Flashing Tapes Manual:

Flashing Perimeter Building Openings in Frame Construction

Polyken® 626-35 Foilastic
Polyken® 627-35 Shadowlastic
Nashua® 626-20 Optiflash
Nashua® 627-20 Optiflash
Nashua® 697-40 Contour™

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## Flashing Tapes Manual: Flashing Perimeter Building Openings in Frame Construction

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Introduction

Polyken® and Nashua® Flashing Tapes

Self Adhering Flashing (SAF) is the generic term used to describe a flexible, sheet membrane products with a self-adhering adhesive used for waterproofing purposes in building construction.

SAF products are used for general building envelope flashing purposes which can include above grade walls, window and door openings, skylights and roofing.

The net thickness for SAF can vary from 20 mil to 60 mil. The 40 mil and 20-25 mil thicknesses are the two general products used typically.

Where a single strip or piece of SAF can be used, the 40 mil thickness is recommended. Where multiple layers may cause an unwanted build-up of thickness that interferes with other construction tolerances, then the 20-25 mil product can be used.

Butyl versus Asphalt

There are two basic types of adhesive used for self adhering flashings—SBS asphalt and butyl. Asphalt is cheaper than butyl so may be selected where material cost alone is deemed critical.

Butyl performs with a wider range of in-service temperatures (-35°F - 200°F). Asphalt can bleed with high or prolonged heat exposure. Butyl typically has better initial and long-term substrate adhesion than asphalt.

Butyl rubber adhesive contains no volatile organic compounds (VOC), thus the adhesive system does not react with caulking and sealants typically used in conjunction with flashing tapes.

SBS asphalt adhesive formulations contain VOCs that can react chemically with the solvents used in caulking and sealants causing both materials to break down and flow.

Reference Manual

This product publication can serve as a complete reference for the specification, detailing, and installation of Polyken® and Nashua® Flashing Tapes. Each section is independent and can be used as a separate document to meet specific needs.

This publication has been developed as a practical and useful technical reference for the building construction industry. The publication includes several sections: a Product Data sheet for designers and building owners; Application Guides for builders; Details for designers; Sequence Diagrams for installers; and a Guide Specification for specifiers.

Product Data Sheet

The product data follows the CSI Spec-Data format. It is intended as a reference of material and performance information for Polyken® and Nashua® Flashing Tapes.

Application Guides

Two application guides exist for Polyken® and Nashua® Flashing Tapes. One is a general flashing guide and the other is a specific guide for flashing windows, doors and skylights.
General Flashing

The general flashing application guide outlines the use of Polyken® and Nashua® Flashing Tapes as a multi-purpose flashing membrane for building construction needs. Guidance for installing Polyken® and Nashua® Flashing Tapes with different techniques is provided.

Windows, Doors and Skylights

The Window/Door/Skylight application guide covers the different types of window/door frame materials and different wall cladding materials, such as, stucco, wood and vinyl sidings. The flashing procedures in the details and sequence diagrams are not specific to a particular window/door/skylight product nor are they restricted to particular wall cladding materials. This application guide notes how to handle the unique features that vary from product to product for different window/door frames and wall cladding types.

Flashing Details

The Flashing Details section provides a consistent format for details. The detail pages include a reference diagram of a door, window or skylight with detail section cuts shown for the top, sides and bottom. Detail sections are the standard format used on building plans to show construction assemblies. The flashing details are intended as a reference for designers.

The window/door details address nail-on or flanged frames. Flashing block frames (non-finned) are briefly addressed in the Polyken® and Nashua® General Flashing Application Guide (see Part 3).

The flashing details for windows, doors and skylights shown are for frame construction and substrates.

Windows/Doors

The ASTM E2112-07 Standard Practice for the Installation of Windows, Doors and Skylights describes four methods of applying flashing strips to windows and doors. These methods are A, B, A1 and B1.

Method A

Jamb flashing applied over the window/door frame. Building paper is used as the weather-resistant barrier and is applied after the window/door installation.

Method A1

Jamb flashing applied over the window/door frame. Building paper or house wrap is used as the weather-resistant barrier and is applied before the window/door installation.

Method B

Jamb flashing applied under the window/door frame. Building paper is used as the weather-resistant barrier applied after the window/door installation.

Method B1

Jamb flashing applied under the window/door frame. Building paper or house wrap is used as the weather-resistant barrier applied before the window/door installation.

Within the ASTM Standard, Methods A & A1 refer to the use of self-adhering, flexible membranes as an alternative to conventional paper-based flashings. In this publication, Methods A & A1 are shown using Polyken® and Nashua® Flashing Tapes as the primary flashing material.

The ASTM standard for Methods B & B1 around building opening perimeters is not shown in this reference. Methods B & B1,
follow conventional flashing procedures, where the perimeter flashing is applied before the window or door frame. Polyken® and Nashua® flashing tapes can be used in Methods B & B1, if the ASTM standard is followed.

In addition to the ASTM flashing methods, this publication includes an alternate flashing method which has been designated Method SAF. This window/door flashing procedure takes best advantage of the use of Polyken® and Nashua® Flashing tapes.

Method SAF is not illustrated in the ASTM standard, but is based on a combination of ASTM Methods A plus Method B. Polyken® and Nashua® Flashing Tapes can be used instead of sealant under the fin around the opening, as required with the ASTM Methods A, A1, B & B1. Method SAF eliminates the need to use sealant and is less messy for installers. However, the use of sealant under Nail-Fin installations decreases the risk of leakage due to workmanship or material variability.

Skylights

There are four types of skylights categorized by the ASTM E2112 Standard. All of these skylight types have one flashing method which relies on roofing mastic to seal the skylight frame to the roof substrate. This publication presents another flashing method using Polyken® and Nashua® Flashing Tapes instead of mastic to seal the perimeter opening. The ASTM standard neglects to mention the use of flexible, self-adhering membranes for skylight flashings, although they are commonly used by roofers and builders for roof flashing purposes.

Flashing Sequence Diagrams

In order to assist the installer in how to flash building openings, this Polyken® and Nashua® application guide presents step-by-step flashing sequence diagrams. The flashing sequence diagrams show how to install a window, door or skylight with matching descriptions. All of the methods of flashing are shown with each flashing detail. An introductory exploded view shows all the materials that go into flashing the typical opening. This overall view of the parts of the flashing assembly provides a quick way of comparing methods. The materials used in the flashing assembly and the differences in the application sequences can be used as a basis for the selection of the flashing method.
Window Flashing
Self adhering flashing (SAF) can be used in all the ASTM E2112 methods. In addition, SAF can be used uniquely in the method SAF shown, which combines Methods A + B or Methods A1 + B1.


Flashing sequence steps. Window – Method A.

Flashing sequence steps. Window – Method SAF.

Door Flashing
Self adhering flashing (SAF) can be used in all the ASTM E2112 methods. In addition, SAF can be used uniquely in method SAF shown which combines Methods A + B or Methods A1 + B1.

Flashing sequence steps. Door – Method A.

Methods B, A1 & B1 are similar to the window flashing.

Flashing sequence steps. Door – Method SAF.
**Skylight Flashing**

There are four types of skylights designated by ASTM E2112. Self adhering flashing can be used for all types of skylights. Two methods shown here are suitable for two pairs of skylights types.

Method SP-1/3 applies to skylight types 1 and 3. Method SP-2/4 applies to skylight types 2 and 4.

See Manual Section 5.13 for skylight flashing details.

**Guide Specification**

The guide specification provides detailed recommendations for both the 35 mil and 20 mil Polyken® and Nashua® Flashing Tape products. This guide specifications can be utilized to prepare architects’ or designers’ specifications whenever project specifications are provided as part of a set of building design documents.

**Disclaimer**

The information contained in this publication is intended as a reference for architects, designers, and contractors outlining the application of Polyken® and Nashua® Flashing Tapes for use as perimeter flashing around windows, doors and skylights.

Specific products, building construction, and particular project conditions vary and may require changes in flashing techniques and selection of products. Final decisions on the use of this information are not the responsibility of Covalence Adhesives.

This publication does not intend to supersede or be used in lieu of project-specific requirements issued by design professionals, building regulations, or product manufacturers.

This information should be recognized as recommendations which, if followed with professional judgment, should result in successful performance.
1. PRODUCT NAME

**POLYKEN®** Foilastic™ 626-35 Flashing Tape

**POLYKEN®** Shadowlastic 627-35 Flashing Tape

**Nashua®** 626-20 Optiflash F20

**Nashua®** 627-20 Optiflash B20

**Nashua®** Contour 697-40

2. MANUFACTURER

Berry Plastics Tapes and Coatings Division

25 Forge Parkway

Franklin, MA 02038

Phone: 1-800-248-7659

Fax: 1-800-328-4822

Website: www.berryplastics.com

3. PRODUCT DESCRIPTION

**Basic Use:** Polyken® and Nashua® and 626 foil-faced and 627 polyethylene-faced butyl rubber-based adhesive-coated flashing tapes are used to prevent moisture and water entry into buildings.

Polyken® and Nashua® 626 and 627 are primarily used for perimeter flashings around window, door, and skylight openings, and for other general flashing uses including roofing applications.

Precautions and Limitations: Polyken® and Nashua® 626 and 627 can be applied directly to most building sub-strates e.g., plywood, galvanized sheet metal, asphalt-saturated building papers/felts.

For rough surfaces or textured materials, such as OSB, gypsum board, concrete, masonry and fiberglass-mat surface sheathing, it is recommended that a primer, i.e., Polyken® 1027, be used to promote adhesion between flashing tape and substrate.

Polyken® and Nashua® have an application temperature range of 20°F – 180°F and a service temperature range of -35°F – 200°F.

Polyken® and Nashua® Flashing Tapes will withstand exposure to direct sunlight for extended periods. While the Polyken® Shadowlastic, Nashua® Optiflash B20 and Nashua® Contour will resist UV degradation for up to one year, the Polyken® Foilastic and Nashua® Optiflash F20 can be exposed to ultraviolet light indefinitely.

Polyken® and Nashua® 626 and 627 can become slippery when covered by moisture or frost.

Composition and Materials: Polyken® and Nashua® 626 and 627 Flashing Tapes are designed to be cold-applied, self-adhering flashings with strong and immediate adhesion to wood, metal, concrete and masonry surfaces. Both the polyethylene and foil facings with the butyl rubber-based adhesive combine to provide a tough, conformable moisture barrier.

Polyken® and Nashua® 626 and 627 flashing tapes exhibit excellent low temperature flexibility and adhesion properties and will not flow at elevated temperatures. Polyken® Foilastic and Shadowlastic have a non-moisture absorbent polyethylene release liner. Nashua® Contour, Optiflash F20 and Optiflash B20, have a moisture stable poly-coated kraft release liner, both designed for easy release.

4. TECHNICAL DATA

Polyken® and Nashua® 626 and 627 Flashing Tapes conform to the physical properties as stated in Tables 1, 2, and 3.

Applicable Standards: Polyken® and Nashua® 626 and 627 Flashing Tapes meet the requirements of the following specifications:

- Electronic SPEC-DATA®
- SPEC-DATA® II
- Sweets Architectural Catalog
- MASTERSPEC Section 07650 Flexible Flashing.

5. INSTALLATION

**Surface Preparation:** Polyken® and Nashua® 626 and 627 Flashing Tapes are designed to be applied directly on plywood, metal, or masonry substrates. Remove any dust, dirt, nails or other objects from the substrate before applying the flashing to new construction.

**Priming:** Concrete or masonry surfaces can be primed with Polyken® #1027 Primer, following manufacturer’s instructions. Refer to Table 4 for product information.

Priming, however, does increase the overall adhesion on steel and wood surfaces even though it is usually not necessary under normal circumstances.

**Temperatures:** Apply Polyken® and Nashua® 626 and 627...
Flashing Tapes Manual

6. AVAILABILITY AND COST

Availability: Polyken® and Nashua® 626 and 627 Flashing Tapes are available from strategically located warehouses and from a network of distributors ensuring prompt delivery throughout the United States.

Cost: Polyken® and Nashua® 626 and 627 Flashing Tapes are competitively priced. Contact a local Polyken® or Nashua® representative for specific cost information.

7. WARRANTY

Polyken® and Nashua® Flashing Tapes are warranted to be free of defects in manufacturing. Contact Berry Plastics for specific information regarding the 12-year limited warranty.

8. MAINTENANCE

No maintenance is required for Polyken® and Nashua® 626 and 627 Flashing Tapes if the installation has been in accordance with the manufacturer’s recommendations.

9. TECHNICAL SERVICES

Complete technical assistance is available.

10. FILING SYSTEMS

Electronic SPEC-DATA®
SPEC-DATA® II
Sweets Architectural Catalog
MASTERSPEC Section 07650

The ten-point Spec-Data® format has been reproduced from publications copyrighted by CSI, 1964, 1965, 1966, 1967, and used by permission of The Construction Specifications Institute, Alexandria, VA 22314.
**Table 1**  
**Materials, Thickness and Weight**

<table>
<thead>
<tr>
<th>Flashing Tape</th>
<th>Material</th>
<th>Thickness (mills.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Product Name</td>
<td>Facing</td>
</tr>
<tr>
<td></td>
<td>Nashua OptiFlash F20</td>
<td>626-20</td>
</tr>
<tr>
<td></td>
<td>Nashua OptiFlash B20</td>
<td>627-20</td>
</tr>
<tr>
<td></td>
<td>Nashua Contour</td>
<td>697-40</td>
</tr>
<tr>
<td></td>
<td>Polyken Foilastic</td>
<td>626-35</td>
</tr>
<tr>
<td></td>
<td>Polyken Shadowlastic</td>
<td>627-35</td>
</tr>
</tbody>
</table>

**Notes:**  
1. One mil thickness = 0.001 inches
## Table 2
### Dimensions

<table>
<thead>
<tr>
<th>Flashing Tape</th>
<th>Roll Length (feet)</th>
<th>Tape Width (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nashua® Optiflash B20</td>
<td>100</td>
<td>4, 6, 9</td>
</tr>
<tr>
<td>Nashua® Optiflash B20</td>
<td>100</td>
<td>4, 6, 9</td>
</tr>
<tr>
<td>Polyken® Foilastic 626-35</td>
<td>50</td>
<td>2, 3, 4, 6, 9, 12</td>
</tr>
<tr>
<td>Polyken® Shadowlastic 627-35</td>
<td>50</td>
<td>6, 9, 12</td>
</tr>
<tr>
<td>Nashua® Contour 697-40</td>
<td>75</td>
<td>6, 8</td>
</tr>
</tbody>
</table>
## Table 3: Physical Properties

