb Flaps

- Fold jamb flaps tight around wood bump-out frame and into rough opening and secure. Ensure the Tyvek® WRB is folded tight into corners around wood bump-out.
- Fold sill flap tight around the bottom of bump-out frame. Upper edge of the Tyvek® WRB should be flush with rough opening sill. Temporarily secure at the sill using small pieces of **Tyvek® Tape**.
- In order to ensure sill flap is held tight into the corner of the underside of the bump-out frame, install recommended cap fasteners along stud lines immediately underneath the bump-out frame. Fasteners should not be installed where **DuPont Self-Adhered Flashing Products** are to be installed.

**NOTE:** For additional wind pressure resistance, the WRB should be fastened to stud within 3" of outside edge of wood bump-out frame.

**Installation Methods for DuPont Self-Adhered Flashing Products Installed AFTER the DuPont™ Tyvek® WRB  
Integral Flanged Window with Wood Bump-Out Frame Installed BEFORE the Tyvek® WRB**



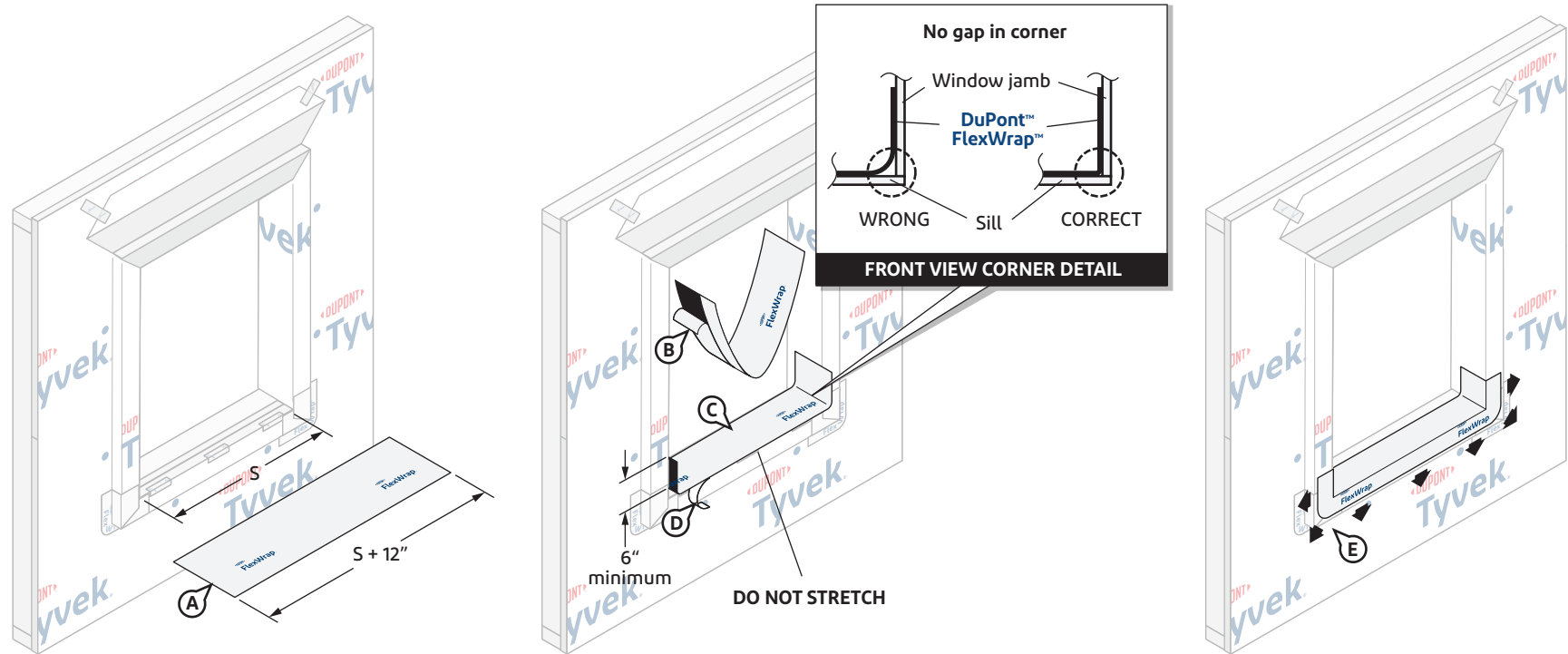
**STEP 5**

**Prepare and Install DuPont™ FlexWrap™ Corner Pieces at Bottom of Bump-Out Frame**

- A. Cut two (2) 12" long pieces of **FlexWrap™**. Break the perforations on one piece of **FlexWrap™** by folding along the perforated release paper. While still folded, remove the wider piece of release paper.
- B. Starting at the bottom sill portion of the bump-out frame and working up to the jamb portion, install the exposed butyl adhesive to extend 6" along the bottom edge of the bump-out frame and 6" along the side edge. Use the inside edge of the narrow release paper as a guide to ensure the butyl is adhered tight into the inside corner of the bump-out frame and the wall.
- C. Fold the exposed butyl of the lower half of the **FlexWrap™** onto the face of the bump-out frame.
- D. Create a diagonal "dog-ear" flap by pressing the exposed butyl onto itself at the corner of the bump-out frame.
- E. Fold flap down onto the face of the side bump-out frame. Continue pressing the remaining exposed butyl onto the face of the bump-out frame.
- NOTE:** If using 9" **FlexWrap™**, the flashing should be trimmed flush with the inside edge of the bump-out corner at the sill/jamb.
- F. Remove the remaining release paper from the **FlexWrap™** corner piece. Fan out the exposed butyl onto the face of the wall using uniform hand pressure.
- G. Repeat Steps B–F on opposite corner of bump-out frame.



**Installation Methods for DuPont Self-Adhered Flashing Products Installed AFTER the DuPont™ Tyvek® WRB  
Integral Flanged Window with Wood Bump-Out Frame Installed BEFORE the Tyvek® WRB**



**STEP 6**

**Install DuPont™ FlexWrap™ at Sill**

- A. Cut **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 bump-out frame.
- 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 bump-out frame to ensure 2"– 3" of the **FlexWrap™** will be adhered to the face of the bump-out frame with a minimum of 6" up each jamb.

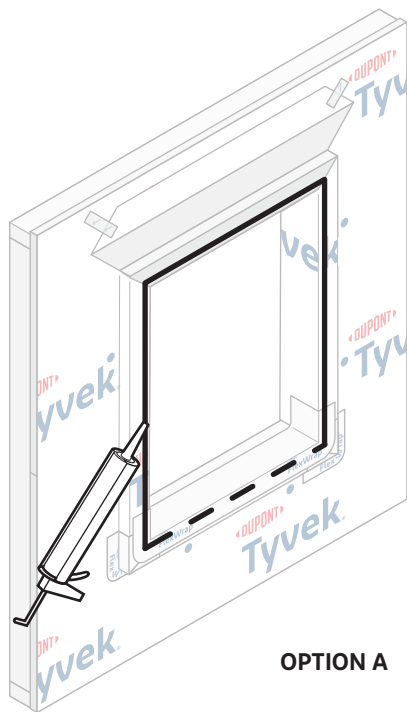
- C. Adhere into rough opening ensuring the **FlexWrap™** is installed tightly into the corners by first working along the sill before adhering up the jambs.

**DO NOT STRETCH MATERIAL ALONG THE SILL OR JAMBS.**

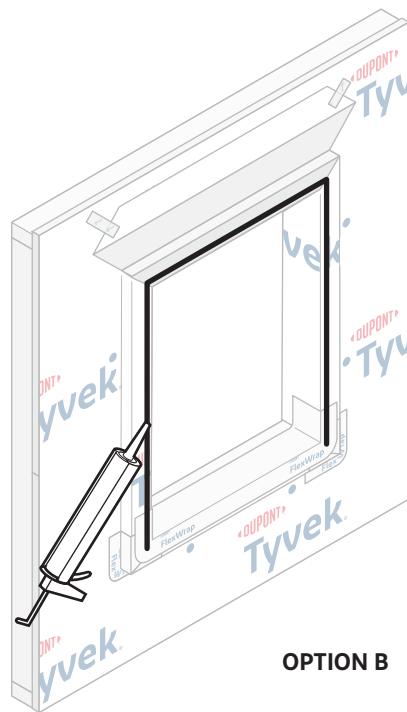
- D. Remove narrow release paper.
- E. Using uniform hand pressure, fan out the **FlexWrap™** at corners and adhere onto the face of the bump-out frame. Continue adhering onto bump-out frame along sill. Coverage of the **FlexWrap™** should be 2"– 3" onto the face of the bump-out frame.

**NOTE:** DuPont™ Tyvek® Certified Installers may install a 3-piece head (and sill) detail for window openings less than 6 ft. wide. For windows greater than 6 ft. wide, see the [Special Considerations](#) section for more information regarding the 3-piece head/sill detail. Contact your local DuPont Building Envelope Specialist for more information about the Certified Installer program.

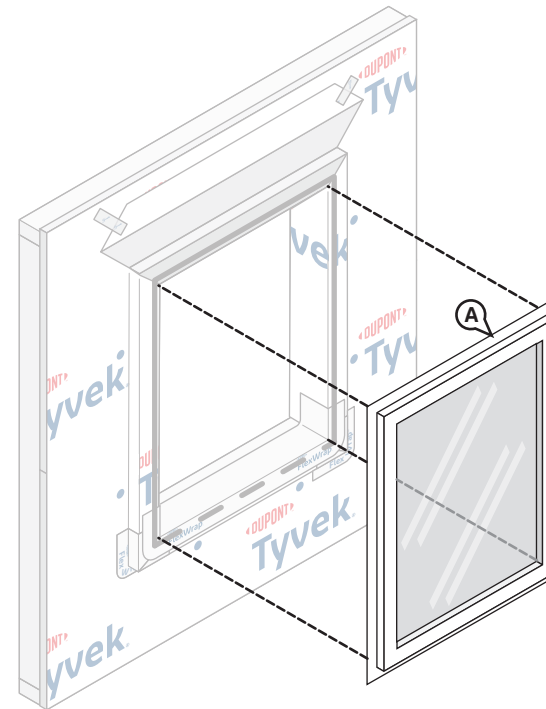
## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Integral Flanged Window with Wood Bump-Out Frame Installed **BEFORE** the Tyvek® WRB



OPTION A



OPTION B



### STEP 7

**OPTION A:** Apply continuous bead of Tower® Residential Sealant, or recommended sealant, at window head and jambs to wall or back side of window mounting flange. To allow for drainage, do not apply continuous sealant bead along sill. Ensure a minimum 2" wide drainage gap in the sealant bead within 4" from each corner of the jamb/sill interface. Continue applying sealant along the sill with additional 2" wide (min.) drainage gaps for every 6"– 12" (on center) of sill width.

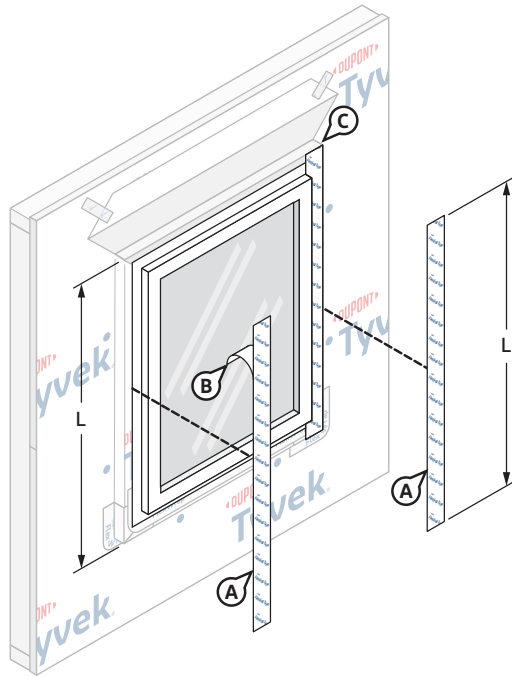
**OPTION B:** Apply continuous bead of Tower® Residential Sealant, or recommended sealant, at window head and jambs to wall or back side of window mounting flange. To allow for drainage, do not apply sealant bead along sill.

### STEP 8

#### Install Window

A. Install integral flanged window according to manufacturer's instructions.

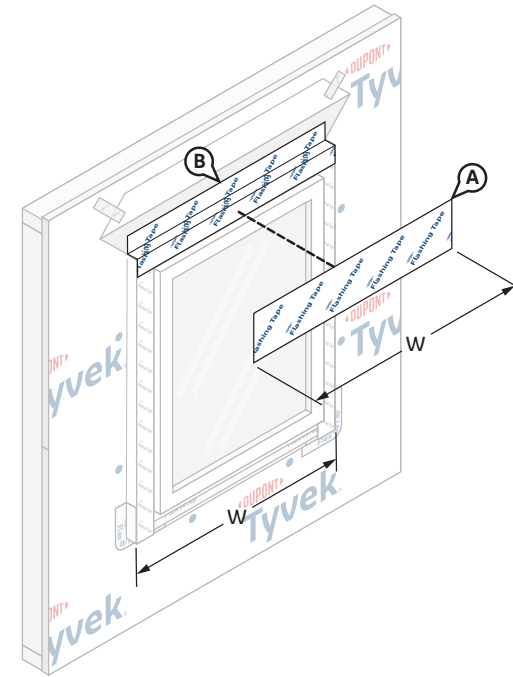
## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Integral Flanged Window with Wood Bump-Out Frame Installed **BEFORE** the Tyvek® WRB



### STEP 9

#### Install Jamb Flashing

- Cut two (2) pieces of **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** the length of the bump-out frame (L).
- Remove release paper and align with top edge of the bump-out frame.
- Install the first piece of **DuPont™ Flashing Tape** or **StraightFlash™** flush with the top of the bump-out frame and completely over the window flange.
- Repeat at opposite jamb.

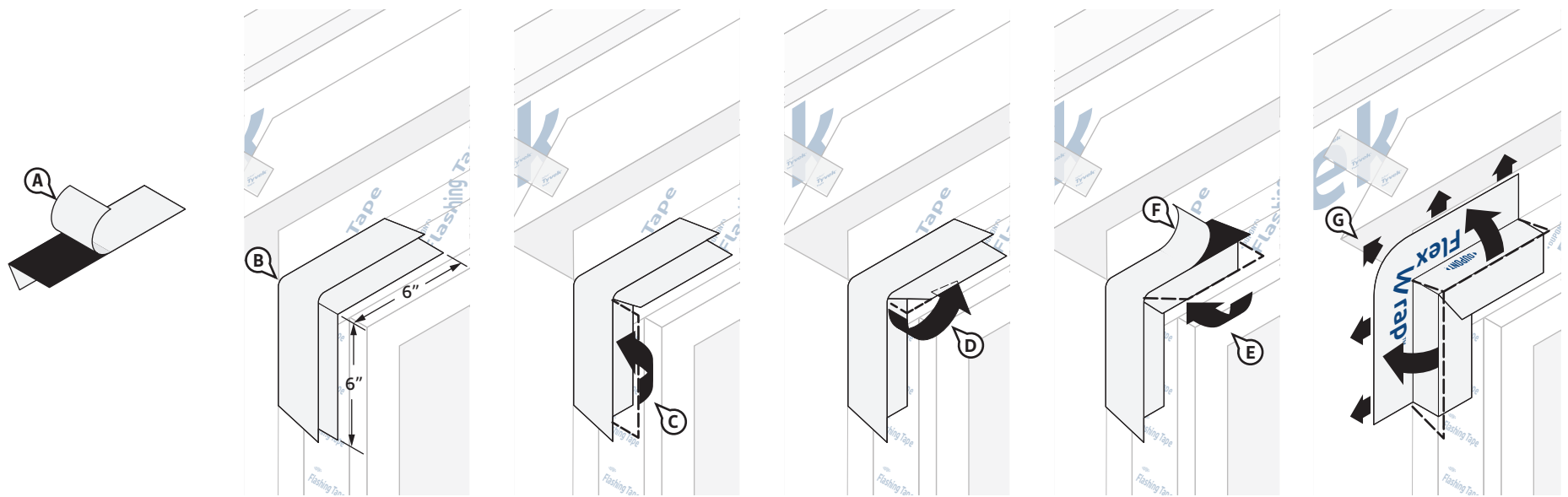


### STEP 10

#### Install Head Flashing

- Cut a piece of 9" **DuPont™ Flashing Tape** or **StraightFlash™** the width of the bump-out frame (W).
- Beginning at window head flange, install flashing onto the flange, face and top edge of bump-out frame, and onto exposed sheathing above. Ensure the flashing is installed tight into the inside corner of the bump-out frame and wall.

## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Integral Flanged Window with Wood Bump-Out Frame Installed **BEFORE** the Tyvek® WRB



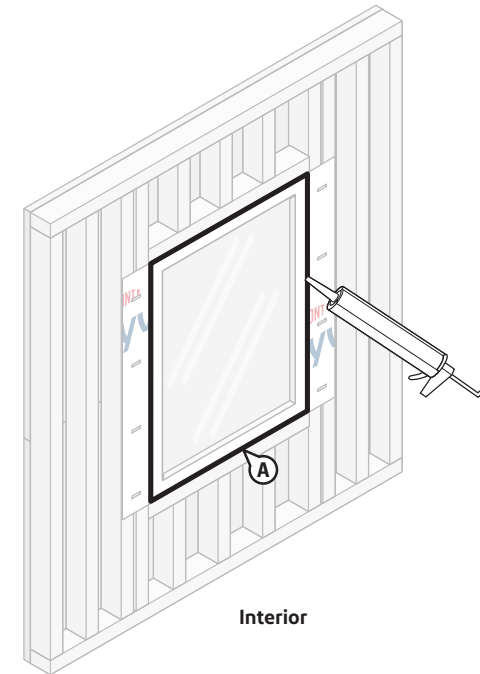
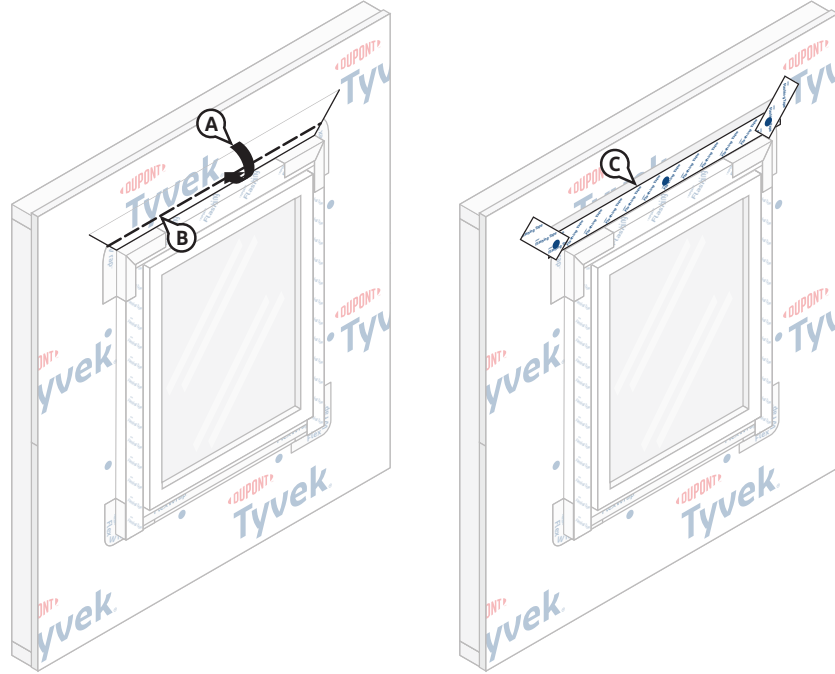
### STEP 11

#### Install DuPont™ FlexWrap™ Corner Pieces at Top of Bump-Out Frame

- A. Cut two (2) 12" long pieces of **FlexWrap™**. Break the perforations on one piece of **FlexWrap™** by folding along the perforated release paper. While still folded, remove the wider piece of release paper.
- B. Starting at the top corner of the jamb portion of the bump-out framing, adhere 6" along the side edge, extending another 6" along the top edge. Use the inside edge of the narrow release paper as a guide to ensure the butyl is adhered tight into the inside corner of the bump-out frame and the wall.
- C. Fold the exposed butyl at the side edge onto the face of the jamb portion of the bump-out frame.
- D. Create a diagonal "dog-ear" flap by first pressing the exposed butyl onto itself at the corner of the bump-out.
- E. Fold resulting flap down onto the face of the head portion of the bump-out frame. Continue pressing the remaining exposed butyl onto the face of the bump-out frame.
- F. Remove the remaining release paper from the **FlexWrap™** corner piece.
- G. Fan out the exposed butyl onto the face of the wall using uniform hand pressure.
- H. Repeat Steps A – F on opposite corner of bump-out frame.

