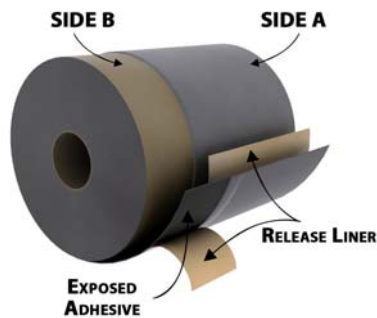


FLEXIBLE PAN FLASHING

1. DESCRIPTION

Polyguard Flexible Pan Flashing is designed as a one-piece waterproofing seal for a rough opening frame and the frame of a window, door, or fixture. The orientation of the adhesive on the polyethylene is specific to the surface it will be adhered to, thereby allowing sealing of two separate substrates with one common piece.



Each roll of **Polyguard Flexible Pan Flashing** includes eight **Polyguard Corner Flashing Kits**, which seal the rough opening frame corners.

Polyguard Flexible Pan Flashing is superior to other types of pan flashings for several reasons. It will fit openings without a seam, including formation of rear and side dams. Its flexibility results in "a perfect fit" conforming to varying angles found in rough openings. It adheres to the undersurfaces and thereby achieves a long lasting form fit seal vs. a loose unsealed fit that could trap moisture.

2. LIMITATIONS

None when used for the design purpose.

3. MATERIALS AND COMPOSITION

Polyguard Flexible Pan Flashing is composed of a cross-laminated polyethylene sheet bonded to a proprietary adhesive waterproofing that is covered with a protective release sheet.

4. PHYSICAL PROPERTIES

Thickness	40 mils
Water Vapor Transmission (ASTM-E-96 B US Perms)	< .035
Water Vapor Transmission Permeance (ASTM E-96 Method B)	.014
Puncture Resistance – Film (ASTM-D-781) Kg/CM	110
Puncture Resistance of Composite Membrane (ASTM E-154) LBS	40 Min.
Tensile Strength of Composite Membrane (ASTM-D-412 Modified Die C)	750 PSI Min.
Peel Adhesion (ASTM D 100)	
Plywood	> 9.0
OSB	> 12.0
Concrete Block	> 16.0
DensGlas	> 5.0
Metal	> 26.0
Elongation-Ultimate Failure of Rubberized Asphalt (ASTM D 412 Modified)	> 400%

5. CHEMICAL RESISTANCE

Not reactive to common building materials.

6. TECHNICAL DATA

Polyguard Products, Inc. provides design data and installation instructions to architects, engineers, specifiers, and contractors.

7. INSTALLATION

Storage: Protect the material from heat, crushing, moisture, mud, and construction dirt. Keep the product in the box until it will be used.

Preparation: Prepare the surfaces where the **Polyguard Flexible Pan Flashing** components will be attached so that, they are smooth relative to the construction surface, clean and dry.

Product Attachment: Test for adhesion. If the membrane can be separated from the rough opening substrates without deforming the flashing, apply a liquid adhesive to the surfaces that will receive Side A at a rate of 250-300 sq. ft. per gallon. Use solvent based **Polyguard 650LT**, (in California, **Polyguard California Sealant**) for substrates that are compatible with solvent based material and use water based **Polyguard Shur-Tac** for substrates that are not compatible with solvent based materials. Apply a tack coat of **Polyguard 343 Spray Adhesive**, or one of the other liquid adhesives listed above, to the area of the window, door, or fixture frame that will receive Side B.

After the flashing has been adhered to the substrates, promote uniform contact and adhesion to the undersurfaces by applying pressure to the surface of the flashing with a rubber roller.

Safety: Material Safety Data Sheets are available upon request by phone, e-mail, or on the web.

INSTALLATION STEPS

When there is a wall surface beneath a sill or threshold, follow the Instructions in Section A.

When a door is installed on a slab at grade, follow the Instructions in Section B.

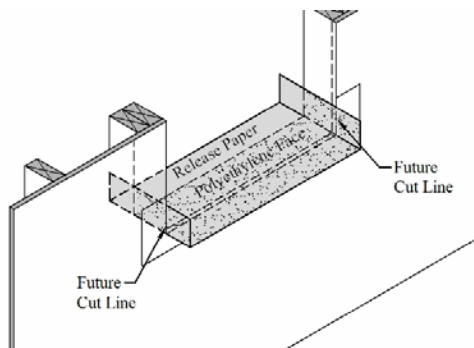
When the sill, jamb, and head frame of a window, door, or fixture frame will be sealed with a Flexible Pan Flashing and or, when flashing a buck frame opening in a concrete wall, follow the Instructions in Section C.