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Flashing Tape</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Polyken®</td>
</tr>
<tr>
<td></td>
<td>Shadowlastic 627-35</td>
</tr>
<tr>
<td>Color (facer)</td>
<td>Black</td>
</tr>
<tr>
<td>Thickness</td>
<td>ASTM D-3767 &amp; ASTM D-1000</td>
</tr>
<tr>
<td>Tensile Strength MD</td>
<td>ASTM D412-97</td>
</tr>
<tr>
<td>Tensile Strength CD</td>
<td>ASTM D412-97</td>
</tr>
<tr>
<td>Elongation</td>
<td>ASTM D412-97</td>
</tr>
<tr>
<td>Adhesion to Plywood</td>
<td>ASTM D903-93(1)</td>
</tr>
<tr>
<td>Steel</td>
<td>PSTC-1</td>
</tr>
<tr>
<td>OSB</td>
<td>ASTM D903-93(1)</td>
</tr>
<tr>
<td>Felt</td>
<td>ASTM D903-93(1)</td>
</tr>
<tr>
<td>Housewrap</td>
<td>ASTM D903-93(1)</td>
</tr>
<tr>
<td>Unprimed Brick</td>
<td>ASTM D903-93(1)</td>
</tr>
<tr>
<td>Extruded Vinyl</td>
<td>ASTM D903-93(1)</td>
</tr>
<tr>
<td>Lap Adhesion (Adhesion to backing)</td>
<td>ASTM D903-93(1)</td>
</tr>
<tr>
<td>Permeance</td>
<td>ASTM E96-94</td>
</tr>
<tr>
<td>UV exposure resistance</td>
<td>AAMA 711-05</td>
</tr>
<tr>
<td>Installation Temp.</td>
<td>AAMA 711-05</td>
</tr>
<tr>
<td>Service Temp.</td>
<td>-35F-200F (-37C - 93C)</td>
</tr>
</tbody>
</table>

Notes:
- MD = Machine Direction
- CD = Cross Direction
- (1) ASTM D903-93 method was modified for a sample 24 hour adhesive contact period prior to testing
- (2) ASTM D146-97 Pliability was determined after 24 hour conditioning at -40F and wrapping specimen around a 2” diameter mandrel
### Table 4
**Primers—Physical Properties**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Polyken® 1027</th>
<th>Nashua® 357</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base</td>
<td>Butyl based elastomers blended with polymeric resins</td>
<td>C-12 &amp; C14 Isoalkanes polymers and resins</td>
</tr>
<tr>
<td>Solvent</td>
<td>V.M. and P Naptha</td>
<td>Hexane, Propane, Acetone &amp; Dimethyl Ether</td>
</tr>
<tr>
<td>Total Solids</td>
<td>30% +/- 1%</td>
<td>15% +/- 1%</td>
</tr>
<tr>
<td>Weight</td>
<td>7.1 lbs/gal (0.86 kg/l)</td>
<td>23.8 oz/ 674 grams</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Medium Syrup</td>
<td>not determined</td>
</tr>
<tr>
<td>Flash Point</td>
<td>40F (4C)</td>
<td>-104F/ -156C</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
<td>White</td>
</tr>
<tr>
<td>Shelf Life</td>
<td>Excellent</td>
<td>One year</td>
</tr>
<tr>
<td>V.O.C.</td>
<td>4.9 lbs/gal (0.59 kg/l)</td>
<td>378 g/l</td>
</tr>
<tr>
<td>Application</td>
<td>Roller or Brush</td>
<td>Spray/Aerosol Can. Tape off area from overspray.</td>
</tr>
<tr>
<td>Coverage</td>
<td>4 sq. yds/gal (9.8m²/l)</td>
<td>Varies</td>
</tr>
</tbody>
</table>
### Table 5
Sealant Adhesion

<table>
<thead>
<tr>
<th>Type of Sealant</th>
<th>Adhesion (oz/in)</th>
<th>(1) Over Facing</th>
<th>(2) Along Seam</th>
<th>(3) Under Adhesive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butyl</td>
<td>&lt;51.0</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Hybrid</td>
<td>33.4</td>
<td>Some</td>
<td>Some</td>
<td>Yes</td>
</tr>
<tr>
<td>Polyurethane</td>
<td>5.5</td>
<td>Some</td>
<td>Some</td>
<td>Yes</td>
</tr>
<tr>
<td>Silicone</td>
<td>0.8</td>
<td>No</td>
<td>Some</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Location of Sealant

1. **Sealant Over Facing**

2. **Sealant Along Seam**

3. **Sealant Under Adhesive**
## Table 6: Sealant Compatibility

<table>
<thead>
<tr>
<th>Flushing Tape</th>
<th>Backing</th>
<th>Adhesive side applied to</th>
<th>Sealant Name</th>
<th>Sealant Type</th>
<th>Visual Observation</th>
<th>Pass/ Fail</th>
<th>Exposure time @150F</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/a - control</td>
<td>LDPE film</td>
<td>none</td>
<td>backing</td>
<td>Dow Corning 795 Silicone</td>
<td>Fi - unchanged, Sep</td>
<td>P</td>
<td>31</td>
</tr>
<tr>
<td>Sample A</td>
<td>2.5 mil PP</td>
<td>27.5 mil SBS A</td>
<td>backing</td>
<td>Sample B</td>
<td>14 mil PE</td>
<td>Butyl rubber</td>
<td>adhesive</td>
</tr>
<tr>
<td>Sample C</td>
<td>14 mil PE</td>
<td>Butyl rubber</td>
<td>adhesive</td>
<td>Sample D</td>
<td>6 mil PE</td>
<td>Butyl rubber</td>
<td>adhesive</td>
</tr>
<tr>
<td>Sample A</td>
<td>2.5 mil PP</td>
<td>27.5 mil SBS A</td>
<td>adhesive</td>
<td>Fi, MD, Sep, P, adh. Distorted</td>
<td>F</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Sample A</td>
<td>2.5 mil PP</td>
<td>27.5 mil SBS A</td>
<td>adhesive</td>
<td>Fi, SLD, Sep</td>
<td>P</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Sample A</td>
<td>2.5 mil PP</td>
<td>27.5 mil SBS A</td>
<td>adhesive</td>
<td>Fi, MD, Sep, P, adh. Distorted</td>
<td>F</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Sample C</td>
<td>14 mil PE</td>
<td>Butyl rubber</td>
<td>adhesive</td>
<td>Fi, SLD, Sep</td>
<td>P</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Sample D</td>
<td>6 mil PE</td>
<td>Butyl rubber</td>
<td>adhesive</td>
<td>Fi, SLD, Sep</td>
<td>P</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Sample D</td>
<td>6 mil PE</td>
<td>Butyl rubber</td>
<td>adhesive</td>
<td>Fi, SLD, Sep</td>
<td>P</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>n/a - control</td>
<td>Si Rel. Paper</td>
<td>none</td>
<td>release</td>
<td>Vulken 116 PU</td>
<td>Fi, SLD, Sep, P, adh. Flowed out</td>
<td>F</td>
<td>31</td>
</tr>
<tr>
<td>Sample A</td>
<td>2.5 mil PP</td>
<td>27.5 mil SBS A</td>
<td>adhesive</td>
<td>Fi, SLD, Sep, P, adh. Flowed out</td>
<td>F</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Sample B</td>
<td>14 mil PE</td>
<td>Butyl rubber</td>
<td>adhesive</td>
<td>Fi, SLD, Sep, P, adh. Flowed out</td>
<td>F</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Sample C</td>
<td>14 mil PE</td>
<td>Butyl rubber</td>
<td>adhesive</td>
<td>Fi, SLD, Sep, P, adh. Flowed out</td>
<td>F</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Sample D</td>
<td>6 mil PE</td>
<td>Butyl rubber</td>
<td>adhesive</td>
<td>Fi, SLD, Sep, P, adh. Flowed out</td>
<td>F</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Sample A</td>
<td>2.5 mil PP</td>
<td>27.5 mil SBS A</td>
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<td>Fi, SLD, Sep, P, adh. Flowed out</td>
<td>F</td>
<td>31</td>
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<tr>
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<tr>
<td>Sample B</td>
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<td>27.5 mil SBS A</td>
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<td>Fi, SD, Sep - falling off</td>
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<td>31</td>
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<td>adhesive</td>
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<td>P</td>
<td>31</td>
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</table>

Note: None of the sealants tested reacted with the butyl rubber adhesive formulations. All of the sealants tested reacted with the SBS asphalt adhesive system that was tested.

Key:
- LB - light surface bloom on backing
- MB - moderate surface bloom on backing
- HB - heavy surface bloom on backing
- N - no
- SL - slight
- M - moderate
- D - discoloration
- P - plasticized
- Br - brittle
- Fi - flexible

25 Forge Parkway
Franklin, MA 02038
800-343-7875
www.berryplastics.com
NASHUA® 626-20
Optiflash F20 Window Flashing Tape

APPLICATIONS
- Window and Door Installations
- Corner Board Abutments
- Sidewall sheathing seams.
- Deck-to-wall Joints
- Sealing other detail areas against water and air penetration

FEATURES & BENEFITS
- Consists of a butyl-based adhesive which exhibits excellent adhesion to most building materials including plywood, OSB, housewrap, concrete, and most metals
- Provides long-term weather tight seal to prevent moisture, vapor, and air penetration.
- Kraft paper release liner for ease of application.
- Resists UV degradation for 12+ years of direct sun exposure.
- Flexible at low temperatures; stays pliable to maintain a tight seal.
- Provides strong and immediate adhesion over a wide range of application temps (20°F-180°F).
- Compatible with sealants and caulking. Does not react with solvent-based solutions.
- Available in 4", 6" and 9"

CONSTRUCTION
- Backing
- Adhesive
- Liner
- Single Coated w/Liner

PRODUCT DESCRIPTION
- Single-Coated w/Liner Construction
- Backing:
  - 2 mil Aluminum Foil
- Adhesive:
  - Butyl Rubber
- Liner:
  - Release-coated Kraft Paper
- Colors:
  - Aluminum

TEST DATA

<table>
<thead>
<tr>
<th>Test</th>
<th>Typical Value</th>
<th>Typical Value (Metric)</th>
<th>Test Method</th>
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<tbody>
<tr>
<td>Total Thickness</td>
<td>20 mils</td>
<td>508.00 µ</td>
<td>ASTM D 1000</td>
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<td>Backing Thickness</td>
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<td>Steel</td>
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<td>3.29 N/mm</td>
<td>PSTC-1</td>
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<td>Plywood</td>
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<td>1.05 N/mm</td>
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<tr>
<td>OSB</td>
<td>&gt;4.8 lb/lin.</td>
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<tr>
<td>Felt</td>
<td>&gt;6.2 lb/lin.</td>
<td>1.1 N/mm</td>
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<tr>
<td>Unprimed Brick</td>
<td>&gt;5.2 lb/lin.</td>
<td>0.9 N/mm</td>
<td>ASTM D903-9</td>
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<tr>
<td>Housewrap</td>
<td>&gt;14.5 lb/lin.</td>
<td>2.5 N/mm</td>
<td>ASTM D903-9</td>
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<tr>
<td>Extruded Vinyl</td>
<td>&gt;12.6 lb/lin.</td>
<td>2.2 N/mm</td>
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<tr>
<td>Tensile Strength (Machine)</td>
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<td>Tensile Strength (Cross)</td>
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<tr>
<td>Application Temperature Range</td>
<td>20°F to 180°F</td>
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<tr>
<td>Service Temperature Range</td>
<td>-35°F to 200°F</td>
<td>-37°C to 93°C</td>
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</table>

* Rectangular specimen
** Test after 24 hour dwell time at 73°F and 60% humidity to p

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Franklin, MA 02038
800-343-7875
www.berryplastics.com
POLYKEN® 626-35
Foilastic Premium Flashing Tape

APPLICATIONS
- Used to flash hip, ridge, and penetration details on concrete tile roofs.
- Gutters, roof valleys and eaves, chimneys and vents, rooftop duct systems.
- Sheet metal repairs on mobile homes, outdoor buildings, and trailers.
- Flash around window, door, skylight and dormer openings.
- Any above-grade critical areas that need protection against water and air leaks.

FEATURES & BENEFITS
- Provides an excellent bond to wood, metal, vinyl and other common building materials.
- Compatible with most caulk and sealants - does not react with most solvent-based solutions.
- Provides long-term weather-tight seal to prevent air, moisture, and water vapor penetration.
- Easy to remove blue LDPE release liner that will not tear.
- Paintable aluminum backing.
- Flexible at low temperatures & stays pliable to maintain a tight seal.
- No cracking over 1/4" at mandrel at 0°F.
- Protective aluminum backing allows for indefinite UV exposure.
- This product is covered by a 12-year limited warranty. Please see warranty for details.

CONSTRUCTION
- Single-Coated w/Liner Construction
- Backing: 2 mil Aluminum Foil
- Adhesive: Butyl Rubber
- Liner: Blue LDPE
- Colors: Aluminum

PRODUCT DESCRIPTION
- Single-Coated w/Liner Construction
- Backing: 2 mil Aluminum Foil
- Adhesive: Butyl Rubber
- Liner: Blue LDPE
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<th>Test Method</th>
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<td>Mastic Thickness</td>
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<td>Adhesion Values</td>
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<td>Steel</td>
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<td>&gt;12.3 lb/in.</td>
<td>2.1 N/mm</td>
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<td>OSB</td>
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<tr>
<td>Felt</td>
<td>&gt;11 lb/in.</td>
<td>1.9 N/mm</td>
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<tr>
<td>Unprimed Brick</td>
<td>&gt;7.3 lb/in.</td>
<td>1.3 N/mm</td>
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<tr>
<td>Housewrap</td>
<td>&gt;15.2 lb/in.</td>
<td>2.7 N/mm</td>
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</tr>
<tr>
<td>Extruded Vinyl</td>
<td>&gt;14.9 lb/in.</td>
<td>2.6 N/mm</td>
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<td>Service Temperature Range</td>
<td>-30°F to 200°F</td>
<td>-34°C to 93°C</td>
<td></td>
</tr>
</tbody>
</table>

***Recommended storage conditions: 40-60% Humidity, 60°F-80°F (15°C - 20°C)

*The information presented herein was prepared by Berry Plastics, Tapes & Coatings Division of Berry Plastics Company, MA USA (by qualified technical personnel). Berry’s knowledge is in no way absolute. However, the information and recommendations are based on the experience and the purchaser is responsible for the selection and use of the products. Berry is not responsible for the results obtained by the Purchaser or for any representation or warranty, oral or written, made by Purchaser’s representatives. The data is submitted only for the user’s information and consideration, and does not constitute a warranty of any kind (including, but not limited to, express warranty, implied warranty of merchantability and fitness for particular purpose), or a representation for which BERRY PLASTICS assumes any legal liability.

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- Kraft paper release liner for ease of application.
- Resists UV degradation for up to 1 year of direct sun exposure.
- Flexible at low temperatures; stays pliable to maintain a tight seal.
- Provides strong and immediate adhesion over a wide range of application temps (20°F to 180°F).
- Compatible with sealants and caulking. Does not react with solvent-based solutions.
- Available in 4", 6" and 9"

CONSTRUCTION
- Single-Coated w/ Liner Construction
- Backing: Polyethylene
- Adhesive: Butyl Rubber
- Liner: Release coated Kraft Paper
- Colors: Black

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<td>Total Thickness</td>
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<td>ASTM D 1000</td>
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<td>Backing Thickness</td>
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<td>152.40 μ</td>
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<td>Steel</td>
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<td>OSB</td>
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<td>Service Temperature Range</td>
<td>-35°F to 200°F</td>
<td>-37°C to 93°C</td>
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</tbody>
</table>

*Rectangular specimen

Recommended storage conditions: 40-60% Humidity, 60°F-90°F

This information presented has been prepared by Berry Plastics, Tape & Coatings Division (25 Forge Parkway, Franklin, MA 02038), or its authorized technical partners. The information and recommendations furnished for these products with the understanding that the user has determined that the product is suitable for the intended use, and that such use complies with all applicable federal, state, and local laws and regulations. The data are supplied only for the user's information and convenience, and do not constitute a guarantee of any kind including but limited to a warranty of merchantability or of fitness for a particular purpose. User representatives for which BERRY PLASTICS assumes any legal responsibility.
POLYKEN® 627-35
Shadow elastic Premium Flashing Tape

APPLICATIONS
- Used under tile on the ridge and hip lines of roofs to prevent moisture from entering the building.
- Flash around window and door openings.
- Flash around skylights and dormers.
- Any above-grade critical areas that need protection against air and moisture penetration.