**NOTE:** If using 9" **FlexWrap™**, the flashing should be trimmed flush with the frame of the window. **Do not cut the previously installed flashing underneath.**

## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Integral Flanged Window with Wood Bump-Out Frame Installed **BEFORE** the Tyvek® WRB



### STEP 12

#### Secure Head Flap

**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 1](#). If installing a drip cap **AFTER** the Tyvek® WRB head flap is flipped down and sealed, refer to [Option 2](#).

**NOTE:** Skip this step if the head flap was trimmed while preparing the Tyvek® WRB per the [Alternative Installation Considerations](#) section.

- Flip down upper flap of Tyvek® WRB so it lays flat across head flashing.
- Cut 1"– 2" strip of the Tyvek® WRB at lower horizontal edge of head flap.
- Terminate head flap as shown by continuously sealing the horizontal and then the diagonal seams with DuPont™ Flashing Tape or DuPont™ StraightFlash™.

**NOTE:** Install mechanical fasteners through flashing as needed for increased holding power. See the table in the [Applicable Structures and Performance Criteria](#) section for more information on air barrier requirements and head flap terminations.

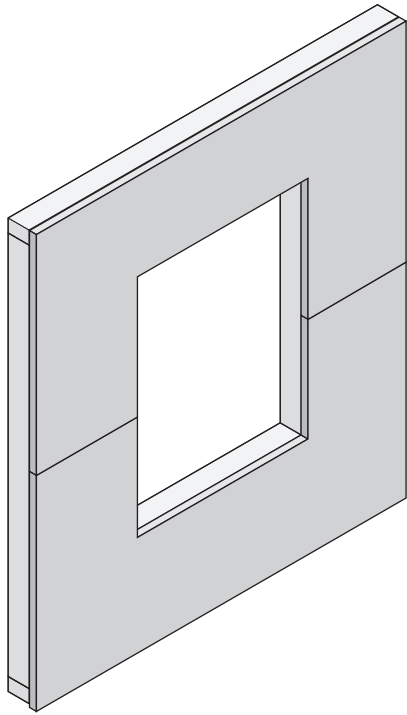
### STEP 13

#### Final Step – Install Interior Perimeter Seal

Apply 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.

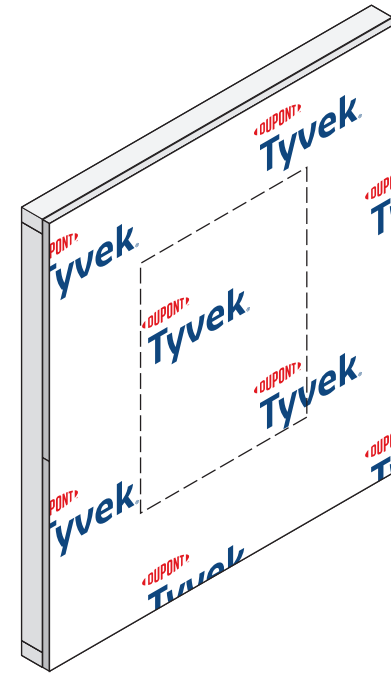
## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB

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



### STEP 1

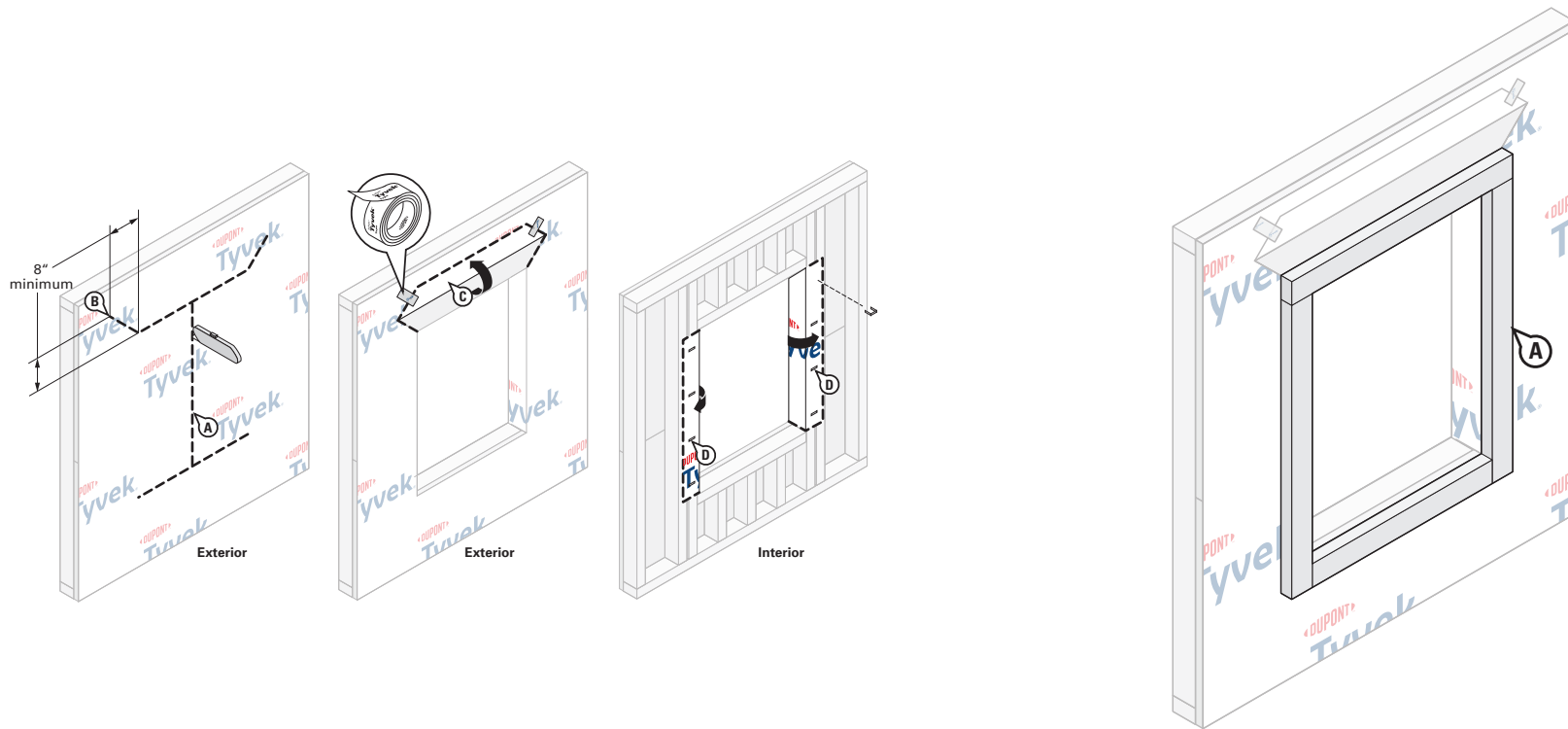
- A. Cut rough opening in sheathing for window. Ensure that sheathing is cut flush with, or slightly below the sill framing to allow for positive drainage.



### STEP 2

- A. Wrap wall as shown in the applicable Tyvek® WRB Installation Guideline found on [building.dupont.com](https://building.dupont.com). Do not install fasteners within 9" from the perimeter where the bump-out frame will be installed.

## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB



### STEP 3

#### Prepare Tyvek® WRB for Window Installation

**OPTIONAL:** Refer to the [Alternative Installation Considerations](#) section for guidance regarding trimming the head flap while preparing the Tyvek® WRB if desired instead.

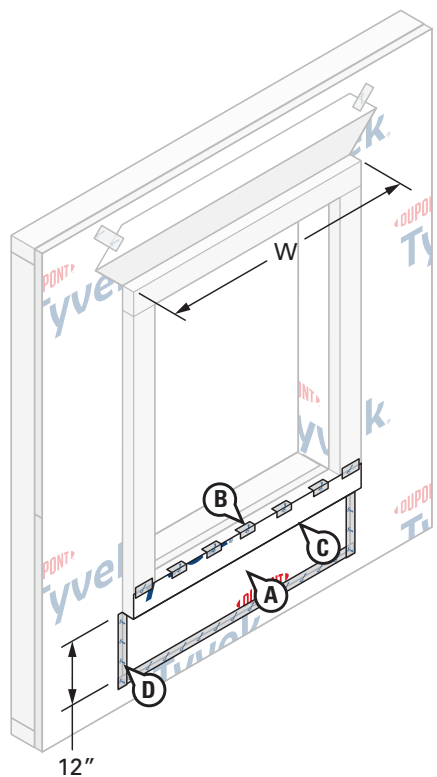
- Make an “I-Cut” in the Tyvek® WRB. For an “I-Cut” begin with a horizontal cut across the bottom and the top of the window frame (for round top windows, cut from the center cut straight down to the sill).
- Cut two 45° slits a minimum of 8” from the corner of the header to create a flap above the rough opening to expose sheathing or framing members. The slits may need to be extended to make a larger flap in order to provide space to install the bump-out frame in Step 4 and to allow head flashing installation ([See Step 5](#)).
- Flip head flap up and temporarily secure with DuPont™ Tyvek® Tape.
- Fold side flaps into rough opening and secure to inside wall. Cut off excess flaps if desired.

### STEP 4

#### Install 2”x 4” Wood Bump-Out Frame

- Install wood bump-out frame per plans and specifications. Securely fasten in place.
- Clean substrate of any material that could negatively affect adhesion as well as any sharp protrusions.

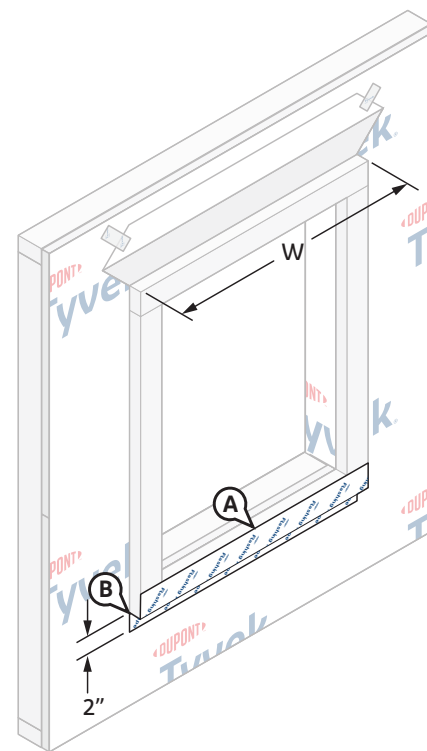
## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB



### STEP 5

#### Install Tyvek® WRB Apron

- Cut a piece of **Tyvek® WRB** the width of the outside of the wood bump-out (W) and long enough to cover bump-out frame plus an additional 12" below the bottom edge of bump-out frame.
- Temporarily secure the apron in place using small pieces of **DuPont™ Tyvek® Tape** so the top edge is flush with the sill of the rough opening.
- Install **Tyvek® WRB** apron along the bump-out and to the underside, tightly into the inside corner, and onto the face of the wall. Install additional fasteners as needed to assist with apron installation and provide additional holding power. Do not install fasteners where **Tyvek® Tape** or **DuPont Self Adhered Flashing Products** will be installed.
- Seal the outside edges of the apron to the field of the **Tyvek® WRB** on the wall using 3" **Tyvek® Tape**, beginning with the bottom of the apron and then the sides. Ensure the side pieces of tape are flush with the bottom edge of the wood bump-out frame.



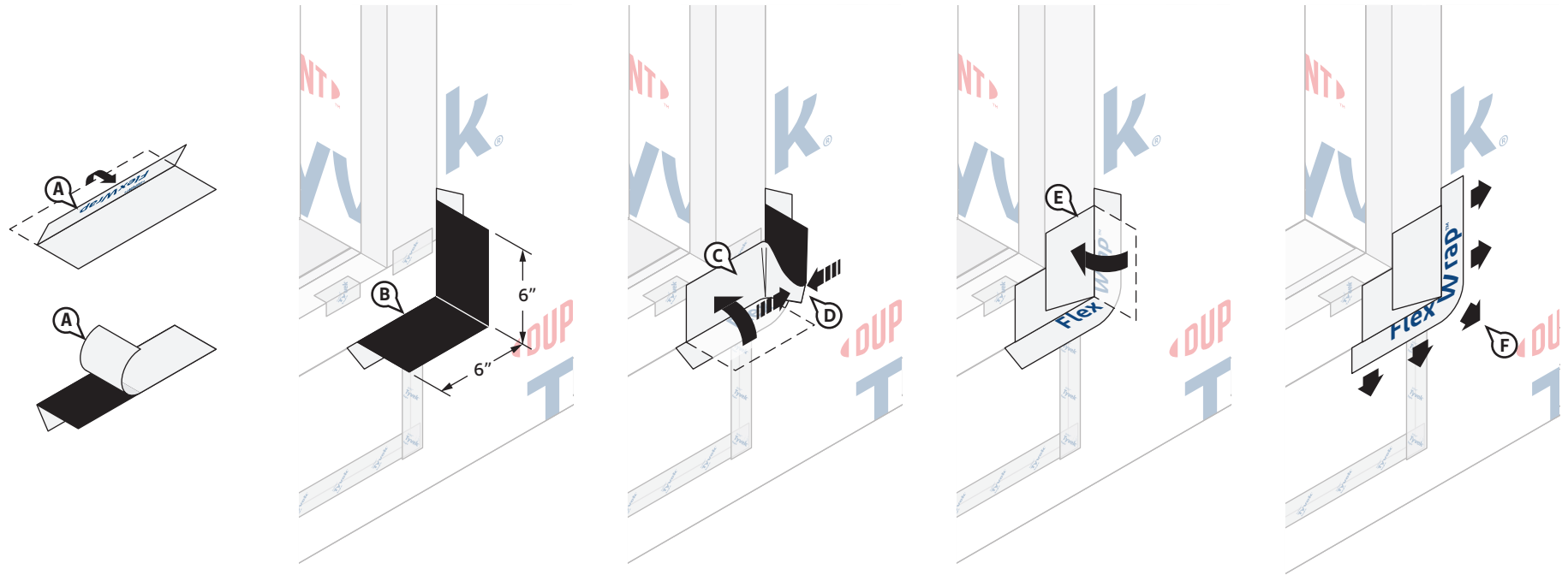
### STEP 5 – ALTERNATE

**DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** can be installed onto the bump-out frame at sill in place of the **Tyvek® WRB** apron using the following steps:

- Cut a piece of 9" **DuPont™ Flashing Tape** or **StraightFlash™** the width of the outside of the wood bump-out frame (W) and remove release paper.
- Position the **DuPont™ Flashing Tape** or **StraightFlash™** with the top edge flush with the sill of the rough opening and adhere to the face of the bump-out, along the underside edge, and onto the **Tyvek® WRB** below. Ensure the butyl is adhered tight into the inside corner of the bump-out frame and wall, and extends a minimum of 2" onto the **Tyvek® WRB** below.



**Installation Methods for DuPont Self-Adhered Flashing Products Installed AFTER the DuPont™ Tyvek® WRB  
Integral Flanged Window with Wood Bump-Out Frame Installed AFTER the Tyvek® WRB**



**STEP 6**

**Prepare and Install DuPont™ FlexWrap™ Corner Pieces at Bottom of Bump-Out Frame**

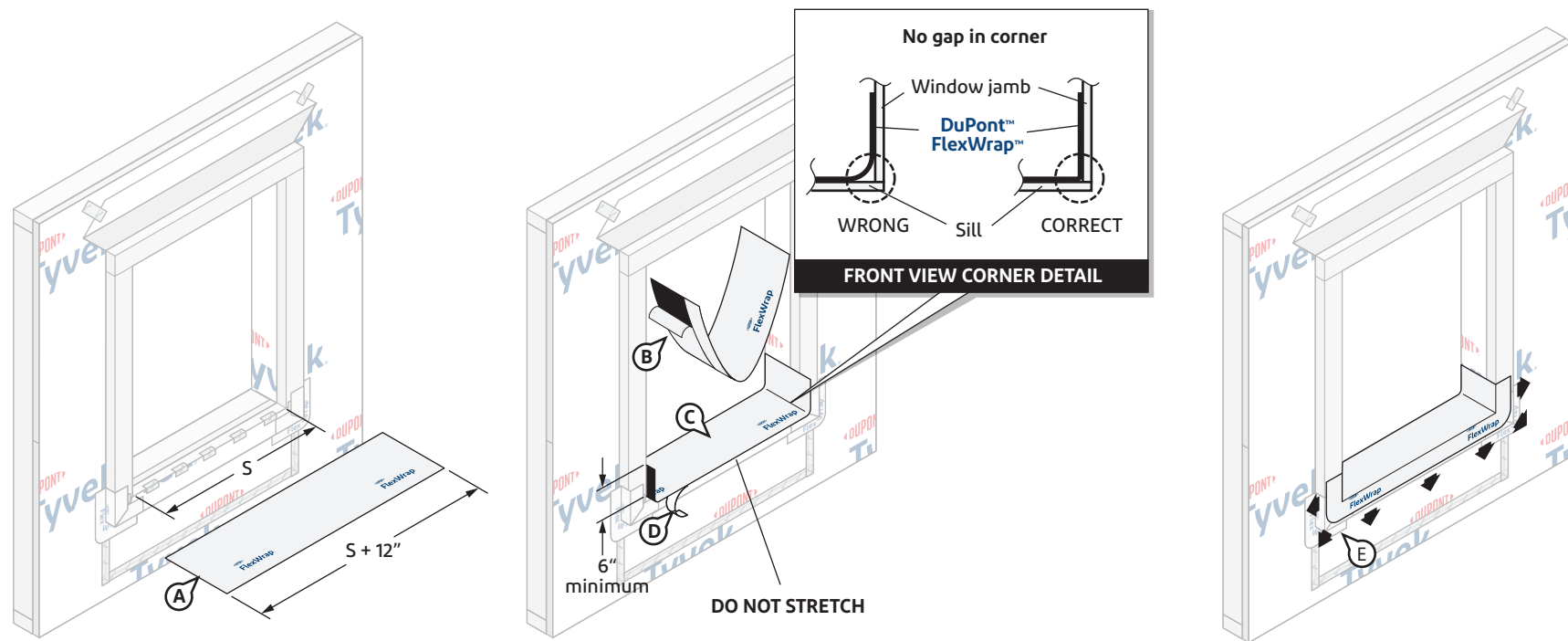
- A. Cut two (2) 12" long pieces of **FlexWrap™**. Break the perforations on one piece of **FlexWrap™** by folding along the perforated release paper. While still folded, remove the wider piece of release paper.
- B. Starting at the bottom sill portion of the bump-out frame and working up to the jamb portion, install the exposed butyl adhesive to extend 6" along the bottom edge of the bump-out frame and 6" along the side edge. Use the inside edge of the narrow release paper as a guide to ensure the butyl is adhered tight into the inside corner of the bump-out frame and the wall.
- C. Fold the exposed butyl of the lower half of the **FlexWrap™** onto the face of the bump-out frame.
- D. Create a diagonal "dog-ear" flap by pressing the exposed butyl onto itself at the corner of the bump-out frame.

