



# TYPAR® BUILDINGWRAP®, DRAINABLEWRAP™ & DRAINABLEWRAP™ Peel & Stick



**Submittal Package for Architects & Specifiers**

# TYPAR® RESIDENTIAL SUBMITTAL PACKAGE

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# BUILDING WRAP™

**THE ULTIMATE BARRIER OF DEFENSE. FOR WHATEVER COMES YOUR WAY.**

Install the system. Get a lifetime limited warranty.\* TYPAR® Building Wrap, along with the full TYPAR® Weather Protection System delivers unbeatable coverage.

\*Certain limitations and exclusions apply. See the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads) for full details.





# TYPAR® BUILDINGWRAP™

## HERE'S HOW WE DEFINE HIGH-PERFORMANCE IN THE INDUSTRY.

TYPAR BuildingWrap excels in all the ways that matter most to true construction pros. For starters, it's rugged—with tear strength that's five times greater than the competition. And while it blocks air and water from getting in, it's smart enough to let moisture out of the wall cavity. That means it stands up to the elements with toughness and intelligence other building wraps can't touch. Plus it delivers incredible durability, efficiency, and safety long after the cladding is up.

## LEADING FEATURES AND BENEFITS:

- Superior water holdout defends the wall cavity
- Exceptional air blockage increases energy-efficiency
- Optimal breathability decreases risk of mold growth
- Extraordinary tear strength prevents worksite damage
- Surfactant resistance reduces hazards of oils, soaps, and powerwashing
- UV protection stops rays and provides six months exposure time
- Works with most types of cladding
- Lifetime limited warranty\*

## INSTALL THE SYSTEM. GET A LIFETIME LIMITED WARRANTY.\*

Take your stand on unbeatable—and comprehensive—defense. Our Building Wraps, Flashings, and Construction Tape create the complete TYPAR® Weather Protection System. Install it all together and get covered by the only lifetime limited warranty in the industry.\*

\*Certain limitations and exclusions apply. See the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads) for full details.

The information contained herein is to the best of our knowledge accurate and reliable and is provided for the user's assessment and verification. However, since the circumstances and conditions under which such information and the products discussed can be used may vary and are beyond our control, we make no warranties, express or implied, other than those warranties described in the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads), subject to the limitations and exclusions described therein.

### TYPICAL CHARACTERISTICS:

Basis Weight	D5261	3.024 oz/yd <sup>2</sup>
Thickness	D1777	12.9 mils
Breaking Strength (Grab Tensile)	D5034	67 lbs MD 73 lbs CD
Trapezoidal Tear Resistance	D5733	30 lbs MD 33 lbs CD
Hydrostatic Pressure Resistance	AATCC 127-1995	>500 cm
Moisture Vapor Transmission Rate	E96-95 A	11.7 perms
Ultraviolet Light Exposure Resistance		6 months
Air Penetration Resistance (Gurley Hill Porosity)		>2500 sec/ 100 cc
"Air-Ins" (Air Leakage Test)		0.0032 L(S.M <sup>2</sup> ) @ 75 pascals
Water Resistance Test	D779	PASS
Surface Burning Characteristics (ASTM E84)		
Flame Spread Index	Class A	
Smoke Spread Index	PASS	
NFPA 285	PASS	

### ROLL SIZES:

3' x 100'	5' x 100'	4.5' x 200'	9' x 100'
9.5' x 95'	9' x 150'	9' x 195'	10' x 100'
10' x 150'	10' x 195'		



August 2019 | Made in USA. TYPAR® and TYPAR® BuildingWrap™ are trademarks of Berry Global, Inc. or one of its affiliates. Please visit [TYPAR.com](http://TYPAR.com) for installation instructions and warranty information. Building Wraps | Flashings | Construction Tape



# TYPAR® BUILDINGWRAP™

## THREE-PART SPECIFICATIONS

### PART 1. GENERAL

#### 1.1 Summary

A. Includes but not limited to:

1. Furnish and install weather-resistive barriers on exterior side of exterior wall sheathing as described in Contract Documents.

#### 1.2 References

- A. ASTM E1677-95 "Standard Specification for an Air Retarder (AR) Material or System for Low-Rise Framed Building Walls."
- B. ASTM E96-90 "Standard Test Method for Water Transmission of Materials."
- C. AATCC-127 "Hydrostatic Head Test."
- D. ASTM D5733-9 Trapezoidal Test.
- E. Air-Ins ASTM E283 Canadian Air Barrier Materials Standard.
- F. ASTM D779 Dry Indicator Method, Water Penetration Resistance.

#### 1.3 Submittals

A. Quality Assurance:

1. Submit copies of test results showing performance characteristics equaling or exceeding those specified.

### PART 2. PRODUCTS

#### 2.1 Water-Resistant Barrier

A. Spunbonded polypropylene weather membrane with a microporous coating, nonwoven, nonperforated.

B. Performance Characteristics:

1. Gurley Hill Air Penetration Resistance [TAPPI T 460] [sec/100cc] >2500.
2. Type I Air Barrier Material when tested in accordance with ASTM E1677.
3. Type II Water-Resistive Barrier when tested in accordance with ASTM E2556.
4. Water Vapor Transmission: 9-15 perms as tested by ASTM E96-90, Method A.
5. Water Resistance Test ASTM D779.
6. Basis Weight: 3.024 oz/yd<sup>2</sup> ASTM D5261.
7. Air-Ins (Air Leakage Test) <.02L/S-M<sup>2</sup> @ 75 PA.
8. Breaking Strength (Grab Tensile): 67 MD/73 CD lbs/in, when tested in accordance with ASTM D5034.
9. Trapezoidal Test of 30/33 in accordance with ASTM D5733-9.
10. Surface Burning Characteristics: Class A, when tested in accordance with ASTM E84. Flame Spread: Pass. Smoke Spread: Pass. NFPA 285: Pass.

C. Approved Manufacturers:

1. TYPAR® Weather-Protection Membrane by Berry Global, Inc. [www.TYPAR.com](http://www.TYPAR.com).

D. Manufacturer's Warranty:

1. Limited product and limited system warranty available depending on the application, see the TYPAR® Weather Protection System Limited Warranty located at [www.TYPAR.com/downloads](http://www.TYPAR.com/downloads) for warranty details.

#### 2.2 Manufacturer's Accessory Products – Sealing Tape/Fasteners

A. Tape: TYPAR® Construction Tape.

1. Description:

- a. Face Material Composition: Polyethylene barrier.
- b. Face Color: Gray.
- c. Adhesive Composition: Acrylic.
- d. Thickness: 3.6mil.
- e. Dimensions: 1-7/8" x 165', 3" x 165'.

2. Performance Characteristics:

- a. Temperature Resistance: 0°F (-18°C) – Min. application temperature; 230°F (110°C) – Max. application temperature.
- b. Peel Adhesion PSTC-1\*.
- c. Tensile Strength PSTC-31\*.

\*Pressure-Sensitive Tape Council.

3. Accessories:

- a. Primer: Polyken spray adhesive or equal.
- b. Flashing Tape: TYPAR® All-Temperature Flashing, TYPAR® Flexible Flashing, and TYPAR® Butyl Flashing.
- c. Fastener: Fastener is dependent on substrate construction.
- d. Sealant: Must comply with ASTM C920 elastomeric polymer sealant.

- B. Flashing: TYPAR® Butyl Flashing.
  - 1. Description:
    - a. Face Material Composition: Polyethylene barrier.
    - b. Face Color: Gray.
    - c. Adhesive Composition: Butyl rubber adhesive.
    - d. Thickness: 18.5mil.
    - e. Release Liner: Kraft paper.
    - f. Dimensions: 4" x 25'; 4" x 75'; 6" x 75'; 9" x 75'; 12" x 75'.
  - 2. Performance Characteristics:
    - a. Low Temp Pliability ASTM C765 PASS.
    - b. Nail Sealability ASTM D1970 PASS.
    - c. Tensile Strength ASTM D5034-95 PASS.
    - d. Peel Adhesion ASTM D3330-04 PASS.
  - 3. Accessories:
    - a. Primer: Polyken spray adhesive or equal.
    - b. Seam Tape: TYPAR® Construction Tape.
    - c. Fastener: Fastener is dependent on substrate construction.
    - d. Sealant: Must comply with ASTM C920 elastomeric polymer sealant.
- C. Recommended Sealants Against TYPAR® Logo-Side Coating:
  - 1. Elastomeric polymer-based, butyl rubber, rubber-based, meeting ASTM C920 evaluation.
- D. Recommended Fasteners for Wood, Insulated Sheathing Board, Exterior Gypsum:
  - 1. Plastic cap nails.
  - 2. Plastic cap staples.
- E. Recommended Fasteners for Steel Frame Construction:
  - 1. Rust-resistant screws with washers.
- F. Recommended Fastening to Masonry:
  - 1. Sealant: Polyurethane-based, meeting ASTM C920 evaluation.
  - 2. Mechanical: Masonry fastener with washer.

**PART 3. EXECUTION**

**3.1 Installation**

- A. TYPAR BuildingWrap.
 

Install in accordance with manufacturer’s instruction over exterior sheathing or open studs. Seal joints and penetrations through weather-resistant barrier with specified tape and fasteners prior to installation of finish material. Air infiltration barrier shall be airtight and free from holes, tears, and punctures. All window and door penetrations are to be flashed and sealed per ASTM 2112, AAMA guidelines and manufacturer instructions. Cover with exterior cladding within six months of installation.
- B. TYPAR Construction Tape.
  - 1. Follow the TYPAR flashing installation procedures.
- C. TYPAR Butyl Flashing.
  - 2. Follow the TYPAR flashing installation procedures.

**3.2 Examination**

- A. TYPAR BuildingWrap.
  - 1. Verify substrate and surface conditions are in accordance with the flashing manufacturer’s recommendation.
- B. TYPAR Butyl Flashing.
  - 1. Verify substrate and surface conditions are in accordance with the flashing manufacturer’s recommendation.
- C. TYPAR Butyl Flashing.
  - 1. Verify substrate and surface conditions are in accordance with the flashing manufacturer’s recommendation.

NOTE: Flashing manufacturer recommends weather barrier be installed prior to the installation of the windows.

**3.3. Protection**

- A. TYPAR Butyl Flashing.
  - 1. Protect installed self-adhesive and flashing tapes from damage during construction.
- B. TYPAR Butyl Flashing.
  - 1. Protect installed flashing from damage during construction.