NOTES: These instructions are specific to a door threshold. In window and fixture applications, substitute the word window / fixture for door and substitute sill for threshold in the instructional text.

The thickness of the applied layers of flashing will effectively reduce the rough opening height and width by approximately 3/16-inch. Reflect that dimension when framing the opening.

Left and right is determined from an interior perspective looking outward through the rough opening.

Section A, when there is a wall surface beneath a sill or threshold.



Step 1 Install a **Flexible Pan Flashing** on the threshold in the following manner:

Select a roll of flashing that has a Side A dimension not less than the distance between where the

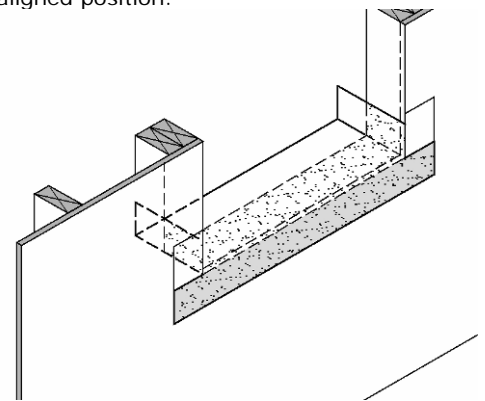
interior door frame will be located in the rough opening and the exterior face of the backing wall, and 3-inches.

Cut a piece of selected flashing to a length that will cover the threshold and 3-inches of each jamb in the rough opening.

Align the flashing on the threshold with:

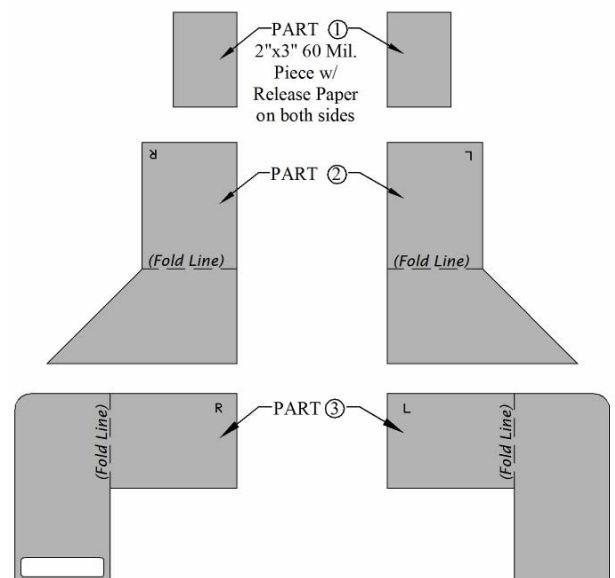
- The release paper of Side A facing down, the release paper of Side B facing up and the open edge of Side B along the inward side of the rough opening.
- The ends of the flashing covering 3-inches of each jamb and;
- The release paper closed edge on Side B aligned with where the interior edge of the doorframe threshold will be located.

Adhere Side A of the flashing to the substrates in the aligned position.



- Make a cut in the jamb sections of flashing along the backing wall edge from the top edge of the flashing to the corner.
- Shape and adhere the forward threshold section of flashing onto the face of the backing wall.

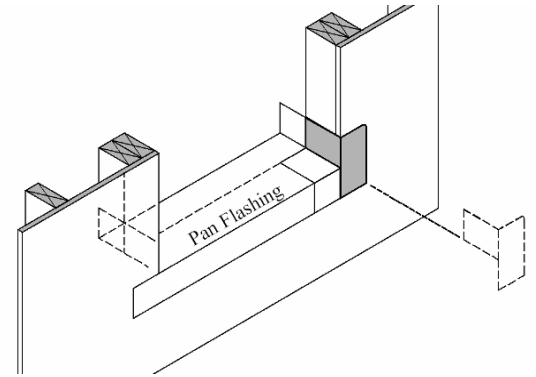
Step 2 Cover the corners with a **Polyguard Corner Flashing Kit**. Each kit consists of 6 parts, three