FEATURES & BENEFITS
- Provides an excellent bond to wood, metal, vinyl and other common building materials.
- Formulated for conformability in both warm and cold weather temperatures.
- Compatible with most coatings and sealants - does not react with most solvent-based solutions.
- Provides a long-term weather-tight seal to prevent air, moisture and water vapor penetration.
- Resists UV degradation for up to 1 year of direct exposure to sunlight.
- Easy to remove blue LDPE release liner that will not tear.
- This product is covered by a 12-year limited warranty. Please see warranty for details.

CONSTRUCTION
- Single-Coated W/Liner Construction
- Backing: Polyethylene
- Adhesive: Butyl Rubber
- Liner: Blue LDPE
- Colors: Black

PRODUCT DESCRIPTION

TEST DATA

<table>
<thead>
<tr>
<th>Test</th>
<th>Typical Value</th>
<th>Typical Value (Metric)</th>
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<td>Backing Thickness</td>
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<td>Housewrap</td>
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<td>-34°C to 93°C</td>
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**Recommended storage conditions: 40-60% Humidity, 60°F-80°F**

The information provided is intended to assist professionals. Polyken® is a registered trademark of Berry Plastics Company. All other proprietary marks are acknowledged. The data contained herein is intended to be of general interest only and may not apply to all conditions. The user should perform their own tests to ensure that the product is suitable for the intended use. The data provided is subject to change and is intended as a guide only. For specific applications, contact your Polyken representative. Polyken Plastics disclaims any legal or professional responsibility.
NASHUA® Contour
Stretchable Window Flashing Tape

APPLICATIONS
- Excellent for flashing around window sills, interior corners of recessed windows, round top windows, and arched doorways
- Eliminates the need for corner flashing patches at window sides
- Any above-grade critical areas that need protection against air and moisture penetration

FEATURES & BENEFITS
- Consists of a butyl-based adhesive which exhibits excellent adhesion to most building materials including plywood, OSB, housewrap, concrete, and most metals.
- Wide application temperature range (20°F to 180°F).
- Provides a long-term weather-tight seal to prevent air, moisture, and vapor penetration.
- UV inhibitors prevent degradation for up to 1 year of direct exposure to the sun.
- Exceptional moisture resistance.
- Conforms easily to curved surfaces - forms a permanent watertight/airtight seal.
- An all-weather flashing tape - remains flexible and adheres in cold temperatures.
- Available in 6" & 8" widths.

CONSTRUCTION
- Single-Coated w/Liner Construction
- Backing: Creased, cross-laminated Polyolefin Film
- Adhesive: Butyl Rubber
- Liner: Polyethylene
- Colors: White

TEST DATA

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<th>Test</th>
<th>Typical Value</th>
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<td>OSB</td>
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<td>Service Temperature Range</td>
<td>-30°F to 200°F</td>
<td>-34°C to 93°C</td>
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</table>

* Rectangular specimen
** Test after 24 hour dwell time at 73°F and 50% humidity to plywood
Recommended storage conditions: 40-60% Humidity, 60°F-90°F

This description was prepared by Berry Plastics, Tape & Coatings Division, 25 Forge Parkway, Franklin, MA. Consult with a qualified technician prior to use. The information and recommendations are furnished for these products with the understanding that the purchaser or user, or his agents, will independently determine that the product is suitable for the intended use, and that such use complies with applicable federal, state and local laws and regulations. This data is submitted only for the user's information and considerations, and does not constitute a warranty of any kind (including but not limited to a warranty of merchantability or fitness for a particular purpose). A representative for BERRY PLASTICS assumes no legal responsibility.
POLYKEN® 1027
Primer/Liquid Adhesive System

APPLICATIONS
- Surface preparation for masonry, concrete, OSB, rigid insulation, wood and metal.
- Brush or roller priming applications.
- Provides a uniformly smooth, instant-tack surface to promote adhesion and long term anchorage.

FEATURES & BENEFITS
- Non-toxic, non-polluting.
- Conforms to local and national standards.
- Dries to a uniform, smooth finish to provide a superior bonding surface for butyl-based flashing tapes.
- Easy to apply, no over-spray.

Product Basics
Polyken® liquid adhesive systems are recommended for use with Polyken® and Nashua® window, door, and roof flashing products. The liquid adhesive system consists of butyl based elastomers blended with polymeric resins dissolved in an organic solvent system. They can be used for hand, brush, or roller application are non-toxic, non-polluting, and conform to local and national standards.

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<td>Weight/Liter:</td>
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Physical Characteristics

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<td>Flash Point</td>
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<tr>
<td>Color</td>
<td>Black</td>
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<tr>
<td>Shelf Life</td>
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<td>VOC</td>
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<td>Coverage Rate</td>
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Warning: Polyken® liquid adhesive systems are FLAMMABLE MIXTURES.

Caution: Store away from heat source. Read all label instructions prior to use.

***Recommended storage conditions: 40-60% Humidity, 60°F-80°F (16°C - 26°C)

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General Flashing Application Guide

Polyken® and Nashua® Flashing Tapes

Cutting Polyken® and Nashua®

Polyken® and Nashua® are flexible, self-adhering membrane flashing materials which can be used for general overall flashing conditions requiring broad coverage. Polyken® and Nashua® can also be easily cut to fit precise and detailed shapes.

A sharp cutting tool, such as a utility knife provides a simple and convenient method of cutting Polyken® and Nashua® flashing tape to desired lengths and shapes. Position the Polyken® or Nashua® tape on a solid uniform cutting surface, such as plywood, to control the material during the cutting procedure.

Lay a straight edge over the Polyken® or Nashua® material to guide the cutting tool to ensure straight cuts. See Figure 1.

Figure 1 Layout the Polyken® flashing tape flat and cut to length.

Removing Polyken® and Nashua® Release Liner

The Polyken® or Nashua® release liner is intended to stay on the membrane until the membrane is ready for final placement and adhesion to its substrate. The release liner can generally be removed from the Polyken® or Nashua® by peeling back the edge of the liner with fingertips to separate the liner from the membrane.

The liner can be easily removed from the membrane by pulling the liner apart with a continuous motion. See Figure 2.

Another technique can be used if it is difficult to get a thumbnail under the liner. Pinch the liner edge with the thumbnail tight to the membrane. While pinching, pull the edge sharply to attempt to pick off a tiny edge piece. Typically, this will cause the liner to stretch and when the pressure is released the liner edge will be wrinkled enough to allow it to be peeled back from the membrane.

Another technique, requiring some skill, is to carefully dig the point of the cutting tool into the release liner and peel back the edge.
Properly dispose of the peeled away Polyken® or Nashua® release liner.

**Curved Cuts**

Wide curved cuts can be made by using the same technique as straight cuts or by using firm, steady hand control to guide cut lines.

Tight curves and circles can be made by using heavy-duty shears or by carefully using a utility knife. Regularly shaped circles can be made by using a template.

To make Polyken® and Nashua® circles approximately three inches in diameter for patches and circle boots, use the following technique. Spread out a portion of Polyken® or Nashua® tape. Place an empty Polyken® or Nashua® core tube on top of the membrane. (The diameter of the tube is about 3-1/4 inches.) Use a cutting tool, such as a utility knife, to cut around the outside of the tube through the Polyken® tape. The cuts may have to be done one-third of the circumference at a time in order to complete the circle.

See Figures 3 & 4. Remove cut Polyken® or Nashua® circles and save for future use.

**Figure 3** Cutting Polyken® circle boots with template.

**Figure 4** Polyken® boots saved to seal pinholes in flashing laps.

**Cutting the Release Liner**

Cutting the Polyken® or Nashua® release liner and peeling away a portion of the release liner is sometimes necessary in order to adhere a portion of the Polyken® or Nashua® membrane a section at a time. In the case of cutting the release liner, take extreme care not to cut too deeply into the membrane.

Step 1. Cut only deep enough to cut through the release liner. You may want to practice this technique several times on scrap Polyken® or Nashua® pieces before attempting to complete a final cut. See Figure 5.

**Figure 5** Place Polyken® with release liner facing up.
Step 2. Pick a corner of the release liner and peel back a portion of the liner leaving the desired portion of the release liner in place. See Figure 6.

Step 3. Place the Polyken® or Nashua® tape with the partial release liner against the substrate. See Figure 7.

Polyken® and Nashua® Placement
Use sections of Polyken® or Nashua® as long and as wide as practical to complete the work. Minimize the number of seams and laps where long sections of material are to be applied. Carefully preplan the location of seams, laps and termination edges.

If possible, install Polyken® or Nashua® in “shingle fashion,” so that edges are lapped to prevent gravity-induced water flow from entering the joints between layers or behind the flashing. The layout of laps, seams and edges of Polyken® flashing should be considered prior to placement. Polyken® and Nashua® however, have excellent adhesion to itself, so patches can be effectively made by over laying Polyken® on top of Polyken®.

Large lengths of Polyken® or Nashua® can be unwieldy. When installing large sections, partial removal of the release liner and subsequent partial adhesion of the membrane will facilitate placement at the desired location.

Precise placement of Polyken® or Nashua® membrane at terminations and other detailed configurations should be carefully planned to determine the most effective sizes of Polyken® to use.

Using a Roller to Increase Adhesion
Polyken® or Nashua® readily adheres to most construction substrates by removing the release liner and placing Polyken® or Nashua® in the desired position by hand.

Rolling the Polyken® or Nashua® facing with a hand roller after placement increases the effective adhesion to most substrates. Roll the membrane from the center toward the edges, pushing out trapped pockets of air and flattening wrinkles. Eliminating air pockets and wrinkles, especially along flashing edges, greatly increases the integrity of the flashing adhesion. Rolling is required to provide continuous adhesion at flashing laps and seams. See Figure 8.
Rollers

Hand rollers used for rolling Polyken® or Nashua® flashing tapes can be found from many construction industry sources. Rollers used in the flooring and wallpapering trades are effective tools for Polyken® and Nashua® applications. See Figure 9.

![Figure 9 Various types of hand rollers.](image)

We recommend obtaining rollers in several sizes and types to be able to fit the various edges associated with inside and outside corners and overlaps. Rollers in 1” and 2” sizes with short handles are particularly useful in tight spaces, but at least one 3” roller is suggested to enable smooth rolling of the recommended 3” overlap and large areas of Polyken® or Nashua® tape.

Care should be taken with hand roller edges not to cut through the Polyken® or Nashua® facing or adhesive layer.

Avoid rolling against sharp outside corners. Outside corners should be rolled parallel to the direction of the corner with the roller flat to each alternate side of the corner.

Roll inside corners taking care to avoid having the roller tear the Polyken® or Nashua® membrane or facing. This can be accomplished using one of the following alternate techniques:

1. Roll inside corners perpendicular to the corner with a back-and-forth motion gradually moving the roller up and down the length of the corner. See Figure 10.
2. Roll parallel to the inside corner keeping carefully back from the corner juncture.

3. Use a roller with a radius edge that can be used up and down the length of the corner juncture without tearing the membrane or facing. The roller radius edge should be greater than the membrane radius at the corner juncture.

**Polyken® or Nashua® Coverage**

**Wide Rolls and Extended Lengths**

Large sections of Polyken® or Nashua® membrane should be used where practical to minimize the number of laps and seams in the flashing installation.

**Laps and Seams**

Polyken® or Nashua® can be overlaid as a flashing membrane on top of a flashing membrane to provide an effective waterproofing barrier. Recommended lap coverage is three inches minimum.

This lap dimension should be rolled for best adhesion. Greater lap dimensions can help assure more material-to-material adhesion providing additional protection against potential field installation errors.

**Small Patches**

Short pieces of Polyken® or Nashua® can be applied over Polyken® or Nashua® membrane to successfully maintain an effective waterproof barrier. Patches can be used to repair any mechanical damage to the membrane that occurs after installation.

Patches may also be used to repair tears, splits and cuts. Generally, the patches used for repair should extend beyond the damage in all directions by 1-1/2 inches minimum. The patch needs to be sufficiently larger than the damaged area to completely cover it and adhere to surrounding membrane or substrate to complete the membrane integrity. Repair patches should be rolled for best adhesion.

**Bends and Shapes**

Polyken® and Nashua® have excellent pliability characteristics. Tight radii are easily formed with Polyken® or Nashua®. It is well suited to conform to the inside and outside corners of most building substrates. It is also a material that can be made into shapes to fit unique and difficult flashing conditions. Polyken® or Nashua® serves as a durable barrier for smooth curves, bends and folds.

**Folds**

Polyken® or Nashua® is an excellent material that folds when necessary to complete uniform waterproofing applications, such as, one-piece corner boots.

Folds should be done by hand, and rolling should not occur with too much roller pressure against the fold edge or the facing material may tear.

**Polyken® and Nashua® Circle Boots**

Special application conditions can be addressed with Polyken® or Nashua® circle boots. These special boots or patches cut into circular shapes from Polyken® flashing tape can be used at multidirectional junctures.

Polyken® or Nashua® circle boots can cover pinhole conditions remaining from the application of other flashing material laps at complex substrate conditions.
Polyken® or Nashua® circle boots conform to fit the shape of multiple planes of substrates, such as inside and outside corners. Preplan the placement by checking the fit and pre-shaping the folds to fit the configuration.

Applying Polyken® or Nashua® Circle Boots

Step 1. Using one of the release liner removal techniques, peel back the liner. See Figure 11.

Step 2. Carefully fit the Polyken® or Nashua® circle boot in place. See Fig. 12.

Step 3. Form the Polyken® or Nashua® circle boot to the substrate using finger pressure. See Figure 13.

Inside Corner Flashing

Inside corners in construction occur with recessed windows and building ledges or shelves. See Figure 14. These junctures require complex flashing layout when using multiple sheets of flashing. To make inside corner flashings, use precut and preformed pieces of Polyken® or Nashua® flashing tape. The following procedures illustrate the method for making an inside corner flashing.
Steps 1 - 3. Precut a square (6" minimum) of Polyken® or Nashua® and fold in halves twice. See Figures 15 & 16.

Step 4. Unfold the Polyken® or Nashua® flashing tape and select a corner to crease to the middle of the square. See Figure 17.

Step 5. Pinch the crease to make a triangle shape and fold the square in a shape of an inside corner. See Figure 18.

Figure 15 Precut Flashing.

Figure 16 Fold precut Polyken® flashing piece.

Figure 17 Fold Polyken® flashing piece.

Figure 18 Fold Polyken® into inside corner.
Step 6. Cut the release liner along one side of the triangular shape. See Figure 19.

Figure 19 Cut Polyken® release liner.

Step 7. Peel away a portion of the release liner. See Figure 20.

Figure 20 Peel away the release liner from the cut.

Step 8. Fold the triangular corner against the side to form a corner boot. See Figure 21.

Figure 21 Fold the triangular shaped flap and fold against the boot.

Step 9. Press the triangular corner against the boot to form a tight bond. See Figure 22.

Figure 22 Press triangular fold tight to the body of the boot.