# TYPAR® WEATHER PROTECTION SYSTEM INSTALLATION GUIDE

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These instructions describe how to install the TYPAR Weather Protection System for exceptional exterior water management. For more detail on other TYPAR® products, please visit [www.TYPAR.com](http://www.TYPAR.com)

## SPECIAL INSTALLATION CONSIDERATIONS

### Stucco\*\*

When stucco is installed over wood-based sheathing, the 2006-IBC (section 2510.6) and the 2006 IRC (section R703.6.3) require "a water-resistive barrier with a performance at least equivalent to two layers of Grade D paper" or a layer of water-resistive barrier (WRB) which is separated from the stucco by an "intervening layer." When TYPAR® WRB is used behind stucco, it should be separated from the stucco by a second layer of TYPAR WRB, a layer of Grade D building paper, or the Grade D paper backing of paper-backed lath.

### Brick\*\*

The 2006 IRC (section R703.7.4.2) requires a min. 1" (25 mm) airspace separating the brick from the WRB. The Brick Industry Association recommends a 1" (25 mm) airspace in front of the wood stud construction and a 2" airspace in front of a steel stud construction.

### Stone Veneer\*\*

The 2006 IBC (Section 1405.6) requires two layers of WRB behind stone. Over wood frame construction, TYPAR WRB should be installed behind stone the same way it is installed behind stucco.

### Wood Siding\*\*

TYPAR WRB and wood siding must be installed according to the manufacturer's instructions and the industry standards. Wood industry associations recommend siding should be primed before installation.

\*\*TYPAR® recommends that the installation of any material must first follow the local applicable building codes.

**CODE REQUIREMENTS**

The 2006 International Building Code (IBC) and the 2006 International Residential Code (IRC) require a water-resistant barrier equivalent to ASTM D226 Type 1 #15 felt be installed behind the exterior cladding. TYPAR® BuildingWrap exceeds these standards.

**APPROVALS AND REPORTS**

ICC-ESR-1404

CCMC #12892-R & 12884-R

TYPAR BuildingWrap meets AC38 standards, Acceptance Criteria for Water-Resistive Barriers.

TYPAR® flashing products meet the requirements for AAMA 711.

**RECOMMENDED MATERIALS**

TYPAR BuildingWrap

TYPAR® All-Temperature Flashing

TYPAR® Butyl Flashing

TYPAR® Flexible Flashing

TYPAR® Construction Tape

**PRODUCT SIZE DATA**

<b>Weather-Resistive Barriers</b>	<b>Size</b>	<b>Rolls/Pallet</b>
TYPAR BuildingWrap	3' x 100'	144
	40" x 100'	144
	4'5" x 200'	32
	9' x 100'	40
	9' x 150'	36
	9' x 195'	32
	9'6" x 95'	40
	10' x 100'	40
	10' x 150'	36
	10' x 195'	32

<b>Accessories</b>	<b>Size</b>	<b>Rolls/Case</b>
TYPAR All-Temperature Flashing	4" x 75'	12
	6" x 75'	8
	9" x 75'	4
	12" x 75'	3
TYPAR Butyl Flashing	4" x 75'	9
	6" x 75'	6
	9" x 75'	4
	12" x 75'	3
TYPAR Flexible Flashing	6" x 75'	3
	9" x 75'	2
TYPAR Construction Tape	1-7/8" x 165'	24
	3" x 165'	16
TYPAR Construction Tape Canada	60 mm x 55 m	24





**VERTICAL WALL INSTALLATION**

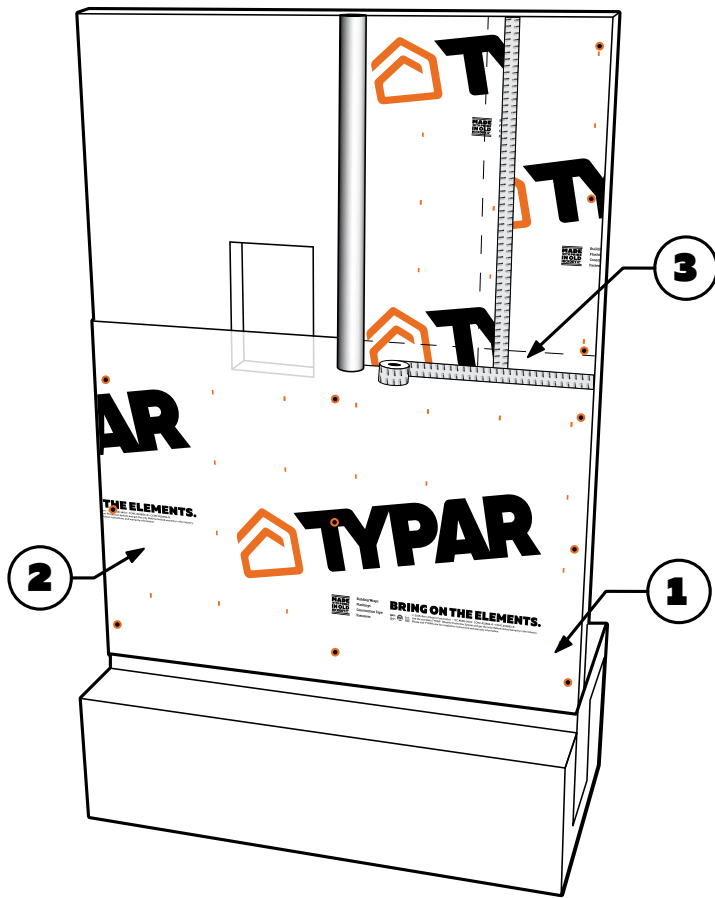
Install TYPAR® BuildingWrap over an approved exterior sheathing after the framing is complete and before the windows and doors have been installed. Plastic-capped fasteners should be used and spaced at 32" OC (vertically and horizontally) when being applied over 7/16" OSB or 15/32" plywood. When installing over metal framing, use screws with washers. If the windows and doors have already been installed, trim the TYPAR® WRB close to the window frame and flash according to the TYPAR® flashing instructions.

**STEP 1**

Start at the bottom of one end of the wall with the printed side facing out. When starting at a corner, overlap by a minimum of 12".

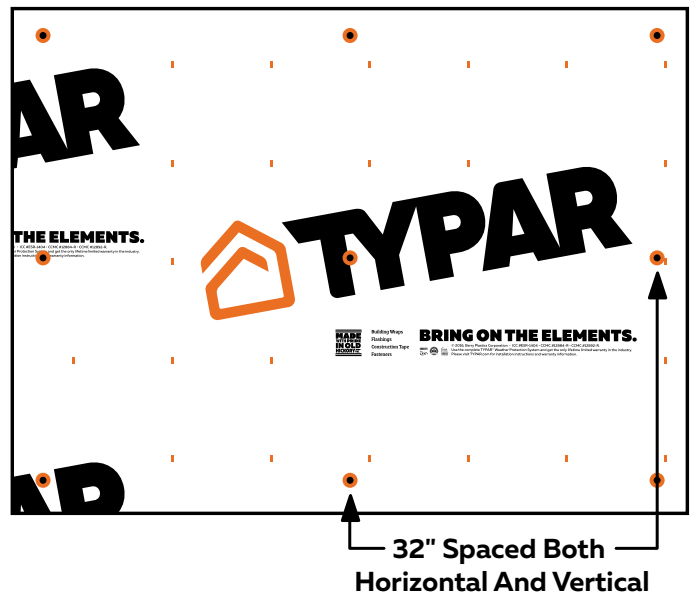
Place the housewrap roll horizontally and roll out the first course evenly, covering rough window and door openings. A minimum of a 1" (25.4 mm) overlap on the sill plate is required; however, for maximum protection, a 2-4" (51-102 mm) overlap on the sill plate is recommended.

Pull the TYPAR WRB snug and avoid wrinkles and creases. Ensure that the product is level.



**STEP 2**

Fasten the TYPAR WRB to the stud using plastic-capped nails or plastic-capped staples at 32" OC, both horizontally and vertically.



**STEP 3**

The upper layer of TYPAR WRB should overlap the bottom layer by a minimum of 6" (152 mm) vertically and horizontally. Ensure proper shingling throughout the installation to properly shed water. Once the structure is completely covered, tape all seams and penetrations using TYPAR® Construction Tape. (Please refer to the TYPAR flashing instructions for more detailed instruction on penetrations and window flashing installation.)

**STEP 4**

After the installation is complete, and before the exterior cladding is installed, inspect the TYPAR WRB for tears. Repair the issues with TYPAR Construction Tape or TYPAR flashing.

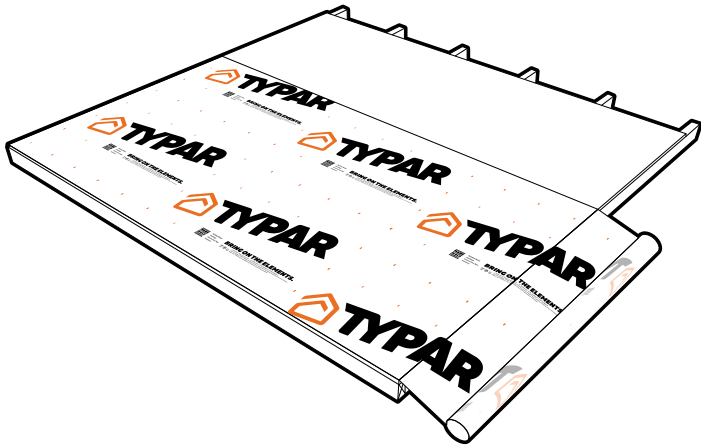


**TILT WALL INSTALLATION**

Install TYPAR® BuildingWrap over an approved exterior sheathing after the framing is complete and before the windows and doors have been installed. Plastic-capped fasteners should be used and spaced at 32" OC (vertically and horizontally) when being applied over 7/16" OSB or 15/32" plywood. When installing over metal framing, use screws with washers.