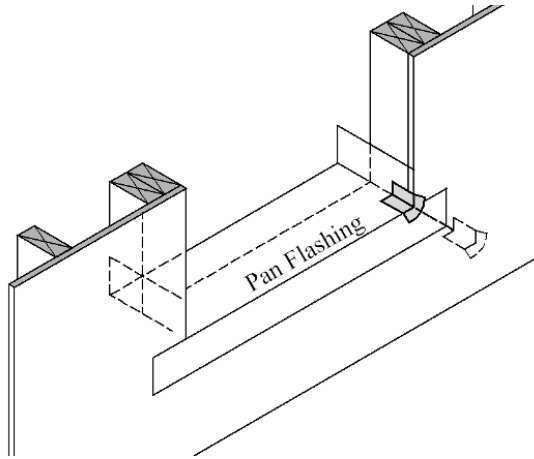
parts for the left corner and three parts for the right corner.

Part 1, is a 60mil double-sided tape (**606-Tape**). It is protected on both adhesive sides with disposable release paper. The part is furnished in either 2-inch by 3-inch pieces or in a 2-inch by 6-inch strip that is perforated for separation into 2-inch by 3-inch pieces.

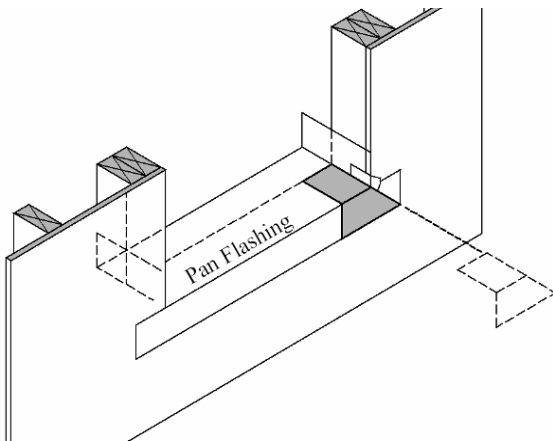
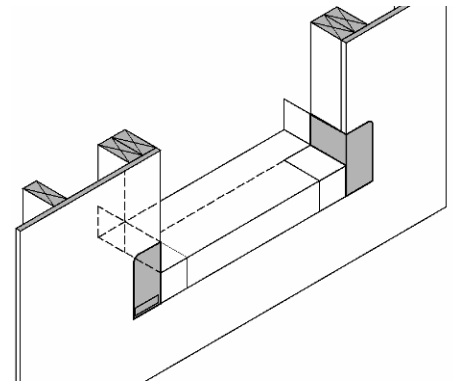
- Parts 2 & 3 are polyethylene bonded to a proprietary and adhesive waterproofing compound. They function to hold Part 1 in place and protect it during the door installation.



Shape and adhere Part 3, the non-triangulated piece, onto the jamb and backing wall as shown.



Step 2A Install Part 1, centered lengthwise at the corner and widthwise to the framing, onto a rough opening corner.



Step 2B Install Parts 2 & 3 over Part 1, in the following sequence:

Shape and adhere Part 2, the triangulated piece, onto the sill/threshold and backing wall as shown.

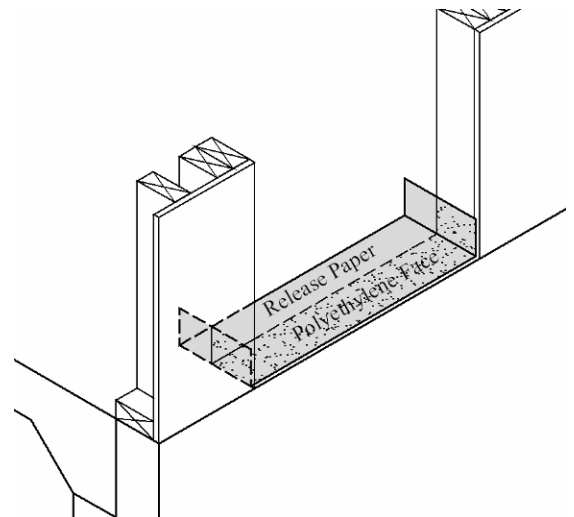
Step 2C Repeat Steps 2A and 2B for the other corner.