- E. Fold flap down onto the face of the side bump-out frame. Continue pressing the remaining exposed butyl onto the face of the bump-out frame.

**NOTE:** If using 9" **FlexWrap™**, the flashing should be trimmed flush with the inside edge of the bump-out corner at the sill/jamb interface.

- F. Remove the remaining release paper from the **FlexWrap™** corner piece. Fan out the exposed butyl onto the face of the wall using uniform hand pressure.
- G. Repeat Steps B–F on opposite corner of bump-out frame.

## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB



### STEP 7

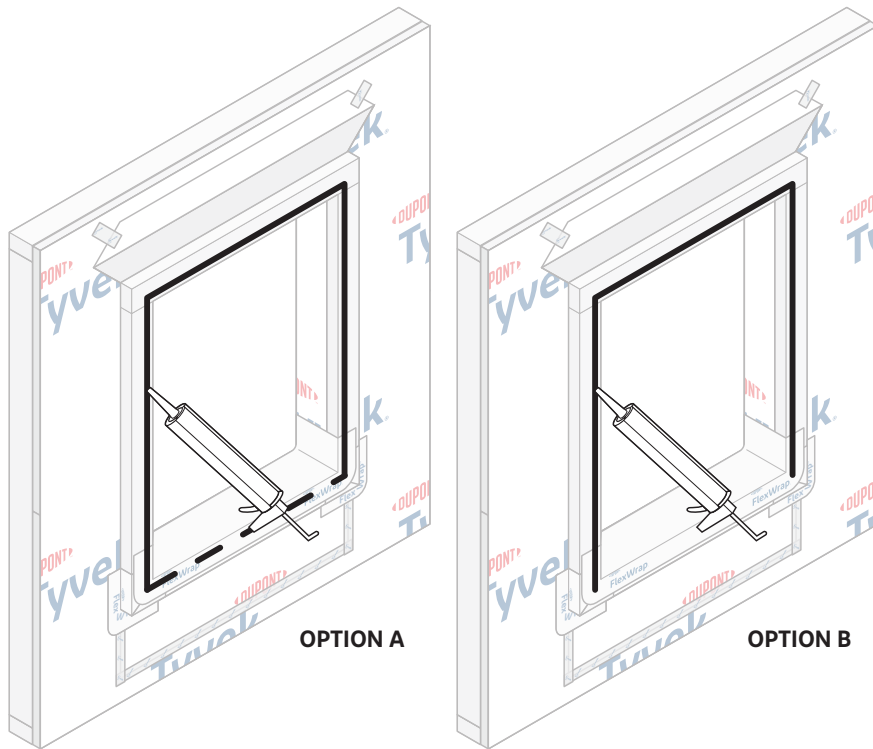
#### Install DuPont™ FlexWrap™ at Sill

- A. Cut **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 bump-out frame.
- 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 bump-out frame to ensure 2"– 3" of the **FlexWrap™** will be adhered to the face of the bump-out frame with a minimum of 6" up each jamb.
- C. Adhere into rough opening ensuring the **FlexWrap™** is installed tightly into the corners by first working along the sill before adhering up the jambs.
- D. Remove narrow release paper.
- E. Using uniform hand pressure, fan out the **FlexWrap™** at corners and adhere onto the face of the bump-out frame. Continue adhering onto bump-out frame along sill. Coverage of the **FlexWrap™** should be 2"– 3" onto the face of the bump-out frame.

**DO NOT STRETCH MATERIAL ALONG THE SILL OR JAMBS.**

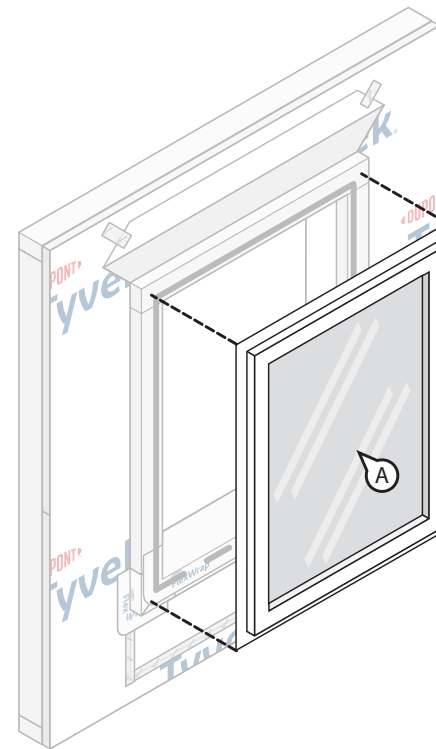
**NOTE:** DuPont™ Tyvek® Certified Installers may install a 3-piece head (and sill) detail for window openings less than 6 ft. wide. For windows greater than 6 ft. wide, see the [Special Considerations](#) section for more information regarding the 3-piece head/sill detail. Contact your local DuPont Building Envelope Specialist for more information about the Certified Installer program.

## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB



OPTION A

OPTION B



### STEP 8

**OPTION A:** Apply continuous bead of Tower® Residential Sealant, or recommended sealant, at window head and jambs to wall or back side of window mounting flange. To allow for drainage, do not apply continuous sealant bead along sill. Ensure a minimum 2" wide drainage gap in the sealant bead within 4" from each corner of the jamb/sill interface. Continue applying sealant along the sill with additional 2" wide (min.) drainage gaps for every 6"– 12" (on center) of sill width.

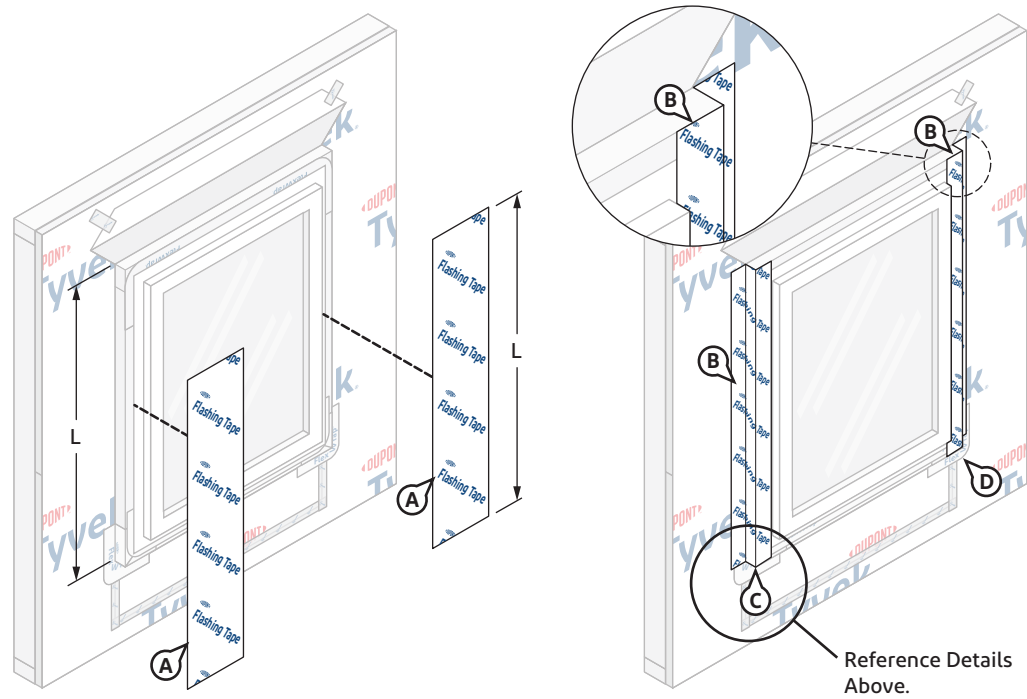
**OPTION B:** Apply continuous bead of Tower® Residential Sealant, or recommended sealant, at window head and jambs to wall or back side of window mounting flange. To allow for drainage, do not apply sealant bead along sill.

### STEP 9

#### Install Window

A. Install integral flanged window per manufacturer's installation instructions.

## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB

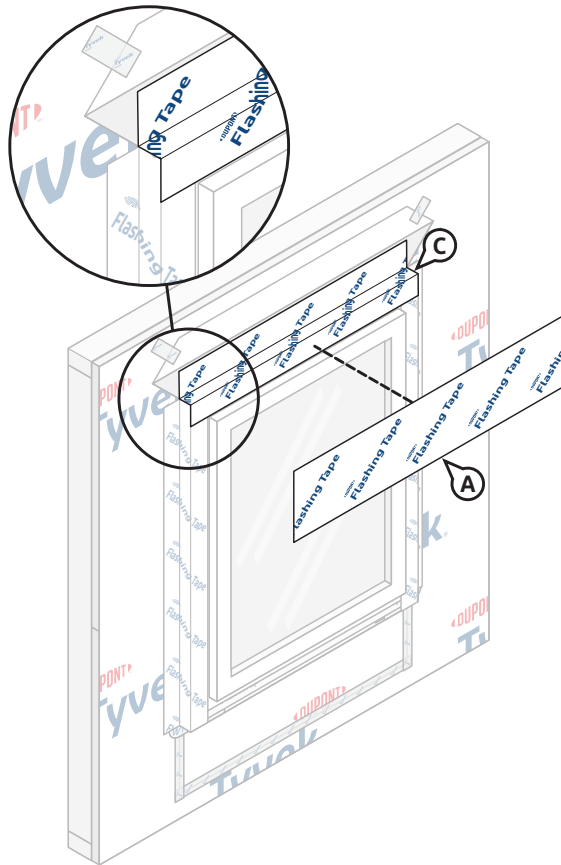


### STEP 10

#### Install Jamb Flashing

- A. Cut two (2) pieces of 9" **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** the length of the bump-out frame (L).
- B. Beginning at the jamb flanges, install the first piece of **DuPont™ Flashing Tape** or **StraightFlash™** flush with the top of the bump-out frame and completely over the window flange.
- C. Continue installing around the bump-out frame and onto the **Tyvek® WRB** on the face of the wall. Ensure it is installed tight into the inside corner of the bump-out frame and wall.
- D. Repeat at opposite side of bump-out frame.

## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB

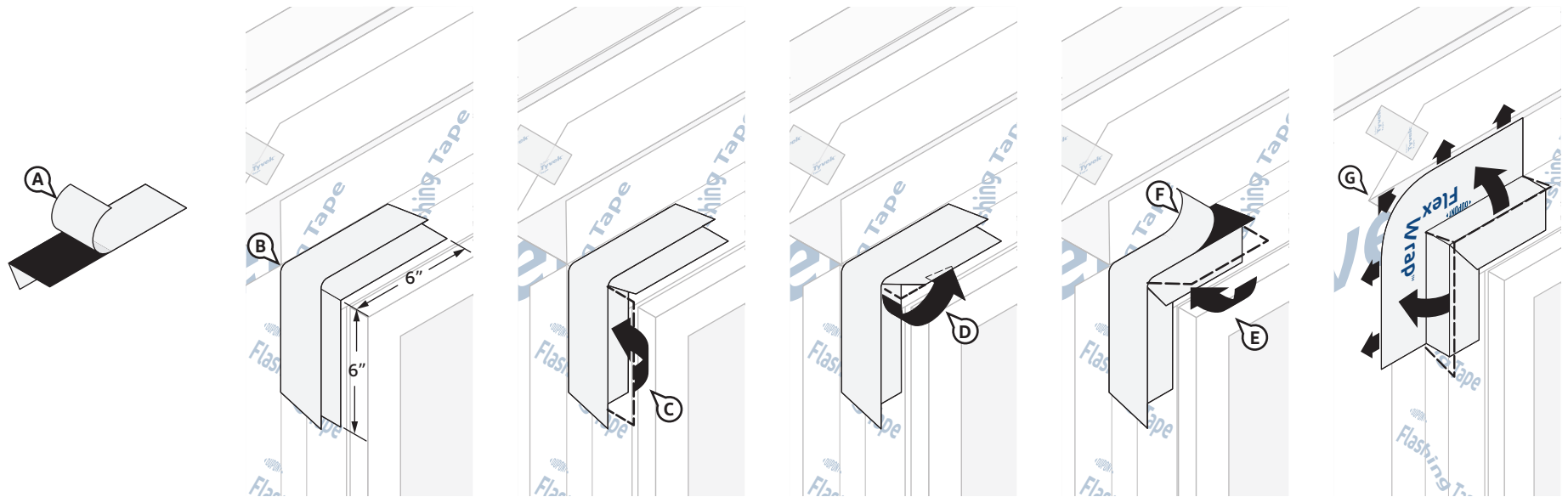


### STEP 11

#### Install Head Flashing

- A. Cut one piece of 9" wide **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** long enough to cover the bump-out frame along the head.
- B. Remove release paper and position over the head flange and onto the face of the bump-out frame.
- C. Adhere onto window flange, face and top edge of bump-out frame, and onto the face of the wall. Ensure it is installed tight into the inside corner of the bump-out frame and wall. **Do not adhere the exposed butyl to the side edges of the bump-out frame or beyond.**

**Installation Methods for DuPont Self-Adhered Flashing Products Installed AFTER the DuPont™ Tyvek® WRB  
Integral Flanged Window with Wood Bump-Out Frame Installed AFTER the Tyvek® WRB**



**STEP 12**

**Install DuPont™ FlexWrap™ Corner Pieces at Top of Bump-Out Frame**

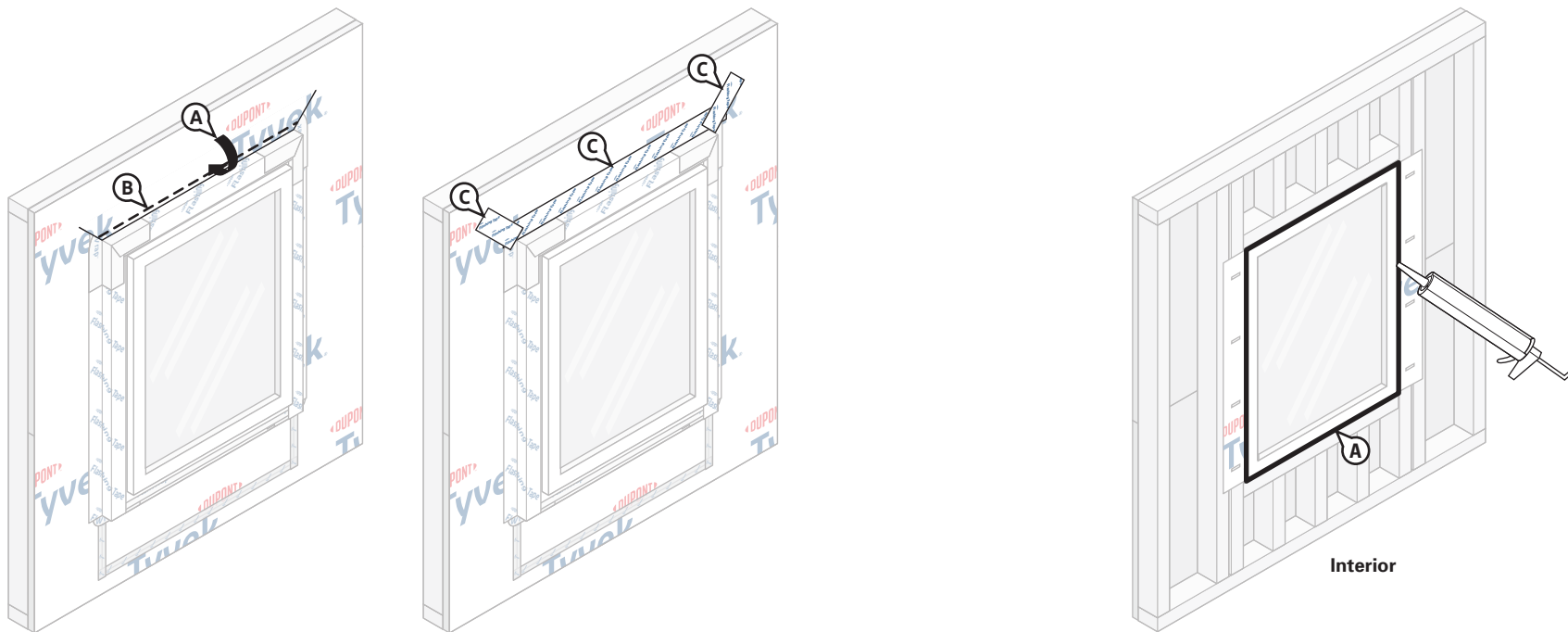
- A. Cut two (2) 12" long pieces of **FlexWrap™**. Break the perforations on one piece of **FlexWrap™** by folding along the perforated release paper. While still folded, remove the wider piece of release paper.
- B. Starting at the top corner of the jamb portion of the bump-out framing, adhere 6" along the side edge, extending another 6" along the top edge. Use the inside edge of the narrow release paper as a guide to ensure the butyl is adhered tight into the inside corner of the bump-out frame and the wall.
- C. Fold the exposed butyl at the side edge onto the face of the jamb portion of the bump-out frame.

- D. Create a diagonal "dog-ear" flap by first pressing the exposed butyl onto itself at the corner of the bump-out.
- E. Fold resulting flap down onto the face of the head portion of the bump-out frame. Continue pressing the remaining exposed butyl onto the face of the bump-out frame.
- F. Remove the remaining release paper from the **FlexWrap™** corner piece.
- G. Fan out the exposed butyl onto the face of the wall using uniform hand pressure.
- H. Repeat Steps A – G on opposite corner of bump-out frame.

**NOTE:** If using 9" **FlexWrap™**, the flashing should be trimmed flush with the frame of the window. **Do not cut the previously installed flashing underneath.**

**NOTE:** **DuPont Self-Adhered Flashing Product** branding (label orientation) in this condition is shown to reflect actual product alignment/position to assist with proper use and installation for the complex condition.

## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB



### STEP 13

#### Seal Head Flap

**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 1](#). If installing a drip cap **AFTER** the Tyvek® WRB head flap is flipped down and sealed, refer to [Option 2](#).

- A. Flip down upper flap of Tyvek® WRB so it lays flat across head flashing.
- B. Cut 1"– 2" strip of the Tyvek® WRB at lower horizontal edge of head flap.

**NOTE:** Skip this step if the head flap was trimmed while preparing the Tyvek® WRB per the [Alternative Installation Considerations](#) section.

- C. Terminate head flap as shown by continuously sealing the horizontal and then the diagonal seams with DuPont™ Flashing Tape or DuPont™ StraightFlash™.