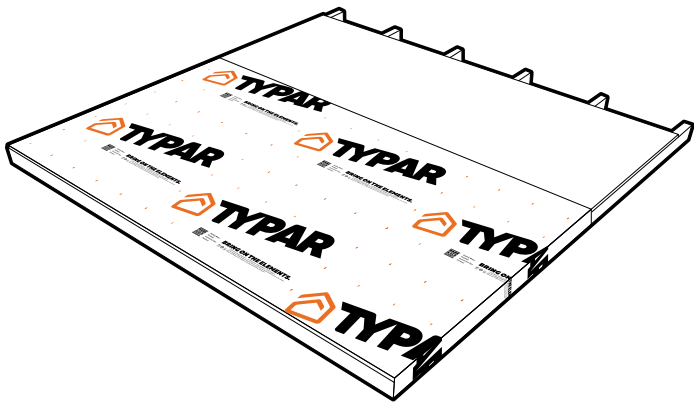
**STEP 1**

Begin with the wall lying on the ground. Start at one corner, allowing an extra 12" (304mm) flap for the corner and align the guide marks on the TYPAR® WRB with the studs. Ensure a 6" excess flap on one side to allow for overlap to the next wall section. Fasten TYPAR® to the wall at 32" both horizontally and vertically.



**STEP 2**

When starting a new section, fold the beginning side flap over the vertical stud and secure (only one side). After fastened, trim the excess TYPAR WRB. Remember to allow enough so that the bottom excess overlaps the sill plate when the wall is put into place. As each wall is put into place, ensure that each side flap is on the exterior of the building.

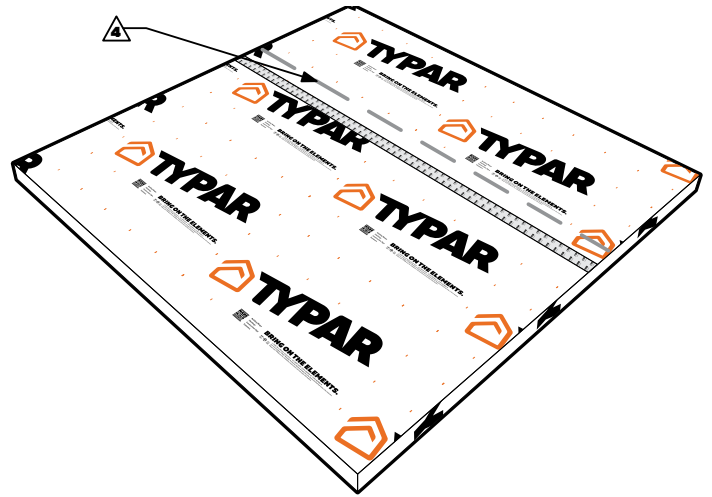


**STEP 3**

Secure the side flaps and the bottom flap using plastic-capped nails or plastic-capped staples, TYPAR® Construction Tape, and/or a non-silicone caulk.

**STEP 4**

The second course of TYPAR should overlap the bottom sheet at least 6" (152mm). Both vertical and horizontal seams ensure proper drainage by using the shingling method.



**STEP 5**

Tape all seams with TYPAR Construction Tape. (Please refer to the TYPAR flashing instructions for further detail.)

**STEP 6**

After the installation is complete, and before the exterior cladding is installed, inspect the TYPAR WRB for tears. If issues are found, tape the imperfections with TYPAR Construction Tape or TYPAR flashing.

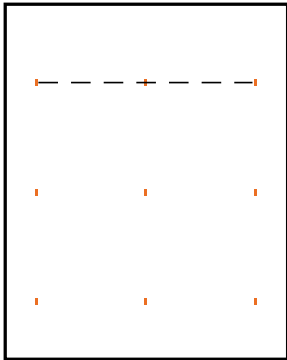


**WINDOW AND DOOR PREPARATION**

**Preparing for Window Installation**

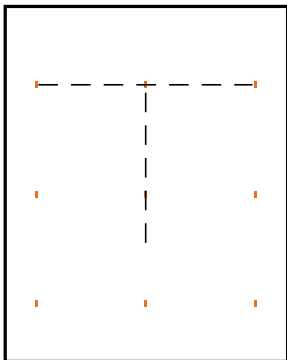
**STEP 1**

After wrapping the structure and covering all rough openings, cut a horizontal line across the top of the window opening. The cut should not extend past the rough opening.



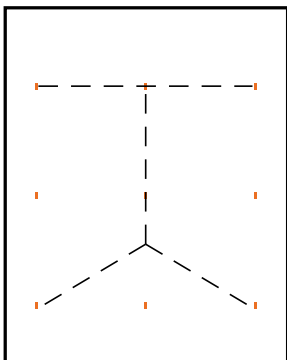
**STEP 2**

Start at the top center and make a vertical cut running two-thirds of the way down the opening.



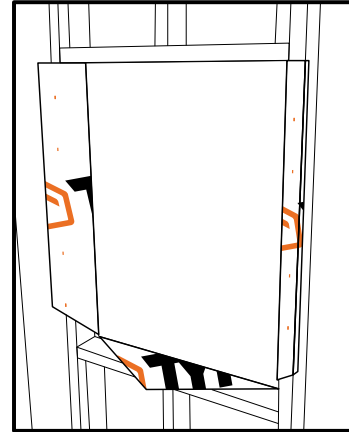
**STEP 3**

From that stopping point, cut diagonally to both lower left and right corners of the opening.



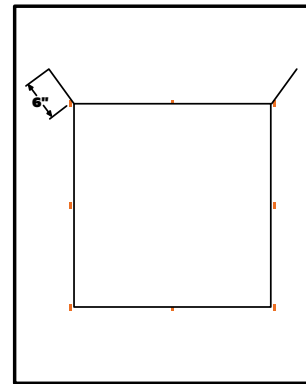
**STEP 4**

Pull each of the flaps tightly inside the rough opening and attach them to the frame with nails, staples or tape.



**STEP 5**

At the window header, make a 6" diagonal cut at a 45-degree angle on both corners. Fold the material up exposing the sheathing. Now install the window or door according to the manufacturer's instructions. The final step is to flash all seams and flanges securely (refer to TYPAR® flashing instructions). TYPAR flashing should also be installed in accordance with window manufacturer's instructions and according to the ASTM 2112 standard.



## **WINDOW FLASHING GENERAL INSTRUCTIONS**

Installation methods approved by the American Architectural Manufacturers Association (AAMA) are acceptable for TYPAR® products and system warranties.

Flashing products should always be installed on a dry surface that is free of dirt and debris. Wipe surfaces to remove moisture, grease, and other contaminants that could interfere with adhesion.

Avoid placing fasteners where the TYPAR flashing will be installed; however, the fasteners can be installed over the flashing.

Most circumstances do not require you to prime the surface before installing TYPAR flashing. However, some adverse weather conditions, extreme temperatures, or specialty installations, such as concrete, masonry, or fiber-face gypsum board may require a primer to obtain optimal adhesion. Install the primer according to the manufacturer's installation instructions.

The use of a heat gun will assist in adhesion during colder conditions.

Do not expose the flashing to direct sunlight for longer than recommended by the manufacturer.

Do not apply the flashing to a flexible vinyl surface, although rigid PVC is acceptable. Please check with the window manufacturer for compliance with rubberized asphalt flashing products.

For more information, visit our website at [www.TYPAR.com](http://www.TYPAR.com) or contact your local TYPAR sales rep.

### **Tools Needed**

- Brush for surface preparation
- Utility knife or scissors
- Gloves
- J-roller
- Primer (optional)



**TYPICAL WINDOW FLASHING**

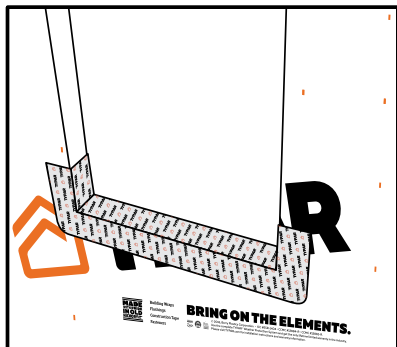
**STEP 1**

Install the window sill pan according to the manufacturer’s instructions. Alternatively, you can create a sill pan using TYPAR® Flexible Flashing. Cut a piece that is 12” longer than the length of the rough opening window sill.

Carefully peel off the release liner. Center the flashing in the center of the rough opening and work your way toward the corners and then up the sides. Note: the Flexible Flashing should overlap to the outside of the wall by 2-3”. Only stretch the flashing in the corners.

Alternatively to above, you can create a sill pan by installing TYPAR® straight flashing along the bottom sill and installing TYPAR Flexible Flashing on the corners only.

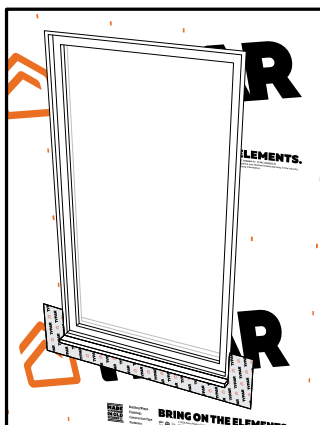
If needed, secure the fanned edges of the TYPAR Flexible Flashing with a plastic-capped nail or plastic-capped staple.



**STEP 2**

Apply a continuous bead of sealant to the back of the window or on the wall. Do not apply the sealant across the bottom of the sill or on the bottom of the window. This area is left open to allow for proper drainage.

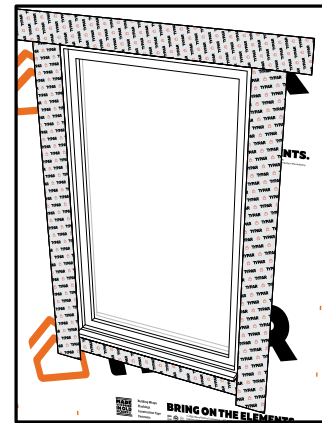
Install the window according to the manufacturer’s installation instructions.



**STEP 3**

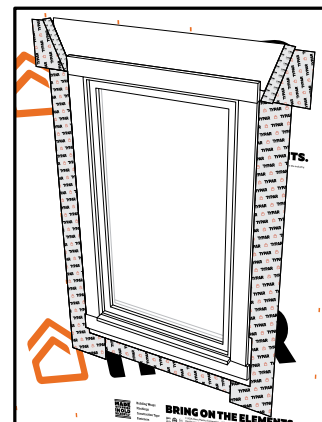
Cut two pieces of TYPAR flashing long enough to extend 1” above the window head flange and 1” below the window sill flange. Carefully peel off the release liner and apply the flashing on both sides of the window. Make sure to cover the entire window flange, and press firmly either by hand or using a J-roller. Ensure there are no wrinkles or bubbles.

Cut a piece of TYPAR flashing for the head flashing. Ensure that the piece is long enough to extend by 1” on both sides of the jamb flashing. Remove the release liner and carefully install the flashing. Cover the window flange and press firmly by hand or using a J-roller.