Step 3 Protect the installed flashings from damage until the door is installed.

Step 4 Install the door per the manufacturers' instructions.

Step 5 Proceed to the section SHAPING AND ADHERING THE INTERIOR PAN LEG.

Section B, when a door is installed on a slab at grade.



Step 1 Install a **Flexible Pan Flashing** on the slab in the following manner:

Select a roll of flashing that has a Side A dimension not less than the distance between where the interior side of the doorframe threshold will be located in the rough opening and 5/8-inch from where the front edge of the doorframe threshold will be.

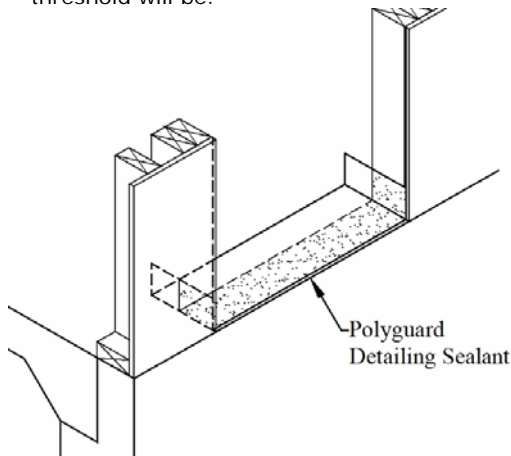
Cut a piece of selected flashing to a length that will cover the threshold and 3-inches of each jamb in the rough opening.

Align the flashing on the threshold with:

- The release paper of Side A facing down, the release paper of Side B facing up and the open edge of Side B along the inward side of the rough opening.
- The ends of the flashing covering 3-inches of each jamb and;
- The release paper closed edge on Side B aligned with where the interior edge of the doorframe threshold will be located.

Adhere and trim the flashing as follows:

- Peel away about 12-inches of release paper from the underside of an end.
- Place the flashing in the opening in the aligned position.
- Adhere the flashing to the jamb rough opening surface and then onto the threshold and opposing jamb as the release paper is removed.
- Trim the forward threshold section of flashing to 5/8-inch behind where the edge of the door threshold will be.



Step 2 Apply a 3/8-inch bead of **Polyguard Detailing Sealant** along the exterior edge of the flashing.

Step 3 Protect the installed flashing until the door is installed.

Step 4 Install the door per the manufacturers' instructions.

Step 5 Proceed to the section SHAPING AND ADHERING THE INTERIOR PAN LEG.

Section C, when the sill, jamb, and head frame of a window, door, or fixture frame will be sealed with a Flexible Pan Flashing and or when flashing a buck frame opening in a concrete wall.

NOTES: This detail is also appropriate for flashing windows, doors, and fixtures that will be covered by a cement stucco or synthetic stone finish.

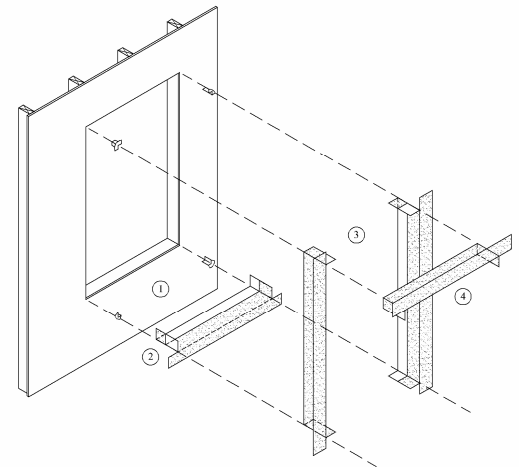


Fig. 1

Step 1 Install a 2-inch by 3-inch piece of **606 Tape**, centered lengthwise at the corner and widthwise to the framing, onto each rough opening corner.

Step 2 Install a **Flexible Pan Flashing** on the threshold in the following manner:

Select a roll of flashing that has a Side A dimension not less than the distance between where the interior side of the doorframe will be located in the rough opening and the exterior face of the backing wall, and 3-inches. In buck frame flashing applications, add an additional 3-inches minimum to the Side A dimension just described.

Cut a piece of selected flashing to a length that will cover the threshold and 3-inches of each jamb in the rough opening.