**NOTE:** Install mechanical fasteners through flashing as needed for increased holding power. See the table in the [Applicable Structures and Performance Criteria](#) section for more information on air barrier requirements and head flap terminations.

### STEP 14

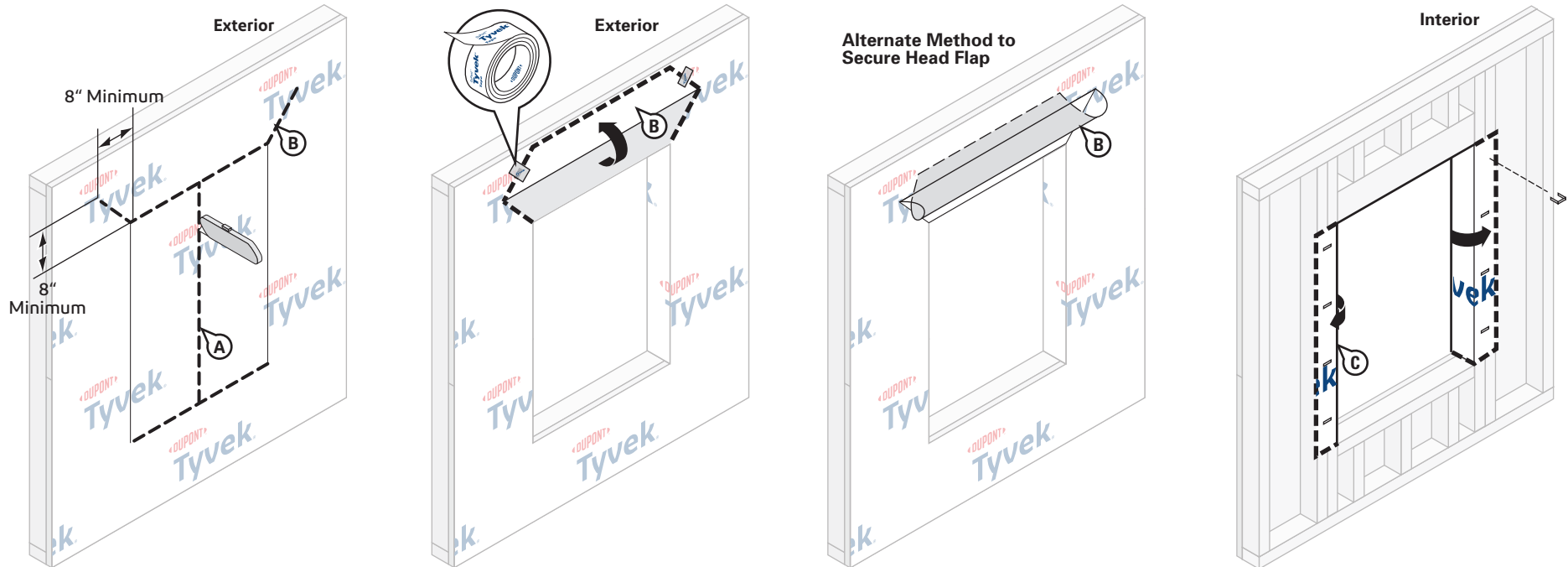
#### Install Interior Perimeter Seal

- A. Apply 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.

## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Non-Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB

A non-integral flanged window is defined as a window unit with a nailing fin or flange that is **NOT** continuous around the perimeter of the window or the fins/flanges are not a direct extrusion of the frame (e.g. field applied flanges). This method can be used for a variety of non-integral flanged window types and for windows with vertical mullis. This method can also be used for integral flanged units when additional protection is desired at the head of the rough opening prior to window/door installation.

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



### STEP 1

#### Prepare the Tyvek® WRB for Window Installation

**OPTIONAL:** Refer to the [Alternative Installation Considerations](#) section for guidance regarding trimming the head flap while preparing the Tyvek® WRB if desired instead.

- A. Make an “I-Cut” in the Tyvek® WRB. For an “I-Cut”, begin with a horizontal cut across the bottom and the top of the rough opening (for round top windows, the top cut should follow the curve of the opening). Then, starting from the top center edge of the rough opening, 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 12](#)). Flip head flap up and temporarily secure with DuPont™ Tyvek® Tape.

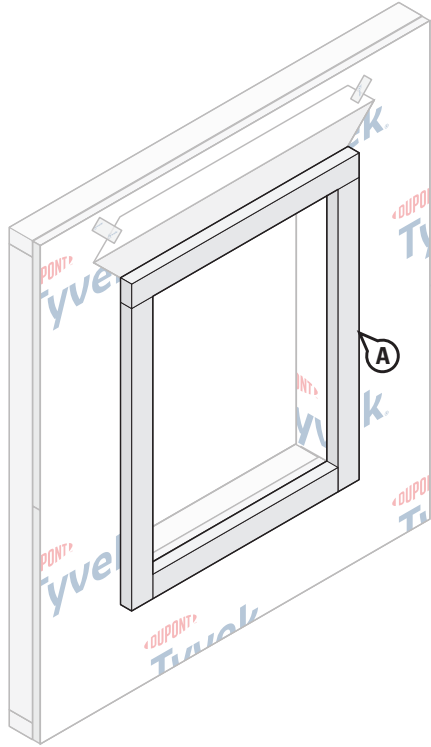
**ALTERNATE METHOD TO SECURE HEAD FLAP:** In lieu of temporarily taping, the head flap can be tucked under the Tyvek® WRB.

**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.



**Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB  
Non-Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB**



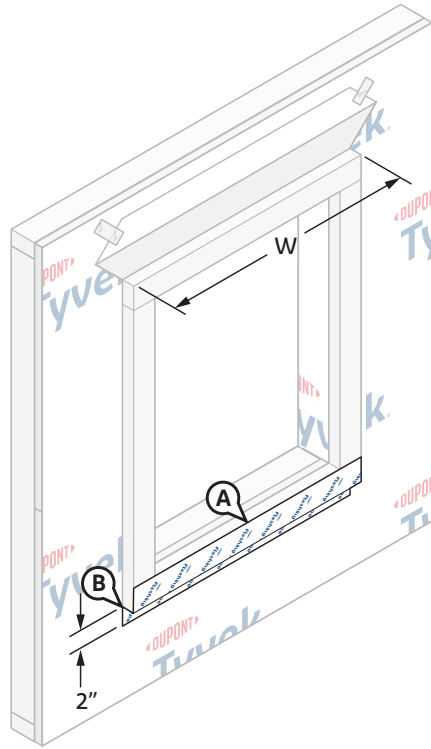
---

## STEP 2

### **Install 2"x 4" Wood Bump-Out Frame**

- A. Install wood bump-out frame per plans and specifications. Securely fasten in place.
- B. Clean substrate of any material that could negatively affect adhesion as well as any sharp protrusions.

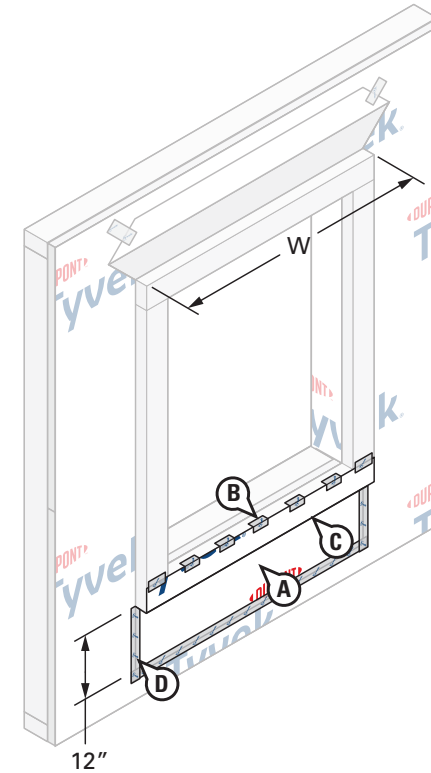
## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Non-Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB



### STEP 3

#### Install DuPont Self-Adhered Flashing Product at Bottom of Bump-Out Frame

- Cut a piece of 9" **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** the width of the outside of the wood bump-out frame (W) and remove release paper.
- Position the **DuPont™ Flashing Tape** or **StraightFlash™** with the top edge flush with the sill of the rough opening and adhere to the face of the bump-out, along the underside edge, and onto the **Tyvek® WRB** below. Ensure the butyl is adhered tight into the inside corner of the bump-out frame and wall and extends a minimum of 2" onto the **Tyvek® WRB** below.

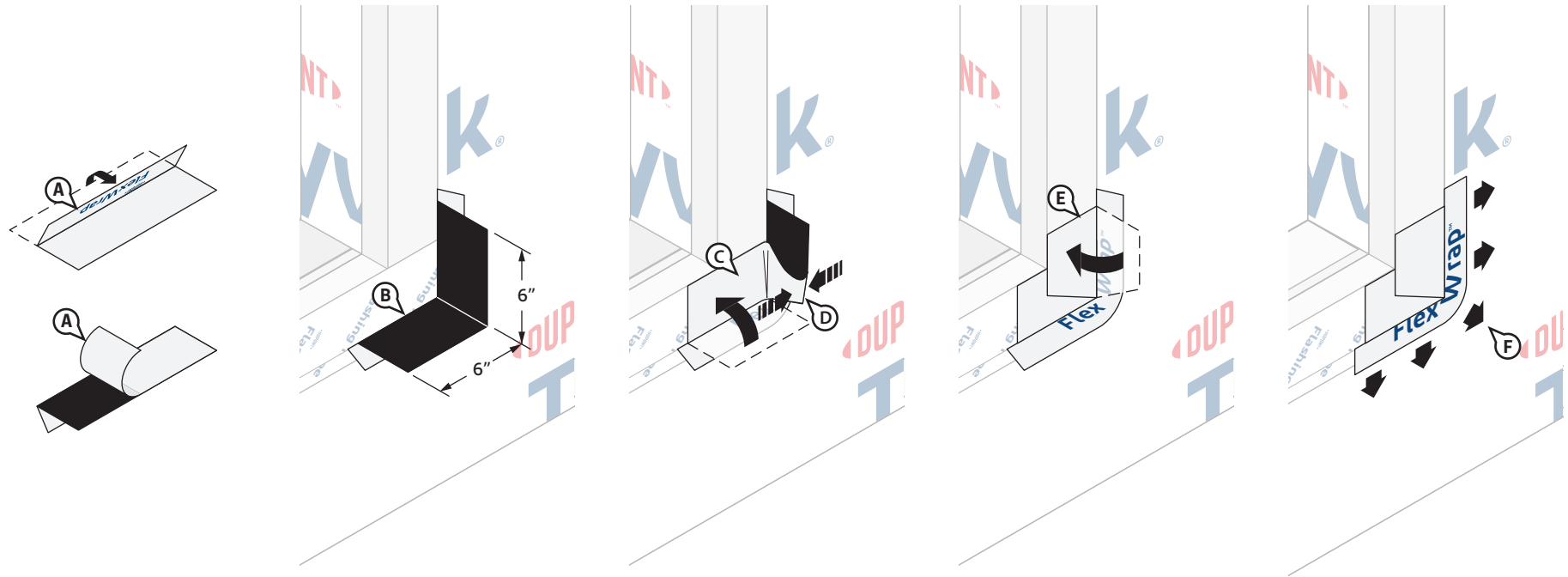


### STEP 3 – ALTERNATE

#### Install Tyvek® WRB Apron

- Cut a piece of **Tyvek® WRB** the width of the outside of the wood bump-out (W) and long enough to cover bump-out frame plus an additional 12" below the bottom edge of bump-out frame.
- Temporarily secure the apron in place using small pieces of **DuPont™ Tyvek® Tape** so the top edge is flush with the sill of the rough opening.
- Install **Tyvek® WRB** apron along the bump-out and to the underside, tightly into the inside corner, and onto the face of the wall. Install additional fasteners as needed to assist with apron installation and provide additional holding power. Do not install fasteners where **Tyvek® Tape** or **DuPont Self Adhered Flashing Products** will be installed.
- Seal the outside edges of the apron to the field of the **Tyvek® WRB** on the wall using 3" **Tyvek® Tape**, beginning with the bottom of the apron and then the sides. Ensure the side pieces of tape are flush with the bottom edge of the wood bump-out frame.

## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Non-Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB

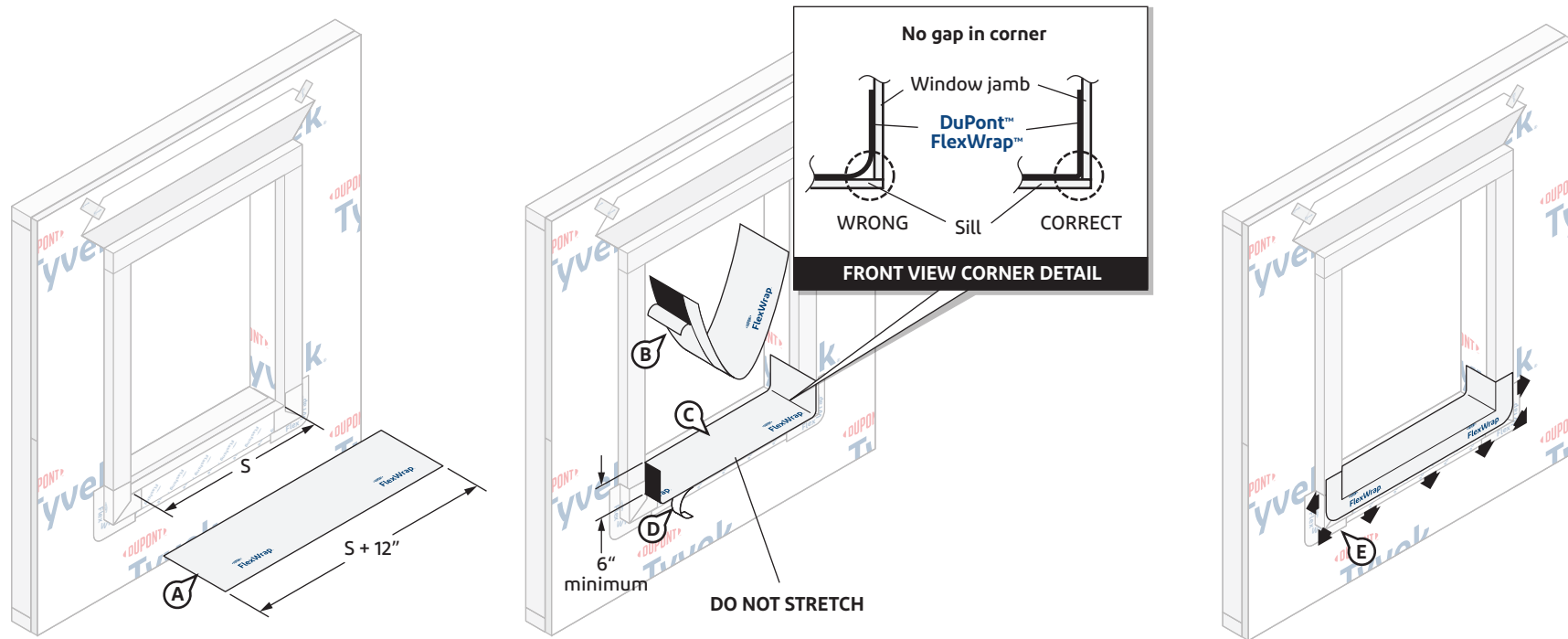


### STEP 4

#### Prepare and Install DuPont™ FlexWrap™ Corner Pieces at Bottom of Bump-Out Frame

- A. Cut two (2) 12" long pieces of **FlexWrap™**. Break the perforations on one piece of **FlexWrap™** by folding along the perforated release paper. While still folded, remove the wider piece of release paper.
  - B. Starting at the bottom sill portion of the bump-out frame and working up to the jamb portion, install the exposed butyl adhesive to extend 6" along the bottom edge of the bump-out frame and 6" along the side edge. Use the inside edge of the narrow release paper as a guide to ensure the butyl is adhered tight into the inside corner of the bump-out frame and the wall.
  - C. Fold the exposed butyl of the lower half of the **FlexWrap™** onto the face of the bump-out frame.
  - D. Create a diagonal "dog-ear" flap by pressing the exposed butyl onto itself at the corner of the bump-out frame.
  - E. Fold flap down onto the face of the side bump-out frame. Continue pressing the remaining exposed butyl onto the face of the bump-out frame.
- NOTE:** If using 9" **FlexWrap™**, the flashing should be trimmed flush with the inside edge of the bump-out corner at the sill/jamb interface.
- F. Remove the remaining release paper from the **FlexWrap™** corner piece. Fan out the exposed butyl onto the face of the wall using uniform hand pressure..
  - G. Repeat Steps B–F on opposite corner of bump-out frame.

## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Non-Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB



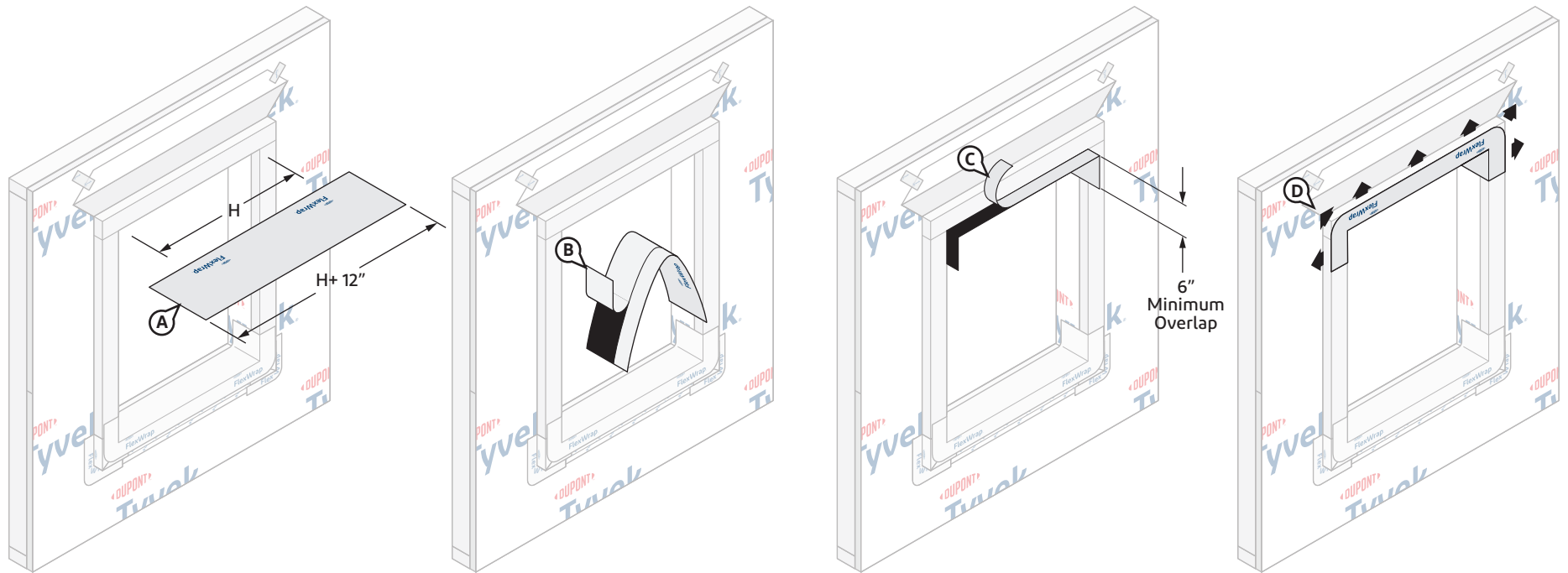
### STEP 5

#### Install DuPont™ FlexWrap™ at Sill

- Cut **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 bump-out frame.
  - 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 bump-out frame to ensure 2"– 3" of the **FlexWrap™** will be adhered to the face of the bump-out frame with a minimum of 6" up each jamb.
  - Adhere into rough opening ensuring the **FlexWrap™** is installed tightly into the corners by first working along the sill before adhering up the jambs.
- DO NOT STRETCH MATERIAL ALONG THE SILL OR JAMBS.**
- Remove narrow release paper.
  - Using uniform hand pressure, fan out the **FlexWrap™** at corners and adhere onto the face of the bump-out frame. Continue adhering onto bump-out frame along sill. Coverage of the **FlexWrap™** should be 2"– 3" onto the face of the bump-out frame.