Step 10. The triangular fold of the inside corner boot must be oriented to fit a left-hand or right-hand inside corner so the fold is always down. See Figure 23.
Step 11. When placement has been checked, the remaining release liner can be removed in order to adhere the inside corner flashing firmly in place. See Figure 24.

Outside Corner Flashing – Option 1

Outside corners can be made watertight with the use of Polyken® or Nashua® flashings. Multiple pieces (3 minimum) of Polyken® and Nashua® can be cut and applied to cover outside corners. The procedure is illustrated in Figures 25 to 32.

Figure 23 Orient flashing to inside corner.

Figure 24 Placement of Polyken® inside corner flashing.

Figure 25 Outside corner building juncture.

Figure 26 Precut flashing.
Figure 27  Fold and cut first Polyken® flashing piece.

Figure 28  Remove release liner and place Polyken® flashing.

Figure 29  Place a Polyken® circle boot at outside corner juncture.

Figure 30  Fold and cut second Polyken® flashing piece.
Outside Corner Flashing – Option 2

The use of Nashua® contour flashing can result in a one-piece flashing strip at outside corners. This flashing procedure is illustrated in Manual Section 7.0.
Window/Door/Skylight Flashing Application Guide

Polyken® and Nashua® Flashing Tapes

Perimeter Opening Flashing

The successful installation of windows, doors, and skylights depends on the performance of the perimeter flashing of these fenestration products within the building opening. Typical openings requiring flashings are shown in Figure 1. Polyken® and Nashua® Flashing Tapes provide superior waterproofing and durability characteristics for all of these building openings.

Figure 1 Typical building openings require perimeter flashings.

The use of Polyken® and Nashua® Flashing Tapes can accommodate different substrates and cladding materials to suit a wide range of building design and construction variations.
Window & Door Flashing Details

The following flashing details represent a sample of the types of flashing procedures are commonly found in contemporary, wood-frame, residential and light commercial construction that utilize nail fin windows and door frames.

These flashing details are organized into categories based on ASTM E2112-07 Standard Practice for the Installation of Exterior Windows, Doors and Skylights.

In the ASTM publication, there are four variations of window/door perimeter flashing methods as described below. The choice of the particular method is left to the judgment of the building owner, design professional, and contractor for any particular project.

Method A
Jamb flashing applied over the window/door frame. Building paper is used as the weather-resistant barrier and is applied after the window/door installation.

Method A1
Jamb flashing applied over the window/door frame. Building paper or house wrap is used as the weather-resistant barrier and is applied before the window/door installation.

Method B
Jamb flashing applied under the window/door frame. Building paper is used as the weather-resistant barrier applied after the window/door installation.

Method B1
Jamb flashing applied under the window/door frame. Building paper or house wrap is used as the weather-resistant barrier applied before the window/door installation.

Illustrations for Methods A and A1

This Application Guide contains illustrations showing the use of Polyken® and Nashua® Flashing Tapes with Methods A and A1 for windows and doors. Methods B and B1 which often use Polyken® and Nashua® Flashing Tapes are conventional flashing procedures, and are not illustrated in this Application Guide.

Types of Window/Door Frames

There are basically two types of window and door frames to consider when selecting a method of perimeter flashing: Nail-on Fin (or flange) and Block Frame (non-finned). The frame materials used for either one of these two types of windows can be wood, aluminum, or vinyl/plastic.

Nail-On Fin (Attachment Flange)

Nail-on fin frames may use separate attachment fins for fastening the window/door to the building. The nail-on fin window/door can have either a non-integral fin or an integral fin. See Figures 2, 3 & 4. Typically, the separate attachment fin does not function as a flashing for the perimeter of the window/door.

Figure 2  Wood window with attachment fin.
Non-integral fins

Non-integral nail-on fins are only for attachment of the window/door and are either applied to or inserted into the frame. These attached fins often do not provide a watertight connection to the frame. See Figure 5. Flashing for window/doors with a non-integral fin is accomplished similar to the block window conditions.

Integral fins

An integral fin is continuous with the frame (e.g., the fin of an extruded aluminum frame or the fin of molded vinyl frame). An integral fin generally is used as a component of the perimeter flashing for the window/door frame. See Figure 6. Polyken® or Nashua® flashing tape is adhered to a watertight nail-on fin thereby extending the effective width of the fin for integration with the weather-resistant barrier of the wall.
Block Frame Types

Block frames do not incorporate a projecting fin or flange for attaching the window or for flashing. Typical block frame sections are shown in Figures 7, 8 & 9.

Figure 6 Integral fin. Fin is one-piece with frame cladding and provides a flashing projection.

Figure 8 Aluminum Window, Block Frame.

Figure 9 Vinyl Window, Block Frame.

Figure 7 Wood Window, Block Frame.
Block-framed products need to have a technique for connecting a perimeter flashing to the frame or provisions for sealing the perimeter and including a pan flashing at the head and sill to drain moisture out of the frame opening. See Figure 10.

Polyken® and Nashua® flashing tape are also used to flash block frame (non-finned) window and door frames. The techniques for flashing block frame windows/doors are described and illustrated in the “AAMA Installation Masters Training Manual” or the “ASTM E2112-07 Standard Practice for Installation of Exterior Windows, Doors and Skylights.”

**Supplemental Head Flashing**

A separate pre-formed head flashing (e.g., galvanized steel, stainless steel, copper or vinyl) is recommended when the head unit of the frame is not capable of directing all water to the exterior.

Some examples of problem conditions with many window and door products which prevent complete drainage at the head of the unit are given below:

**Condition 1:** A flat head profile with a continuous raised outer lip creates a dam obstructing water flow immediately to the exterior. Water in this head is directed along the head toward the outer frame corners. See Figure 11.

![Figure 11](image)

**Figure 11** Raised lip at extruded head frame obstructs drainage behind raised lip.

**Condition 2:** A notched or open corner is provided with no factory, watertight corner seal. The open corner joint can allow water entry behind the otherwise watertight fin. Even with perimeter flashing along the head and up the jamb, the pinhole at the frame notch can allow water entry. See Figure 12.
Condition 3: Non-watertight nailing fin. When an inserted fin is used only for fastening the frame, water can enter behind or around the fin-to-frame connection. See Figure 13.

Condition 4: Head fin with holes. When the head fin has fastening holes, water can back up and enter through the holes. This condition is especially prevalent with vinyl windows since most vinyl windows have pre-punched frame fin holes. See Figure 14.

Condition 5: Head trim. When head trim is applied over the head frame, two horizontal joints can occur potentially allowing water entry. See Figure 15.
Supplemental Polyken® and Nashua® Flashing Solves Problems

In lieu of metal head flashing, Polyken® and Nashua® flashing tapes can be used to provide watertight integrity for Conditions 2, 3, and 4 above. Polyken® and Nashua® flashings can be accomplished as follows:

**Condition 2:** Patching open corner notch in fin

Step 1. Apply Polyken® and Nashua® circle boot at position of the potential pinhole. See Figure 16.

![Figure 16](image)

**Figure 16** Apply Polyken® circle boot at potential pinhole of open fin corner.

Note: Alternate—Use Contour flashing for circle boot to conform to corner.

Step 2. Cut an “L” from a piece of Polyken® as shown in Figure 17.

![Figure 17](image)

**Figure 17** Cut Polyken® flashing to cover open corner.

Step 3. Apply Polyken® “L” to shape strip to head-jamb juncture. See Figure 18.

![Figure 18](image)

**Figure 18** Apply Polyken® flashing at head-jamb juncture.

**Condition 3:** Non-watertight nailing fin. Apply Polyken® or Nashua® flashing tape to the attachment fin and onto frame to provide watertight flashing. Lap flashing sufficiently onto the frame and fin surfaces to maintain uniform and continuous...
adhesion. See Figure 19. Note: Adhesion to fin and frame material needs to be confirmed with door/window manufacturer. Rolling flashing onto the attachment fin and frame is critical for proper adherence for long-term performance.

Step 1. Apply flashing on the sides of frame and fin and roll for maximum adhesion. See Figure 20.

Step 2. Apply a circle boot at the corner where a pinhole would occur. See Figure 21.

Figure 19 Lap flashing onto frame and attachment fin.

Figure 20 Polyken® flashing over jamb fin and frame.

Figure 21 Polyken® circle boot at corners.
Step 3. Apply Polyken® or Nashua® flashing across the head of the frame and roll all head flashing. See Figure 22.

Condition 4: Use flashing tape to cover fin fastening holes at head and jamb. Polyken® flashing applied over the fin holes can prevent water entry. See Figure 23.

Supplemental Head Flashing – Lapping the Top

Conditions 1, 2, 3, and 4: The use of supplemental head flashing should include the provision for Polyken® or Nashua® flashing tape applied over the top of the vertical leg of the supplemental head flashing. See Figure 24.

Figure 22 Polyken® flashing across head of frame.

Figure 23 Polyken® flashing over holes.

Figure 24 Supplemental head flashing over head frame.
**Condition 5:** Supplemental head flashing is also recommended for trim over the head frame. Many window and door perimeters are trimmed out with an additional piece of exterior casing. Supplemental head flashing can address the horizontal joint created at the trim cladding juncture above the head. See Figure 25.

![Figure 25](image)

Supplemental head flashing over trim above head.

When supplemental head flashing is provided along the top of head trim, the flashing must extend to the end of the trim. See Figure 26.

![Figure 26](image)

Ends of supplemental head flashing.

**Considerations for Cladding Materials**

Generally, the cladding material for most residential and light-commercial buildings relies upon a weather-resistant barrier (WRB), such as building paper or an air barrier (house wrap) that is installed underneath the cladding.

The exterior cladding prevents most of the water entry, and the WRB takes care of the incidental water that inevitably finds its way past the cladding. The perimeter opening flashings are an essential part of the complete WRB and cladding system.
Wood-Based Siding and Trim

Wood-based siding, such as clapboards, plywood panels, and shingles, should be separated from window and door frames with a gap that is sealed. The gap dimension may vary depending on the product from 1/8” to 1/2” minimum. When trim around the opening and frame is used, it must also be separated with a gap and sealed.

Stucco

Stucco is often applied up to the window/door frame without a perimeter trim. In such case, no perimeter seal between stucco and frame is provided.

When no perimeter seal to the frame is added, the underlying WRB and perimeter flashing needs to be durable in order to withstand recurring and direct water entry from the narrow gap at the stucco to frame joint.

The condition of the sill flashing and the lathing for the stucco needs attention if paper-backed lath assembly is used. The paper and wire must be separated and the top of the paper in the assembly must be installed under the sill flashing, while the wire lath of the assembly must be over the sill flashing.

Vinyl

Vinyl siding is applied over a WRB and perimeter opening flashing similar to wood-based claddings. When perimeter trim is used around openings, it should be sealed to the fenestration frame and to the vinyl wall siding.

Sill/Threshold Pan Flashing

Sill/threshold pan flashings supplement the perimeter flashing system at the bottom of window and door products. Sill (threshold) pans are generally recommended at all door threshold locations, except where sill nail-on fin frames are used. Sill pans are recommended for all block frame windows.

The sill pan can either direct water from the opening to drain to the exterior of the cladding or to the surface of the weather-resistant barrier behind the cladding. See Figures 27 and 28. ASTM E2112-07 recommends sill pans for all types of windows and doors.

Figure 27 Pan flashing.

Figure 28 Pan flashing.
Considerations for Skylight Flashing

There are four classes of skylights from the ASTM E2112 Standard:

- Type 1: Flush Mount
- Type 2: Curb Mount
- Type 3: Deck Mount
- Type 4: Inset Mount

A diagram illustrating each of the four types is shown under Flashing Sequence Diagrams on page 6.23.

The perimeter flashing for the four types of skylights is shown in the Polyken® Application details for use with composition shingles. The flashing is similar for other shingle products including wood and cement-based where there is a solid substrate and a uniform application of a roof underlayment, such as asphalt saturated felt.

Polyken® or Nashua® circle boots can be used at the curb junctures of skylight flashings. Also, Polyken® and Nashua® circle boots will conform to vertical and horizontal planes at outside corners. See Figures 31 & 32.
For all skylights it is important to counterflash the top of the skylight saddle or cricket with a strip of roof underlayment that is also counterflashed by roof underlayment further upslope. See Figure 33. With curb mount skylights, turn up the roof underlayment onto the curb. See Figure 34.

See the flashing sequence diagrams for more specific information on skylight flashings.

For roof covering products such as tiles, slate, and wood shakes, the perimeter skylight flashing would vary from the details shown in the Polyken® and Nashua® Application details.

Consult with the specific roofing and skylight product manufacturer to verify the suitability and application of the Polyken® and Nashua® perimeter skylight flashing systems.

Replacement Windows and Doors

The flashing installation for replacement window and door products is similar to new installations when the exterior cladding is removed around an opening for a sufficient distance to access the existing perimeter flashings.

The installation of the replacement window/door with nail-on fins requires the removal of a portion of the perimeter cladding and the removal of the existing frame. Flashing Methods SAF, A and A1 using Polyken® and Nashua® flashing tapes are an extremely effective and efficient procedure to tie-in the new flashing to the existing flashing or weather resistant barrier. Usually, where exterior cladding is not removed, nail-on windows/doors are not used.

For replacement of block frame windows and doors, or where the exterior cladding around the perimeter is not removed, follow the procedures given in the AAMA Installation Masters Training Manual or the ASTM E2112 Standard Practice for Installation of Exterior Windows, Doors and Skylights.
Flashing Detail Selection

Polyken® and Nashua® Flashing Tapes

The choice of flashing methods depends on the type of window, door, or skylight frame selected. Further, the type of weather-resistant barrier to be used limits the flashing methods available. The following table is intended to assist with the selection of appropriate flashing details. The specific flashing details are outlined on the following pages.

The window and door flashing details show the use of Polyken® and Nashua® Flashing Tapes with Nail-Fin type frames for windows and block frames for doors. The flashing details are appropriate with the use of most exterior wall claddings, e.g., 3-coat stucco, wood & vinyl sidings and plywood panel systems using a concealed weather-resistant barrier under the cladding. The Skylight flashing details show a composition shingle roof covering on solid, sloped roof sheeting.

The project designer is responsible to adapt flashing details for specific types of wall claddings and roof coverings, e.g., clay tile, concrete tile, wood shingles and shakes, and panel systems.
### POLYKEN® AND NASHUA® FLASHING DETAIL SELECTION

<table>
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<td>Underlayment (Weather-Resistant Barrier):</td>
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<tr>
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<tr>
<td>• Housewrap</td>
<td>–</td>
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<tr>
<td>• Roof Felt Underlayment</td>
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<tr>
<td>Mounting Window/Door:</td>
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</tr>
<tr>
<td>• Integral Nail Fin</td>
<td>A</td>
</tr>
<tr>
<td>• Applied Nail Fin</td>
<td>(similar to doors)</td>
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<td>• Block Frame w/Field-Applied Brick Mold</td>
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<td>• Block Frame w/Factory-Applied Brick Mold</td>
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<tr>
<td>• Block Frame w/o Brick Mold</td>
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<tr>
<td>Skylight:</td>
<td></td>
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<tr>
<td>• Integral Deck Flange</td>
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<tr>
<td>Skylight:</td>
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<tr>
<td>• Deck Curb w/o Flange</td>
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<td>Supplemental Flashings:</td>
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<tr>
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<td>(similar to doors)</td>
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<tr>
<td>• Sill Pan (Block Frame)</td>
<td>(similar to doors)</td>
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<td></td>
<td>Contour</td>
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</table>

**Note:** For ASTM Flashing Methods B & B1 using Polyken® Flashing Tapes, refer to ASTM E2112-07 Standard Practice for Installation of Exterior Windows, Doors and Skylights.