Align the flashing on the threshold with:

- The release paper of Side A facing down, the release paper of Side B facing up and the open edge of Side B along the inward side of the rough opening.
- The ends of the flashing covering 3-inches of each jamb and;
- The release paper closed edge on Side B aligned with where the interior edge of the doorframe will be located.

Adhere and fit the flashing as follows:

- Peel away about 12-inches of release paper from the underside of an end.
- Place the flashing in the opening in the aligned position.
- Adhere the flashing to the jamb rough opening surface and then onto the threshold and opposing jamb as the release paper is removed.
- Make a cut in the jamb sections of flashing along the backing wall edge from the top edge of the flashing to the corner.
- Shape and adhere the forward threshold section of flashing onto the face of the backing wall.

Step 3 Install a **Flexible Pan Flashing** on the jambs as follows:

Use the same width of material that was used on the threshold.

Cut two pieces of selected flashing to a length equal to the height of the rough opening plus 6-inches.

Mark a line along the jamb that is the same distance away from the jamb edge as the bottom of the threshold flashing is away from the threshold rough opening edge.

Align the jamb pieces on the backing wall with:

- The top end located 3-inches above the head rough opening;
- Side B facing outward and over the opening and;
- The side edge of Side A aligned along the marked line.

Adhere and fit the flashing as follows:

- Peel away about 12-inches of release paper from the top end.
- Place the flashing on the backing wall in the aligned position.
- Adhere the flashing to the backing wall as the release paper is removed.
- Make two cuts in each jamb flashing. One cut along the plane of the head framing and the other cut along the plane of the threshold framing. Start each cut at the open edge of the flashing and continue along the corresponding plane of framing to the jamb corner.
- Shape and fit the cut flashing section onto the face of the rough opening jamb frame.

Step 4 Install a **Flexible Pan Flashing** on the head as follows:

In applied exterior finishes use the same width of flashing as used on the threshold and jambs.

In masonry veneer finishes, the backing wall coverage of the flashing must tie in with 2-inches of the head **TWF**. Select a width of flashing that has a Side A dimension equal to at least the determined backing wall coverage plus the area of the head rough opening to where the interior side of the doorframe will be. It is acceptable to shingle the head coverage, providing the rough opening coverage extends onto a minimum of 3-inches of the backing wall.

Cut a piece of selected head flashing to a length equal to the distance between the outside edges of the jamb flashings

Establish where the top edge of the flashing will be on the backing wall and mark a line above and across the head opening indicating the position.

Align the flashing on the backing wall with:

- The ends aligned with the outside edges of the jamb flashing;
- Side B facing outward and over the opening and;
- The top edge of Side A aligned along the marked line.

Adhere and fit the flashing as follows:

- Peel away about 12-inches of release paper from the underside of an end.

- Place the flashing along the opening in the aligned position.
- Adhere the flashing to the backing wall as the release paper is removed.
- Make two cuts in the head flashing. Starting at each corner, cut outward from the corner along the extended plane of the head rough opening edge to the end of the flashing.
- Shape and fit the cut head section of flashing onto the underside of the head framing and sides of the jamb flashing.

Step 5 Protect the installed flashing from damage until the door is installed.

Step 6 Install the door per the manufacturers' instructions.

Step 7 Proceed to the section SHAPING AND ADHERING THE INTERIOR PAN LEG.

SHAPING AND ADHERING THE INTERIOR PAN LEG

NOTES: For clarity these instructions are specific to a windowsill. In door applications, substitute the word door for window and threshold for sill and in fixture applications, substitute the word fixture for window in the instructional text.

If spray foam is specified as part of the air and thermal protection, apply the foam and trim it flush with the interior side of the window before shaping and adhering the pan legs.

If a backer rod and sealant are specified between the window frame and rough opening, install the sealant joint before shaping and adhering the pan legs.

When folding the pan legs for a perimeter flashing of the rough opening, form the pan legs in the following order: jambs, sill, and head. Formation of a head pan leg will follow the same method as forming one at the sill. The jamb pan legs do not require formation of an end dam because their ends will be closed and sealed by the respective head and sill legs.

