

## HardieWrap® Products Description

### HARDIEWRAP® WEATHER BARRIER

HardieWrap weather barrier is a non-woven, non-perforated polyolefin water-resistive barrier, as per AC38.

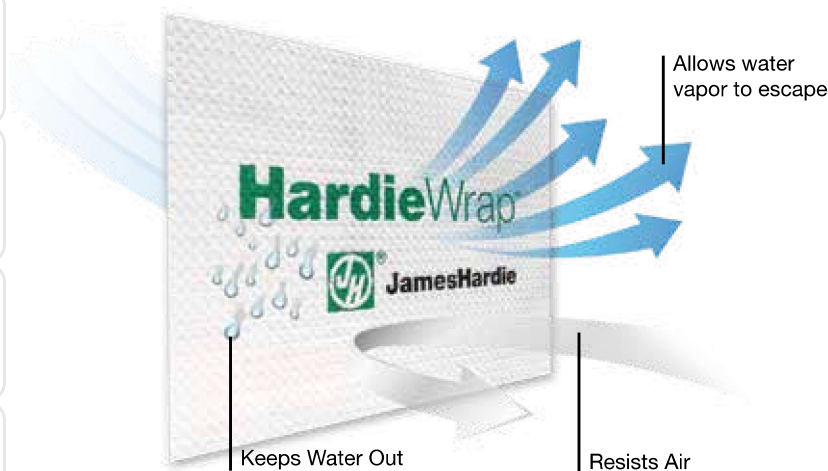
HardieWrap weather barrier provides a balance of water resistance and breathability to protect homes from the elements of weather that can get behind the exterior cladding. HardieWrap Flashing and HardieWrap Seam Tape are recommended in conjunction with HardieWrap weather barrier to complete the HardieWrap weather barrier solution.

### HARDIEWRAP® PRO-FLASHING AND FLEX FLASHING

HardieWrap® Pro-Flashing and HardieWrap® Flex Flashing are high-performance, self-adhering, self-sealing, butyl material on tear-resistant top sheets that are applied around windows and doors to manage water and air intrusion. HardieWrap® Pro-Flashing has a release liner for peel-and-stick installation and has no asphalt, VOCs or solvents.

HardieWrap® Flex Flashing is designed to easily stretch and seal around doors and windows, as well as custom shapes to protect against water intrusion, and is supplied in a convenient dispenser box.

Together with HardieWrap® weather barrier and HardieWrap® Seam Tape, HardieWrap® Pro-Flashing and HardieWrap® Flex Flashing provide the James Hardie® weather barrier solution to manage water drainage, and prevent water damage and energy loss.



HardieWrap® Weather Barrier



HardieWrap® Pro-Flashing



HardieWrap® Flex Flashing



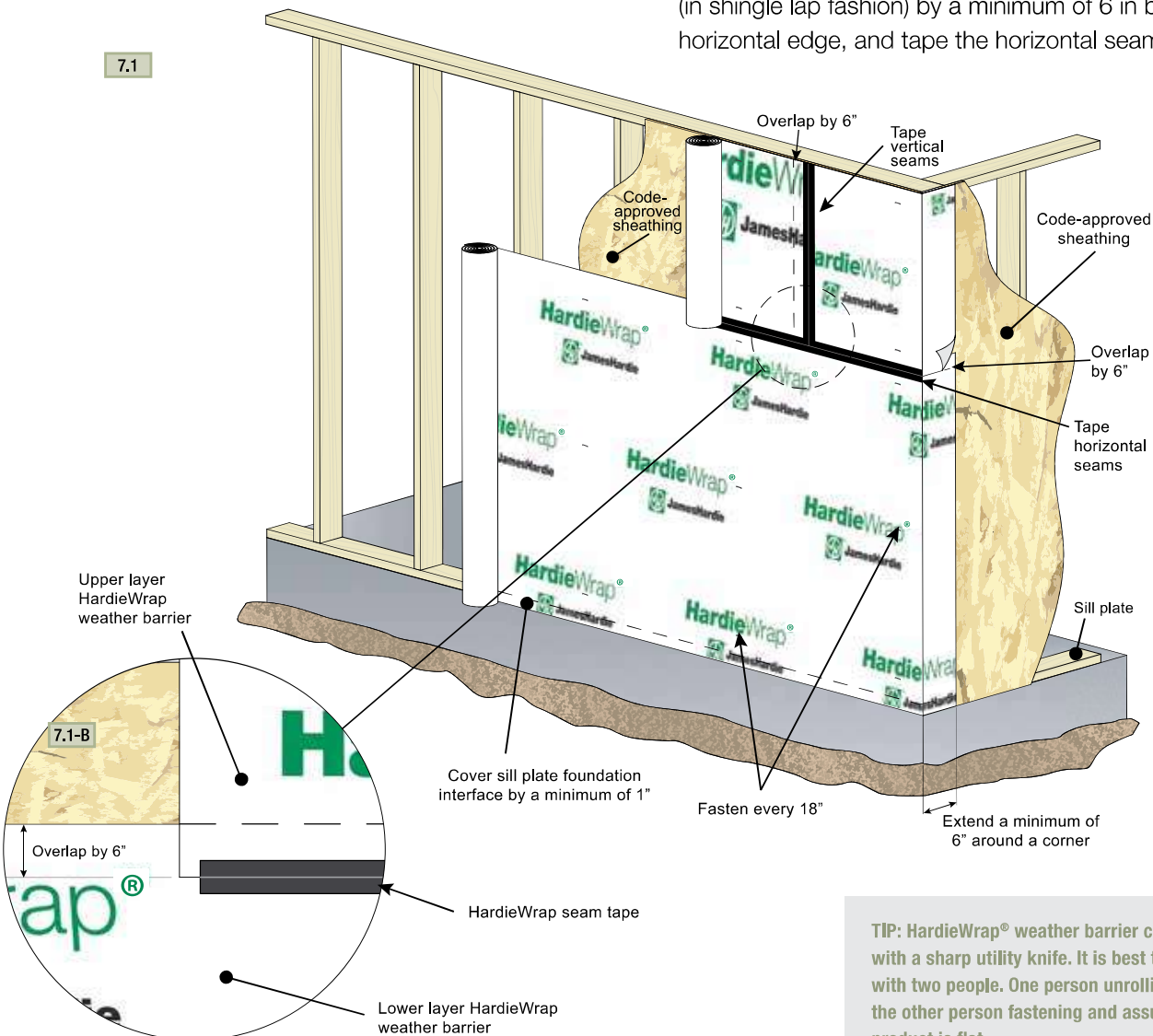
HardieWrap® Seam Tape

# Installation of HardieWrap® Weather Barrier

## INSTALLATION OF HARDIE WRAPS

HardieWrap weather barrier should be installed before window and door installation. Do not install on saturated sheathing. HardieWrap weather barrier can become slippery and should not be used in any application where it may be walked on.