For Flashing doors and windows with Block Frame montagings refer to AAMA Installation Masters Training Manual, # IM - TM, June 2000.
### WINDOWS/DOOR FLASHING METHODS

<table>
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<td>Building Paper laps over Jamb flashing</td>
<td>BUILDING PAPER LAPS OVER JAMB FLASHING</td>
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**Notes:** Separate head and sill Polyken® and Nashua® flashings not shown for clarity. The SAF method can be used with both types of WRB – House wrap and building paper. The outline of the building paper lapping over the jamb and head flashing is shown dashed.
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<td>SP.2.3</td>
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</table>
WINDOW FLASHING - METHOD A1 (HOUSEWRAP)

POLYKEN

OPTIONAL

W.A1.1 HEAD

W.A1.2 JAMB

W.A1.3 SILL

MATERIALS KEY:

A HOUSEWRAP - WEATHER-RESISTANT BARRIER (WRB)
B SEALANT BEAD
C WINDOW FRAME
D WALL SHEATHING
E EXTERIOR WALL CLADDING
WINDOW FLASHING - METHOD A (BUILDING PAPER)

MATERIALS KEY:
- A BUILDING PAPER
- B WEATHER-RESISTANT BARRIER (WRB)
- C SEALANT BEAD
- D WINDOW FRAME
- E WALL SHEATHING
- F EXTERIOR WALL CLADDING

NOTE:
1. INSTALL SPLIT SHEET OF WRB UNDER SILL FLASHING STRIP OR
2. MAINTAIN RELEASE LINER AT LOWER HALF OF SILL FLASHING STRIP UNTIL AFTER WRB INSTALLATION
WINDOW FLASHING - METHOD SAF (BUILDING PAPER)

W.SAF-1.1

W.SAF-1.2

W.SAF-1.3

MATERIALS KEY:
A - BUILDING PAPER - WEATHER-RESISTANT BARRIER (WRB)
B - SEALANT BEAD
C - WINDOW FRAME
D - WALL SHEATHING
E - EXTERIOR WALL CLADDING

POLYKEN®
OPTIONAL

POLYKEN®

POLYKEN®
OPTIONAL

NOTE:
1. INSTALL SPLIT SHEET OF WRB UNDER SILL FLASHING STRIP
OR
2. MAINTAIN RELEASE LINER AT LOWER HALF OF SILL FLASHING STRIP UNTIL AFTER WRB INSTALLATION
NOTE 1: 
DOOR CAN BE INS WING, 
OUT SWING OR SLIDER.
NOTE 2: 
THRESHOLD PROFILE 
WIDTH & HEIGHT VARIES 
WITH MANUFACTURER.
NOTE 3: 
APPLIED 
ATTACHMENT FLANGE 
NOT CONSIDERED 
TO BE WEATHER TIGHT.

MATERIALS KEY:
A BUILDING PAPER - 
WEATHER-RESISTANT 
BARRIER (WRB)
B SEALANT BEAD
C DOOR FRAME
D WALL SHEATHING
E EXTERIOR WALL 
CLADDING
F SUPPLEMENTAL 
HEAD FLASHING
G THRESHOLD 
(SILL PAN) FLASHING

DOOR FLASHING - METHOD A (BUILDING PAPER)

D.A.1 HEAD

D.A.2 JAMB

D.A.3 THRESHOLD (SILL)
**DOOR FLASHING - METHOD A1 (HOUSEWRAP)**

**NOTE 1**
DOOR CAN BE INSWING, OUT SWING OR SLIDER.

**NOTE 2**
THRESHOLD PROFILE WIDTH & HEIGHT VARIES WITH MANUFACTURER.

**NOTE 3**
APPLIED ATTACHMENT FLANGE NOT CONSIDERED TO BE WEATHER TIGHT

**MATERIALS KEY:**
- **A** HOUSE WRAP WEATHER-RESISTANT BARRIER (WRB)
- **B** SEALANT BEAD
- **C** DOOR FRAME
- **D** WALL SHEATHING
- **E** EXTERIOR WALL CLADDING
- **F** SUPPLEMENTAL HEAD FLASHING
- **G** THRESHOLD (SILL PAN) FLASHING

**D.A1.1 HEAD**

**D.A1.2 JAMB**

**D.A1.3 THRESHOLD (SILL)**
NOTE 1
DOOR CAN BE INSWING, OUT SWING OR SLIDER

NOTE 2
THRESHOLD PROFILE, WIDTH & HEIGHT VARIES WITH MANUFACTURER

NOTE 3
APPLIED ATTACHMENT FLANGE
NOT CONSIDERED TO BE WEATHER TIGHT

MATERIALS KEY:
A BUILDING PAPER - WEATHER-RESISTANT BARRIER (WRB)
B SEALANT BEAD
C DOOR FRAME
D WALL SHEATHING
E EXTERIOR WALL CLADDING
F SUPPLEMENTAL HEAD FLASHING
G THRESHOLD (SILL PAN) FLASHING

DOOR FLASHING - METHOD SAF (BUILDING PAPER)

D.SAF-1.1 HEAD

D.SAF-1.2 JAMB

D.SAF-1.3 THRESHOLD (SILL)
NOTE 1: DOOR CAN BE IN SWING, OUT SWING OR SLIDER.

NOTE 2: THRESHOLD PROFILE WIDTH & HEIGHT VARIES WITH MANUFACTURER.

NOTE 3: APPLIED ATTACHMENT FLANGE NOT CONSIDERED TO BE WEATHER TIGHT.

D.SAF-2.1

D.SAF-2.1 HEAD

MATERIALS KEY:
A  HOUSEWRAP - WEATHER-RESISTANT BARRIER (WRB)
B  SEALANT BEAD
C  DOOR FRAME
D  WALL SHEATHING
E  EXTERIOR WALL CLADDING
F  SUPPLEMENTAL HEAD FLASHING
G  THRESHOLD (SILL PAN) FLASHING

POLYKEN®

OPTIONAL

POLYKEN®

POLYKEN®

APPLICATION FLANGE NOTE 3.

DOOR NOTE 1.

D.SAF-2.2 JAMB

D.SAF-2.3 THRESHOLD (SILL)
TYPE 1 FLUSH MOUNT & TYPE 3 INTEGRAL CURB SKYLIGHT FLASHING
METHOD SP-1/3

MATERIALS KEY:

A  ROOF UNDERLAYMENT (TYPICALLY ASPHALT SATURATED ROOF FELT)
B  ROOF COVERING, E.G. COMPOSITION SHINGLES
C  SKYLIGHT FRAME
D  ROOF SHEATHING
E  ROOF SEALANT OR MASTIC BEAD
TYPE 2 DECK MOUNT & TYPE 4 INSET MOUNT SKYLIGHT FLASHING
METHOD SP-2/4

MATERIALS KEY:

A  ROOF UNDERLAYMENT (TYPICALLY ASPHALT SATURATED ROOF FELT)
B  ROOF COVERING, E.G. COMPOSITION SHINGLES
C  SKYLIGHT FRAME
D  ROOF SHEATHING
E  ROOF MASTIC BEAD
F  SHEET METAL FLASHING
G  SEALANT OR SEALANT/FOAM TAPE
Window Flashing Application – Method A

The following diagrams illustrate window flashing installation procedures according to Method A from ASTM E2112-07 Standard Practice for Installation of Exterior Windows, Doors and Skylights using Polyken® and Nashua® Flashing Tapes. Method A is jamb flashing applied over the window frame using typical building paper. Figure 1 is an exploded view showing the flashing sequence.

Figure 1 Flashing sequence steps. Window – Method A

Step 1. Prepare opening and surrounding substrate. Keep substrate surface clean, dry, and smooth around the perimeter (see Figure 2).

Figure 2 Prepare rough opening.
Step 2. Precut length of Polyken® or Nashua® sill flashing tape to extend a minimum of 6” beyond the rough opening at both jambs. (See Options below.)

Score the backside of Polyken® or Nashua® sill flashing, cutting lightly through release liner a few inches from top edge to act as a substrate adhering edge. Keep bottom portion of release liner on the Polyken® or Nashua® sill flashing until removed later. Apply Polyken® or Nashua® sill flashing tape across the rough opening of the sill (see Figure 3).

Options:

1. Apply split sheet of weather-resistant barrier (WRB) across sill. Then apply Polyken® or Nashua® sill flashing tape over the WRB.

2. Straight flashing tape can be omitted with the use of flexible Nashua® Contour 697-40 flashing tape (see other details available in Section 7.0 of this Manual).

Step 3. Apply sealant around perimeter opening or to backside of window fin at top, sides, and bottom (see Figure 4).

Step 4. Install window in opening (see Figure 5).
Step 5. Precut Polyken® or Nashua® jamb flashing tape to extend a minimum of 6” above and below the rough opening. Peel off release liner and adhere Polyken® or Nashua® jamb flashing over the jamb fins and over top of Polyken® or Nashua® sill flashing (see Figure 6).

Step 6. Precut Polyken® or Nashua® head flashing tape to extend a minimum of 6” beyond the jambs of the rough opening. Peel off release liner and adhere Polyken® or Nashua® head flashing over window fin and substrate. Install supplemental head flashing (where occurs) with a strip of Polyken® or Nashua® flashing over the top leg (see Figure 7).

**Figure 6** Apply jamb flashing.

**Figure 7** Apply head flashing.
Step 7. Install weather-resistant barrier (WRB) shingle fashion from bottom of wall to top. Insert WRB under Polyken® or Nashua® sill flashing.

Peel off remaining release liner from Polyken® or Nashua® sill flashing and adhere to WRB. Seal edges of WRB to Polyken® or Nashua® flashing along the window jamb and head (see Figure 8).

Notice: The final determination of the sealing of joints between cladding, trim, and frame is not the responsibility of Covalence Adhesives.

Step 8. Install trim and/or exterior wall cladding around perimeter of window. Seal perimeter joints per the recommendations of the cladding and window manufacturers (see Figure 9).
Window Flashing Application – Method A1

The following diagrams illustrate window flashing installation procedures according to Method A1 from ASTM E 2112-07 Standard Practice for Installation of Exterior Windows, Doors and Skylights using Polyken® or Nashua® Flashing Tapes. Method A1 is jamb flashing applied over the window frame with house wrap applied under the window frame. Figure 1 is an exploded view showing the flashing sequence.

**Figure 1** Flashing sequence steps. Window – Method A1.

Step 1. Prepare opening and surrounding substrate. Keep substrate surface clean, dry, and smooth around perimeter (see Figure 2).

**Figure 2** Prepare rough opening.
Step 2. Apply the continuous weather-resistant barrier (WRB – e.g., house wrap) across opening. Cut WRB at opening in modified T-pattern. Fold WRB into opening at sides and bottom (see Figure 3).

Step 3. Cut diagonal slits from top of opening corners through WRB a distance equal to just more than the width of jamb/head flashing tape used. Fold flap of WRB above opening head and temporarily tape in place (see Figure 4).

Figure 3  Install WRB and cut at opening.

Figure 4  Cut head flap of WRB and fold up.
Step 4. Precut length of sill flashing to extend beyond rough opening on each side and beyond width of jamb flashings. Adhere Polyken® or Nashua® membrane over WRB across sill (see Figure 5).

Step 5. Apply seal around perimeter opening or to backside of window fin (see Figure 6).

Figure 5  Apply sill flashing.

Figure 6  Apply perimeter sealant.
Step 6. Install window in opening (see Figure 7).

Step 7. Precut Polyken® or Nashua® jamb flashing tape to extend a minimum of 6” above and below the rough opening. Peel off release liner and adhere Polyken® or Nashua® jamb flashing over the jamb fins and over top of Polyken® or Nashua® sill flashing (see Figure 8).

Step 8. Precut Polyken® or Nashua® head flashing tape to extend a minimum of 6” beyond the jambs of the rough opening. Peel off release liner and adhere Polyken® or Nashua® head flashing over window fin and substrate. Install supplemental head flashing (where occurs) with a strip of Polyken® or Nashua® flashing over the top leg (see Figure 9).
Step 9. Fold down flap of WRB at head over Polyken® or Nashua® head flashing tape. Seal bottom of WRB flap along full length of window head. Install WRB sheathing tape or Polyken® or Nashua® flashing tape over diagonal cuts (see Figure 10).

Figure 10 Unfold head flap, seal, and tape in place.

Figure 11 Install cladding.

Notice: The final determination of the sealing of joints between cladding, trim, and frame is not the responsibility of Berry Plastics.

Step 10. Install trim and/or exterior wall cladding around perimeter of window. Seal perimeter joints per the recommendations of the cladding and window manufacturers (see Figure 11).
Window Flashing Application – Method SAF

The following diagrams illustrate window flashing installation procedures that modify the methods described in ASTM E2112-07 Standard Practice for Installation of Exterior Windows, Doors and Skylights. This method combines features of ASTM Method A and Method B flashing under and over the fin of the frame. A strip of Polyken® or Nashua® Flashing Tape is substituted for the bead of perimeter sealant applied under the window fins in the ASTM methods. Figure 1 is an exploded view showing the flashing sequence. The method name, “SAF”, stands for Self Adhering Flashing.

Figures 1 and 2

Step 1. Prepare opening and surrounding substrate. Keep substrate surface clean, dry, and smooth around the perimeter (see Figure 2).
Step 2. Precut length of Polyken® or Nashua® sill flashing tape to extend a minimum of 6” beyond the rough opening at both jambs.

Score the backside of Polyken® or Nashua® sill flashing, cutting lightly through release liner a few inches from top edge to act as a substrate adhering edge. Keep bottom portion of release liner on the Polyken® sill flashing until removed later. Apply Polyken® or Nashua® sill flashing tape across the rough opening of the sill (see Figure 3).

Step 3. Precut Polyken® or Nashua® jamb flashing tape to extend a minimum of 6” above and below the rough opening. Peel off release liner and adhere Polyken® or Nashua® jamb flashing over the jamb fins and over top of Polyken® or Nashua® sill flashing (see Figure 4).

Step 4. Precut Polyken® or Nashua® head flashing tape to extend a minimum of 6” beyond the jambs of the rough opening. Peel off release liner and adhere Polyken® or Nashua® head flashing over head opening and jamb flashings (see Figure 5).

Step 5. Install window into flashed opening (see Figure 6).
Step 6. Precut Polyken® or Nashua® jamb flashing tape to extend a minimum of 6” above and below the rough opening (see Figure 7).

**Figure 7** Apply jamb flashing over frame.

Step 7. Precut Polyken® or Nashua® head flashing tape to extend a minimum of 6” beyond the jambs of the rough opening. Peel off release liner and adhere Polyken® or Nashua® membrane over window fin (and optional preformed head flashing) (see Figure 8).

**Figure 8** Apply head flashing.

Step 8. Install weather-resistant barrier (WRB) shingle fashion from bottom of wall to top. Integrate sill flashing by inserting WRB under sill flashing. Peel off remaining release liner from Polyken® or Nashua® sill flashing and adhere to WRB. Seal edges of WRB to window jamb and head (see Figure 9).