**NOTE:** DuPont™ Tyvek® Certified Installers may install a 3-piece head (and sill) detail for window openings less than 6 ft. wide. For windows greater than 6 ft. wide, see the [Special Considerations](#) section for more information regarding the 3-piece head/sill detail. Contact your local DuPont Building Envelope Specialist for more information about the Certified Installer program.

## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Non-Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB



### STEP 6

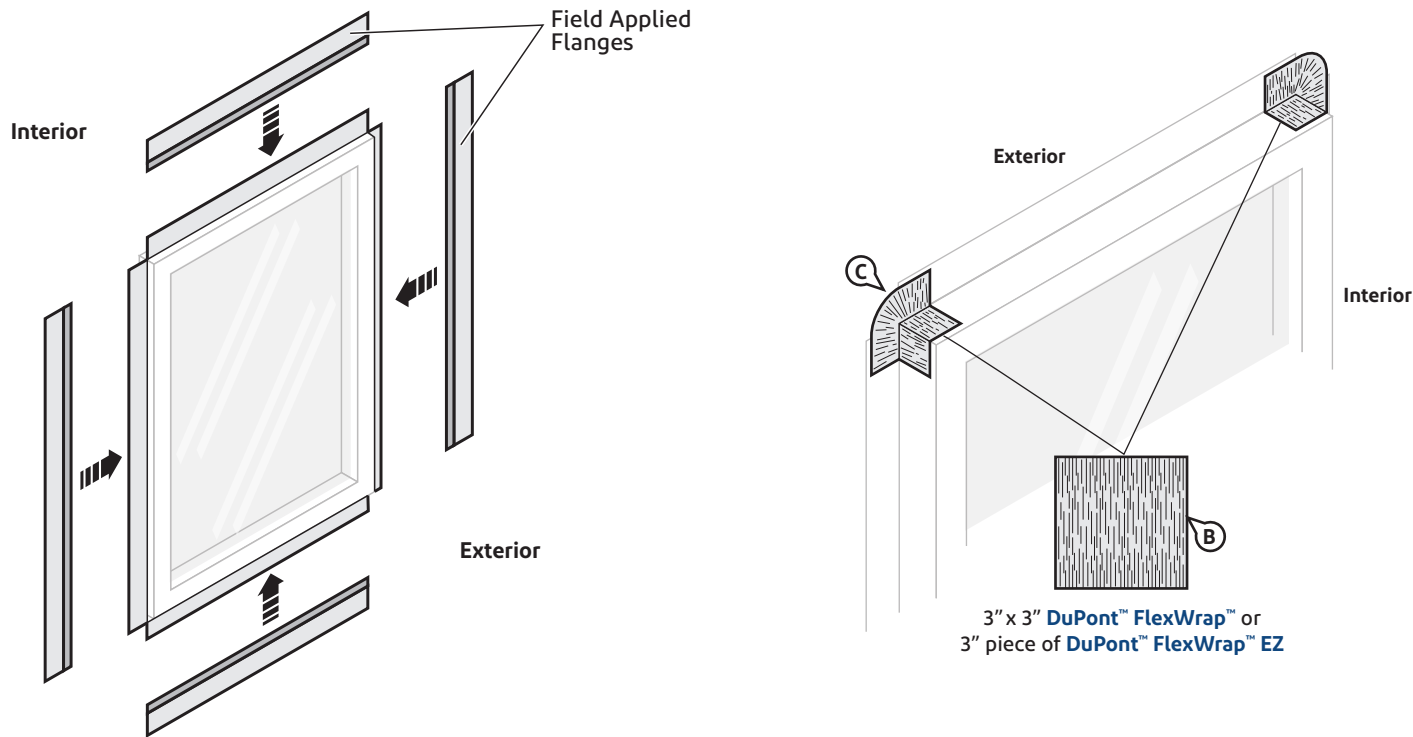
#### Install DuPont™ FlexWrap™ at Head

- A. Cut **FlexWrap™** at least 12" **LONGER** than width of rough opening head (H). 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. Fold the **FlexWrap™** in half lengthwise to create a slight crease at the center. Remove the wide piece of release paper on one side of the fold. 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. Starting at the crease, adhere the **FlexWrap™** at the center of the horizontal portion of the head framing to ensure a minimum of 6" down each jamb. Adhere into rough opening at one corner and down the jamb. Remove the remaining release paper and repeat at opposite corner.
- C. Remove narrow release paper.
- D. Fan out the **FlexWrap™** at corners and adhere onto bump-out frame. Continue adhering onto bump-out frame along the head.

**NOTE:** For exterior gypsum sheathing, apply a recommended adhesive/primer to the exposed sheathing. An adhesive/primer is not required for wood-based sheathing, except when applying flashing during adverse weather conditions.

**NOTE:** DuPont™ Tyvek® Certified Installers may install a 3-piece head (and sill) detail for window openings less than 6 ft. wide. For windows greater than 6 ft. wide, see the [Special Considerations](#) section for more information regarding the 3-piece head/sill detail. Contact your local DuPont Building Envelope Specialist for more information about the Certified Installer program.

## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Non-Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB



### STEP 7

#### Prepare Window Unit for Installation

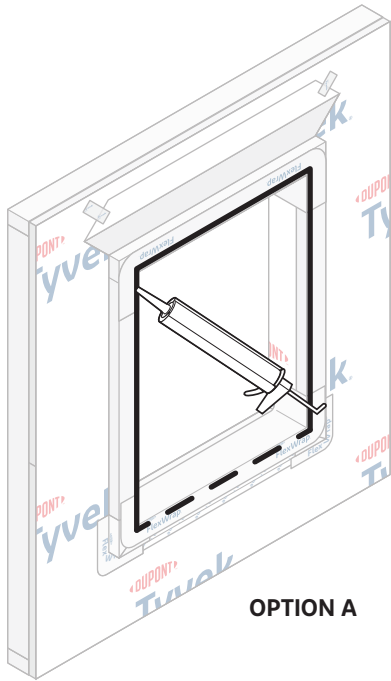
- A. If applicable, attach window unit nailing fins/flanges per manufacturer's instructions. Ensure nailing fin/flanges are properly positioned, shingled (if applicable), and are free of any dirt and/or debris.
- B. Cut a 3" x 3" piece of **DuPont™ FlexWrap™** or a 3" piece of **DuPont™ FlexWrap™ EZ**.

- C. Apply **FlexWrap™** or **FlexWrap™ EZ** patches to back of flange corners.

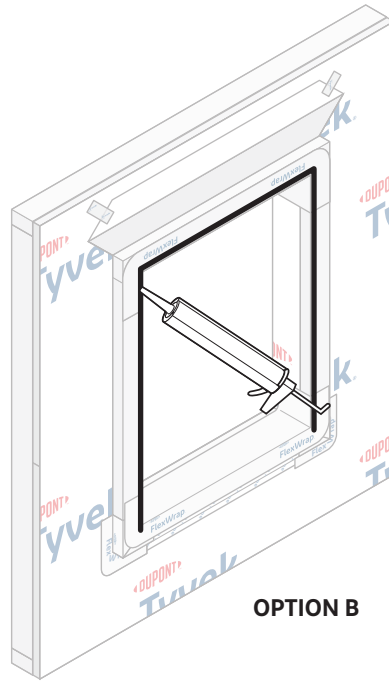
**NOTE:** Some non-integral flanged units may have components such as sealant at joints that could impact the adhesion of the jamb and head flashing in future steps. DuPont recommends minimizing the use of sealants or other components that could impact the adhesion of **DuPont Self-Adhered Flashing Products**.

**NOTE:** Some non-integral flanged windows may include corner gussets/gaskets from the manufacturer. If gussets/gaskets are supplied, install per manufacturer's instructions. If gussets are supplied by the manufacturer, the use of **FlexWrap™** or **FlexWrap™ EZ** patches shown in Steps B. and C. above are optional, but recommended. The installation of gussets/gaskets is shown in [STEP 10](#).

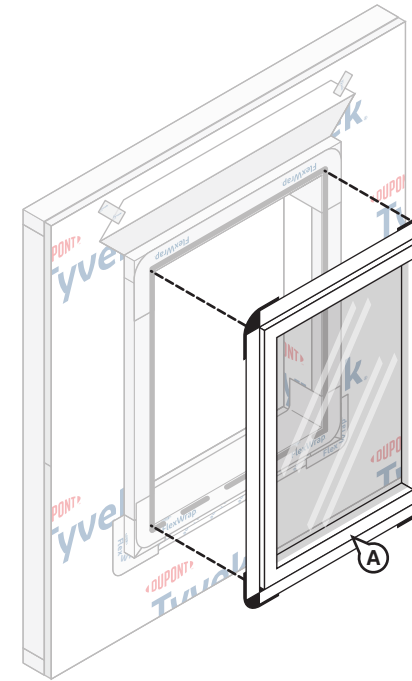
**Installation Methods for DuPont Self-Adhered Flashing Products Installed AFTER the DuPont™ Tyvek® WRB**  
**Non-Integral Flanged Window with Wood Bump-Out Frame Installed AFTER the Tyvek® WRB**



**OPTION A**



**OPTION B**



**STEP 8**

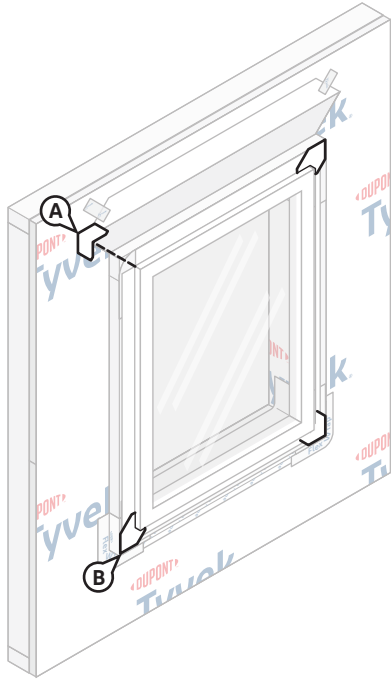
**OPTION A:** Apply continuous bead of Tower® Residential Sealant, or recommended sealant, at window head and jambs to wall or back side of window mounting flange. To allow for drainage, do not apply continuous sealant bead along sill. Ensure a minimum 2" wide drainage gap in the sealant bead within 4" from each corner of the jamb-sill interface. Continue applying sealant along the sill with additional 2" wide (min.) drainage gaps for every 6"- 12" (on center) of sill width.

**OPTION B:** Apply continuous bead of Tower® Residential Sealant, or recommended sealant, at window head and jambs to wall or back side of window mounting flange. To allow for drainage, do not apply sealant bead along sill.

**STEP 9**

A. Install non-integral flanged window according to manufacturer's instructions.

## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Non-Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB



### STEP 10

#### Install Corner Gusset/Gaskets (where applicable)

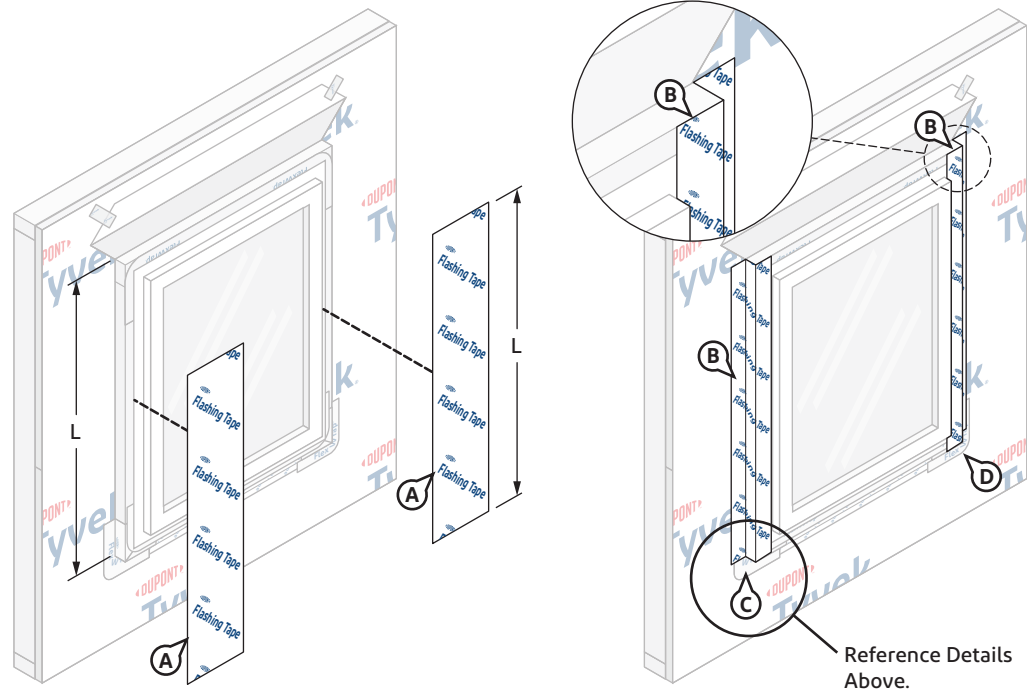
A. If corner gusset/gaskets were provided by the window manufacturer, apply in accordance with window manufacturer's instructions.

**NOTE:** Some window manufacturers may pre-apply the corner gussets/gaskets.

B. Ensure corner gusset/gasket pieces are completely adhered at window corner.



## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Non-Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB



### STEP 11

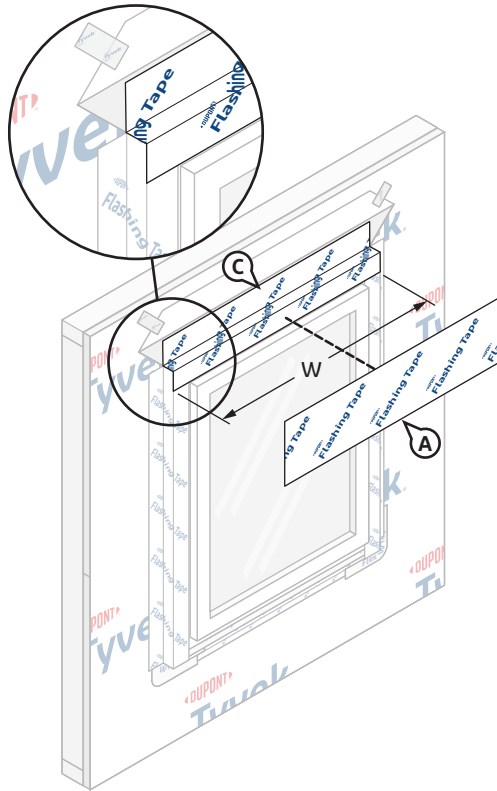
#### Prepare and Install Jamb and Head Flashing

- A. Cut two pieces of **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** the length of the bump-out frame (L).
- B. Beginning at the jamb flanges, install the first piece of **DuPont™ Flashing Tape** or **StraightFlash™** flush with the top and bottom of the bump-out frame.

**OPTIONAL:** Cut jamb flashing 1" **LONGER** than the length of the bump-out frame and install flashing flush with the top of the bump-out frame so it will extend 1" below the bottom edge of the bump-out frame. Fold remaining flashing onto underside of the bump-out frame.

- C. Continue installing flashing around the bump-out frame and onto the **DuPont™ Tyvek® WRB** on the face of the wall. Ensure flashing is installed tight into the inside corner of the bump-out frame and wall.
- D. Repeat steps A – C for the opposite side of the bump-out frame.

## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Non-Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB

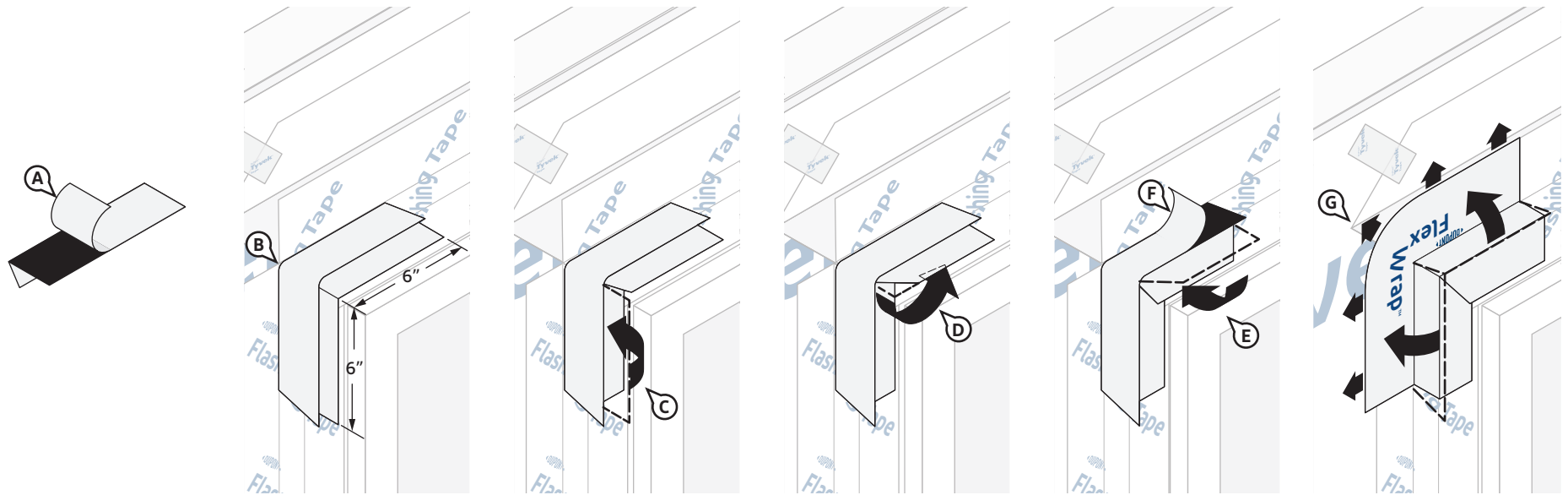


### STEP 12

#### Install Head Flashing

- A. Cut one piece of 9" wide **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** the width of the bump-out frame (W).
- B. Remove release paper and position over the head flange and onto the face of the bump-out frame. Ensure flashing is installed flush with edge of bump-out frame.
- C. Adhere flashing onto window flange, face and top edge of bump-out frame, and onto the face of the wall. Ensure it is installed tight into the inside corner of the bump-out frame and wall.