1. Begin by affixing the weather barrier, at least 6 in around a building corner (fig. 1.. Unroll horizontally (with print side facing out) around the building, covering rough window and door openings.
2. Fasten to studs or nailable sheathing material with galvanized construction grade staples a maximum of 18 in. in the vertical and horizontal directions. (Tip: HardieWrap is fastened by staples or roofing nails only)
3. Attach weather barrier so that it is taut and flat. The vertical overlap must have a minimum of 6 in and the vertical seam must be taped.
4. HardieWrap Seam Tape is strongly recommended, but do not clog or interfere with the use of weep holes or similar drainage details.
5. Ensure that the bottom edge of the weather barrier extends over the sill plate and foundation interface by at least 1 in. Overlap upper layers of weather barrier (in shingle lap fashion) by a minimum of 6 in below the horizontal edge, and tape the horizontal seam line.



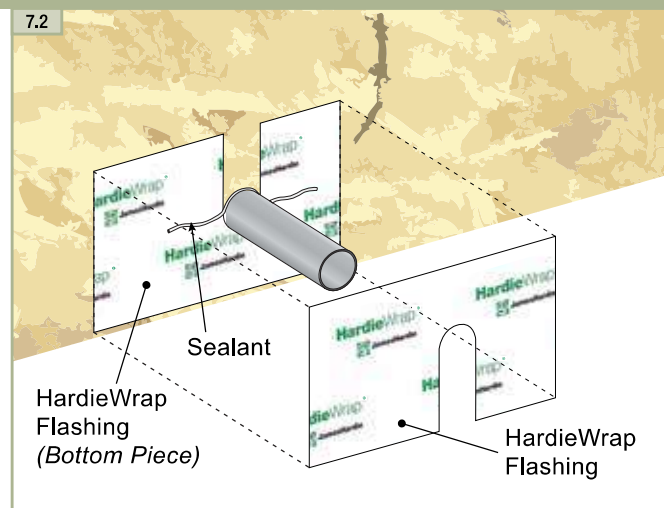
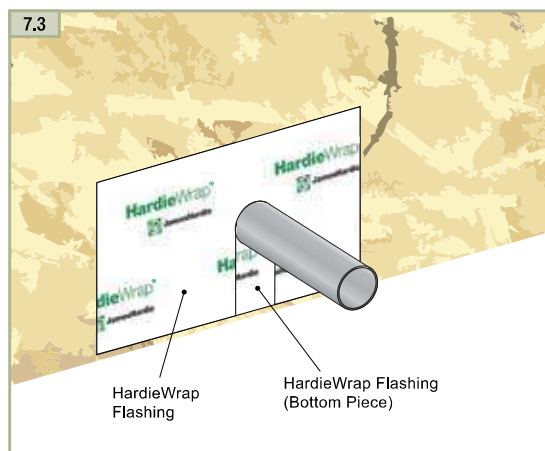
**TIP:** HardieWrap® weather barrier cuts best with a sharp utility knife. It is best to install with two people. One person unrolling, and the other person fastening and assuring product is flat.

# Installation of HardieWrap® Pro-Flashing & Flex Flashing

## HARDIEWRAP® FLASHING GUIDE FOR TYPICAL PENETRATION

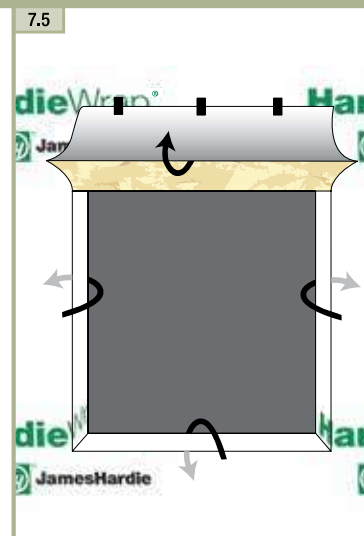
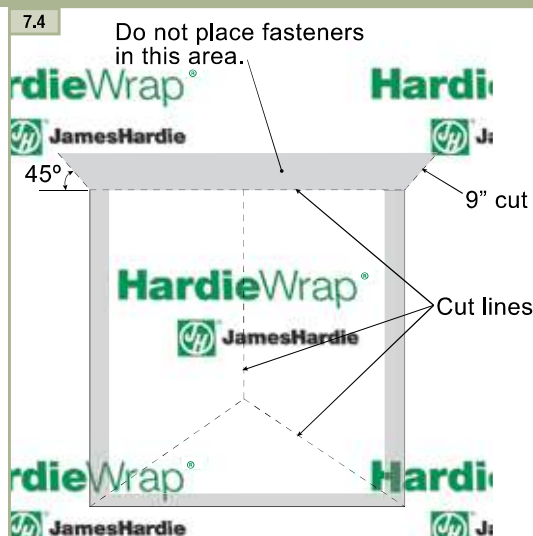
For rough electrical or plumbing penetrations, seal with flashing. Install the top piece over the bottom piece. HardieWrap® Pro-Flashing can be used for this application.

Make sure all penetrations are taped to shed water and prevent air infiltration.



## HARDIEWRAP® PRO-FLASHING GUIDE FOR WINDOWS

Use the inverted “Y” cut at rough window and door openings. Do not place fasteners within 9 in of the rough opening, door or window heads. This area should not be fastened to allow for proper flashing installation. At the top corners of the rough opening, cut the weather barrier at 45° to extend 9 in past the joint. Fold the top flap up and out of the way and fasten temporarily and fold the remaining three flaps in through the opening, fastening them inside with staples.