**Figure 9** Install WRB and seal around perimeter.

Notice: The final determination of the sealing of joints between cladding, trim, and frame is not the responsibility of Berry Plastics.
Step 9. Install trim and/or exterior wall cladding around perimeter of window. Seal perimeter joints per the recommendations of the cladding and window manufacturers (see Figure 10).

**Figure 10** Install cladding.
Door Flashing Application – Method A

The following diagrams illustrate door flashing installation procedures according to Method A from ASTM E2112-07 Standard Practice for Installation of Exterior Windows, Doors and Skylights using Polyken® or Nashua® Flashing Tapes. Method A is jamb flashing applied over the door frame using typical building paper. Figure 1 is an exploded view showing the flashing sequence.

![Diagram of door flashing sequence]

**Figure 1** Flashing sequence steps. Door – Method A.

Step 1. Prepare opening and surrounding substrate. Keep substrate surface clean, dry, and smooth around perimeter (see Figure 2).

![Prepare rough opening]

**Figure 2** Prepare rough opening.
Step 2. Precut length of Polyken® or Nashua® sill flashing tape to extend a minimum of 6" beyond the rough opening at both jambs. (See Options below.)

Score backside of Polyken® or Nashua® sill flashing cutting lightly through release liner a few inches from top edge to act as a substrate adhering edge. Keep bottom portion of release liner on Polyken® or Nashua® sill flashing until removed later. Apply Polyken® or Nashua® sill flashing tape across rough opening sill (Figure 3).

Step 2a. Apply Polyken® or Nashua® sill flashing tape into the threshold opening. Apply Polyken® or Nashua® circle boots at corners of sill-jamb junctures (see Figure 3).

Options:
1. Apply split sheet of weather-resistant barrier (WRB) across sill. Then apply Polyken® sill flashing tape over WRB.
2. Straight flashing tape can be omitted with the use of Nashua® Contour 697-40 flashing tape (see other details available in Section 7.0 of this Manual).

Step 3. Install preformed threshold (sill) pan over Polyken® or Nashua® sill flashing. Do not fasten pan through horizontal portion of pan (see Figure 4).

Step 4. Apply seal around perimeter opening or to backside of door fin at top sides. Do not seal along bottom (see Figure 5).
Step 5. Install door into flashed opening (see Figure 6).

![Figure 6](image)

**Figure 6** Install door into rough opening.

Step 6. Precut Polyken® or Nashua® jamb flashing tape to extend a minimum of 6” above and below the rough opening. Peel off release liner and adhere membrane over the jamb fins and over top of Polyken® or Nashua® sill flashing tape (see Figure 7). Turn onto frame and refer to General Application Guide, Condition 3.

Step 7. Precut Polyken® or Nashua® head flashing tape to extend a minimum of 6” beyond the jambs of the rough opening. Peel off release liner and adhere membrane over door fin (and over optional preformed head flashing). See Figure 8.

Precut Polyken® or Nashua® head flashing tape to extend beyond the jambs of the rough opening a minimum of 9 in. Peel off release liner and adhere membrane over door fin (and over optional preformed head flashing). See Figure 8. Turn onto frame and refer to General Application Guide, Condition 3.

![Figure 7](image)

**Figure 7** Apply jamb flashing.

![Figure 8](image)

**Figure 8** Apply head flashing.
Step 8. Install weather-resistant barrier (WRB) shingle fashion from bottom of wall to top. Insert WRB under Polyken® or Nashua® sill flashing. Peel off remaining release liner from Polyken® or Nashua® sill flashing and adhere to WRB. Seal edges of WRB to Polyken® or Nashua® flashing along the window jamb and head (see Figure 9).

Notice: The final determination of the sealing of joints between cladding, trim, and frame is not the responsibility of Covalence Adhesives.

Step 9. Install trim and/or exterior wall cladding around perimeter of window. Seal perimeter joints per the recommendations of the cladding and window manufacturers (see Figure 10).

Figure 9  Install WRB and seal around perimeter.

Figure 10  Install cladding/trim.
Door Flashing Application – Method SAF

The following diagrams illustrate door flashing installation procedures that modify the methods described in ASTM E2112-07 Standard Practice for Installation of Exterior Windows, Doors and Skylights. This method uses combines features of ASTM Method A and Method B flashing under and over the fin of the frame. A strip of Polyken® or Nashua® Flashing Tape is substituted for the bead of perimeter sealant applied under the door fins in the ASTM methods. Figure 1 is an exploded view showing the flashing sequence. The method name, “SAF”, stands for Self Adhering Flashing.

Figure 1 Flashing sequence steps. Door – Method SAF.

Step 1. Prepare opening and surrounding substrate. Keep substrate surface clean, dry, and smooth around the perimeter (see Figure 2).

Figure 2 Prepare rough opening.
Step 2. Precut length of Polyken® or Nashua® sill flashing tape to extend a minimum of 6” beyond the rough opening at both jambs.

Score backside of Polyken® or Nashua® sill flashing cutting lightly through release liner a few inches from top edge to act as a substrate adhering edge. Keep bottom portion of release liner on Polyken® or Nashua® sill flashing until removed later. Apply Polyken® or Nashua® sill flashing tape across rough opening sill and into threshold opening(see Figure 3).

Step 2a. Apply Polyken® or Nashua® circle boots at corners of sill-jamb junctures (see Figure 3).

Step 3. Install preformed threshold (sill) pan over Polyken® or Nashua® sill flashing. Do not fasten pan through horizontal portion of pan. (See Figure 4).

Figure 3 Apply sill flashing.
Step 4. Precut Polyken® or Nashua® jamb flashing tape to extend a minimum of 6" above and below the rough opening. Peel off release liner and adhere Polyken® or Nashua® jamb flashing over the jamb fins and over top of Polyken® or Nashua® sill flashing (see Figure 5).

Step 5. Precut Polyken® or Nashua® head flashing tape to extend a minimum of 6" beyond the jambs of the rough opening. Peel off release liner and adhere Polyken® or Nashua® head flashing over head opening and jamb flashings (see Figure 6).

Figure 5 Apply jamb flashing.

Figure 6 Apply head flashing.
Step 6. Install door in opening (see Figure 7).

Step 7.Precut Polyken® or Nashua® jamb flashing tape to extend 4" minimum above head and 4" minimum below sill (unless deck or slab interferes). Peel off release liner and adhere membrane over jamb finds and into frame. Refer to General Application Guide, Condition 3.

Step 8. Precut Polyken® head flashing tape to extend a minimum of 6" beyond the jambs of the rough opening. Peel off release liner and adhere Polyken® membrane over door fin and optional preformed head flashing (see Figure 9).

Step 9. Install weather-resistant barrier (WRB) shingle fashion from bottom of wall to top. Integrate sill flashing by inserting WRB under sill flashing. Peel off remaining release liner from Polyken® sill flashing and adhere to WRB. Seal edges of WRB to door jamb and head (see Figure 10).
Step 10. Install trim and/or exterior wall cladding around perimeter of door. Seal perimeter joints per the recommendations of the cladding and door manufacturers (see Figure 11).

**Figure 10** Install WRB and seal around perimeter.

**Figure 11** install cladding/trim.

Notice: The final determination of the sealing of joints between cladding, trim, and frame is not the responsibility of Berry Plastics.
Type 1 Flush Mount and Type 3 Integral Curb Skylight Flashing – Method SP–1/3

The following diagrams illustrate skylight flashing installation procedures that modify the method described in ASTM E2112-07 Standard Practice for Installation of Exterior Windows, Doors and Skylights. A strip of Polyken® or Nashua® Flashing Tape is substituted for the roof mastic shown in the ASTM method. This sequence is for skylights that have an integral curb with a flange in the roof plane. The method presumes the roofing is asphalt shingles; the sequence is easily modified to accommodate other steep roofing systems. Figure 1 is an exploded view showing the flashing sequence.

Step 1. Prepare skylight rough opening. Clear a margin of solid, smooth substrate around the opening perimeter (see Figure 2).

Step 2. Install a skirt of roof underlayment along the sill of the skylight opening. The remaining underlayment will be integrated with this skirt in Step 4 (see Figure 3).
Step 3. Apply strips of Polyken® or Nashua® flashing around the opening starting with the sill, then the sides, and the head. Extend Polyken® or Nashua® flashing a minimum of 6” beyond the opening on all sides. Hand roller strips and laps flat to substrate at sides and to underlayment skirt at sill (see Figure 4).

![Figure 4](image)

**Figure 4** Install perimeter Polyken® flashing.

Notice: The following installation details and sequence of skylights, underlayments, and roof coverings is not the responsibility of Berry Plastics. Consult specific product manufacturers.

Step 4. Install the roof underlayment in shingle fashion with the course below the skylight. Continue to lay out the underlayment around the sides and head (see Figure 5).

![Figure 5](image)

**Figure 5** Install underlayment around curb.

Step 5. Install a portion of roof covering below the skylight sill curb. Coordinate position of roofing with final layout (see Figure 6).

![Figure 6](image)

**Figure 6** Install portion of roof covering.

Step 6. Seal edge of roofing at sides and head to underlayment. Keep edge of roofing ½” minimum from main body of skylight frame.

Install skylight over perimeter Polyken® or Nashua® flashing strips. (Bed in bead of sealant optional). Fasten sides and top per skylight manufacturer. Do not fasten at bottom (see Figure 7).

![Figure 7](image)

**Figure 7** Install skylight.
Step 7. Apply Polyken® or Nashua® flashing strips along both sides of skylight over flange extending a minimum of 6” above top of opening. Using a hand roller, roll strips flat to flange and underlying Polyken® or Nashua® flashing strip at opening perimeter. Apply Polyken® or Nashua® flashing strip across top (head) of skylight frame covering flange and lapping onto underlying Polyken® or Nashua® flashing strips. Roll head flashing flat (see Figure 8).

Step 8. Complete installation of roof underlayment in shingle fashion. Tuck underlayment under skirt at sill. Continue to lay out the underlayment around the sides and head. Install underlayment over Polyken® or Nashua® flashing strips at jambs and head. Cut underlayment edges back ½” to 1” back from edge of the main skylight frame. Seal the edges of the underlayment to the Polyken® or Nashua® flashing strips (see Figure 9).

Keep the underlayment at the sides from extending below the sill edge of the skylight frame.

Step 9. Complete roof covering installation. Seal edge of roofing at sides (jamb) and head (top) to underlayment with roof mastic. Keep edge of roofing ½” minimum from main body of skylight frame.
Type 2 Curb Mount and Type 4 Inset Mount Skylight Flashing – Method SP – 2/4

The following diagrams illustrate skylight flashing procedures that modify the method described in ASTM E2112-07 Standard Practice for Installation of Exterior Windows, Doors and Skylights. A strip of Polyken® or Nashua® Flashing Tape is substituted for the roof mastic shown in the ASTM method. This sequence is for skylights that mount on a separate, site built or prefabricated curbs. The method presumes the roofing is asphalt shingles; the sequence is easily modified to accommodate other steep roofing systems. Figure 1 is an exploded view showing the flashing sequence.

![Figure 1](image)

**Figure 1** Flashing sequence steps. Skylight – Method SP-2/4.

Step 1. Prepare skylight rough opening. Clear a margin of solid, smooth substrate around the opening perimeter (see Figure 2).

![Figure 2](image)

**Figure 2** Prepare rough opening.
Step 2. Construct the perimeter curb around the skylight rough opening. Comply with skylight manufacturer’s recommendations and building code requirements (see Figure 3).

![Figure 3 Install perimeter curb.](image)

**Figure 3** Install perimeter curb.

Step 3. Install a skirt of roof underlayment along the bottom of the skylight opening. The remaining roof underlayment will be integrated with this skirt in Step 8. (see Figure 4). Apply a strip of Polyken® or Nashua® flashing along the bottom (sill) of the skylight curb, lapping up the vertical leg of curb and across the skirt of roof underlayment. Extend the ends of sill flashing tape beyond the curb 6” minimum. Roll the strip flat. Caution: Do not tear Polyken® or Nashua® in angle (see Application Guide – General).

![Figure 4 Install underlayment skirt and Polyken® sill flashing.](image)

**Figure 4** Install underlayment skirt and Polyken® sill flashing.

Step 4. Apply Polyken® or Nashua® circle boots at lower curb corners (see Figure 5).

![Figure 5 Apply Polyken® circle boot.](image)

**Figure 5** Apply Polyken® circle boot.
Step 5. Apply Polyken® or Nashua® flashing strips along both sides of the skylight opening curb. Lap Polyken® or Nashua® up the vertical leg of curb and across the roof substrate. Lap the bottom ends of side flashing a minimum of 6” over the ends of the sill flashing tape. Extend the top ends a minimum of 6” beyond the top of the curb. Carefully roll the strips and laps flat. Do not tear the vertical-to-horizontal juncture (see Figure 6).

Step 5a. Apply circle boots of Polyken® (approximately 3 in. in diameter) at the upper corners of the skylight curb (see Figure 6). (Follow instructions in the Application Guide – General.)

Step 6. Apply Polyken® or Nashua® flashing strip across top of skylight curb, lapping up the vertical leg of curb and across the roof substrate. Lap the vertical ends over the ends of the side flashing tapes (see Figure 7).

Keep the underlayment at the sides from extending below the sill edge of the skylight frame.
Step 7. Complete installation of roof underlayment in shingle fashion. Tuck underlayment under skirt at sill. Continue to lay out the underlayment around the sides and head. Fold the underlayment up the curb at the sides and head (see Figure 8).

Notice: The following installation details and sequence of skylights, underlayments, and roof coverings is not the responsibility of Berry Plastics. Consult specific product manufacturers.

Step 8. Install a portion of roof covering below the skylight bottom (sill) curb. Coordinate position of roofing with final layout (see Figure 9).

Step 9. Install sheet metal sill apron flashing at bottom of skylight curb. Insert top ends of sheet metal flashing under roof underlayment. Cut and modify roof underlayment as required to lap over top edges of sheet metal flashing (see Figure 10).

Figure 8 Install underlayment around curb.

Figure 9 Install roof covering.

Figure 10 Complete roof covering.
Step 10. Install metal step shingle flashing and interweave with roof covering along sides of skylight curb.

Install sheet metal head flashing (saddle flashing or cricket type flashing) across top of skylight curb. (Note: Generally, skylight widths greater than 24 inches should have a cricket type flashing on the upslope side.) Cut roof underlayment along top of flashing edge and insert top of saddle underneath roof underlayment to lap a minimum of 6 inches. Seal bottom edge of roof underlayment to flange of head flashing (see Figure 11).

Step 11. Complete roof covering along top of skylight. Do not install roof covering too close to curb of skylight to allow proper drainage and to avoid a pocket for debris build-up. Follow skylight and roof covering manufacturers’ recommendations (see Figure 12).

Figure 11 Install saddle flashing at top of curb.

Figure 12 Complete roof covering.
Step 12. Install a bead of sealant around top of roof curb or use a foam adhesive tape for future skylight removal (see Figure 13). Another option is to apply a strip of Polyken® or Nashua® flashing tape as counterflashing for the skylight curb flashing.

Figure 13  Seal along top of curb.