**STEP 4**

Release the upper flap of the TYPAR® WRB that you cut earlier. Tape the 45-degree cuts using TYPAR® Construction Tape or TYPAR flashing. DO NOT tape the WRB along the top of the window flange.



**FLASHING ARCHED WINDOWS**

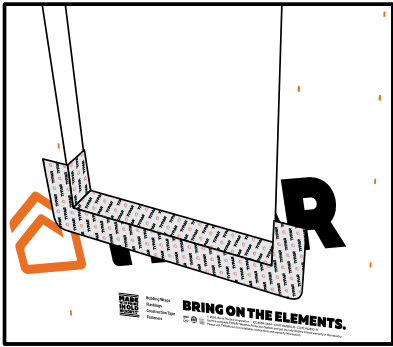
**STEP 1**

Start with the TYPAR® Flexible Flashing. Cut a piece that is 12" longer than the length of the rough opening window sill.

Carefully pull off the release liner. Center the flashing in the center of the rough opening and work your way toward the corners and then up the sides. Note: the Flexible Flashing should overlap to the outside of the wall by 2-3". Only stretch the flashing in the corners.

Alternatively to above, you can create a sill pan by installing TYPAR® straight flashing along the bottom sill and installing TYPAR Flexible Flashing on the corners only.

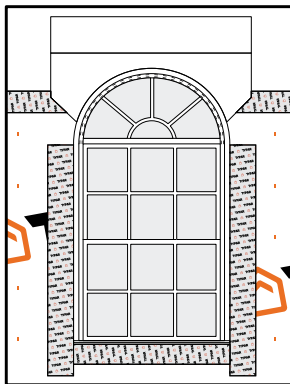
If needed, secure the fanned edges of the TYPAR Flexible Flashing with a plastic-capped nail or plastic-capped staple.



**STEP 2**

Apply a continuous bead of sealant to the back of the window or on the wall. Do not apply the sealant across the bottom of the sill or on the bottom of the window. This area is left open to allow for proper drainage.

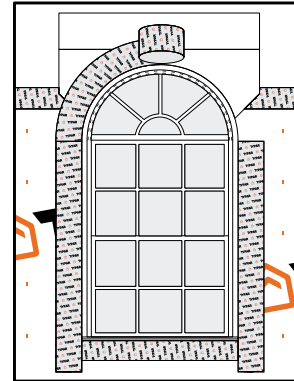
Install the window according to the manufacturer's installation instructions.



**STEP 3**

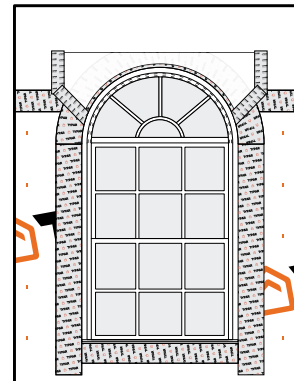
Cut two pieces of TYPAR flashing long enough to extend 1" above the window head flange and 1" below the window sill flange. Carefully peel off the release liner and apply the flashing on both sides of the window. Make sure to cover the entire window mounting flange, and press firmly either by hand or using a J-roller. Ensure there are no wrinkles or bubbles.

For the head flashing, cut a piece of TYPAR Flexible Flashing 12" longer than the length on the window arc. Carefully begin to peel off the release liner and install the flashing to the contour of the window flange as you go. The head flashing should overlap the jamb flashing by at least 6". If needed, use button fasteners to secure the outer edges.



**STEP 4**

Flip down the WRB that you cut earlier. Trim the WRB tight to the window arc if needed. Tape the seams using TYPAR® Construction Tape. DO NOT tape along the window arc.



**FLASHING PENETRATIONS**

Penetrations such as exhaust fans, exterior electrical outlets, dryer vents, exterior lights, and gas outlets are a common entrance for bulk water into the wall cavity. Using TYPAR® flashing will ensure proper water holdout and maintain the integrity of the structure.

The method is similar to flashing a window. Start by flashing the bottom of the penetration. Ensure to shingle the upper tape over the bottom tape.

Some penetrations have flanges, such as dryer vents. These penetrations should be flashed according to the details below.

**STEP 1**

Install the vent according to the manufacturer’s recommendations. Trim the housewrap as close as possible around the perimeter of the vent.

**STEP 2**

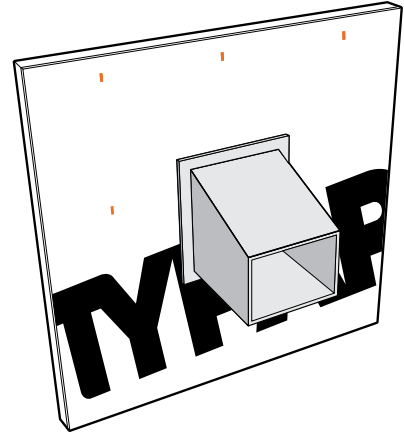
Flash the vent using the same method as windows. Starting at the bottom flange, cut the flashing so that it extends past the flanges by 1" on both sides. Now apply the flashing to the sides of the vent. Remember to extend the flashing 1" on both top and bottom. Make sure to smooth out wrinkles and air bubbles. The use of a J-roller is optional.

**STEP 3**

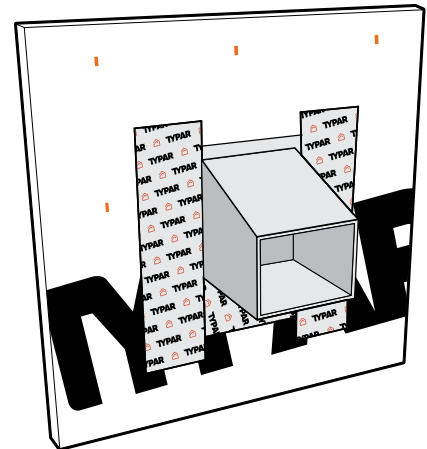
The final step is to install the flashing across the top. Extend the flashing out at least 1" on both sides.

Note: This type of installation is suitable for several different penetrations. Always use the shingling method and ensure a tight seal around the flange/penetration.

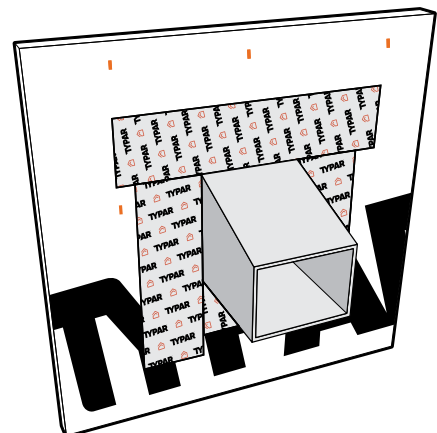
1.



2.



3.



TYPAR® BuildingWrap is part of a complete Weather Protection System, which also includes TYPAR® MetroWrap®, TYPAR® Flashings and Construction Tape.

For more information, visit [www.TYPAR.com](http://www.TYPAR.com)



# BERRY GLOBAL, INC.

## TEST REPORT

**SCOPE OF WORK**

ASTM E2273 TESTING ON TYPAR, BUILDING WRAP.

**REPORT NUMBER**

N8588.01-109-44

**TEST DATES**

08/23/22 - 08/24/22

**ISSUE DATE**

10/21/22

**RECORD RETENTION END DATE**

08/24/26

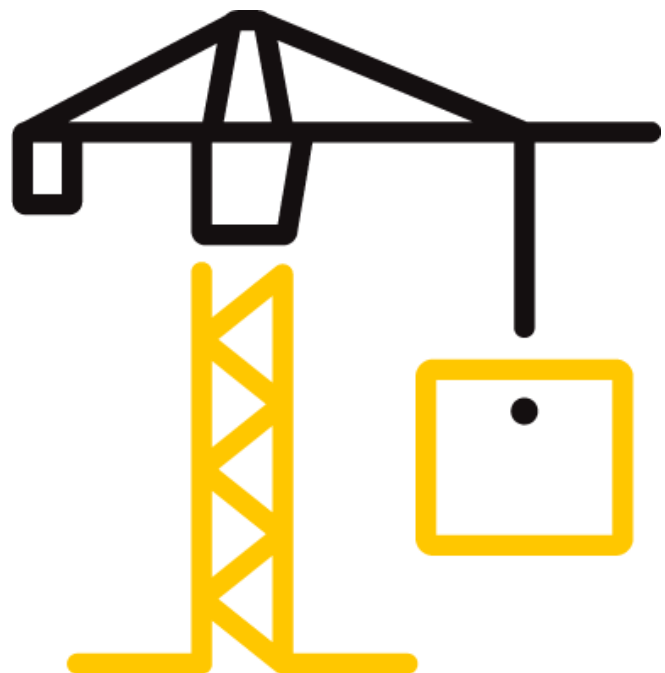
**PAGES**

10

**DOCUMENT CONTROL NUMBER**

RT-R-AMER-Test-2805 (10/11/21)

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## TEST REPORT FOR BERRY GLOBAL, INC.

Report No.: N8588.01-109-44

Date: 10/21/22

### REPORT ISSUED TO

#### BERRY GLOBAL, INC.

70 Old Hickory Boulevard  
Old Hickory, Tennessee 37138

### SECTION 1

#### SCOPE

Architectural Testing, Inc. (an Intertek company) dba Intertek Building & Construction (B&C) was contracted by Berry Global, Inc. to perform testing in accordance with ASTM E2273 on their Typar, building wrap. Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted at Intertek B&C test facility in York, Pennsylvania.

### SECTION 2

#### SUMMARY OF TEST RESULTS

##### Test Specimen #1: Side A (Front side facing out):

TITLE	RESULTS
Drainage Efficiency	93.0%

##### Test Specimen #2: Side B (Back side facing out):

TITLE	RESULTS
Drainage Efficiency	94.3%

For INTERTEK B&C:

<b>COMPLETED BY:</b>	Kenneth L. Wymer	<b>REVIEWED BY:</b>	Timothy J. McGill
<b>TITLE:</b>	Technician – Product Testing	<b>TITLE:</b>	Senior Project Engineer – Product Testing
<b>SIGNATURE:</b>	 <small>Digitally Signed by: Kenny Wymer</small>	<b>SIGNATURE:</b>	 <small>Digitally Signed by: Timothy J. McGill</small>
<b>DATE:</b>	10/21/22	<b>DATE:</b>	10/21/22

KLW:nls

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample(s) tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

## TEST REPORT FOR BERRY GLOBAL, INC.

Report No.: N8588.01-109-44

Date: 10/21/22

### SECTION 3

#### TEST METHOD(S)

The specimens were evaluated in accordance with the following:

**ASTM E2273-18**, *Standard Test Method for Determining the Drainage Efficiency of Exterior Insulation and Finish Systems*.