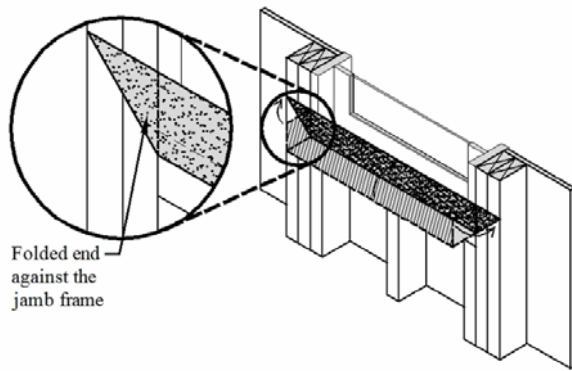
These instructions address three conditions that will affect how the pan leg is shaped.

When the release paper closed edge of Side B is aligned directly below the interior edge of the sill frame, follow the Instructions for Condition 1.

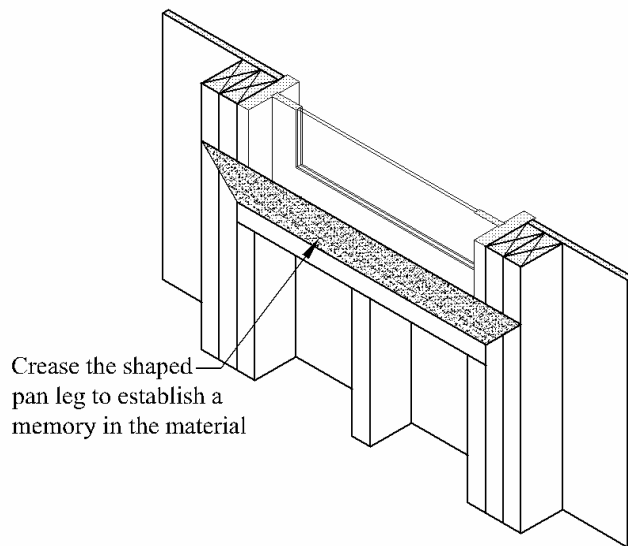
When the release paper closed edge of Side B is aligned beyond the interior side of the sill frame, follow the Instructions for Condition 2.

When the release paper closed edge of Side B is under the sill frame, follow the Instructions for Condition 3.

Instructions for Condition 1, when the release paper closed edge of Side B is aligned directly below the interior edge of the sill frame.



Step 1 Before removing the release paper on the pan leg, shape the pan leg onto the interior side of the sill and framing.



Step 2 Crease the shaped pan leg to establish a memory in the material.

Step 3 Establish where the top edge of the interior finish will be along the back of the sill. Cut the pan leg so that the top edge will be located 1/8-inch below where the top edge of the interior finish will be.

Step 4 Apply a coating of **Polyguard 343 Spray Adhesive** to the area of the sill that will receive the pan leg.

Step 5 Remove the release paper from the pan leg.

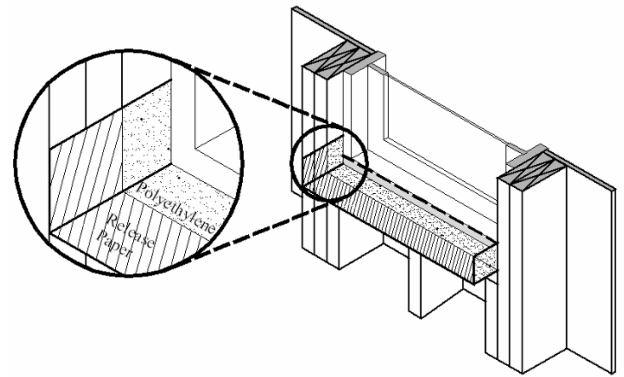
Step 6 Return the flashing to the creased position.

Step 7 Adhere the pan leg onto the back of the sill and jamb framing.

Step 8 Apply pressure to the surface of the flashing with a rubber roller.

Step 9 Cover the back of the installed pan leg with a protective board until the interior finish is installed.

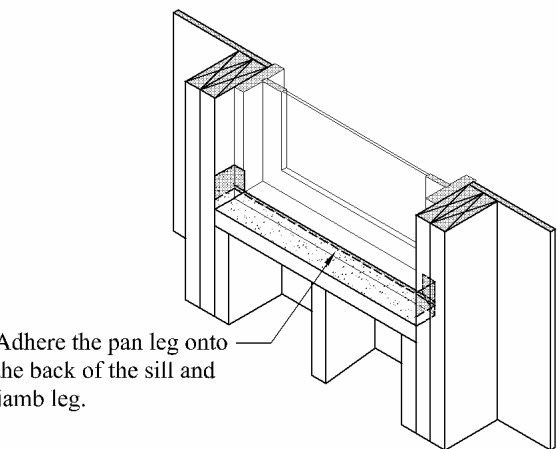
Instructions for Condition 2, when the release paper closed edge of Side B is aligned beyond the interior side of the sill frame.