Step 13. Install skylight. Fasten per skylight manufacturer’s recommendations (see Figure 14).
Nashua® “Contour™” Flashing Tapes

Contour™ Flashing Tape is a self-adhering flashing tape with a flexible and stretchable facing developed to conform to irregular substrate configurations, such as arches and recessed sills. It can stretch to cover multiple bends at outside and inside corners of recessed openings. It is able to form to arched openings in one piece. Contour™ is able to conform to intersecting wall angles to produce a one-piece sill pan flashing including recessed openings. The butyl adhesive of Contour flashing tape provides excellent adhesion to substrates.

Contour™ Flashing Tapes can be substituted for the other Polyken® and Nashua® Flashing tapes on a one-for-one basis in the details shown by this guide.

The following details illustrate some examples of Contour™ Flashing Tape for arched windows recessed openings and sill pan flashing.

<table>
<thead>
<tr>
<th>Detail #</th>
<th>Opening Type</th>
<th>WRB Type</th>
<th>Head Opening</th>
<th>Frame Type</th>
<th>Sill Pan Included</th>
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</thead>
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<td>Flush</td>
<td>Recess</td>
<td>Building Paper</td>
<td>House Wrap</td>
<td>Straight</td>
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<td>X</td>
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</tr>
</tbody>
</table>

Note: The window sill and opening recess details above can be adapted for door openings.
2½" MIN. ALLOWANCE FOR NAIL FIN + FLASHING AT PERIMETER RECESS

RECESS = 3" MIN., 12" MAX.

ADD CONTINUOUS SLOPED SUBSTRATE TO SUPPORT FLASHING AT SILL RECESS

PROJECT:
RECESSED OPENING, HOUSEWRAP NAIL-FIN, STRAIGHT HEAD

TITLE:
CONTOUR WINDOW FLASHING, METHOD A1
UNWRAP & EXTEND CONTOUR FLASHING ACROSS SILL OPENING. EXTEND ENDS UP JAMBS

FOLD OUTSIDE EDGES OF CONTOUR FLASHING TO WALL FACE

WHERE DEPTH OF RECESS REQUIRES—UNWRAP & EXTEND 2ND STRIP OF CONTOUR FLASHING ACROSS INWARD SILL OPENING. EXTEND UP JAMBS

CUT OFF EXCESS MATERIAL @ INTERIOR

FOLD OUTSIDE EDGES OF CONTOUR FLASHING TO LAP OVER EDGE OF OUTWARD SILL FLASHING. FOLD UP REAR LEG SUPPORT. CUT EXCESS MATERIAL AS REQUIRED ON INTERIOR SIDE

FOLDED INSIDE CORNER

APPLY PATCHES OF FLASHING FOR DRAINAGE SHIMS AT LOCATIONS FOR SILL FIN FASTENERS OR 12" O.C. MAX.

Project: RECESSED OPENING, HOUSEWRAP NAIL–FIN, STRAIGHT HEAD
Title: CONTOUR WINDOW FLASHING, METHOD A1

RSH.2
APPLY PERIMETER SEALANT TO BACK OF WINDOW FIN. @ HEAD & JAMBS (OR APPLY TO OPENING UNDER FIN). DO NOT SEAL ACROSS SILL.

INSTALL WINDOW PER MANF. INTO RECESS OPENING. DO NOT CUT CONTOUR FLASHING WHEN INSERTING FRAME CORNERS.

CUT HOUSEWRAP AT HEAD & FOLD UP FLAP TEMPORARILY TAPE IN PLACE. NOTE: THIS STEP CAN BE BEFORE STEP 1A

DO NOT FASTEN WITHIN 3" OF ALL CORNERS, TYP.

LAP TOP UNDER HEAD RECESS

APPLY 2 STRIPS OF JAMB FLASHING TAPE. LAP SIDE EDGE OVER WINDOW JAMB FIN

LAP TOP UNDER HEAD RECESS

VIEW LOOKING UP

RECESSED OPENING, HOUSEWRAP NAIL-FIN, STRAIGHT HEAD

CONTOUR WINDOW FLASHING, METHOD A1
APPLY STRIP HEAD FLASHING TAPE ACROSS HEAD & INTO RECESS TO LAP OVER HEAD FIN

NOTE:
USE MULTIPLE STRIPS AS REQ'D FOR RECESS DEPTH. LAP SEAMS 3" MIN.

VIEW LOOKING UP

LAP BOTTOM EDGE OVER WINDOW HEAD FIN

METAL DRIP FLASHING ACROSS HEAD OF RECESS OPENING COORDINATE TYPE WITH SPECIFIC WALL CLADDING

STRIP FLASHING TAPE ACROSS HEAD FLASHING

RECESSED OPENING, HOUSEWRAP NAIL-FIN, STRAIGHT HEAD

CONTOUR WINDOW FLASHING, METHOD A1
FLASHING SEQUENCE 1 - 7, BUILDING PAPER 8

2½" MIN. ALLOWANCE FOR NAIL FIN + FLASHING AT PERIMETER FRAMING RECESS

RECESS 3" MIN., 12" MAX.

ADD CONTINUOUS SLOPED SUBSTRATE TO SUPPORT FLASHING AT SILL RECESS

SHEATHED FRAME WALL

REAR LEG PAN SUPPORT

LEAVE RELEASE LINER ON BOTTOM ½ UNTIL STEP 8A

APPLY SKIRT OF BUILDING PAPER ACROSS SILL, STAPLE IN PLACE ALONG TOP EDGE

RSB.1

RECESSED OPENING, BUILDING PAPER NAIL-FIN, STRAIGHT HEAD

CONTOUR WINDOW FLASHING, METHOD A
UNWRAP & EXTEND CONTOUR FLASHING ACROSS SILL OPENING. EXTEND ENDS UP JAMBS

FOLD OUTSIDE EDGES OF CONTOUR FLASHING TO WALL FACE

WHERE DEPTH OF RECESS REQUIRES—UNWRAP & EXTEND 2ND STRIP OF CONTOUR FLASHING ACROSS INWARD SILL OPENING. EXTEND UP JAMBS

CUT OFF EXCESS MATERIAL @ INTERIOR

FOLD OUTSIDE EDGES OF CONTOUR FLASHING TO LAP OVER EDGE OF OUTWARD SILL FLASHING. FOLD UP REAR LEG SUPPORT. CUT EXCESS MATERIAL AS REQUIRED ON INTERIOR SIDE

FOLDED INSIDE CORNER

4" MIN.

3

APPLY PATCHES OF FLASHING FOR DRAINAGE SHIMS AT LOCATIONS FOR SILL FIN FASTENERS OR 12" O.C. MAX.

Project: RECESSED OPENING, BUILDING PAPER NAIL-FIN, STRAIGHT HEAD

Title: CONTOUR WINDOW FLASHING, METHOD A

Drawing No: RSB.2
APPLY PERIMETER SEALANT TO BACK OF WINDOW FIN. @ HEAD & JAMBS (OR APPLY TO OPENING UNDER FIN)

INSTALL WINDOW PER MANF. INTO RECESS OPENING. DO NOT CUT CONTOUR FLASHING W/ FRAME CORNERS

DO NOT FASTEN WITHIN 3" OF ALL CORNERS, TYP.

LAP TOP UNDER HEAD RECESS

APPLY 2 STRIPS OF JAMB FLASHING TAPE. LAP SIDE EDGE OVER WINDOW JAMB FIN

9", TYP.

LAP TOP UNDER HEAD RECESS

VIEW LOOKING UP

Project: RECESSED OPENING, BUILDING PAPER NAIL-FIN, STRAIGHT HEAD

Title: CONTOUR WINDOW FLASHING, METHOD A

Drawing No: RSB.3
APPLY STRIP HEAD FLASHING TAPE ACROSS HEAD & INTO RECESS TO LAP OVER HEAD FIN

3" MIN. 3" MIN. 6" MIN. 6" MIN.

NOTE:
USE MULTIPLE STRIPS AS REQ'D FOR RECESS DEPTH. LAP SEAMS 3" MIN.

VIEW LOOKING UP

LAP BOTTOM EDGE OVER WINDOW HEAD FIN

STRIP FLASHING TAPE ACROSS HEAD FLASHING

METAL DRIP FLASHING ACROSS HEAD OF RECESS OPENING COORDINATE TYPE WITH SPECIFIC WALL CLADDING

7A

7B

Project: RECESSED OPENING, BUILDING PAPER NAIL-FIN, STRAIGHT HEAD
Title: CONTOUR WINDOW FLASHING, METHOD A

Berry Plastics Corporation
Tapes and Coatings Division
SLIT EDGE AS REQUIRED TO FIT AT END OF HEAD FLASHING

TUCK BUILDING PAPER UNDER SILL FLASHING TAPE. PEEL OFF RELEASE LINER & ADHERE TO PAPER.
**Flashing Sequence:** 1 - 8

**2 1/2" Min. Allowance for Nail Fin + Flashing at Perimeter Framing Recess**

**Recess:** 3" Min., 12" Max.

**A**
Add Continuous Sloped Substrate to Support Sill Flashing at Sill Recess

**B**
Install House Wrap

**C**
Cut Modified "1" Pattern at Opening

**D**
Cut Modified "1" Pattern at Opening

**E**
Cut Away WRB at Arch

**F**
Vertical Cuts at Sides Above Arch

---

**Berry Plastics Corporation**

**Project:**
RECESSED OPENING, HOUSEWRAP
NAIL-FIN, ARCHED HEAD

**Contour:** ARCH WINDOW, METHOD A1

---

**Drawing No:** RAH.1
1A APPLY 9" COUNTOUR SILL FLASHING TAPE

1B FOLD OUTSIDE EDGES OF CONTOUR FLASHING TO WALL FACE

2A WHERE DEPTH OF RECESS REQUIRES: UNWRAP & EXTEND CONTOUR FLASHING ACROSS INWARD SILL OPENING. EXTEND UP JAMBS

2B FOLD OUTSIDE EDGES CONTOUR FLASHING TO LAP OVER EDGE OF OUTWARD SILL FLASHING

3 APPLY PATCHES OF FLASHING FOR SILL PAN DRAINAGE. ALIGN WHERE SILL FIN FASTENERS WILL OCCUR.

RECESSED OPENING, HOUSEWRAP NAIL-FIN, ARCHED HEAD

CONTOUR: ARCH WINDOW, METHOD A1
4B INSTALL WINDOW. FASTEN PER MANUF.

4A APPLY SEALANT TO BACK OF FIN OR OPENING. DO NOT APPLY SEALANT ACROSS SILL.

DO NOT FASTEN WITHIN 3” OF ALL CORNERS, TYP.

NOTE 2:
APPLICATION GUIDE, CONDITION #3 FOR MULLED FRAME

5 INSTALL 12”± JAMB FLASHING TAPE. LAP OVER JAMB FINS.

6 STRETCH CONTOUR FLASHING TAPE TO FORM ARCH & LAP HEAD FIN

CONTOUR CUT LENGTH, Y=X+12”

Project: RECESSD OPENING, HOUSEWRAP NAIL-FIN, ARCHED HEAD

Title: CONTOUR: ARCH WINDOW, METHOD A1

Drawing No: RAH.3
6.1 Contour flashing can conform to arch.

SUPPLEMENTAL HEAD FLASHING AT OPENING RECESS AS REQUIRED FOR EXTERIOR WALL CLADDING TYPE.

7

8A Fold down WRB flap at head.

8B Apply 4" flashing tape over seams of folded down flap.

3" min.

RECESSED OPENING, HOUSEWRAP NAIL-FIN, ARCHED HEAD

CONTOUR: ARCH WINDOW, METHOD A1
FLASING SEQUENCE 1 - 7, BUILDING PAPER 8

2½" MIN. ALLOWANCE FOR NAIL FIN + FLASHING AT PERIMETER FRAMING RECESS

RECESS = 3" MIN., 12" MAX.

ADD CONTINUOUS SLOPED SUBSTRATE TO SUPPORT SILL FLASHING AT SILL RECESS

A

SHEATHED FRAME WALL

REAR LEG PAN SUPPORT

B

APPLY SKIRT OF BUILDING PAPER ACROSS SILL. STAPLE IN PLACE ALONG TOP EDGE

RAB.1

RECESSED OPENING, HOUSEWRAP NAIL-FIN, ARCHED HEAD

CONTOUR: ARCH WINDOW, METHOD A
1B
APPLY 9" COUNTOUR SILL FLASHING TAPE

1C
FOLD OUTSIDE EDGES OF COUNTOUR FLASHING TO WALL FACE

2A
WHERE DEPTH OF RECESS REQUIRES: UNWRAP & EXTEND COUNTOUR FLASHING ACROSS INWARD SILL OPENING. EXTEND UP JAMBS

2B
FOLD OUTSIDE EDGES CONTOUR FLASHING TO LAP OVER EDGE OF OUTWARD SILLFLASHING

3
APPLY PATCHES OF FLASHING FOR SILL PAN DRAINAGE. ALIGN WHERE SILL FIN FASTENERS WILL OCCUR.

RECESSED OPENING, HOUSEWRAP NAIL-FIN, ARCHED HEAD

CONTOUR: ARCH WINDOW, METHOD A
4B
INSTALL WINDOW.
FASTEN PER MANUF.

4A
APPLY SEALANT TO BACK OF FIN OR OPENING.

DO NOT APPLY SEALANT ACROSS SILL.

NOTE 2:
APPLICATION GUIDE, CONDITION #3 FOR MULLED FRAME

DO NOT FASTEN WITHIN 3" OF ALL CORNERS, TYP.

5
STRETCH CONTOUR FLASHING TAPE TO FORM ARCH & LAP HEAD FIN

INSTALL 12"± JAMB FLASHING TAPE. LAP OVER JAMB FINS.

6
CONTOUR CUT LENGTH, Y = X + 12"

RECESSED OPENING, HOUSEWRAP NAIL-FIN, ARCHED HEAD

CONTOUR: ARCH WINDOW, METHOD A
6.1 Contour flashing can conform to arch.

Supplemental head flashing at opening recess as required for exterior wall cladding type.

Stretch contour flashing tape to form arch & lap head flashing leg.

Contour cut length: \( y = x + 12 \)"

Cut away building paper at head arch.

Tuck building paper under sill flashing tape. Peel off release liner & adhere to paper.

Project: Recessed opening, housewrap nail-finish, arched head

Title: Contour: Arch window, Method A

Drawing No: RAB.4
FLAShING SEQUENCE 1 - 5

PREPARED WINDOW OPENING AT SHEATHED FRAME WALL

INSTALL HOUSE WRAP

Project: FLUSH OPENING, HOUSEWRAP
Title: NAIL-FIN, ARCHED HEAD

CONTOUR: ARCH WINDOW FLASHING, METHOD A1
CUT HOUSE WRAP AT OPENING WITH MODIFIED "I" CUT

D
CUT AWAY HOUSE WRAP AT HEAD ARCH

E
EXTEND HORIZONTAL CUT AND VERTICAL CUT EACH SIDE
ARCH SPRING LINE

F
FOLD UP HOUSE WRAP & TEMPORARILY TAPE IN PLACE

1
APPLY 9" SILL FLASHING TAPE

Project:
FLUSH OPENING, HOUSEWRAP
NAIL-FIN, ARCHED HEAD

Title:
CONTOUR: ARCH WINDOW FLASHING, METHOD A1

Drawing No.
FAH.2
**2A**
INSTALL WINDOW
FASTEN PER MANUF.