Test Procedure: The following procedure, based upon ASTM E2273, was performed on the wall assembly test configuration:

- A. A clear acrylic plastic spray box measuring 24-1/2" wide by 19-1/2" high by 7-1/4" deep was mounted on top of the test buck. The spray box was mounted to ensure that all water was directed into the slot fault.
- B. The spray box contained two spray nozzles. The nozzles were mounted 1/2" from the front edge of the spray box and 6" to the right and to the left corners.
- C. A drain basin was located below the test specimen which collected the water draining from the wall assembly and directed it into a container with a known weight.
- D. The specimen was sprayed for the duration of 75 minutes. The water draining from the wall assembly was collected and weighed at each 15-minute interval during testing.
- E. The water spray was terminated after 75 minutes. The specimen was allowed to drain for an additional 60 minutes and the collected water was weighed.

### SECTION 4

#### MATERIAL SOURCE/INSTALLATION

Test specimens were provided by the client. Representative samples of the test specimens will be retained by Intertek B&C for a minimum of four years from the test completion date.

### SECTION 5

#### EQUIPMENT

Stopwatch: INT00974

Electronic Scale: 65571

Tape Measure Verification: 63788

Weather Station: 63316

## TEST REPORT FOR BERRY GLOBAL, INC.

Report No.: N8588.01-109-44

Date: 10/21/22

### SECTION 6

#### LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Timothy J. McGill	Intertek B&C
Kenneth L. Wymer	Intertek B&C

### SECTION 7

#### TEST SPECIMEN DESCRIPTION

**Product Type:** Building Wrap

**Series/Model:** Typar

**Product Size(s):**

**Test Specimen #1:** Side A (Front side facing out):

OVERALL AREA:	WIDTH		HEIGHT	
	millimeters	inches	millimeters	inches
3.0 m <sup>2</sup> (32.0 ft <sup>2</sup> )				
Overall size	1219	48	2438	96

**Base Wall Construction:** The base wall was constructed of nominal 2x4 Spruce-Pine-Fir wood. Four studs were spaced 16" on center with a top and bottom 2x4 wooden plate. The studs were sheathed with 1/2" thick plywood and secured to the studs with #8 x 11-5/8" long drywall screws, located at each stud location and spaced 18" on center.

**Installation:** The wall was covered in a Typar wrap with the front side facing outwards and secured to the base wall with 1-1/2" long 4d cap nails at each stud location and spaced 32" on center. The Typar wrap was lapped 4" at the horizontal midspan and had a 6" overlap at the vertical midspan. The lap was sealed with a 4" self-adhered Typar flashing AT. A sheet of 1" thick polystyrene was utilized over the wrap and secured with 2" long 6d cap nails at each stud location and placed 18" on center. A layer of polymer and cement base was applied over the polystyrene and then reinforced with a glass fiber. An exterior layer of polymer and cement finish coat was applied.

## TEST REPORT FOR BERRY GLOBAL, INC.

Report No.: N8588.01-109-44

Date: 10/21/22

**Test Specimen #2:** Side B (Back side facing out):

OVERALL AREA: 3.0 m <sup>2</sup> (32.0 ft <sup>2</sup> )	WIDTH		HEIGHT	
	millimeters	inches	millimeters	inches
Overall size	1219	48	2438	96

**Base Wall Construction:** The base wall was constructed of nominal 2x4 Spruce-Pine-Fir wood. Four studs were spaced 16" on center with a top and bottom 2x4 wooden plate. The studs were sheathed with 1/2" thick plywood and secured to the studs with #8 x 1-5/8" long drywall screw, located at each stud location and spaced 18" on center.

**Installation:** The wall was covered in a Typar wrap with the back side facing out and secured to the base wall with 1-1/2" long 4d cap nails at each stud location and spaced 32" on center. The Typar wrap was lapped 4" at the horizontal midspan and had a 6" overlap at the vertical midspan. The lap was sealed with a 4" self-adhered Typar flashing AT. A sheet of 1" thick polystyrene was utilized over the wrap and secured with 2" long 6d cap nails at each stud location and spaced 18" on center. A layer of polymer and cement base finish was applied over the polystyrene and then reinforced with glass fiber. An exterior layer of polymer and cement finish coat was applied.

## TEST REPORT FOR BERRY GLOBAL, INC.

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### SECTION 8

#### TEST RESULTS

The temperature during Specimen #1 testing was 28°C (82°F). The temperature during Specimen #2 testing was 26°C (78°F). The results are tabulated as follows:

**Test Specimen #1:** Side A (Front side facing out):

Date	Total Weight g (lbs)	Tare Weight g (lbs)	Net Weight g (lbs)	Application Rate (gal/75min)	Required Application Rate (gal/75 min)
8/23/2022	1923.2 (4.240)	322.1 (0.710)	1601.2 (3.530)	2.127	2.10 – 2.28

	Water Application (minutes)					Drain Time (minutes)
	15	30	45	60	75	60
Total Weight g (lbs)	1642.0 (3.620)	1798.0 (3.964)	1789.0 (3.944)	1833.4 (4.042)	1810.7 (3.992)	561.5 (1.238)
Tare Weight g (lbs)	322.1 (0.710)	342.0 (0.754)	322.1 (0.710)	342.0 (0.754)	322.1 (0.710)	342.0 (0.754)
Net Weight g (lbs)	1320.0 (2.910)	1456.0 (3.210)	1466.9 (3.234)	1491.4 (3.288)	1488.7 (3.282)	219.5 (0.484)

<b>Total Water Applied g (lbs)</b>	8005.9 (17.650)
<b>Total Water Drained g (lbs)</b>	7442.5 (16.408)
<b>% Water Drained</b>	93.0%
<b>% Water Retained</b>	7.0%

**TEST REPORT FOR BERRY GLOBAL, INC.**

Report No.: N8588.01-109-44

Date: 10/21/22

**Test Specimen #2: Side B (Back side facing out):**

Date	Total Weight g (lbs)	Tare Weight g (lbs)	Net Weight g (lbs)	Application Rate (gal/75min)	Required Application Rate (gal/75 min)
8/24/2022	2024.0 (4.462)	342.0 (0.754)	1681.9 (3.708)	2.234	2.10 – 2.28

	Water Application (minutes)					Drain Time (minutes)
	15	30	45	60	75	60
Total Weight g (lbs)	1562.2 (3.444)	1889.7 (4.166)	1965.0 (4.332)	1999.9 (4.409)	2015.8 (4.444)	492.6 (1.086)
Tare Weight g (lbs)	342.0 (0.754)	322.1 (0.710)	342.0 (0.754)	322.1 (0.710)	342.0 (0.754)	322.1 (0.710)
Net Weight g (lbs)	1220.2 (2.690)	1567.6 (3.456)	1623.0 (3.578)	1677.8 (3.699)	1673.8 (3.690)	170.6 (0.376)

<b>Total Water Applied g (lbs)</b>	8409.6 (18.540)
<b>Total Water Drained g (lbs)</b>	7932.9 (17.489)
<b>% Water Drained</b>	94.3%
<b>% Water Retained</b>	5.7%

**General Note:** All testing was performed in accordance with the referenced standard(s).

**SECTION 9**

**CONCLUSION**

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. Intertek B&C will service this report for the entire test record retention period. The test record retention period ends four years after the test date. Test records, such as detailed drawings, datasheets, representative samples of the test specimens, or other pertinent project documentation, will be retained for the entire test record retention period.

Unless differently required, Intertek reports apply the "Simple Acceptance" rule, also called "Shared Risk approach," of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity.

## TEST REPORT FOR BERRY GLOBAL, INC.

Report No.: N8588.01-109-44

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### SECTION 10 PHOTOGRAPHS



**Photo No. 1**  
**Test Specimen #1 Setup**

## TEST REPORT FOR BERRY GLOBAL, INC.

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**Photo No. 2**  
**Test Specimen #2 Setup**





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**TEST REPORT FOR BERRY GLOBAL, INC.**