Step 1 Before removing the release paper on the pan leg, shape the pan leg onto itself and then onto the interior side of the sill with each end of the pan leg shaped onto the jamb framing.

Step 2 Crease the shaped pan leg to establish a memory in the material.

Step 3 Establish where the top edge of the interior finish will be located along the back of the sill. Cut the pan leg so that the top edge will be located 1/8-inch below where the top edge of the interior finish will be.



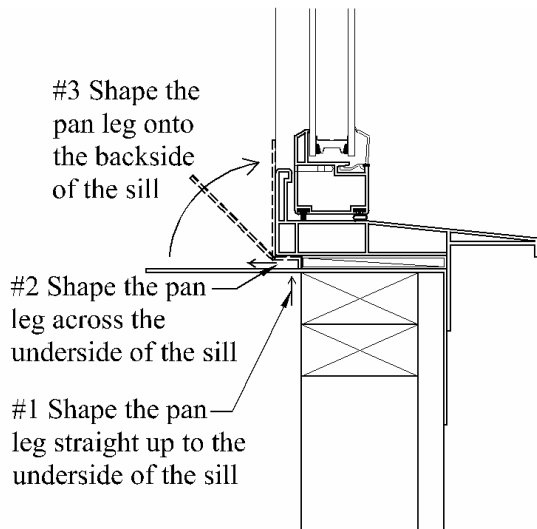
Step 4 Apply a coating of **Polyguard 343 Spray Adhesive** to the area of the sill that will receive the pan leg.

Step 5 Remove the release paper from the pan leg.

Step 6 Return the flashing to the creased position.

- Step 7 Adhere the pan leg onto the back of the sill and jamb framing.
- Step 8 Apply pressure to the surface of the flashing with a rubber roller.
- Step 9 Cover the back of the installed pan leg with a protective board until the interior finish is installed.

Instructions for Condition 3, when the release paper closed edge of Side B is under the sill frame.



- Step 1 Before removing the release paper on the pan leg: shape the pan leg straight up to the underside of the sill (#1 in the image), across the underside of the sill (#2 in the image), and onto the backside of the sill (#3 in the image).
- Step 2 Crease the shaped pan leg to establish a memory in the material.
- Step 3 Establish where the top edge of the interior finish will be located on the back of the sill. Cut the pan leg so that the top edge will be located 1/8-inch below where the top edge of the interior finish will be.
- Step 4 Apply a coating of **Polyguard 343 Spray Adhesive** to the area of the sill that will receive the pan leg.
- Step 5 Remove the release paper from the pan leg.
- Step 6 Return the flashing to the creased position.
- Step 7 Adhere the pan leg onto the underside and backside of the sill and jamb leg.
- Step 8 Apply pressure to the surface of the flashing with a rubber roller.
- Step 9 Cover the back of the installed pan leg with a protective board until the interior finish is installed.

8. AVAILABILITY AND COST

Polyguard Flexible Pan Flashing is packaged in a 50-foot roll and each roll is packaged with eight **Polyguard Corner Flashing Kits**. Additional kits are available.

FPF835 has an overall roll width of 8-inches, 3-inches dedicated for formation of a pan leg and 5-inches for coverage of the backing wall and sill or threshold rough opening frame.

FPF1037 has an overall roll width of 10-inches, 3-inches dedicated for formation of a pan leg and 7-inches for coverage of the backing wall and sill or threshold rough opening frame.

FPF1239 has an overall roll width of 12-inches, 3-inches dedicated for formation of a pan leg and 9-inches for coverage of the backing wall and sill or threshold rough opening frame.

Information about a distributor near you is available by phone or e-mail.

9. GUARANTEE

Polyguard Flexible Pan Flashing will meet published specifications at the time of delivery.

10. TECHNICAL SERVICES

Polyguard Products, Inc. offers specialist advice to aid the architect, engineer, and contractor with the construction process.

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