HardieWrap® Flex Flashing should be applied over the water-resistive barrier after it has been cut and set into and around the window rough opening. Refer to installation of HardieWrap® Pro-Flashing and Flex Flashing for flashing guidelines.

## STORAGE

For optimal performance, store in original sealed packaging at temperatures of 5° - 32°C (41° - 90°F) while at moisture-free conditions. James Hardie requires that HardieWrap® Flashing and HardieWrap® Flex Flashing be covered within 180 days of installation.

## IMPORTANT TO NOTE

This recommendation refers to the most commonly used types of windows (surface-mounted). For other types of frames, special attention should be paid to the window manufacturer's instructions.

Check your local building code for construction requirements and follow the manufacturer's recommended installation instructions; or utilize standard practices for the installation of exterior windows and doors as referenced in ASTM E2112-01 or AAMA 2400-2 (CAWM 400-95). Consult with the architect or specifier regarding the methods to be utilized.

## GENERAL REQUIREMENT

The installation guidelines herein are informational in nature only and may not be appropriate for use in all applications. It is the sole responsibility of the architect or specifier to identify moisture-related risks associated with any particular building design, and to make any appropriate adjustments or modifications to the installation guidelines herein. Wall-construction design must effectively manage moisture, considering both the interior and exterior environment of the building, particularly in buildings that have a higher risk of wind-driven rain penetration and conditioned spaces. Wall openings, penetrations, junctions, connections, window sills, headers and jambs must incorporate appropriately installed HardieWrap® Pro-Flashing and HardieWrap® Flex Flashing, or other flashing or flashing details, as recommended by the manufacturer, architect or specifier.



**HardieWrap® Pro-Flashing**



**HardieWrap® Flex Flashing**



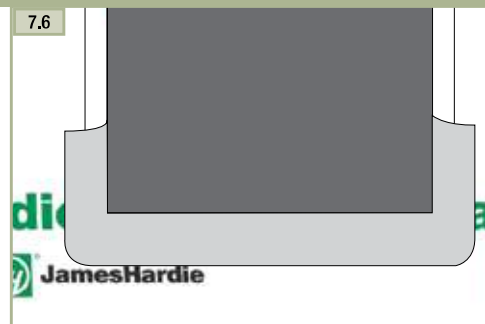
**HardieWrap® Seam Tape**



# Installation of HardieWrap® Pro-Flashing & Flex Flashing (cont.)

## HARDIEWRAP® FLEX FLASHING STRETCHABLE SILL FLASHING

Prepare sill flashing by cutting HardieWrap® Flex Flashing at least 12 in. longer than the width of the rough opening. Install sill flashing by removing the release paper, centering sill flashing on sill framing stud and adhering into rough opening. The back edge of HardieWrap® Flex Flashing should extend to the inside edge of the sill framing stud and at least 6 in up each jamb framing stud. (Note: Sill flashing should not wrap onto the inside of the wall.) **DO NOT STRETCH MATERIAL ALONG THE SILL OF JAMB.** HardieWrap® Flex Flashing should be applied over the water-resistive barrier after it has been cut and set into and around the window rough opening.



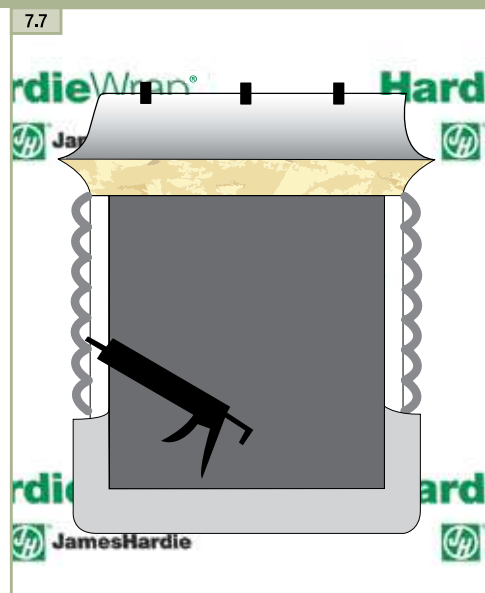
*Note: If a water-resistive barrier is to be applied after the window and flashing have already been installed, be sure not to fasten the lower edge of the flashing so that the water-resistive barrier may be slipped underneath the flashing in weather-board or shingle-lap (top layer overlapping bottom layer) fashion.*

## WINDOW INSTALLATION

Before installing the window:

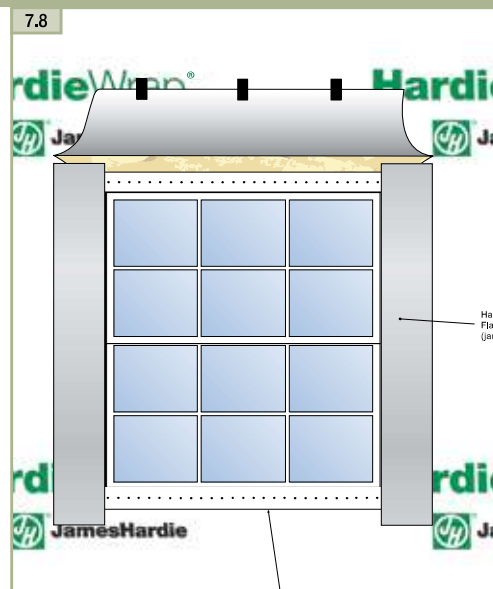
- Apply a continuous bead of sealant to the backside (interior) of the window's mounting flange on the outer edge; or
- Apply a continuous seal to the rough opening to ensure contact with the backside (interior) of the window's mounting flange (do not caulk along bottom).

Install window according to the manufacturer's installation procedures.