**Installation Methods for DuPont Self-Adhered Flashing Products Installed AFTER the DuPont™ Tyvek® WRB  
Non-Integral Flanged Window with Wood Bump-Out Frame Installed AFTER the Tyvek® WRB**



**STEP 13**

**Install 9" DuPont™ FlexWrap™ Corner Pieces at Top of Bump-Out Frame**

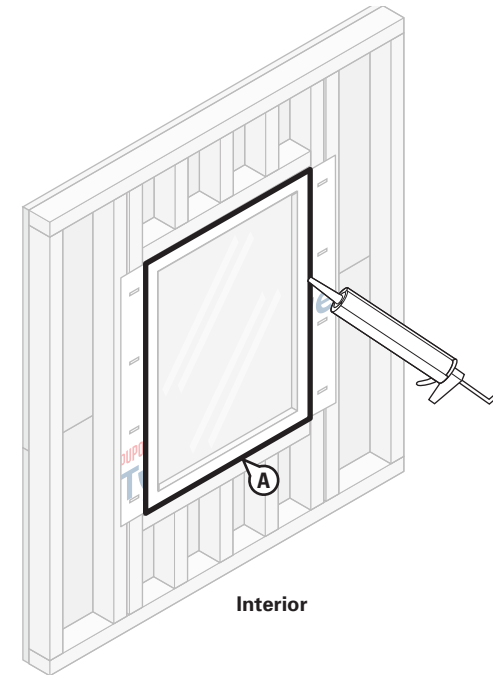
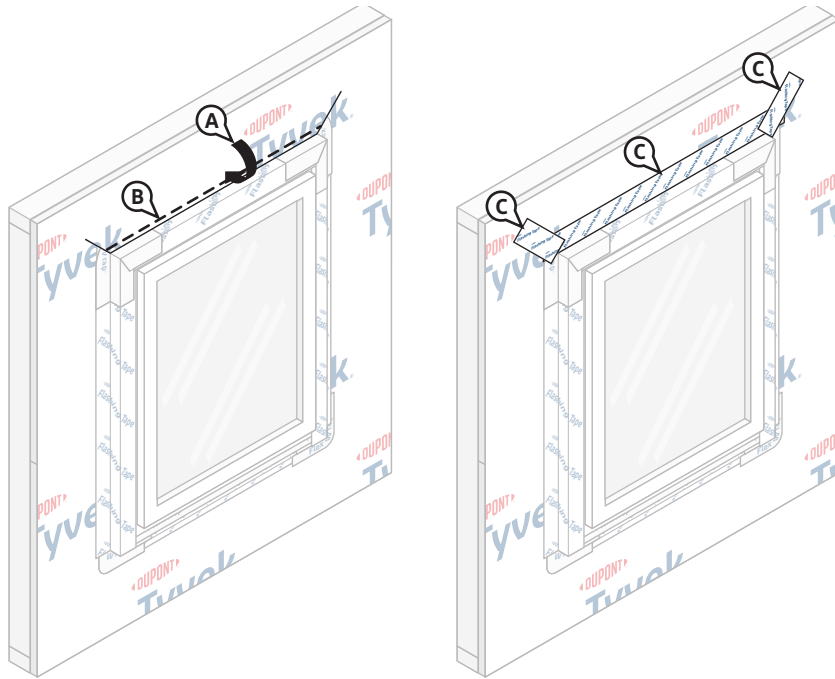
- A. Cut two (2) 12" long pieces of 9" **FlexWrap™**. Break the perforations on one piece of 9" **FlexWrap™** by folding along the perforated release paper. While still folded, remove the wider piece of release paper.
- B. Starting at the top corner of the jamb portion of the bump-out framing, adhere 6" along the side edge, extending another 6" along the top edge. Use the inside edge of the narrow release paper as a guide to ensure the butyl is adhered tight into the inside corner of the bump-out frame and the wall.
- C. Fold the exposed butyl at the side edge onto the face of the jamb portion of the bump-out frame.

**NOTE:** When using 9" **FlexWrap™**, the flashing should be trimmed flush with the frame of the window. Do not cut the previously installed flashing underneath.

- D. Create a diagonal "dog-ear" flap by first pressing the exposed butyl onto itself at the corner of the bump-out.
- E. Fold resulting flap down onto the face of the head portion of the bump-out frame. Continue pressing the remaining exposed butyl onto the face of the bump-out frame.
- F. Remove the remaining release paper from the **FlexWrap™** corner piece.
- G. Fan out the exposed butyl onto the face of the wall using uniform hand pressure.
- H. Repeat Steps A – G on opposite corner of bump-out frame.

**NOTE:** **DuPont Self-Adhered Flashing Product** branding (label orientation) in this condition is shown to reflect actual product alignment/position to assist with proper use and installation for the complex condition.

## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Non-Integral Flanged Window with Wood Bump-Out Frame Installed **AFTER** the Tyvek® WRB



### STEP 14

#### Seal Head Flap

**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 1](#). If installing a drip cap **AFTER** the Tyvek® WRB head flap is flipped down and sealed, refer to [Option 2](#).

- Flip down upper flap of Tyvek® WRB so it lays flat across head flashing.
- Cut 1"– 2" strip of the Tyvek® WRB at lower horizontal edge of head flap.

**NOTE:** Skip this step if the head flap was trimmed while preparing the Tyvek® WRB per the [Alternative Installation Considerations](#) section.

- Terminate head flap as shown by continuously sealing the horizontal and then the diagonal seams with DuPont™ Flashing Tape or DuPont™ StraightFlash™.

**NOTE:** Install mechanical fasteners through flashing as needed for increased holding power. See the table in the [Applicable Structures and Performance Criteria](#) section for more information on air barrier requirements and head flap terminations.

### STEP 15

#### Install Interior Perimeter Seal

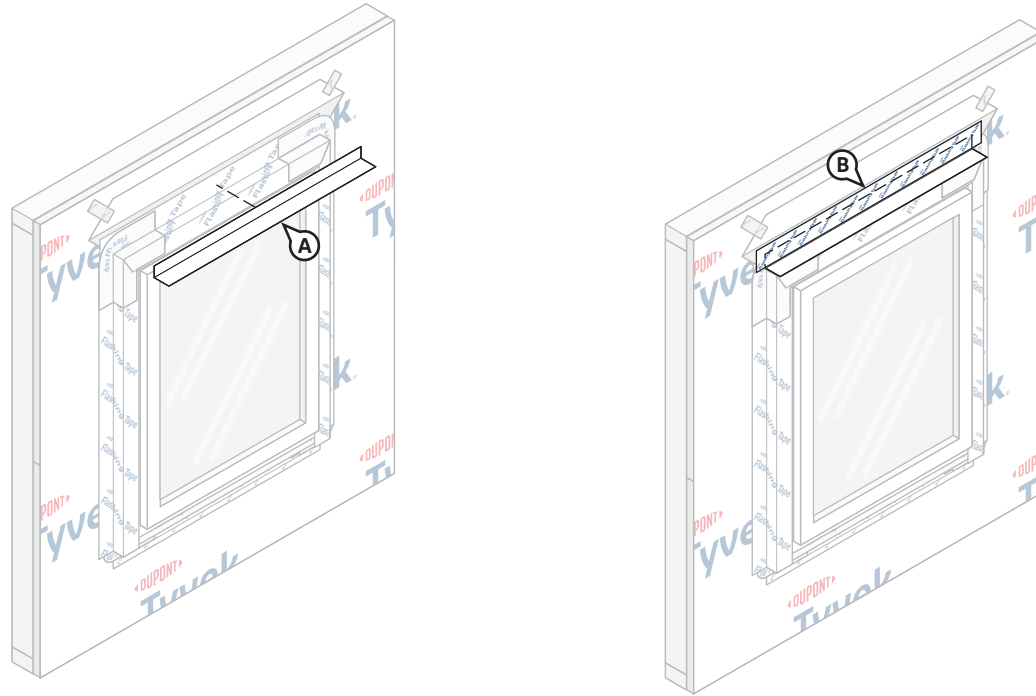
- Apply Tower® Residential Sealant or recommended sealant (and backer rod as necessary) around the window opening at the interior. It is also acceptable to use **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant**, or recommended foam. When using Tower® Residential Sealant, tool sealant bead flat 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.

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

## Drip Cap Installation for Windows and Doors

### Option 1

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.



### STEP 1

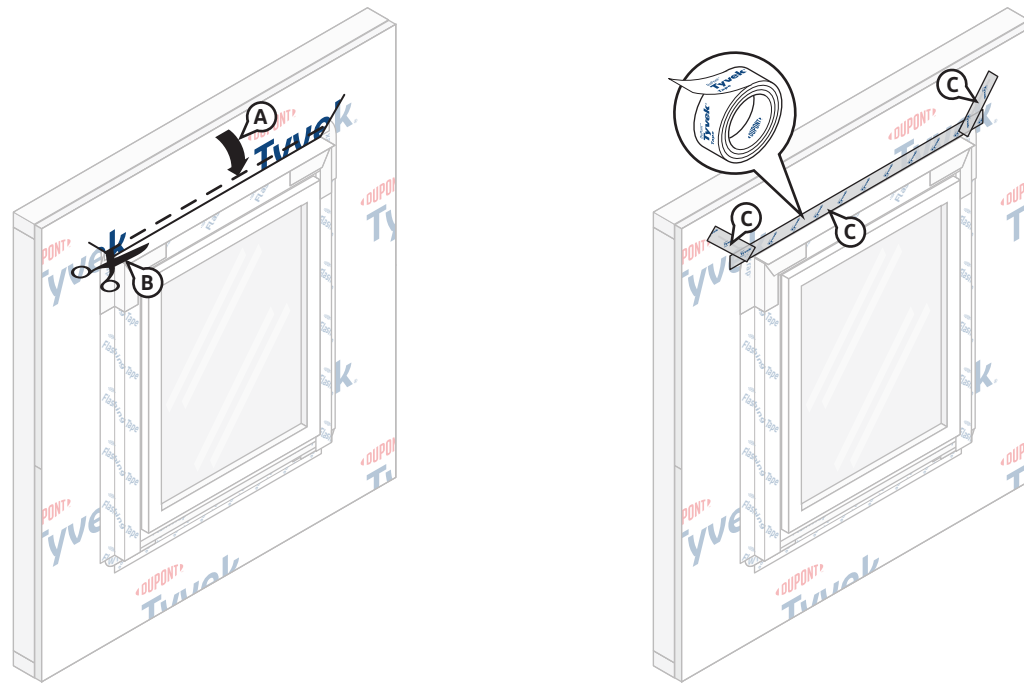
A. After the head flashing is installed in accordance with these guidelines for the particular window type, (e.g. **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** is installed over window head flange), cut metal or vinyl drip cap slightly **LONGER** than the width of the window.

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.

# Installation Methods for DuPont Self-Adhered Flashing Products Installed AFTER the DuPont™ Tyvek® WRB

## Drip Cap Installation for Windows and Doors

Option 1 (continued)



### STEP 2

- 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 a 1”– 2” strip of the **Tyvek® WRB** at lower horizontal edge of the head flap.  
**NOTE:** Skip this step if the head flap was trimmed while preparing the **Tyvek® WRB** per the [Alternative Installation Considerations](#) section.

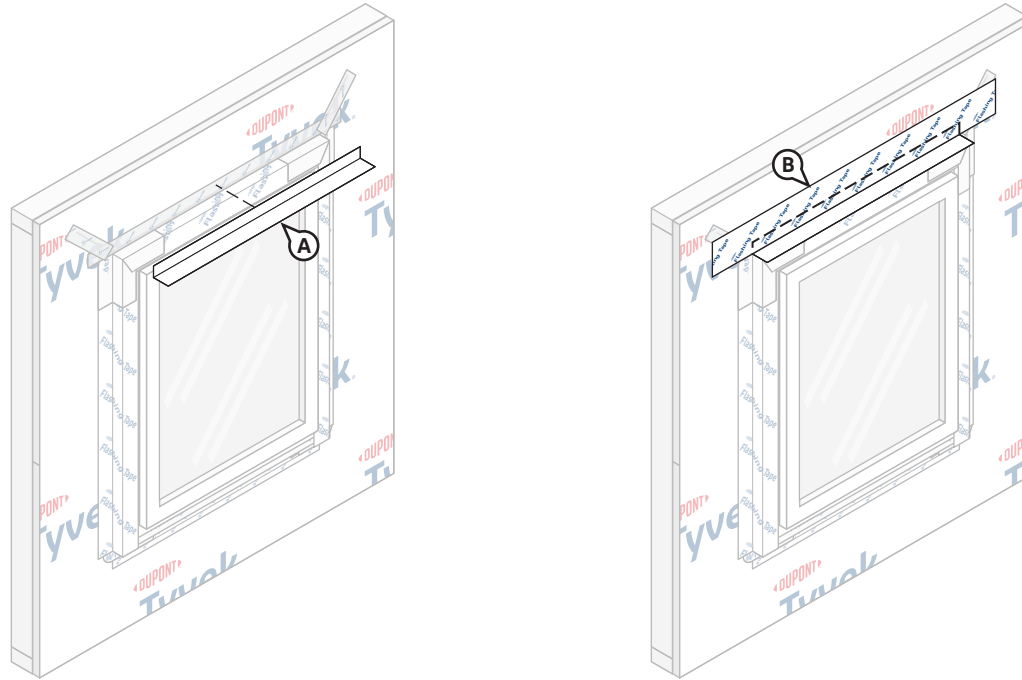
- C. Terminate head flap as shown by continuously sealing the horizontal and then the diagonal seams with **DuPont™ Tyvek® Tape**, **DuPont™ Flashing Tape**, or **StraightFlash™**. If additional drainage is desired, skip-sealing at head with a maximum of two (2) 2” gaps for every 3’ of window is acceptable **if an air barrier is not required**.

**NOTE:** For a more robust head flap termination, seal with **DuPont™ Flashing Tape** or **StraightFlash™**. Install mechanical fasteners through flashing as needed for increased holding power. See the table in the [Applicable Structures and Performance Criteria](#) section for more information on air barrier requirements and head flap terminations.

## Installation Methods for DuPont Self-Adhered Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB Drip Cap Installation for Windows and Doors

### Option 2

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.



### STEP 1

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.

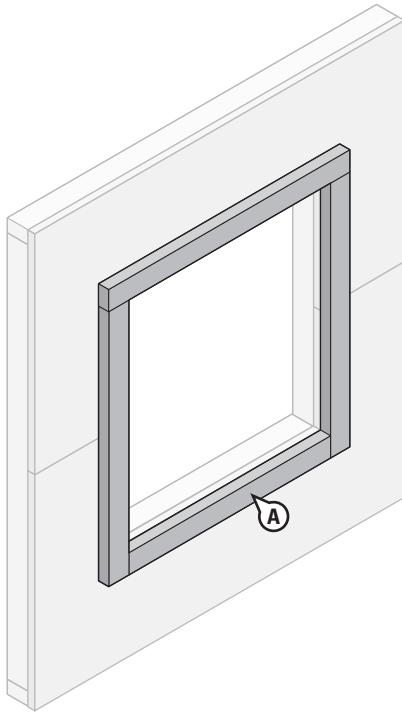
B. As a recommended best practice, cover the top edge of the drip cap with **DuPont™ Flashing Tape** or **DuPont™ StraightFlash™** extending past the top and sides of the drip cap and side edges of the window head flashing.

## Hybrid Installation Method for DuPont Self-Adhered Flashing Products and DuPont™ Tyvek® Fluid Applied Flashing Products Installed BEFORE the DuPont™ Tyvek® WRB

### Integral Flanged Window with Wood Bump-Out Frame Installed BEFORE the Tyvek® WRB

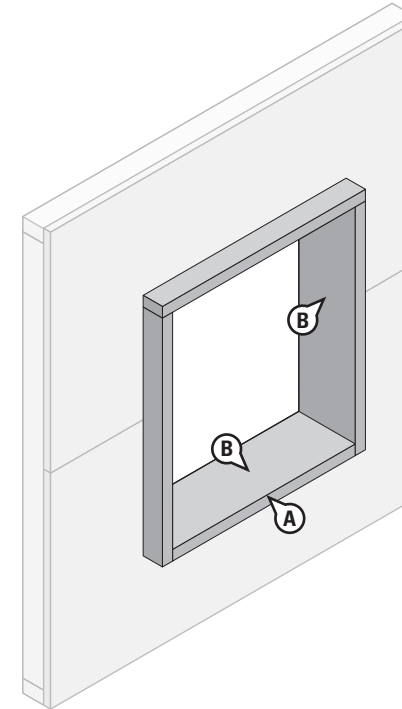
This detail involves terminating the Tyvek® WRB along the exterior wall with DuPont™ StraightFlash™ and using DuPont™ Tyvek® Flashing and Joint Compound+ to protect the rough opening, bump-out framing, and to maintain continuity of the air and water barrier.

This method applies to the following products: StraightFlash™ and Tyvek® Fluid Applied Flashing and Joint Compound+



#### STEP 1

- A. Install wood bump-out frame per project plans and specifications. Securely fasten in place.
- B. Clean substrate of any material that could negatively affect adhesion as well as any sharp protrusions.



#### STEP 1 – ALTERNATE

##### Bump-Out Framing Extends from Rough Opening

- A. Install wood bump-out frame per project plans and specifications. Securely fasten in place.
- B. Clean substrate of any material that could negatively affect adhesion as well as any sharp protrusions.

**NOTE:** The remaining steps depict bump-out framing installed on the face of the wall; however, these steps are identical when framing extends from the rough opening.



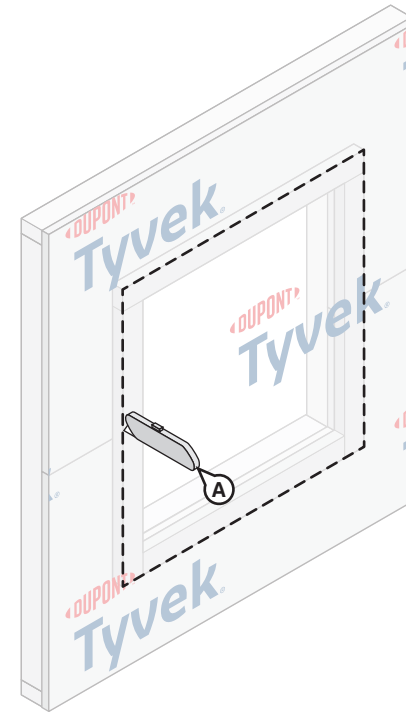
## Hybrid Installation Method for DuPont Self-Adhered Flashing Products and DuPont™ Tyvek® Fluid Applied Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB

### Integral Flanged Window with Wood Bump-Out Frame Installed **BEFORE** the Tyvek® WRB



#### STEP 2

Wrap wall with **Tyvek® WRB** as shown in the applicable **Tyvek® WRB** Installation Guideline found on [building.dupont.com](http://building.dupont.com). Do not install fasteners within 9" of the perimeter of the bump-out frame.