Report No.: N8588.01-109-44

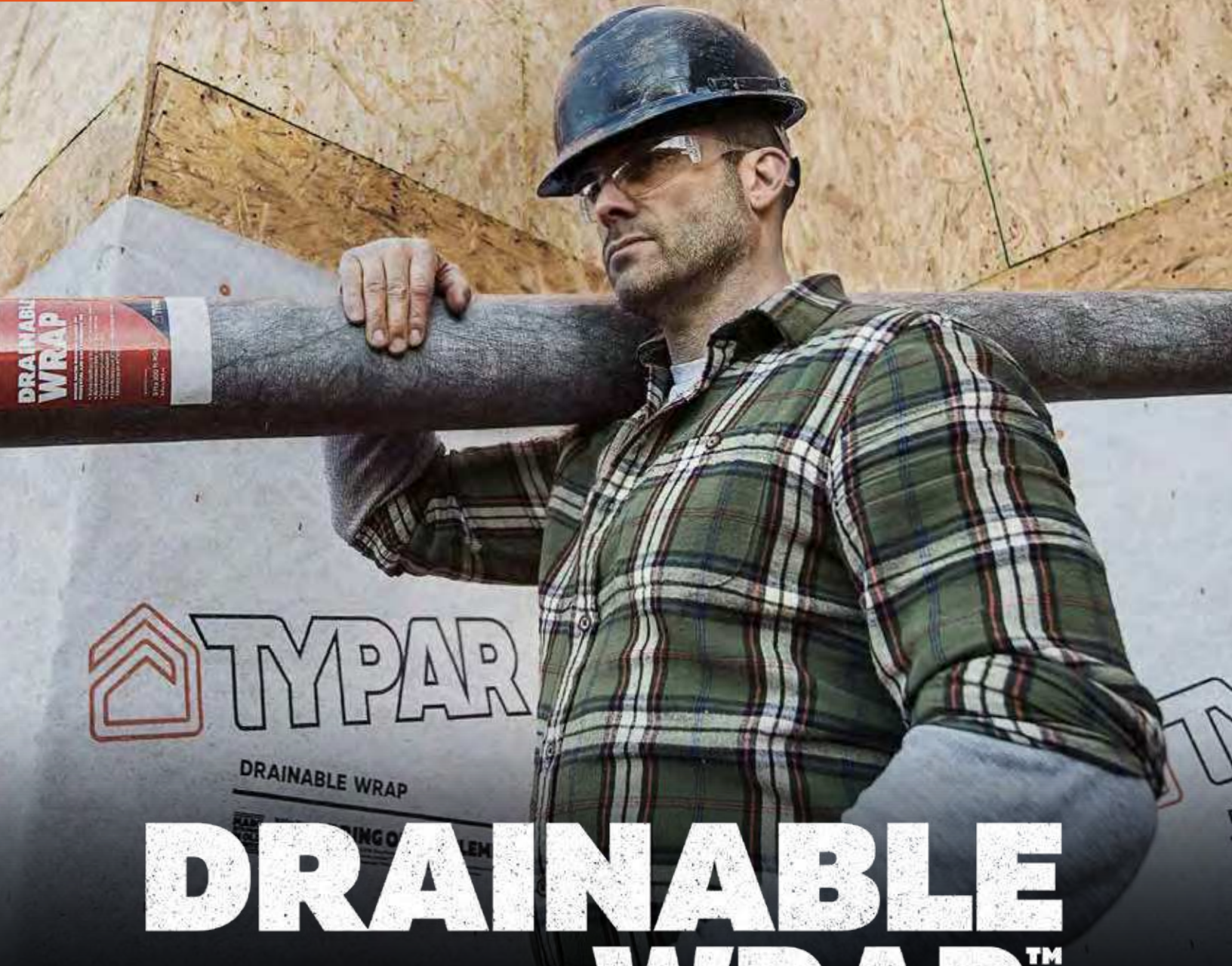
Date: 10/21/22

**SECTION 11  
DRAWINGS**

The test specimen drawings were not supplied by the client.

**SECTION 12  
REVISION LOG**

REVISION #	DATE	PAGES	REVISION
0	10/21/22	N/A	Original Report Issue



# DRAINABLE WRAP™

**BOOST YOUR LEVEL OF CONFIDENCE. IN DEALING WITH BULK WATER.**

Install the system. Get a lifetime limited warranty.\* TYPAR® Drainable Wrap, along with the full TYPAR® Weather Protection System delivers unbeatable coverage.

\*Certain limitations and exclusions apply. See the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads) for full details.





# TYPAR® DRAINABLE WRAP™

## HANDLING THE EXCESS WITH SMART STRENGTH.

Here's the first thing to know: It's from TYPAR®. That means it's based on an already incredible material that leads in rugged, top-performing weather defense. But with a layer of integrated polypropylene fibers, we've added a highly effective drainage gap to shed bulk moisture. Better still, it works efficiently, no matter which direction you install it. Bottom line, are you concerned about drenching downpours, mold, and rot? Put up TYPAR Drainable Wrap to prevent water from compromising the wall cavity—and your reputation.

## LEADING FEATURES AND BENEFITS:

- Delivers the tear strength, air holdout, and breathability of TYPAR® BuildingWrap™
- Drains significantly faster than most conventional house wraps, per ASTM E2273 testing
- Install it any direction without affecting performance
- Exceeds minimum AC38 Code Requirement for Drainage Efficiency as per ASTM E2273
- Lifetime limited warranty\*

## INSTALL THE SYSTEM. GET A LIFETIME LIMITED WARRANTY.\*

Take your stand on unbeatable—and comprehensive—defense. Our Drainable Wrap, along with our Flashings and Construction Tape, works as a part of the TYPAR® Weather Protection System. Install it all together and get covered by the only lifetime limited warranty in the industry.\*

\*TYPAR Drainable Wrap is part of the TYPAR Lifetime Limited System Warranty when used with the complete TYPAR Weather Protection System. Certain limitations and exclusions apply. See the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads) for full details.

The information contained herein is to the best of our knowledge accurate and reliable and is provided for the user's assessment and verification. However, since the circumstances and conditions under which such information and the products discussed can be used may vary and are beyond our control, we make no warranties, express or implied, other than those warranties described in the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads), subject to the limitations and exclusions described therein.

NOTE: TYPAR Drainable Wrap is not available in Canada.

## TYPICAL CHARACTERISTICS:

Basis Weight	D5261	3.04 oz/yd <sup>2</sup>
Thickness	D1777	25 mils
Drainage Efficiency	E2273	94.8%
Breaking Strength (Grab Tensile)	D5034	67 lbs MD 73 lbs CD
Trapezoidal Tear Resistance	D5733	30 lbs MD 33 lbs CD
Hydrostatic Pressure Resistance	AATCC 127-1995	>500 cm
Moisture Vapor Transmission Rate	E96-95 A	11.7 perms
Ultraviolet Light Exposure Resistance		6 months
Air Penetration Resistance (Gurley Hill Porosity)		>2500 sec/ 100 cc
Water Resistance Test	D779	PASS
Surface Burning Characteristics (ASTM E84)		
Flame Spread Index	Class A	
Smoke Spread Index	PASS	

## ROLL SIZES:

5' x 100'



August 2019 | Made in USA. TYPAR® and TYPAR® Drainable Wrap™ are trademarks of Berry Global, Inc. or one of its affiliates. Please visit [TYPAR.com](http://TYPAR.com) for installation instructions and warranty information. Building Wraps | Flashings | Construction Tape



# TYPAR® DRAINABLEWRAP™

## THREE-PART SPECIFICATIONS

### PART 1. GENERAL

#### 1.1 Summary

- A. Includes but not limited to:
  1. Furnish and install drainable weather-resistive barriers on exterior side of exterior wall sheathing as described in Contract Documents.

#### 1.2 References

- A. ASTM E2773-18 "Standard Test Method for Determining the Drainage Efficiency of Exterior Insulation and Finish Systems (EIFS) Clad Wall Assemblies."
- B. ASTM E1677-95 "Standard Specification for an Air Retarder (AR) Material or System for Low-Rise Framed Building Walls."
- C. ASTM E96-90 "Standard Test Method for Water Transmission of Materials."
- D. AATCC-127 "Hydrostatic Head Test."
- E. ASTM D5733-9 Trapezoidal Test.
- F. ASTM D779 Dry Indicator Method, Water Penetration Resistance.

#### 1.3 Submittals

- A. Quality Assurance:
  1. Submit copies of test results showing performance characteristics equaling or exceeding those specified.

### PART 2. PRODUCTS

#### 2.1 Water-Resistant Barrier

- A. Spunbonded polypropylene weather membrane with a microporous coating and layer of integrated polypropylene fibers, nonwoven, nonperforated.
- B. Performance Characteristics:
  1. Drainage Efficiency: 94.8%, when testing in accordance with ASTM E2773.
  2. Gurley Hill Air Penetration Resistance [TAPPI T 460] [sec/100cc] >2500.
  3. Type I Air Barrier Material when tested in accordance with ASTM E1677.
  4. Type II Water-Resistive Barrier when tested in accordance with ASTM E2556.
  5. Water Vapor Transmission: 9-15 perms as tested by ASTM E96-90, Method A.
  6. Water Resistance Test ASTM D779.
  7. Basis Weight: 3.04 oz/yd<sup>2</sup> ASTM D5261.
  8. Air-Ins (Air Leakage Test) <.02L/S-M<sup>2</sup> @ 75 PA.
  9. Breaking Strength (Grab Tensile): 67 MD/73 CD lbs/in, when tested in accordance with ASTM D5034.
  10. Trapezoidal Test of 30/33 in accordance with ASTM D5733-9.
  11. Surface Burning Characteristics: Class A, when tested in accordance with ASTM E84. Flame Spread: PASS. Smoke Spread: PASS. NFPA 285: PASS.
- C. Approved Manufacturers:
  1. TYPAR® Weather-Protection Membrane by Berry Global, Inc. [www.TYPAR.com](http://www.TYPAR.com).
- D. Manufacturer's Warranty:
  1. Limited product and limited system warranty available depending on the application, see the TYPAR® Weather Protection System Limited Warranty located at [www.TYPAR.com/downloads](http://www.TYPAR.com/downloads) for warranty details.

#### 2.2. Manufacturer's Accessory Products – Sealing Tape/Fasteners

- A. Tape(s):
  1. TYPAR® Construction Tape.
    - i. Description:
      - a. Face Material Composition: Polyethylene Barrier.
      - b. Face Color: Gray.
      - c. Adhesive Composition: Acrylic.
      - d. Thickness: 3.6mil.
      - e. Dimensions: 1-7/8" x 165'; 3" x 165'
    - ii. Performance Characteristics:
      - a. Temperature Resistance: 0°F (-18°C) – Min. application temperature; 230°F (110°C) – Max. application temperature.
      - b. Peel Adhesion PSTC-1\*
      - c. Tensile Strength PSTC-31\*

\*Pressure-Sensitive Tape Council.

- iii. Accessories:
  - a. Primer: Polyken® spray adhesive or equal.
  - b. Flashing Tape: TYPAR® All-Temperature Flashing, TYPAR® Flexible Flashing, and TYPAR® Butyl Flashing.
  - c. Fastener: Fastener is dependent on substrate construction.
  - d. Sealant: Must comply with ASTM C920 elastomeric polymer sealant.
- 2. TYPAR® Double-Sided Seam Tape.
  - i. Description:
    - a. Face Material Composition: Paper Liner.
    - b. Face Color: White Paper Liner, Clear Carrier Film.
    - c. Adhesive Composition: Acrylic.
    - d. Thickness: 10.3mil.
    - e. Dimensions: 1.5" x 180'.
  - ii. Performance Characteristics:
    - a. Temperature Resistance: -15°F (-9°C) – Min. application temperature; 200°F (92°C) – Max. application temperature.
    - b. Peel Adhesion PSTC-1\*
    - c. Tensile Strength PSTC-31\*
  - iii. Accessories:
    - a. Primer: Polyken spray adhesive or equal.
    - b. Flashing Tape: TYPAR All-Temperature Flashing, TYPAR Flexible Flashing, and TYPAR Butyl Flashing.
    - c. Fastener: Fastener is dependent on substrate construction.
    - d. Sealant: Must comply with ASTM C920 elastomeric polymer sealant.