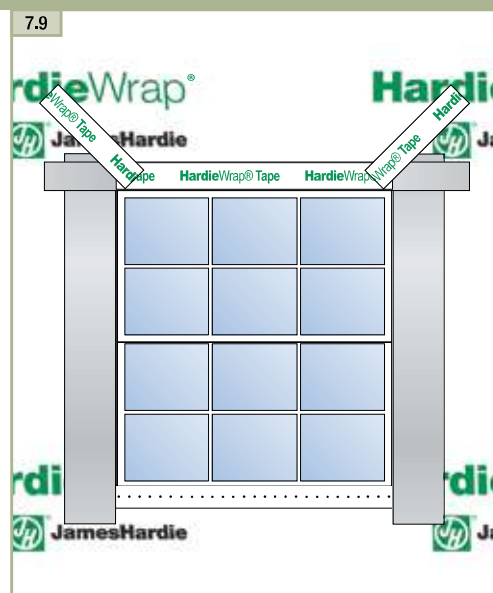
## SIDE JAMB FLASHING

Apply HardieWrap® Flashing along the vertical sides of the opening. Flash over the side window mounting flanges. Extend the flashing by a minimum of 3 in. beyond the sill flashing (HardieWrap® Flex Flashing) already in place and extend the flashing to a minimum of 3 in. beyond the top of the opening, so that it projects beyond the head flashing that is to be applied later.



## HEAD FLASHING

Affix HardieWrap® Flashing over the window's mounting flange along the header opening. Be sure to extend the flashing beyond each jamb flashing by 3 in.. Secure flashing in place by applying pressure. Detach weather barrier flap (top) and apply over head flashing as shown. Tape all seams and joints.

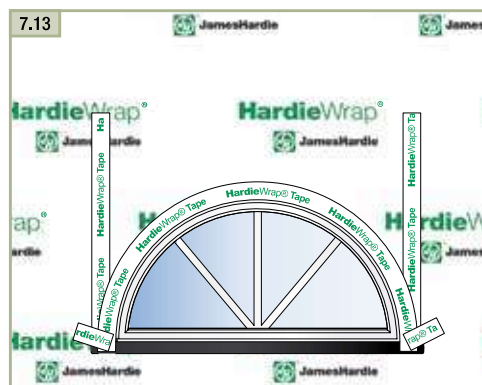


# Installation of HardieWrap® Pro-Flashing & Flex Flashing (cont.)

## CIRCULAR WINDOWS

Install circular top windows according to window manufacturer's installation guidelines, and then follow instructions as illustrated in figures 7.10–7.13 to complete the process.

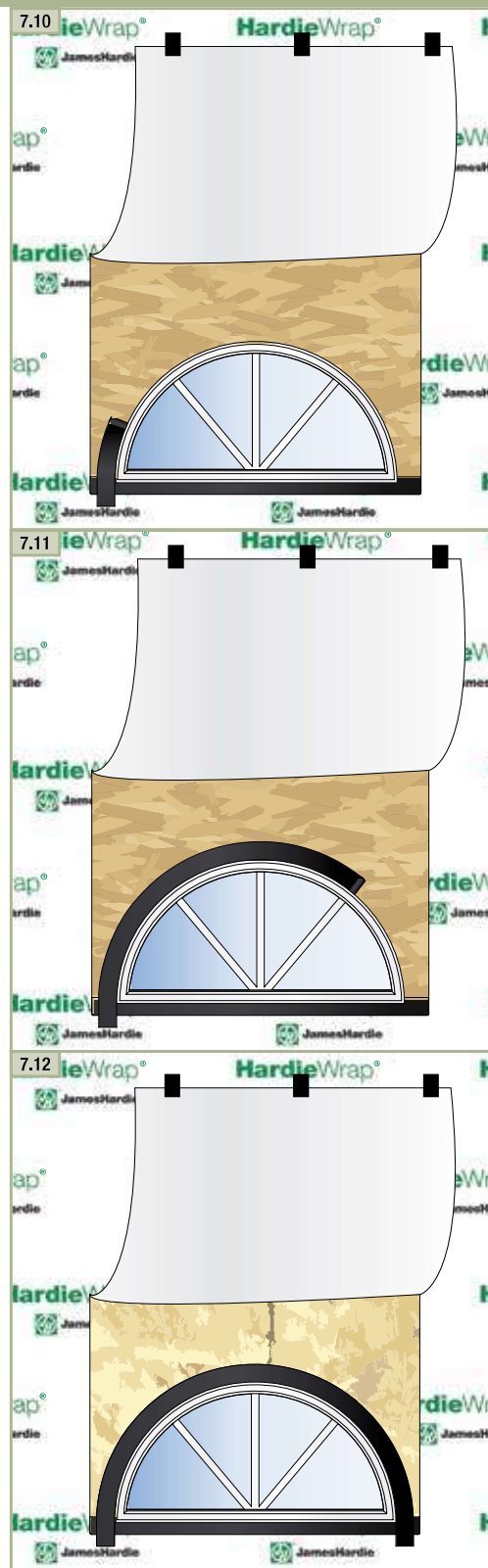
1. Measure the circular portion of the window and add 12 in. to this number. Cut HardieWrap® Flex Flashing to this length for the head flashing.
- 2) Remove approximately 20 in. of release paper and position HardieWrap® Flex Flashing tightly along the first edge of the round window. Press firmly into place (figs. 7.10 and 7.11..
- 3) Continue removing release paper and conform HardieWrap® Flex Flashing to entire circular portion of the window (fig. 7.12).
- 4) Use HardieWrap® Seam Tape or mechanical fasteners (i.e., nails, staples or screws) to temporarily hold top edge of head flashing to the wall.
- 5) HardieWrap® Flex Flashing adhesive bond will strengthen over time. Both ends of the head flashing should overlap the sill flashings by at least 6 in.

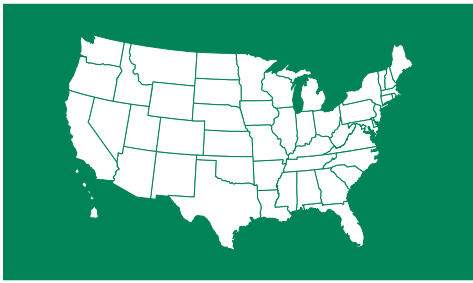


## IMPORTANT TO NOTE

These recommendations refer to the most commonly used types of windows (surface-mounted). For other types of frames, special attention should be paid to the window manufacturer's instructions.