**2B**
APPLY SEALANT TO BACK OF FIN OR TO OPENING IN LINE W/ FIN

**NOTE 1:**
NO SILL PAN SHOWN WITH THIS APPLICATION. THEREFORE CONTINUE SEALANT ACROSS SILL

**NOTE 2:**
SEE APPLICATION GUIDE, CONDITION #3 FOR MULLED FRAME

**DO NOT FASTEN WITHIN 3" OF ALL CORNERS, TYP.**

**INSTALL 6" JAMB FLASHING TAPE. LAP OVER JAMB FINNS**

**STRETCH CONTOUR FLASHING TAPE TO FORM ARCH & LAP HEAD FIN**

**CONTOUR CUT LENGTH, Y=X+12"**

---

**Berry Plastics Corporation**

**Project:**
FLUSH OPENING, HOUSEWRAP NAIL-FIN, ARCHED HEAD

**Title:**
CONTOUR: ARCH WINDOW FLASHING, METHOD A1

**Drawing No:**
FAH.3
4.1 Contour flashing can conform to arch.

5A
Fold down house wrap at arch.

5B
Apply 4" flashing tape over vertical seams each side.
FLASHING SEQUENCE 1 - 4, BUILDING PAPER 5

PREPARED WINDOW OPENING AT SHEATHED FRAME WALL

APPLY 9" SILL FLASHING TAPE. KEEP RELEASE LINER ON UNTIL STEP 5A

Project: FLUSH OPENING, BUILDING PAPER NAIL-FIN, ARCHED HEAD
Title: CONTOUR: WINDOW FLASHING, METHOD A

Drawing No: FAB.1
2A
INSTALL WINDOW.
FASTEN PER
MANUF.

2B
APPLY SEALANT
TO BACK OF FIN
OR TO OPENING
IN LINE W/ FIN

NOTE 1:
NO SILL PAN SHOWN
WITH THIS APPLICATION.
THEREFORE CONTINUE
SEALANT ACROSS SILL

NOTE 2:
SEE APPLICATION
GUIDE, CONDITION #3
FOR MULLED FRAME

DO NOT FASTEN
WITHIN 3" OF
ALL CORNERS,
TYP.

INSTALL 6"
JAMB
FLASHING
TAPE. LAP
OVER JAMB
FINS

STRETCH
CONTOUR
FLASHING
TAPE TO
FORM ARCH
& LAP
HEAD FIN

4"
TYP.

4.1
3" MIN.
LAP

6"
CONTOUR
FLASHING
TAPE

4"
TYP.

CONTOUR CUT
LENGTH, Y=X+12"

Project:
FLUSH OPENING, BUILDING PAPER
NAIL-FIN, ARCHED HEAD

Title:
CONTOUR: WINDOW FLASHING, METHOD A

Drawing No:
FAB.2
4.1 CONTOUR FLASHING CAN CONFORM TO ARCH

STRETCHABLE

5
INSTALL BUILDING PAPER LAPPED IN SHINGLE FASHION

5A
TUCK BUILDING PAPER UNDER SILL FLASHING TAPE. PEEL OFF RELEASE LINER & ADHERE

5B

5C

5D

CUT AWAY BUILDING PAPER AT HEAD ARCH

5E

Title:
CONTOUR: WINDOW FLASHING, METHOD A
Polyken® and Nashua® Flashing Tapes

Self-adhering flashings are building industry products developed for windows, doors and skylights over the last 20 years. Their use started with membrane roofing underlayment protection and wrapping tapes for utility piping. They became recognized by builders as adaptable and versatile flashing materials for other building envelope locations.

Specification sections have recognized the traditional sheet metal flashing material in CSI\* designated Section 07620 Sheet Metal Flashing & Trim. Contemporary flashing materials which include self-adhering flashing, as well as paper-based (asphalt-saturated kraft paper) and polymeric materials (housewrap), can be incorporated into Section 07650 Flexible Flashings.

Another specification option is to designate a unique self-adhering flashing section, e.g., 07660 Self Adhering Flashings. Section 07660 is not a specific section currently identified by CSI, but is consistent with the CSI organization system (1995 Master Format).

Specifications prepared with the 2004 CSI Master Format would be designated by 07-0650 for Flexible Flashings or 07-7660 for Self-Adhering Flashings.

<table>
<thead>
<tr>
<th>Specification Title</th>
<th>CSI Section #</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1995 Master Format</td>
</tr>
<tr>
<td>Flexible Flashings</td>
<td>07650</td>
</tr>
<tr>
<td>Self-Adhering Flashing</td>
<td>07660</td>
</tr>
</tbody>
</table>

There is also the specification option of placing flashing material specifications with their associated use for different building materials and separate construction sections. Therefore, specification sections for windows, doors, roof coverings and various wall claddings could have appropriate paragraphs included which outline the type and use of self-adhering flashing.

The following guide specification is based on the 1995 Master Format Section 07650 Flexible Flashings.

Specifier’s Note: This guide specification is not intended to be used word-for-word for any particular project. Specific installation procedures and instructions must be developed for each individual project. Berry Plastics does not warrant that this guide specification can be considered applicable under all conditions.

* Construction Specifications Institute, 1995 Master Format
PART 1 – GENERAL

1.01 SUMMARY

A. Section includes: Installation of flexible, self-adhering flashing membrane consisting of, but not limited to, the sealing and flashing of above-grade building areas needing protection against water intrusion.

B. Related Work

1. Section 06100 — Rough Carpentry
2. Section 07260 — Vapor Retarders (Weather-Resistant Barriers)
3. Section 07270 — Air Barriers
4. Section 07620 — Sheet Metal Flashing and Trim
5. Section 07900 — Joint Sealers
6. Section 08050 — Basic Door and Window Materials and Methods
7. Section 08500 — Windows
8. Section 08600 — Skylights

Specifier’s Note: Edit the above sections as required to conform to specific project.

1.02 REFERENCES

A. ASTM — American Society for Testing and Materials

2. D 412-97 Test Methods for Rubber Properties in Tension
3. D 903-93 Test Methods for Peel or Stripping Strength of Adhesive Bonds
4. D 3767-96 Practice for rubber – Measurement of Dimensions
5. E 96-94 Test Methods for Water Vapor Transmission of Materials

B. AAMA – American Architectural Manufacturers Association
2. 711-05 Voluntary Specification for Self Adhering Flashing Used for Installation of Exterior Wall Penetration Products
3. AAMA/WDMA 1600/I.S.7 – Voluntary Specifications for Skylights, 2000

1. Application Guide – General

1.03 SUBMITTALS
A. Two copies of manufacturer’s literature for all products furnished.
B. Two copies of Material Safety Data Sheets (MSDS).
C. Product sample(s). One sample of each of the sizes and types of product used on project.

1.04 QUALITY ASSURANCE
A. Applicator shall be familiar with flexible, self-adhering flashing products and shall have experience in flexible, self-adhering flashing installation. Flashing shall be installed by skilled workers trained for this type of work with 3 years minimum experience.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING
A. Deliver materials to job site in sealed, unopened cartons and containers.
B. Store products with protection from direct weather exposure. Store in original sealed packaging at temperatures between 5°-32°C (40°-90°F), and under moisture-free conditions.
C. Stack preformed material to prevent twisting, bending, or abrasion, and to provide ventilation.
D. Prevent contact with materials during storage which may cause discoloration, staining, or damage.
E. Read and follow instructions from MSDS for proper handling and disposal of materials.

PART 2 – PRODUCTS

2.01 MATERIALS

A. General: Polyken® and Nashua® Flashing Tapes as manufactured by:

Berry Plastics
25 Forge Parkway
Franklin, MA 02038
Website: www.berryplastics.com and www.covcorp.com
Telephone: (800) 248-7659

Polyken® and Nashua® Flashing Tapes consist of a butyl rubber adhesive with an outer facing and LDPE (low density polyethylene) release liner. The Polyken® and Nashua® Flashing Tapes provide a flexible and self-adhering strip of flashing membrane.

B. Specific Products


2. Polyken® 627-35 Shadowlastic: 6.5 mil LDPE black facing, butyl rubber adhesive membrane, LDPE release liner.

3. Nashua® 626-20 Optiflash: 2 mil aluminum, butyl rubber adhesive

4. Nashua® 627-20 Optiflash: 6 mil LDPE black facing, butyl rubber adhesive

5. Nashua® 697-40 Contour: creped, polyolefin facing, butyl rubber adhesive, coated paper release liner

2.02 ACCESSORIES

A. Primer: Polyken #1027 Primer for use with porous substrates. Concrete, masonry, OSB and gypsum-core sheathings should be primed for better flashing adhesion.

B. Sealant: As specified in Section 07900.

1. Chemical Compatibility: Generally, sealants made with polyurethane, butyl, and silicone elastomers will have chemical compatibility to the facing and adhesive sides of Polyken® and Nashua® flashing tapes.

2. Manufacturer: Check and confirm with specific sealant manufacturers regarding adhesion of specific sealants and application to Polyken® and Nashua® flashing tapes and the particular materials selected for fenestration product and the weather-resistant barrier.
3. Adhesion: Absent specific product selection for sealants, use the following general guide for adhesion to Polyken® and Nashua® facings. Check with sealant manufacturer for specific product information.

<table>
<thead>
<tr>
<th>General Sealant Adhesion Characteristics to Flashing Tape</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of Sealant</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Butyl</td>
</tr>
<tr>
<td>Polyurethane</td>
</tr>
<tr>
<td>Silicone</td>
</tr>
</tbody>
</table>

PART 3 – EXECUTION

3.01 PREPARATION

A. Inspect and field measure site conditions and substrates prior to field fabricating work.

B. Substrates shall be clean, dry, uniform, and smooth prior to flashing application. Remove protrusions and fill voids at substrates as necessary. Ensure fasteners are flush with surface of sheathing substrates.

C. Allow wet substrates to dry thoroughly. Clean dust and debris from all substrates and surfaces receiving the flashing.

D. Prime porous substrates with Polyken® #1027 primer according to manufacturer’s recommendations. Prime concrete, masonry, oriented stand based (OSB) and gypsum core sheathing products. Polyken® #1027 is V.O.C. compliant.

E. Provide solid continuous backing or substrate filler to support all portions of flexible flashing. Fill joints or gaps in substrate 1/8” or wider.

3.02 INSTALLATION

A. General

1. Manufactured products: Comply with manufacturer's written instructions.
2. Proceed with installation in conjunction with related weather-resistive barrier and flashing in each area of building envelope construction.

3. Do not dilute primers or sealants

4. Keep containers closed except when removing materials from them.

B. Except as otherwise specifically indicated or shown on reviewed shop drawings, conform to drawing details included in manufacturer’s recommendations.

C. Form sections true to shape, accurate in size, square, and free from distortion or defects.

D. Cut flashing strip to length. Form pieces in longest practical lengths. Peel back release liner and discard with small pieces of flashing. Align the flashing strip and press by hand into place. With larger flashing pieces, remove a small part of the release liner at the end of a flashing strip (4 to 6 inches). Then set the exposed flashing against the substrate and press into place. Afterwards, the remaining release liner still attached to the flashing is pulled back between the flashing and substrate. The release liner is peeled away, exposing additional adhesive in 12 to 24 inch long sections working away from the starting point.

E. Fit flashings tight in place. Make corners uniform, surfaces flat and straight in planes, and lines accurate to profiles.

F. Fabricate corners, transitions and terminations with a minimum number of pieces.

G. Lap joints for continuous contact. All seams and splices shall be overlapped 3 inches minimum. Lap joints in direction of moisture drainage, in shingle fashion, unless specifically designated otherwise.

H. Roll all flashings with a hand roller, taking special care at laps, seams, splice areas, and T joints to remove any voids and trapped air according to manufacturer’s recommendations.

I. Do not apply flexible flashings to bridge or cover unsupported voids, gaps, or offset materials.
3.03 POST-INSTALLATION PROTECTION

A. Protect exposed flashings after installation from mechanical damage, falling debris and prolonged direct weather exposure. Generally, Polyken® and Nashua® flashings will meet the following direct sun exposure limits for ultraviolet light:

<table>
<thead>
<tr>
<th>Polyken® Flashing Tape – Direct UV Exposure Limits to Facing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyken® and Nashua® Flashing Tape</td>
</tr>
<tr>
<td>626 Foil Facing</td>
</tr>
<tr>
<td>Indefinite</td>
</tr>
</tbody>
</table>

B. Inspect for tears, rips, punctures, and other damage. Repair damage to flashings prior to covering flashings. Repair damage according to manufacturer’s recommendations.

C. Apply exterior finish coverings over flashings in the proper construction sequence as soon as practical.

END OF SECTION

Specifier’s Note: This guide specification is not intended to be used word-for-word for any particular project. Specific installation procedures and instructions must be developed for each individual project. Berry Plastics does not warrant that this guide specification can be considered applicable under all conditions.
There have been numerous inquiries regarding caulking and sealant compatibility with flashing tapes used in building fenestrations. The Covalence Research and Development team conducted testing in October 2005 to determine how various caulking chemistries interact with the butyl rubber and rubberized asphalt adhesive compounds that are commonly used in self adhering flashing products. The tests showed dramatically different results between the two adhesive types. While the rubberized asphalt deteriorated quickly, the butyl rubber adhesive remained unaffected by the sealant chemistry.

The Research and Development team tested six sealant formulations composed of polyurethane, rubber, silicone and various solvents. The sealants were applied to both the film facer and the adhesive side of the flashing tapes. The butyl rubber flashing tape tested was made with a 6 mil polyethylene film backed with a butyl rubber adhesive formulation that is coated at 14 and 29 mils respectively onto Nashua Optiflash B20 and Polyken Shadowlastic. The SBS asphalt tape was comprised of a 2 mil polypropylene film backed with 25 mils of SBS asphalt similar to many types that are on the market. The samples were put into an accelerated aging chamber at 150°F for 31 days. This method of accelerated aging can be the equivalent of 400 days of full exposure (depending on the region, elevation and season). Observations were taken each day for the duration of the test. The rubberized asphalt adhesive reacted with the sealants as indicated by the adhesive flow, within 2 to 6 days of exposure. The butyl rubber adhesive systems remained in tact exhibiting no adhesive breakdown or flow throughout the duration of the test. The caulking systems coated onto the butyl rubber adhesive remained inert. Specific information regarding the results is available upon request.

Proper selection of flashing materials is crucial to the permanence of the seal that protects the building structure from penetration of moisture, water vapor and air. Adverse reactions between flashing tape adhesives and sealants can compromise the integrity of the weatherproof seal. At a minimum, this can cause staining of building materials and air leakage. All too often, the degradation of the seal allows moisture penetration and retention that can contribute to mold and mildew development which will require corrective action.

<table>
<thead>
<tr>
<th>Flashing Tape Adhesive Compatibility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SBS Flashing sample A</strong></td>
</tr>
<tr>
<td><strong>SBS Flashing sample B</strong></td>
</tr>
<tr>
<td><strong>SBS Flashing sample C</strong></td>
</tr>
<tr>
<td><strong>SBS Flashing sample D</strong></td>
</tr>
<tr>
<td><strong>Butyl Rubber is unaffected by sealant</strong></td>
</tr>
</tbody>
</table>

*Each day of accelerated aging can be the equivalent of 13 days of full exposure (depending on the region, elevation and season) in the real world. Number of days shown in graph are shown from the real world perspective.*

For more information, please contact:

**Covalence Adhesives**  
25 Forge Parkway  
Franklin, MA 02038  
800.248.7659  
www.covalenceadhesives.com
Material Safety Data Sheets

Material safety data sheets to be provided by client.