**B. Flashing:**

- 1. TYPAR All-Temperature Flashing.
  - i. Description:
    - a. Face Material Composition: Polyethylene Barrier.
    - b. Face Color: Gray.
    - c. Adhesive Composition: Block Copolymer.
    - d. Thickness: 16mil.
    - e. Release Liner: Polyfilm.
    - f. Dimensions: 4" x 75'; 6" x 75'; 9" x 75'; 12" x 75'.
  - ii. Performance Characteristics:
    - a. Low Temp Pliability ASTM C765: PASS.
    - b. Nail Sealability ASTM D1970: PASS.
    - c. Tensile Strength ASTM D5034-95: PASS.
    - d. Peel Adhesion ASTM D3330-04: PASS.
  - iii. Accessories:
    - a. Primer: Use 3M™ Super 77™ or equal.
    - b. Seam Tape: TYPAR® Construction Tape.
    - c. Fastener: Fastener is dependent on substrate construction.
    - d. Sealant: Must comply with ASTM C920 elastomeric polymer sealant.
- 2. TYPAR Butyl Flashing.
  - i. Description:
    - a. Face Material Composition: Polyethylene Barrier.
    - b. Face Color: Gray.
    - c. Adhesive Composition: Butyl Rubber Adhesive.
    - d. Thickness: 18.5mil.
    - e. Release Liner: Kraft Paper.
    - f. Dimensions: 4" x 75'; 6" x 75'; 9" x 75'; 12" x 75'.
  - ii. Performance Characteristics:
    - a. Low Temp Pliability ASTM C765: PASS.
    - b. Nail Sealability ASTM D1970: PASS.
    - c. Tensile Strength ASTM D5034-95: PASS.
    - d. Peel Adhesion ASTM D3330-04: PASS.
  - iii. Accessories:
    - a. Primer: Polyken spray adhesive or equal.
    - b. Seam Tape: TYPAR Construction Tape.
    - c. Fastener: Fastener is dependent on substrate construction.
    - d. Sealant: Must comply with ASTM C920 elastomeric polymer sealant.

**C. Recommended Sealants Against TYPAR® Logo-Side Coating:**

- 1. Elastomeric polymer-based, butyl rubber, rubber-based, meeting ASTM C920 evaluation.

**D. Recommended Fasteners for Wood, Insulated Sheathing Board, Exterior Gypsum:**

- 1. Plastic cap nails.
- 2. Plastic cap staples.

**E. Recommended Fasteners for Steel Frame Construction:**

- 1. Rust-resistant screws with washers.

**F. Recommended Fastening to Masonry:**

- 1. Sealant: Polyurethane-based, meeting ASTM C920 evaluation.
- 2. Mechanical: Masonry fastener with washer.



## PART 3. EXECUTION

### 3.1 Installation

- A. TYPAR® DrainableWrap™
  - 1. Install in accordance with manufacturer's instruction over exterior sheathing or open studs. Seal joints and penetrations through weather-resistive barrier with specified tape and fasteners prior to installation of finish material. Air infiltration barrier shall be airtight and free from holes, tears, and punctures. All window and door penetrations are to be flashed and sealed per ASTM 2112, AAMA guidelines, and manufacturer instructions. Cover with exterior cladding within six months of installation.
- B. TYPAR® Construction Tape.
  - 1. Follow the TYPAR® flashing installation procedures.
- C. TYPAR® Double-Sided Seam Tape.
  - 1. Follow the TYPAR flashing installation procedures.
- D. TYPAR® Butyl Flashing.
  - 1. Follow the TYPAR flashing installation procedures.

### 3.2 Examination

- A. TYPAR DrainableWrap.
    - 1. Verify substrate and surface conditions are in accordance with the flashing manufacturer's recommendation.
  - B. TYPAR Butyl Flashing.
    - 1. Verify substrate and surface conditions are in accordance with the flashing manufacturer's recommendation.
- NOTE: Flashing manufacturer recommends weather barrier be installed prior to the installation of the windows.

### 3.3 Protection

- A. TYPAR Butyl Flashing.
  - 1. Protect installed self-adhesive and flashing tapes from damage during construction.
- A. TYPAR Butyl Flashing.
  - 1. Protect installed flashing from damage during construction.



# TYPAR® DRAINABLEWRAP INSTALLATION GUIDE

## VERTICAL WALL INSTALLATION

Install TYPAR® DrainableWrap over an approved exterior sheathing after the framing is complete and before the windows and doors have been installed. Plastic-capped fasteners should be used and spaced at 32" OC (vertically and horizontally) when being applied over 7/16" OSB or 15/32" plywood. When installing over metal framing, use screws with washers. If the windows and doors have already been installed, trim the TYPAR DrainableWrap close to the window frame and flash according to the TYPAR® flashing instructions.

### STEP 1

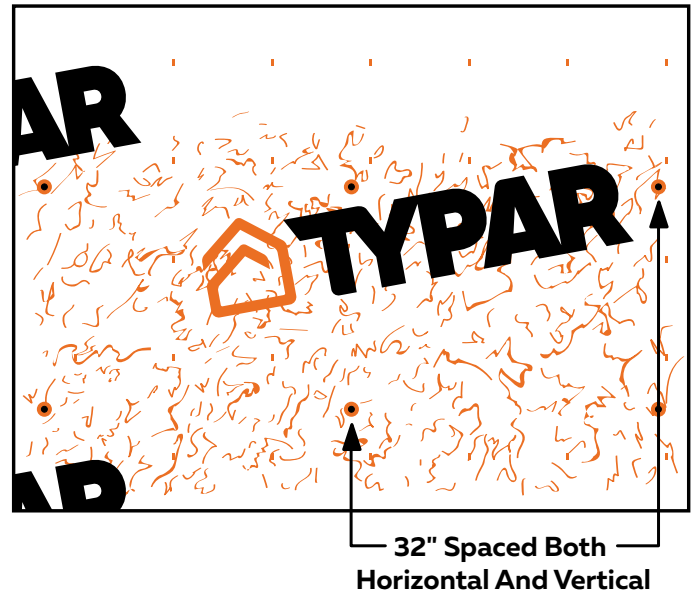
Start at the bottom of one end of the wall with the side without fiber facing up. When starting at a corner, overlap by a minimum of 12".

Place the TYPAR DrainableWrap roll horizontally and roll out the first course evenly, covering rough window and door openings. A minimum of a 1" (25.4 mm) overlap on the sill plate is required; however, for maximum protection, a 2-4" (51-102 mm) overlap on the sill plate is recommended.

Pull the TYPAR DrainableWrap snug and avoid wrinkles and creases. Ensure that the product is level.

### STEP 2A

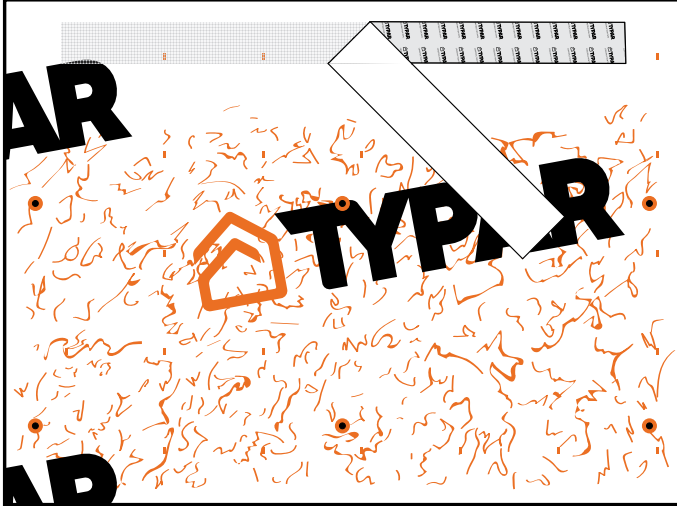
Fasten the TYPAR DrainableWrap to the stud using plastic-capped nails or plastic-capped staples at 32" OC, both horizontally and vertically.



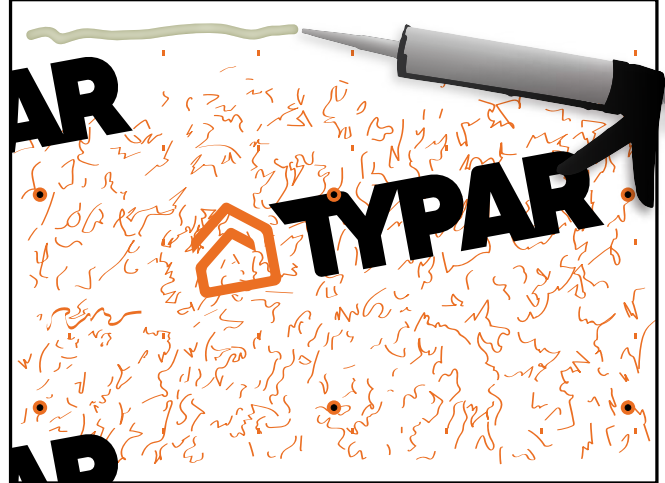
**VERTICAL WALL INSTALLATION**

**STEP 2B**

Apply TYPAR® Double Sided Seaming Tape or any polyurethane-based caulking sealant on the top edge of the TYPAR DrainableWrap within 6". We do not recommend use of silicone-based caulking sealants.



**Option 1:** TYPAR Double Sided Tape



**Option 2:** Any Polyurethane-Based Caulking Sealant

**STEP 2C**

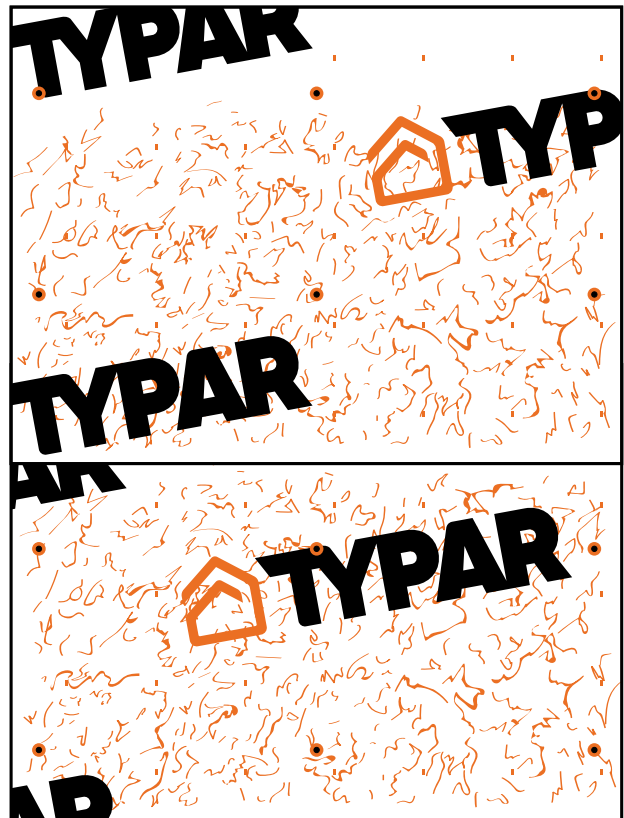
Apply the second layer TYPAR® DrainableWrap on top of the first.