A spray adhesive, such as Nashua 357, is recommended when HardieWrap® Flex Flashing is applied directly to Oriented Strand Board (OSB) or other surfaces where additional adhesion is needed or required.





# HardieWrap® Weather Barrier

EFFECTIVE APRIL 2018

**IMPORTANT: FAILURE TO INSTALL THIS PRODUCT IN ACCORDANCE WITH APPLICABLE BUILDING CODES AND WITH JAMES HARDIE WRITTEN APPLICATION INSTRUCTIONS MAY LEAD TO PERSONAL INJURY, AFFECT PERFORMANCE, VIOLATE LOCAL BUILDING CODES, AND VOID THE PRODUCT-ONLY WARRANTY.**

## HARDIEWRAP® WEATHER BARRIER PRODUCT DESCRIPTION

HardieWrap® weather barrier is a non-woven, non-perforated polyolefin water-resistive barrier, as per AC38, manufactured by James Hardie Building Products. HardieWrap weather barrier provides a balance of water resistance and breathability to protect homes from the elements of weather that can get behind the exterior wall cladding. HardieWrap® Pro Flashing and HardieWrap® Seam Tape are recommended in conjunction with HardieWrap weather barrier to complete the HardieWrap weather barrier solution.\*

A water-resistive barrier is required in accordance with local building code requirements. The water-resistive barrier must be installed with penetration and junction flashing, in strict accordance with local building code requirements.

## STORAGE

HardieWrap weather barrier should be stored in a covered area. Do not store in direct sunlight and do not expose to building site chemicals.

## GENERAL REQUIREMENTS - DESIGN

The installation guidelines herein are informational in nature only and may not be appropriate for use in all applications. It is the sole responsibility of the architect or specifier to identify moisture-related risks associated with any particular building design, and to make any appropriate adjustments or modifications to the installation guidelines herein. Wall- construction design must effectively manage moisture, considering both the interior and exterior environment of the building, particularly in buildings that have higher risks of wind-driven rain penetration and conditioned spaces. HardieWrap weather barrier may be installed on vertical wall applications only. James Hardie requires that HardieWrap weather barrier be covered within 180 days of installation. Wall openings, penetrations, junctions, connections, window sills, headers and jambs must incorporate appropriately installed HardieWrap Pro Flashing and HardieWrap Flex Flashing, or other flashing or flashing details, as recommended by the architect or specifier.

## INSTALLATION OF HARDIEWRAP® WEATHER BARRIER

HardieWrap weather barrier should be installed before window and door installation. It is not recommended to install HardieWrap weather barrier on saturated sheathing. HardieWrap weather barrier can become slippery and should not be used in any application where it may be walked on.

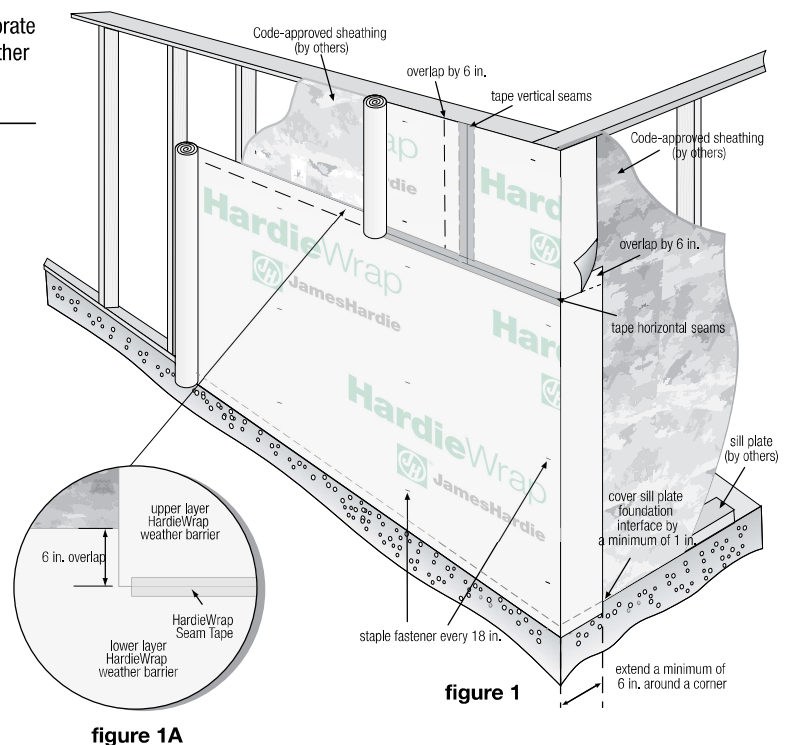
Begin by affixing weather barrier, extending at least 6 in. around a building corner (fig. 1). Unroll horizontally (with print side facing out) around the building, covering rough window and door openings. Fasten to studs or nailable sheathing material with galvanized construction-grade staples a maximum of 18 in. in the vertical and horizontal directions.

Attach weather barrier so that it is taut and flat. The vertical overlap must be a minimum of 6 in. and the vertical seam must be taped. HardieWrap Seam Tape is strongly recommended. Do not clog or interfere with the use of weep holes or similar drainage details.

Ensure that the bottom edge of the weather barrier extends over the sill plate and foundation interface by at least 1 in.

Overlap upper layers of weather barrier (in shingle lap fashion) by a minimum of 6 in. below the horizontal edge, and tape the horizontal seam line (fig. 1A).

\*The HardieWrap weather barrier solution is based on methods of installation from the AAMA and ASTM E2112. HardieWrap weather barrier helps to reduce the intrusion of moisture or air, but is not designed nor guaranteed to prevent the intrusion of all moisture or air.







## INSTALLATION OF HARDIEWRAP® WEATHER BARRIER (CONT.)

At roof-to-wall intersection (or wall-to-deck), affix wrap to the wall such that it overlaps any step flashing already on the wall by at least 2 in. (fig. 2).

### PRO FLASHING INSTALLATION

Pro Flashing is typically utilized at windows, doors, junctions and penetrations, and must be installed in conjunction with HardieWrap® weather barrier. Consult with the architect or specifier regarding the type and method of flashing to be utilized.