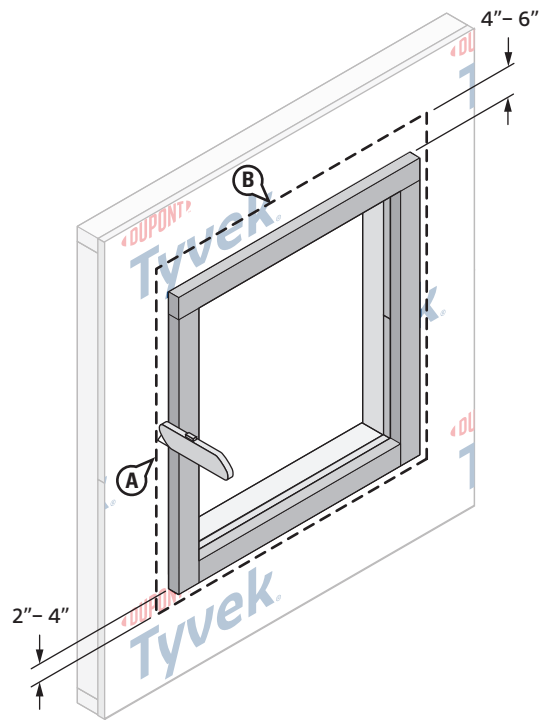
#### STEP 3

##### Prepare the **Tyvek® WRB** for Window Installation

- A. Cut an opening in the **Tyvek® WRB** along the dashed indicated lines. Ensure that the **Tyvek® WRB** is cut flush with the outside edge of the wood bump-out frame.

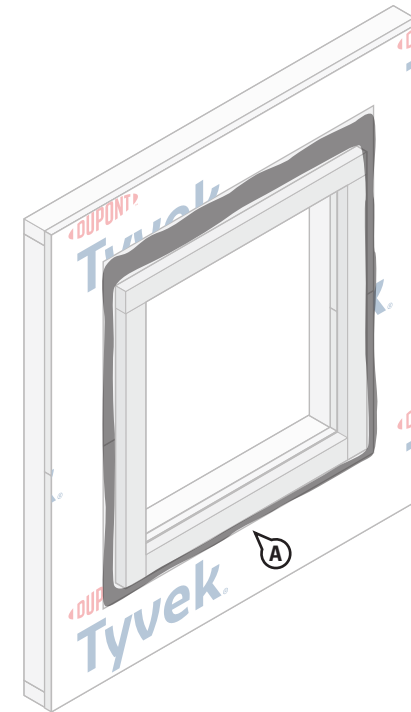
## Hybrid Installation Method for DuPont Self-Adhered Flashing Products and DuPont™ Tyvek® Fluid Applied Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB

### Integral Flanged Window with Wood Bump-Out Frame Installed **BEFORE** the Tyvek® WRB



#### STEP 4

- A. Cut/Trim the **Tyvek® WRB** back from the edge of the bump-out framing along the sill and jamb areas 2"– 4" to expose the exterior sheathing.
- B. Cut/Trim the **Tyvek® WRB** back from the top edge of bump-out framing 4"– 6" to expose the exterior sheathing.

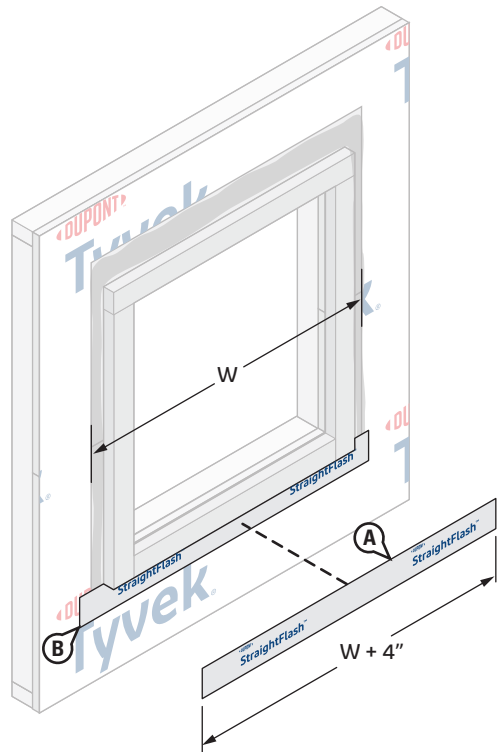


#### STEP 5

- A. For gypsum sheathing, apply a recommended adhesive/primer to the exposed exterior sheathing/wall substrate. An adhesive/primer is not required for wood-based sheathing, except when applying flashing during adverse weather conditions.

# Hybrid Installation Method for DuPont Self-Adhered Flashing Products and DuPont™ Tyvek® Fluid Applied Flashing Products Installed AFTER the DuPont™ Tyvek® WRB

## Integral Flanged Window with Wood Bump-Out Frame Installed BEFORE the Tyvek® WRB



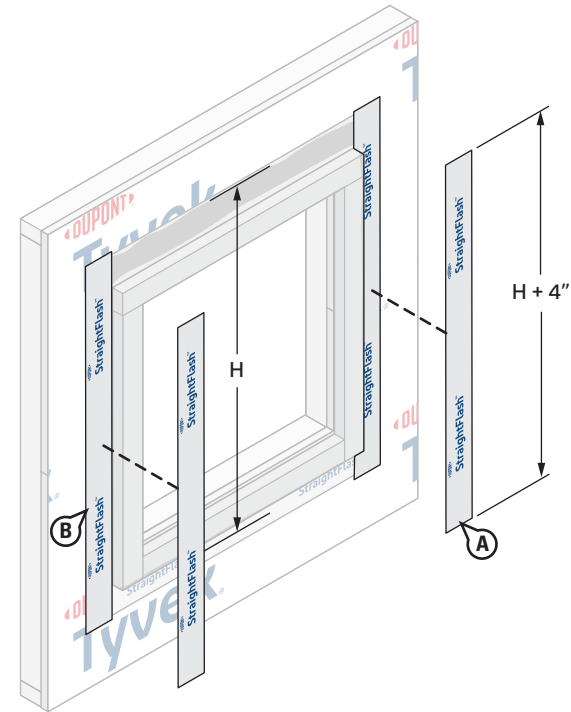
### STEP 6

#### Terminate Tyvek® WRB Below the Bump-Out Frame

- A. Cut a piece of 4" (min.) DuPont™ StraightFlash™ the width of the exposed sheathing (W) plus an additional 4".

**NOTE:** When using the width of the bump-out framing as a guide, the total length of the StraightFlash™ piece would include the width of the bump-out framing, plus the exposed sheathing on both sides of the bump-out framing, plus an additional 4" to allow 2" (min.) of adhesion to the Tyvek® WRB.

- B. Install StraightFlash™ as shown. Ensure flashing is properly positioned and installed so that half is on Tyvek® WRB and half is on the primed exposed sheathing. StraightFlash™ must be positioned so that flashing has at least 2" (min.) of adhesion onto the Tyvek® WRB BEYOND the edge of the vertical cutline on both sides of the prepared area.



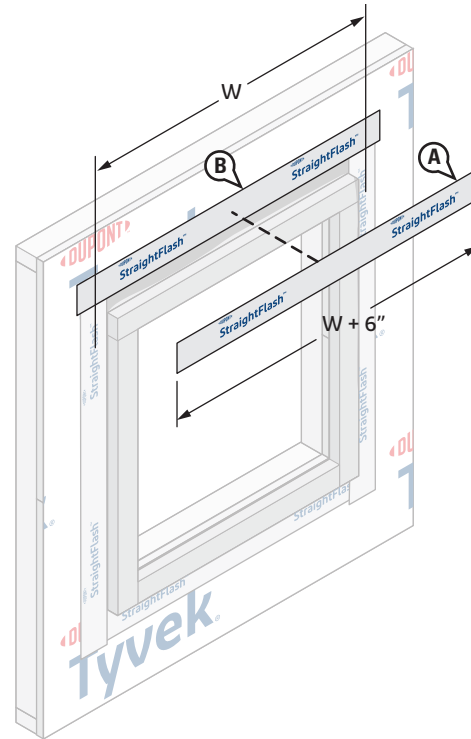
### STEP 7

#### Terminate the Tyvek® WRB Outside the Jamb Area

- A. Cut two (2) pieces 4" (min.) StraightFlash™ the height of the exposed vertical sheathing (H) plus an additional 4".
- B. Install the flashing from the outer edge of the bump-out frame, over the exposed primed sheathing and extend 2" (min.) onto the Tyvek® WRB.
- C. Repeat flashing installation along the opposite side.

## Hybrid Installation Method for DuPont Self-Adhered Flashing Products and DuPont™ Tyvek® Fluid Applied Flashing Products Installed **AFTER** the DuPont™ Tyvek® WRB

### Integral Flanged Window with Wood Bump-Out Frame Installed **BEFORE** the Tyvek® WRB



## STEP 8

### Terminate Tyvek® WRB Above the Bump-Out Frame

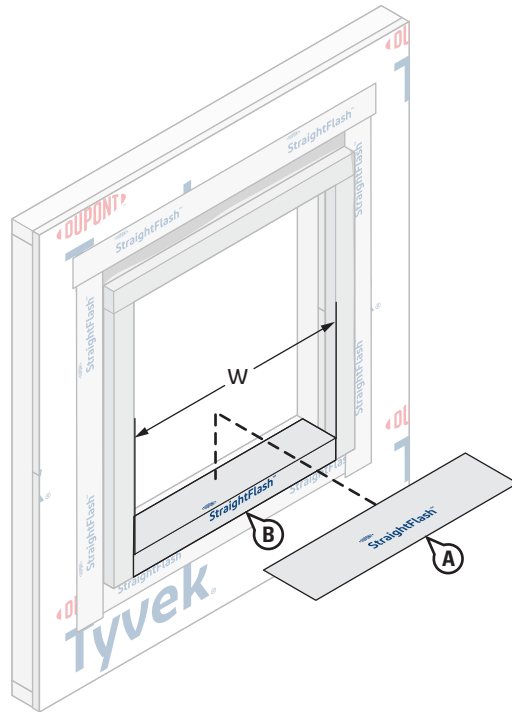
- A. Cut a piece of 4" (min.) **StraightFlash™** the width of the exposed sheathing (W) plus an additional 6".

**NOTE:** When using the width of the bump-out framing as a guide, total length of **StraightFlash™** piece would include the width of the bump-out framing, plus the exposed sheathing on both sides of the bump-out framing, plus an additional 6" to allow 2" (min.) of adhesion to the **Tyvek® WRB** and 2" overlap on **StraightFlash™** outside jamb area of bump-out frame

- B. Install **StraightFlash™** as shown. Ensure flashing is properly positioned and installed so that half is on the **Tyvek® WRB** and half is on the primed exposed sheathing. **StraightFlash™** must be positioned so that flashing has at least 2" (min.) of adhesion onto the **Tyvek® WRB BEYOND** the edge of the vertical cutline on both sides of the prepared area.

## Hybrid Installation Method for DuPont Self-Adhered Flashing Products and DuPont™ Tyvek® Fluid Applied Flashing Products Installed AFTER the DuPont™ Tyvek® WRB

### Integral Flanged Window with Wood Bump-Out Frame Installed BEFORE the Tyvek® WRB

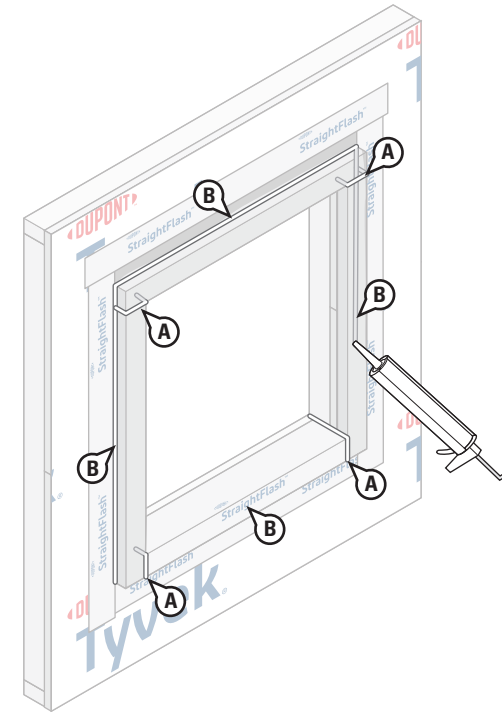


#### STEP 9

##### Prepare the Inner Sill Flashing and Inner Jambs

- Prepare the inner sill flashing by cutting a piece of **DuPont™ StraightFlash™** the width (W) of the sill (inner sill)
- Install **StraightFlash™** along the inner sill and face of wood bump-out frame. Ensure the **StraightFlash™** is aligned along the outer edge of the sill and jamb bump-out frame. **StraightFlash™ is not required in cases where no fasteners are being installed through the window sill.**

**NOTE:** Use either 4" or 9" width **StraightFlash™** depending on the width necessary to complete an interior perimeter seal with the window frame.



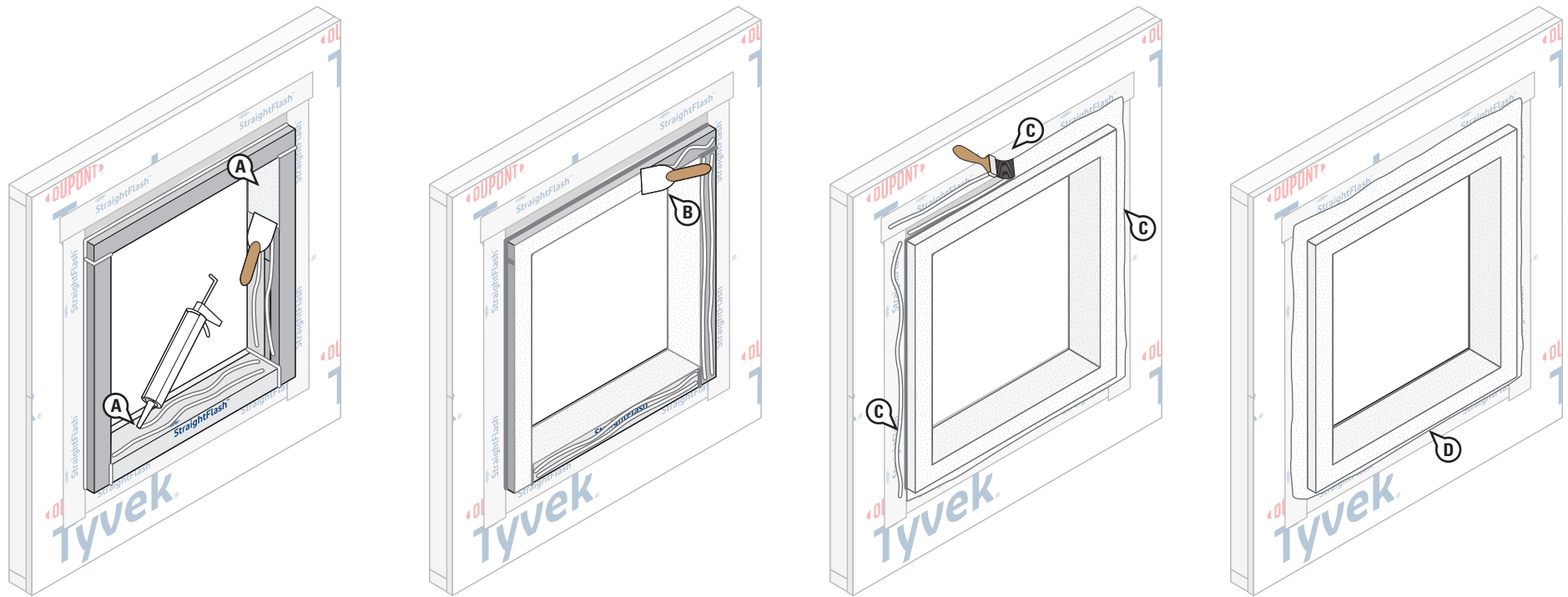
#### STEP 10

##### Pre-treat Edges of Wood Bump-Out Frame

- Apply a bead of **DuPont™ Tyvek® Fluid Applied Flashing and Joint Compound+** to all the seams and fill any holes or cracks in the bump-out framing and tool flat.
- Apply a fillet bead of **Tyvek® Fluid Applied Flashing and Joint Compound+** around the perimeter of the wood bump-out framing and wall interface. The fillet bead should extend approximately 1/2" onto both surfaces.
- Tool sealant to achieve optimal joint design.

## Hybrid Installation Method for DuPont Self-Adhered Flashing Products and DuPont™ Tyvek® Fluid Applied Flashing Products Installed AFTER the DuPont™ Tyvek® WRB

### Integral Flanged Window with Wood Bump-Out Frame Installed BEFORE the Tyvek® WRB



#### STEP 11

##### Apply DuPont™ Tyvek® Fluid Applied Flashing and Joint Compound+

- Starting at the window head, apply a bead of **Tyvek® Fluid Applied Flashing and Joint Compound+** onto the inside surface of the rough opening. Use a trowel or brush to smooth out flashing to a thickness of approximately 25 mils. The flashing should cover the inside of the rough opening.
- Apply a bead of **Tyvek® Fluid Applied Flashing and Joint Compound+** onto the face of the bump-out framing. Use a trowel or brush to smooth out flashing to a thickness of approximately 25mils.
- Apply **Tyvek® Fluid Applied Flashing and Joint Compound+** to the outer edge of the bump-out frame and partially onto the topsheet of the **DuPont™ StraightFlash™** along the jambs and underneath the bump-out framing along the sill. At the head area, apply **Tyvek® Fluid Applied Flashing and Joint Compound+** along the edge of the bump-out frame, exposed sheathing and partially onto the

**StraightFlash™**. Use a brush or trowel to smooth out **Tyvek® Fluid Applied Flashing and Joint Compound+**. Be sure all inside corners are filled and integrated with the **StraightFlash™**. A corner trowel may be used to smooth outside corners.

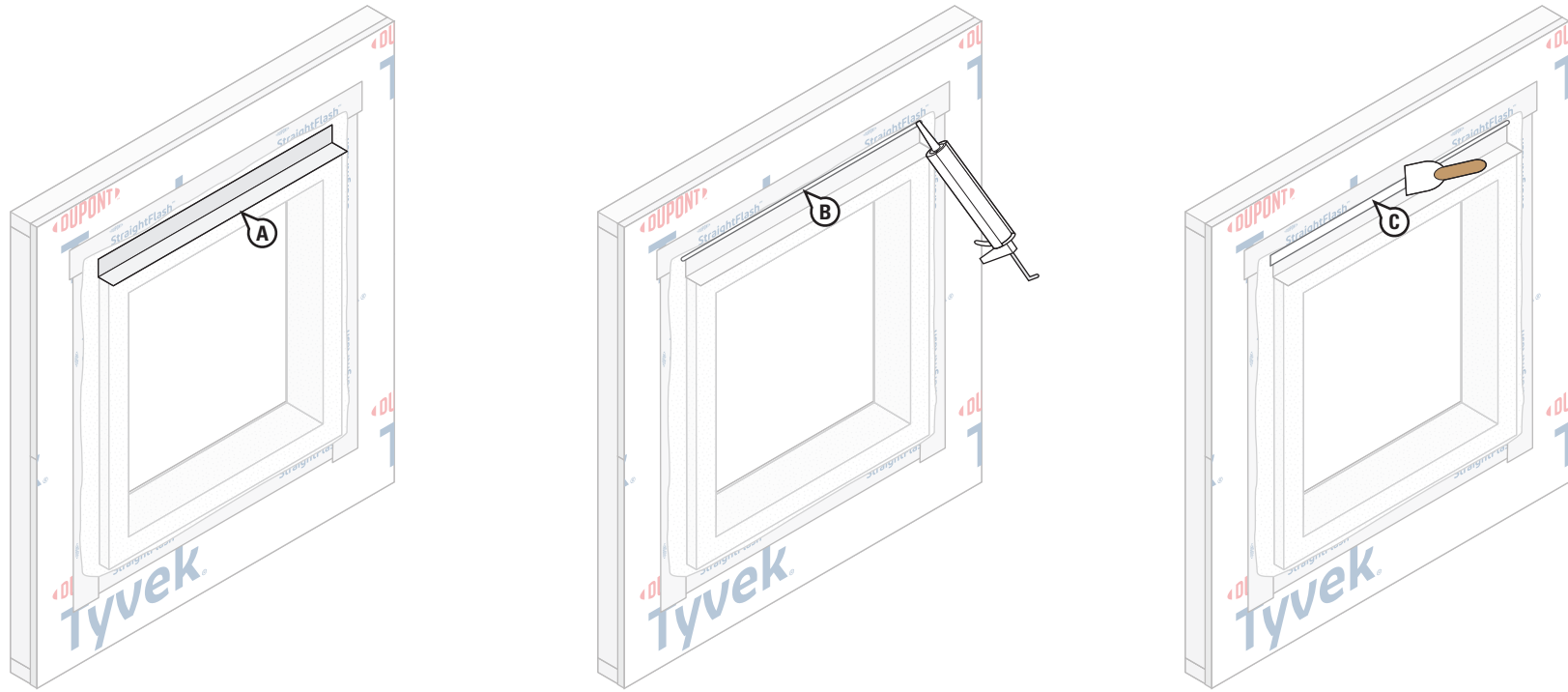
- Inspect product surface area to ensure continuity of the flashing exists from the rough opening, face of bump framing and outer edge of bump-out frame to 2" on the face of the **StraightFlash™**. Ensure final application is free of pinholes and voids.