Check your local Building Code for construction requirements and follow the manufacturer's recommended installation instructions; or utilize standard practices for the installation of exterior windows and doors as referenced in ASTM E2112-01 or AAMA 2400-2 (CAWM 400-95). For specific flashing details and options, reference James Hardie's HardieWrap Pro Flashing Guide.

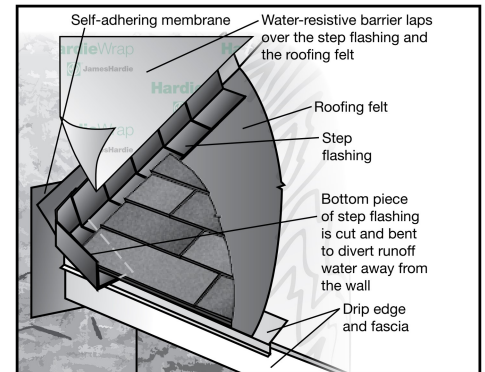


figure 2

## WINDOWS AND OTHER PENETRATIONS

### TYPICAL WINDOW INSTALLATION METHODS

HardieWrap weather barrier is not designed nor guaranteed to prevent moisture or air from intruding behind the weather barrier. Ensure that appropriate flashing has previously been installed around all windows and door openings.

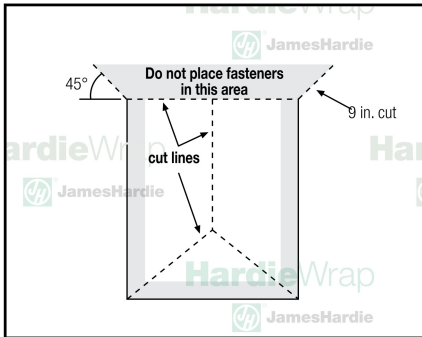


figure 3

**Step 1:** Use the inverted "Y" cut at rough window and door openings. Do not place fasteners within 9 in. of the rough opening, door or window heads. This area should not be fastened to allow for proper flashing installation. At the top corners of the rough opening, cut the weather barrier at 45° to extend 9 in. past the joint (fig. 3).

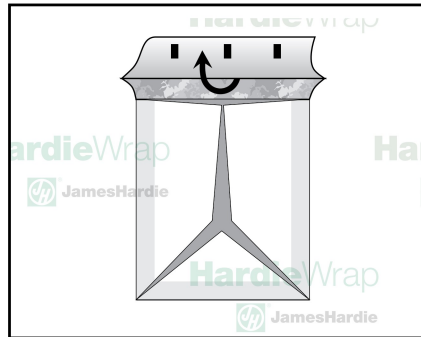


figure 4

**Step 2:** Fold the top flap up and out of the way and fasten temporarily (fig. 4).

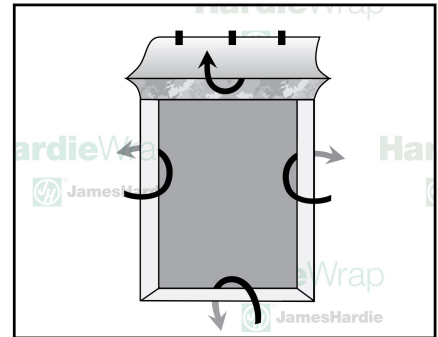


figure 5

**Step 3:** Fold the remaining three flaps in through the opening, fastening them inside with staples (fig. 5).

### TYPICAL PENETRATION FLASHING METHODS

For rough electrical or plumbing penetrations, seal with flashing. Install the top piece over the bottom piece (figs. 7 and 8). HardieWrap Pro Flashing can be used for this application.

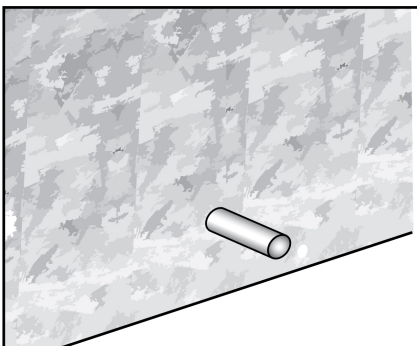


figure 6

The penetration detailed in figures 7 and 8 as found in the EEBA Water Management Guide.

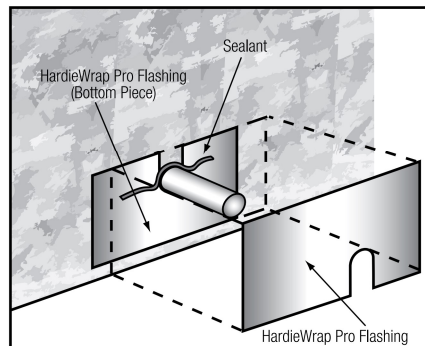


figure 7

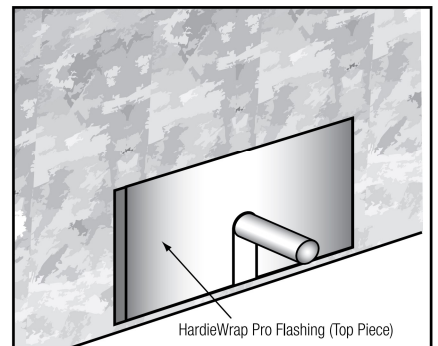


figure 8



## FASTENERS

Staples are the preferred and recommended fastening method. Fasten HardieWrap weather barrier in such a way that ensures the wrap is secured to the wall with staples a maximum of 18 in. O.C. (on center) in the vertical and horizontal direction. Staples should be construction-grade and must be galvanized.

When installing over insulation boards, use galvanized roofing nails long enough to penetrate insulation and framing studs or sheathing.

Consult with the architect or specifier regarding the need to seal any punctures caused by staples, nails or other items.

## REPAIRS

Staples are the preferred and recommended fastening method. Fasten HardieWrap weather barrier in such a way that ensures the wrap is secured to the wall with staples a maximum of 18 in. O.C. (on center) in the vertical and horizontal direction. Staples should be construction-grade and must be galvanized.

When installing over insulation boards, use galvanized roofing nails long enough to penetrate insulation and framing studs or sheathing.

Consult with the architect or specifier regarding the need to seal any punctures caused by staples, nails or other items.



figure 9

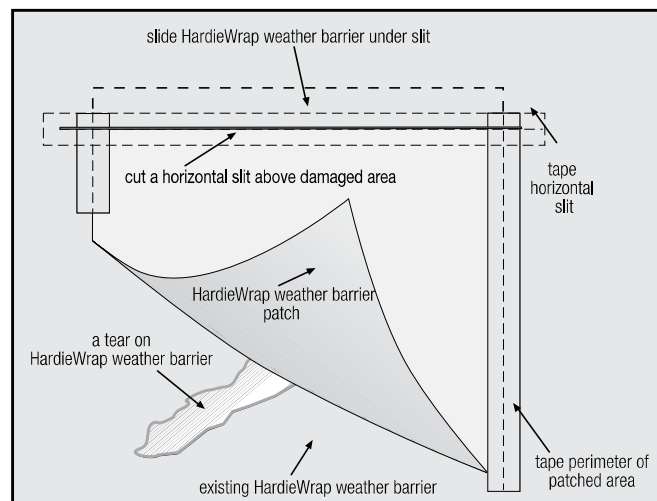
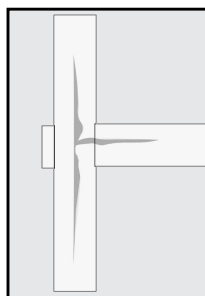


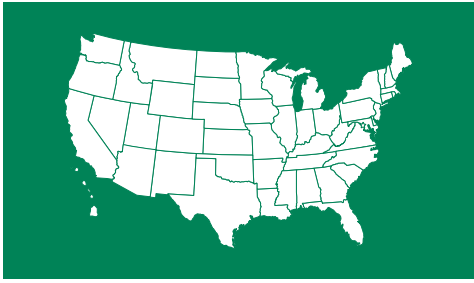
figure 10

## GENERAL REQUIREMENT CHECKLIST

- ✓ Do not store HardieWrap weather barrier in direct sunlight.
- ✓ It is recommended that weather barrier be installed over dry framing and sheathing.
- ✓ Tape all vertical and horizontal seams.
- ✓ Overlap subsequent weather barrier layers in shingle lap fashion with seams overlapping by at least 6 in.
- ✓ Be sure that all penetrations are addressed.
- ✓ Fasten with construction-grade galvanized staples a maximum of 18 in. in the vertical and horizontal directions.
- ✓ Repair punctures or tears, by the recommended practices.
- ✓ Do not use HardieWrap weather barrier in applications where it may be walked on.
- ✓ James Hardie requires that HardieWrap weather barrier be covered within 180 days of installation.

For further information consult James Hardie  
at 866-4HARDIE or [hardiewrap.com](http://hardiewrap.com)





# HardieWrap® ProFlashing

EFFECTIVE APRIL 2018

## HARDIEWRAP® PRO FLASHING PRODUCT DESCRIPTION

HardieWrap® ProFlashing and HardieWrap® Flex Flashing are high-performance, self-adhering, self-sealing, butyl material on tear-resistant top sheets that are applied around windows and doors to manage water and air intrusion. HardieWrap ProFlashing has a release liner for peel-and-stick installation and has no asphalt, VOCs or solvents.

HardieWrap® Flex Flashing is designed to easily stretch and seal around doors and windows, as well as custom shapes to protect against water intrusion, and is supplied in a convenient dispenser box. Together with HardieWrap® weather barrier and HardieWrap® Seam Tape, HardieWrap ProFlashing and HardieWrap Flex Flashing provide the James Hardie® weather barrier solution to manage water drainage, and prevent water damage and energy loss.

## STORAGE

For optimal performance, store in original sealed packaging at temperatures of 5° - 32°C (41° - 90°F) while at moisture-free conditions. James Hardie requires that HardieWrap ProFlashing and HardieWrap Flex Flashing be covered within 180 days of installation.

## IMPORTANT NOTICE

This recommendation refers to the most commonly used types of windows (surface-mounted). For other types of frames, special attention should be paid to the window manufacturer's instructions.

Check your local building code for construction requirements and follow the manufacturer's recommended installation instructions; or utilize standard practices for the installation of exterior windows and doors as referenced in ASTM E2112-01 or AAMA 2400-2 (CAWM 400-95). Consult with the architect or specifier regarding the methods to be utilized.

## GENERAL REQUIREMENT

The installation guidelines herein are informational in nature only and may not be appropriate for use in all applications. It is the sole responsibility of the architect or specifier to identify moisture-related risks associated with any particular building design, and to make any appropriate adjustments or modifications to the installation guidelines herein. Wall-construction design must effectively manage moisture, considering both the interior and exterior environment of the building, particularly in buildings that have a higher risk of wind-driven rain penetration and conditioned spaces. Wall openings, penetrations, junctions, connections, window sills, headers and jambs must incorporate appropriately installed HardieWrap™ Pro Flashing and HardieWrap™ Flex Flashing, or other flashing or flashing details, as recommended by the manufacturer, architect or specifier.



HardieWrap ProFlashing



HardieWrap Flex Flashing



HardieWrap® Seam Tape





## HARDIEWRAP® FLEX FLASHING STRETCHABLE SILL FLASHING

Prepare sill flashing by cutting HardieWrap® Flex Flashing at least 12 in. longer than the width of the rough opening. Install sill flashing by removing the release paper, centering sill flashing on sill framing stud and adhering into rough opening. The back edge of HardieWrap Flex Flashing should extend to the inside edge of sill framing stud and at least 6 in. up each jamb framing stud. (Note: Sill flashing should not wrap onto the inside of wall.) **DO NOT STRETCH MATERIAL ALONG THE SILL OF JAMB.** HardieWrap Flex Flashing should be applied over the water-resistive barrier after it has been cut and set into and around the window rough opening.