**NOTE:** Be sure not to get uncured **Tyvek® Fluid Applied Products** onto the surface of **Tyvek® WRB**.

**NOTE:** Apply the **Tyvek® Fluid Applied Flashing and Joint Compound+** and **DuPont Self-Adhered Flashing Products** and window per the [DuPont™ Tyvek® Fluid Applied WB+™ and DuPont Flashing Products Installation Guidelines](#) found on [building.dupont.com](#).

## Hybrid Installation Method for DuPont Self-Adhered Flashing Products and DuPont™ Tyvek® Fluid Applied Flashing Products Installed AFTER the DuPont™ Tyvek® WRB

**Integral Flanged Window with Wood Bump-Out Frame Installed BEFORE the Tyvek® WRB**

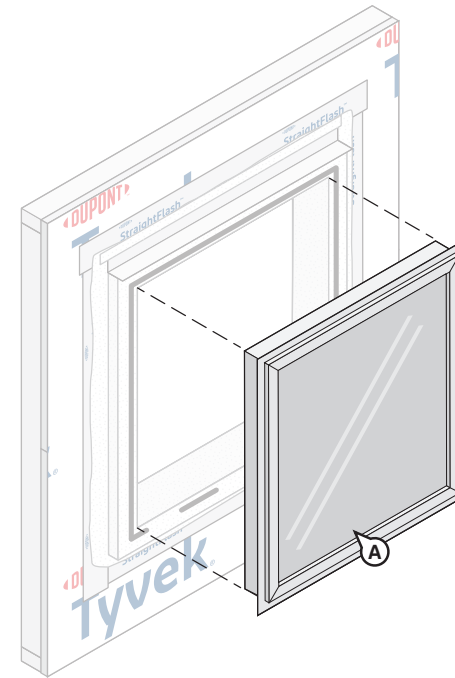
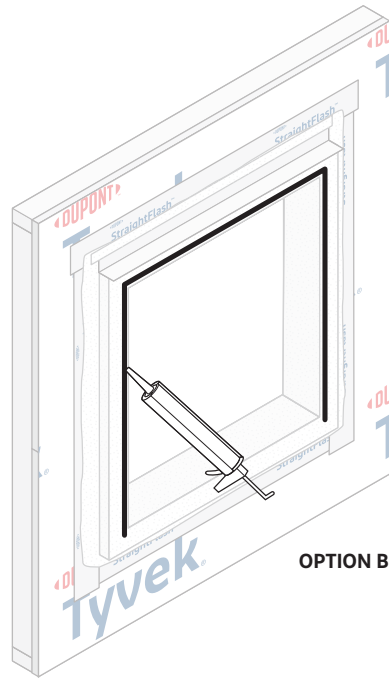
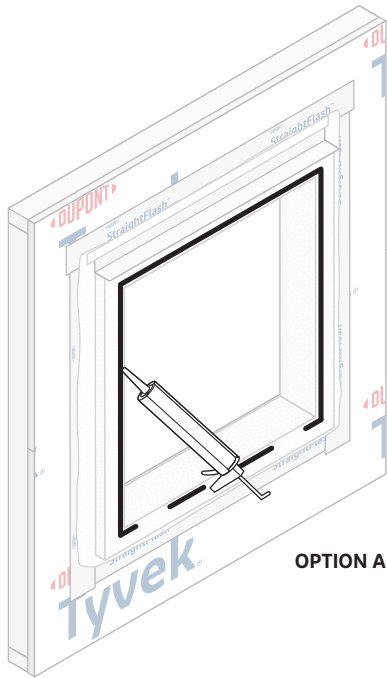


### STEP 12

- A. As a best practice, install metal drip cap above the bump-out framing as shown above or as specified by others.
- B. Apply **DuPont™ Tyvek® Fluid Applied Flashing and Joint Compound+** along the top edge of the metal drip cap.
- C. Trowel **Tyvek® Fluid Applied Flashing and Joint Compound+** to continuous 25 mils. Ensure 1" min. onto either side of the drip cap to wall interface.

## Hybrid Installation Method for DuPont Self-Adhered Flashing Products and DuPont™ Tyvek® Fluid Applied Flashing Products Installed AFTER the DuPont™ Tyvek® WRB

### Integral Flanged Window with Wood Bump-Out Frame Installed BEFORE the Tyvek® WRB



### STEP 13

**OPTION A:** Apply continuous bead of Tower® Residential Sealant, or recommended sealant, at window head and jambs to wall or back side of window mounting flange. To allow for drainage, do not apply continuous sealant bead along sill. Ensure a minimum 2" wide drainage gap in the sealant bead within 4" from each corner of the jamb/sill interface. Continue applying sealant along the sill with additional 2" wide (min.) drainage gaps for every 6"– 12" (on center) of sill width.

**OPTION B:** Apply continuous bead of Tower® Residential Sealant, or recommended sealant, at window head and jambs to wall or back side of window mounting flange. To allow for drainage, do not apply sealant bead along sill.

### STEP 14

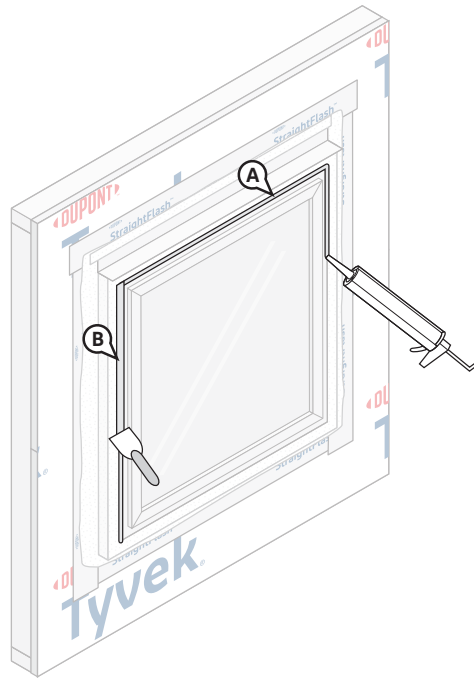
#### Install Window

A. Install integral flanged window per manufacturer's instructions.



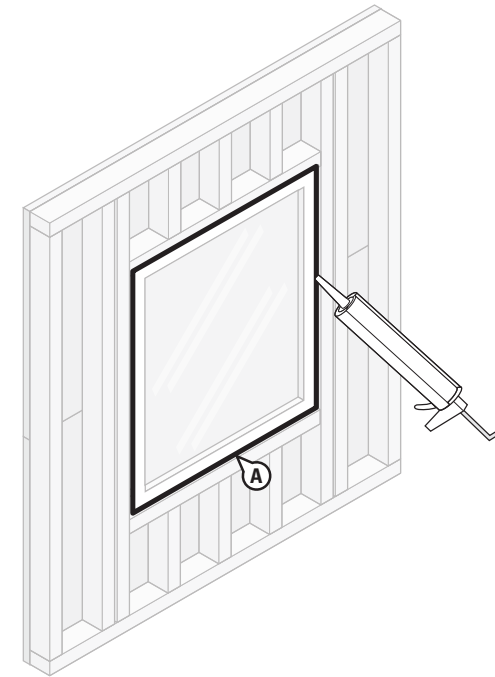
## Hybrid Installation Method for DuPont Self-Adhered Flashing Products and DuPont™ Tyvek® Fluid Applied Flashing Products Installed AFTER the DuPont™ Tyvek® WRB

### Integral Flanged Window with Wood Bump-Out Frame Installed BEFORE the Tyvek® WRB



#### STEP 15

- A. Apply a continuous bead of **DuPont™ Tyvek® Fluid Applied Flashing and Joint Compound+** along the interface between the window flange and the wall on the jambs and head of the window.
- B. Use a trowel or brush to smooth flashing to approximately 2" wide x 60 mils thick. The **Tyvek® Fluid Applied Flashing and Joint Compound+** should extend onto the window flange a minimum of a 1/2" past the flange fasteners (approximately 1" onto either side of the flange/wall interface). Upon completion, inspect surface to ensure that **Tyvek® Fluid Applied Flashing and Joint Compound+** application is continuous and free of any voids or pinholes.

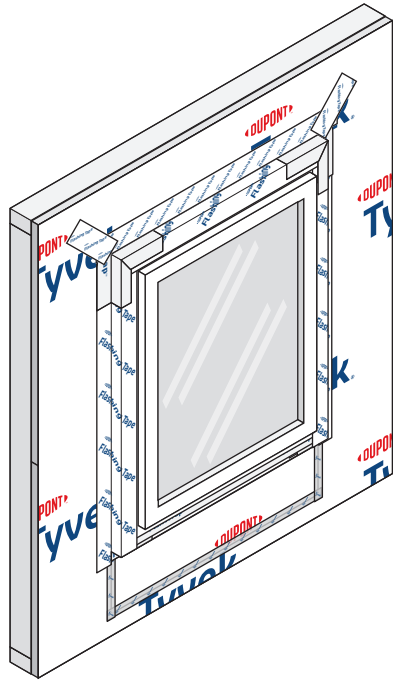


#### STEP 16

##### Install Interior Perimeter Seal

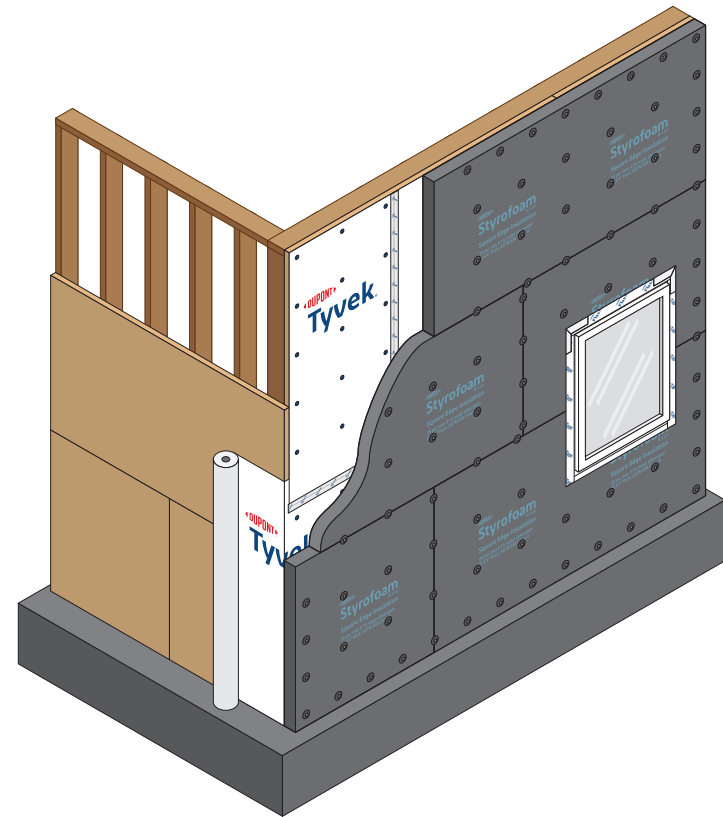
- A. Create a continuous perimeter seal using a recommend sealant and backer rod, or **Great Stuff Pro™ Window and Door Polyurethane Foam Sealant** on window interior to resist air and water infiltration. When using **Great Stuff Pro™ Window and Door Polyurethane Foam Sealant** in perimeter openings less than 1/2", apply using the plastic extension tip for the **Great Stuff Pro™ Dispenser Gun** during installation.

## Installation of DuPont Exterior Continuous Insulation DuPont™ Tyvek® WRB Installed UNDER DuPont Exterior Continuous Insulation



### STEP 1

- A. Install the **Tyvek® WRB** per the applicable **Tyvek® WRB** Installation Guideline found on [building.dupont.com](http://building.dupont.com).
- B. Install the **DuPont Flashing Products** in accordance with the applicable detail in this document, and install window per manufacturer's instructions.



### STEP 2

- A. Install **DuPont Exterior Continuous Insulation** per the [\*Integrating DuPont Building Envelope Solutions Products with DuPont Exterior Continuous Insulation Installation Bulletin\*](#).

## Product Composition and UV Stability

**DuPont™ Tyvek® WRBs** used in construction products are made from 100% flash spunbonded high density polyethylene fibers which have been bonded together by heat and pressure, without binders or fillers, into a tough durable sheet structure. Additives have been incorporated into the polyethylene to provide ultraviolet light resistance. DuPont requires that **DuPont™ Tyvek® HomeWrap®**, **Tyvek® DrainWrap™**, and **Tyvek® StuccoWrap®** 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 top sheet of flash spunbonded high density polyethylene fibers or polypropylene film. Additives have been incorporated into these materials to provide ultraviolet light resistance. DuPont requires that **DuPont™ FlexWrap™**, **DuPont™ FlexWrap™ EZ**, and **DuPont™ StraightFlash™** be covered within nine months (270 days) of installation. DuPont requires that **DuPont™ Flashing Tape** be covered within 4 months (120 days) of installation.

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

## Design Considerations

When installed in conjunction with other building materials, **Tyvek® WRBs**, **DuPont Self-Adhered Flashing Products**, and **Tyvek® Fluid Applied Products** must be properly shingled with these materials such that water is diverted to the exterior of the wall system. **Tyvek® WRBs** and **Tyvek® Fluid Applied WB+™** are secondary weather barriers. The outer facade is the primary barrier. Follow facade manufacturer's installation and maintenance requirements for all facade systems in order to maintain water holdout properties and ensure performance of **Tyvek® WRBs** and **Tyvek® Fluid Applied WB+™**. Do not install on a wall that does not feature a continuous path for moisture drainage. Any standing water must be allowed to drain off the membrane.

Use of additives, coatings or cleansers on or in the facade system may impact the performance of **DuPont™ Tyvek® WRBs** and **Tyvek® Fluid Applied WB+™**. DuPont Building Envelope Solutions Products are to be used as outlined in this installation guideline. **DuPont Self-Adhered Flashing** and **Tyvek® Fluid Applied Flashing and Joint Compound+** should only be used to seal penetrations and flash openings in buildings. **Tyvek® WRBs**, **Tyvek® Fluid Applied Products**, and **DuPont Self-Adhered Flashing Products** are not to be used in roofing applications. For superior protection against bulk water penetration, DuPont suggests a system combining a quality exterior facade, a good secondary air and water barrier and exterior sheathing, high quality windows and doors, and appropriate flashing materials paying attention to proper installation of each component.

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

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

## Safety and Handling Warning

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

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

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

**Tower® Residential Sealant** (formerly DuPont™ 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 Safety Data Sheet (SDS) or call Chemtrec at 1-800-424-9300.

**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 the Safety Data Sheet (SDS) for further information.

### KEEP OUT OF REACH OF CHILDREN.

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

Use only as directed. Avoid inhalation of vapor aerosol.

## Safety and Handling (continued)

### Caution

Obtain special instructions for **Tyvek® Fluid Applied Products** before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fumes/gas/mist/vapors/spray. Vapor and aerosols are harmful if using spray application. Use in a well-ventilated area. Use NIOSH approved respirator. NIOSH-approved particulate filtering full-face respirator with a P95 particulate filter or half-mask respirator with a P95 particulate filter and splash impact goggles when spraying. NIOSH-approved N95 disposable safety mask with splash impact goggles for manual application such as troweling or rolling, and for clean-up. If vapors are inhaled, immediately move from exposure to fresh air and contact a physician. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. Immediately call a POISON CENTER/doctor. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. Store locked up. Dispose of contents/container to an approved waste disposal

plant. Avoid contact with eyes and skin.

When cured, **Great Stuff Pro™ Window & Door Polyurethane Foam Sealant** is combustible and will burn if exposed to open flame or sparks from high-energy sources. Do not expose to temperatures above 240°F (116°C). For more information, consult the Safety Data Sheet (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: <https://www.nrel.gov/docs/fy14osti/61326.pdf>.

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

**Great Stuff Pro™** polyurethane foam sealant and adhesive products contain isocyanate and a flammable blowing agent. Read all instructions and the Safety Data Sheet (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 the Safety Data Sheet (SDS) carefully before use.

For more information, visit [greatstuffpro.com](http://greatstuffpro.com) or [building.dupont.com](http://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](http://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 [building.dupont.com](http://building.dupont.com).

*NOTICE: No freedom from any patent owned by DuPont or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other government enactments. The product shown in this literature may not be available for sale and/or available in all geographies where DuPont is represented. The claims made may not have been approved for use in all countries or regions. DuPont assumes no obligation or liability for the information in this document. References to "DuPont" or the "Company" mean the DuPont legal entity selling the products to Customer unless otherwise expressly noted. NO EXPRESS WARRANTIES ARE GIVEN EXCEPT FOR ANY APPLICABLE WRITTEN WARRANTIES SPECIFICALLY PROVIDED BY DUPONT. ALL IMPLIED WARRANTIES INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED. The buyer assumes all risks as to the use of the material. Buyer's exclusive remedy or any claim (including without limitations, negligence, strict liability, or tort) shall be limited to the refund of the purchase price of the material. Failure to strictly adhere to any recommended procedures shall release DuPont de Nemours, Inc., and its affiliates, of all liability with respect to the materials or the use thereof. The information herein is not intended for use by non-professional designers, applicators or other persons who do not purchase or utilize this product in the normal course of their business.*

© 2023 DuPont. DuPont™, the DuPont Oval Logo, and all trademarks and service marks denoted with ™, SM or ® are owned by affiliates of DuPont de Nemours, Inc. unless otherwise noted. Stinger® is a registered trademark of National Nail Corp. Grip-Deck®, Grip-Lok®, and Thermal-Grip FastCap™ are trademarks or registered trademarks of TRUFAST. Tower® is a registered trademark of Tower Sealants.

43-D100978-enNA-1123



For more information about  
DuPont Performance Building Solutions,  
please call 1-833-338-7668 or visit us at  
[building.dupont.com](https://building.dupont.com)