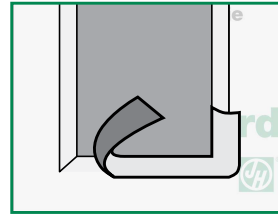


figure 1

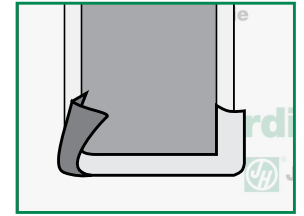


figure 2

*Note: If a water-resistive barrier is to be applied after the window and flashing have already been installed, be sure not to fasten the lower edge of the flashing so that the water-resistive barrier may be slipped underneath the flashing in weather-board or shingle-lap (top layer overlapping bottom layer) fashion.*

## WINDOW INSTALLATION

Before installing the window, (a) apply a continuous bead of sealant to the backside (interior) of the window's mounting flange on the outer edge; or (b) apply a continuous seal to the rough opening to ensure contact with the backside (interior) of the window's mounting flange (do not caulk along bottom). Install window according to the manufacturer's installation procedures.

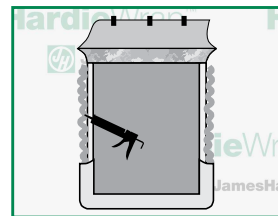


figure 3

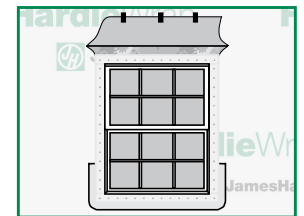


figure 4

## SIDE JAMB FLASHING

Apply HardieWrap® ProFlashing along the vertical sides of the opening. Flash over the side window mounting flanges. Extend the flashing by a minimum of 3 in. beyond the sill flashing (HardieWrap Flex Flashing) already in place and extend the flashing to a minimum of 3 in. beyond the top of the opening, so that it projects beyond the head flashing that is to be applied later.

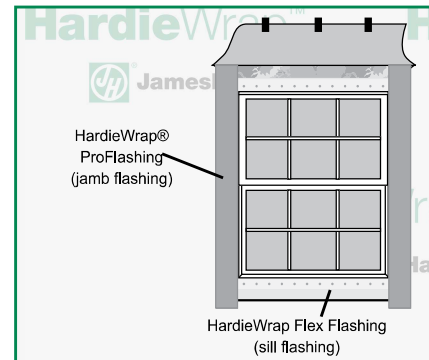


figure 5

## HEAD FLASHING

Affix HardieWrap® Pro Flashing over the window's mounting flange along the header opening. Be sure to extend the flashing beyond each jamb flashing by 3 in. Secure flashing in place by applying pressure. Detach weather barrier flap (top) and apply over head flashing as shown. Tape all seams and joints.

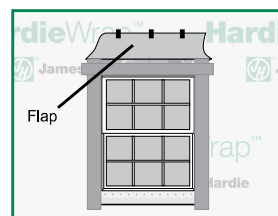


figure 6

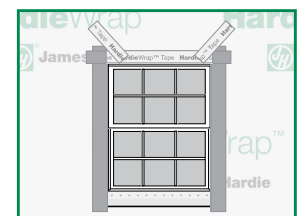


figure 7

## IMPORTANT NOTE

If windows/door are pre-existing then go to section: Pre-existing windows/doors.







## CIRCULAR WINDOWS

Follow previous instructions for proper installation prior to head flashing installation. Install circular top windows according to window manufacturer's installation guidelines, and then follow instructions as illustrated in figures 8–11 to complete the process.

Measure the circular portion of the window and add 12 in. to this number. Cut HardieWrap® Flex Flashing to this length for the head flashing. Remove approximately 20 in. of release paper and position HardieWrap® Flex Flashing tightly along the first edge of round window. Press firmly into place (figs. 8 and 9). Continue removing release paper and conform HardieWrap Flex Flashing to entire circular portion of window (fig. 10). Use HardieWrap® Seam Tape or mechanical fasteners (i.e., nails, staples or screws) to temporarily hold top edge of head flashing to wall. HardieWrap Flex Flashing adhesive bond will strengthen over time. Both ends of head flashing should overlap sill flashings by at least 6 in.

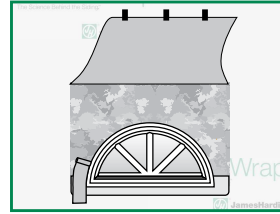


figure 8

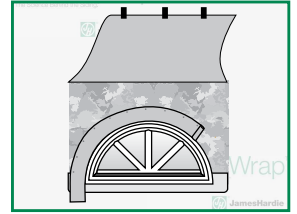


figure 9

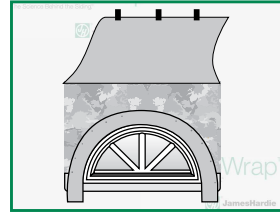


figure 10

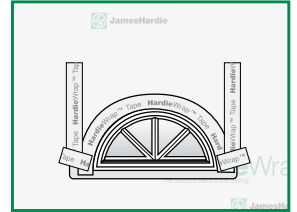


figure 11

## IMPORTANT TO NOTE

This recommendation refers to the most commonly used types of windows (surface-mounted). For other types of frames, special attention should be paid to window manufacturer's instructions.

A spray adhesive, such as Nashua 357, is recommended when HardieWrap Flex Flashing is applied directly to Oriented Strand Board (OSB) or other surfaces where additional adhesion is needed or required.

## PRE-EXISTING WINDOWS/DOORS

When installing HardieWrap weather barrier after windows and doors have already been installed and flashed, follow these additional 2 steps

### Step 1

- Cut HardieWrap weather barrier around the openings to expose the window/door and apron as shown (fig.12).
- Do not cut into the flashing or apron.

### Step 2

- Tape vertical seams as shown using HardieWrap seam tape (fig.13).
- Do not tape at the bottom of the window/door
- Tape the head seam as shown (fig.14).

Note: It is acceptable to skip taping of the head if additional drainage is desired.

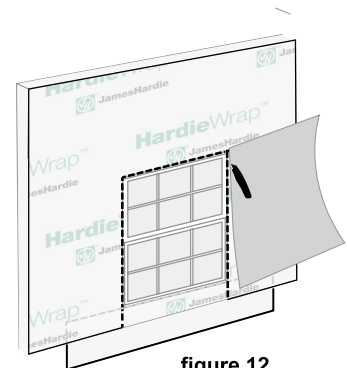


figure 12



figure 13



figure 14

For further information consult James Hardie  
at 866-4HARDIE or [hardiewrap.com](http://hardiewrap.com)