**STEP 3**

The upper layer of TYPAR DrainableWrap should overlap the bottom layer by a minimum of 6" (152 mm) vertically and horizontally. Ensure proper shingling throughout the installation to properly shed water.

**STEP 4**

After the installation is complete, and before the exterior cladding is installed, inspect the TYPAR DrainableWrap for tears. Repair the issues with TYPAR® Construction Tape or TYPAR® flashing.







April 2020 | White Paper

# **DRAINABLE BUILDING WRAPS OFFER SOLUTION AGAINST MOISTURE INFILTRATION**



**Figure 1.** TYPAR® Drainable Wrap™ features a layer of polypropylene fibers that is integrated into the housewrap material, leading to a 94.8% drainage efficiency.



## Drainable Building Wraps Offer Solution Against Moisture Infiltration

With as many ways as there are to construct a wall system, there are an equal number of ways to try to keep that wall dry. But as the race to waterproof wall assemblies continues, we may be inadvertently making it easier for moisture-related issues to fester. After all, no matter how tightly buildings are constructed, water will inevitably find its way in. There's no such thing as a "waterproof" wall.

The walls that will perform the highest are the ones that have been designed to realistically manage moisture and dry out—not those designed to achieve the unachievable goal of completely blocking out all moisture. Choices for managing moisture are expanding, driven by advances in technology, evolving building codes, and remaining concern with mold prevention, indoor air quality, and energy efficiency, among many other factors.

Thankfully, advances in weather-resistant barriers (also known as WRBs, building wrap or housewrap) have resulted in high-performing, labor-friendly solutions for protecting homes and buildings from the elements, while allowing them to both release vapor buildup and drain bulk water. And with a growing number of products hitting the market to address this need, it's important to understand the building codes related to weather protection, moisture drainage, and how specific a building wrap performs in order to specify the right building wrap for your project.

### The Building Code

The 2018 International Building Code (IBC), Section 1402.2, "Weather Protection," requires exterior walls "provide the building with a weather-resistant exterior wall envelope... designed and constructed in such a manner as to prevent the accumulation of water within the wall assembly by providing a water-resistive barrier behind the exterior veneer... and a means for draining water that enters the assembly to the exterior."

This water-resistive barrier, as defined by Section 1403.2, "Weather Protection," comprises at least "one layer of No. 15 asphalt felt, complying with ASTM D226, Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing, for Type 1 felt or other approved materials... attached to the studs or sheathing."

It is important to note the difference between a weather-resistant barrier (WRB) and a water-resistive barrier, as they have distinct purposes but are often confused with one another. The American Architectural Manufacturers Association (AAMA) defines WRBs as a surface or a wall responsible for preventing air and water infiltration to the building interior. The differentiating factor is a WRB must also prevent air infiltration, while water-resistive barriers are only responsible for stopping water intrusion.

WRBs are commonly specified for commercial buildings or projects where a higher level of performance is desired of the vertical building enclosure, and when it is critical

**Figure 2.** Building wraps made of polyethylene or polypropylene fabric have been a popular method of protecting homes and buildings against moisture intrusion since the 1970s.



to have greater control of interior environmental conditions. Water-resistant barriers, on the other hand, are usually limited to residential and low-rise structures.

Recently, some states have added even more prescriptive measures to their codes that now include the use of drainage planes, and others are expected to follow.

Oregon, for example, requires that the building envelope consist of an exterior veneer, a water-resistant barrier, a minimum 1/8" (3 mm) space between the WRB and the exterior veneer, and integrated flashings. The envelope must provide proper integration of flashings with the water-resistant barrier, the space provided, and the exterior veneer. In lieu of providing the 1/8" space between the exterior veneer and the water-resistant barrier, builders can install the exterior veneer over a water-resistant barrier that is manufactured to enhance drainage and meets the 75% drainage efficiency requirement of ASTM E2273 or other recognized national standards.

These considerations are driving the adoption of new WRB solutions that meet both bulk water blockage and drainage needs that satisfy the requirements for today's high-performing wall systems.

### **More Than One Way to Keep a Wall Dry**

Due to their durability and ease of installation, building wraps made of polyethylene or polypropylene fabric have been a popular method of protecting against moisture intrusion since the 1970s. But as building assemblies have gotten tighter, building wraps have taken on a new function—helping to remove trapped water from the building enclosure. Their unique functionality enables them to both block moisture from the outside, while also allowing walls to "breathe" to prevent vapor buildup. And the very latest innovations in housewrap technology are taking this moisture removal function one step further to incorporate drainage capabilities, as well.

Water can find its way into a wall via numerous paths. High humidity and extreme temperatures can cause vapor diffusion with moisture flowing from warm to cold and condensing on the colder surface. Reservoir cladding materials such as brick and stucco can absorb and store moisture, which can be driven back into the wall assembly when warmed by the sun. Wind-driven rain can be forced into small openings in the exterior cladding at joints, laps, and utility cutouts. Further, wind blowing around the buildings can create a negative pressure within a wall assembly, siphoning water into the wall.

Drainage is widely accepted as one of the most effective measures for reducing the risk of potential damage due to rain penetration and is a critical component in allowing a building wrap to do its job—particularly in keeping walls dry. Historically, drainage has been achieved through the use of furring strips that separate the wrap from the structural sheathing and framing, but new technologies have emerged that are helping to simplify this process.

**Figure 3.** The American Architectural Manufacturers Association defines WRBs as a surface or a wall responsible for preventing air and water infiltration to the building interior.



Today's most advanced building wrap products feature integrated drainage gaps through creping, embossing, weaving, or filament spacers. These new products eliminate the need for furring strips, helping to reduce material costs and streamline installation.

The drainage efficiency of a building wrap is generally tested in accordance of ASTM E2273. In simple terms, this test involves spraying water onto a wall assembly and measuring its collection over time. However, given the variety of drainable building wraps available, how quickly bulk water is drained can vary significantly.

### The Latest in Building Wrap Technology

One method for achieving bulk water drainage is attaching a rainscreen material onto the building wrap. These products eliminate the cost and time-consuming labor of installing furring strips by creating a gap between the sheathing and the cladding, which facilitates both drainage and continuous airflow. Where wood strapping only vents approximately 85 percent of the wall, building wraps with an integrated rainscreen provide a continuous vented airspace over the entire surface area of the wall, providing greater drainage and more effective drying. And because many rainscreen products use a matrix of plastic material to achieve the gap, they aren't subject to saturation and decomposition that could compromise wood furring.

Rainscreen products are recommended in areas with wind-driven rain, high amounts of rainfall (40 to 60 inches annually), or high temperature and humidity. Coastal areas and hilltop exposures are prime examples of when this technology would be ideal. In these situations, the importance of creating a drainage plane is heightened when using an absorptive cladding material like wood or fiber cement.

The cutting edge of drainable building wrap technology is products that create a drainage gap through an additional layer of polypropylene fibers. TYPAR® Drainable Wrap™ for example, uses this technology to create a 1 mm drainage gap and has been shown to achieve 94.8 percent drainage efficiency per ASTM E2273—without sacrificing any of the durability and ease of installation benefits builders and contractors have come to expect from premium building wraps. TYPAR Drainable Wrap essentially handles and installs the same as a standard TYPAR® BuildingWrap™. In addition, it is backed by an industry-leading, lifetime limited warranty that includes both materials and labor.\*

These products can also be installed in any direction without affecting performance. And they are vapor-permeable, so moisture will not become trapped in the wall assembly and lead to mold or rot issues.

### Making the Right Spec

With so many options to choose from, how do you know what type of weather protection is best for your project? In addition to the scenarios described within this paper, there are a number of factors to consider.

**Figure 4.** As building assemblies have gotten tighter, building wraps have taken on a new function—helping to remove trapped water from the building enclosure.



A key consideration is the type of cladding being used. When installing vinyl siding—which has built-in drainage holes and fits loosely on the wall—an ordinary smooth-faced building wrap should provide adequate drainage. However, tightly fastened cladding, such as cedar siding or fiber cement board, might allow water trapped between the siding and a smooth building wrap to pool and could eventually make its way through the building wrap and into the framing. These are cases where a drainable wrap would provide significant benefit.

Reservoir claddings, such as brick, stucco, and stone, present another set of issues. Because these materials hold water, once they get wet, the stored water can migrate elsewhere and cause problems. In these applications, it is imperative to separate the cladding from the rest of the assembly with a capillary break, which can be an airspace or a material that sheds water or does not absorb or pass water.

Geography and climate are important, as well, specifically as it relates to annual rainfall. As a rule of thumb, the Building Enclosure Moisture Management Institute recommends that any area receiving more than 20 inches of annual rainfall should incorporate enhanced drainage techniques—especially if using an absorptive cladding material—while areas receiving 40 inches or more should utilize rainscreen design regardless of cladding material. The geographic orientation of the wall, amount of overhang, altitude, and even nearby trees can also have an impact on how much water intrusion can be expected and how likely it is to dry.

## Conclusion

While we can't completely stop water from getting into walls, advances in building wrap technology are a welcome way to help ensure potential damage from water intrusion is mitigated. And with a variety of drainable products to choose from, each offering a different approach to bulk water drainage, builders and contractors have many ways to keep walls dry in any climate or condition.

\*Certain limitations and exclusions apply.



**FOR MORE INFO, VISIT [TYPAR.COM](https://www.ty-par.com).**



Building Wraps | Flashings | Construction Tape

April 2020 | Made in USA

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# TYPAR

## DRAINABLEWRAP PEEL AND STICK

**MADE WITH PRIDE IN OLD HICKORY, NC**

- Building Wraps
- Flashings
- Construction Tape
- Fasteners

### BRING ON THE ELEMENTS.

© 2016 Berry Plastics Corporation • ICC-ES ESR-3404  
Use the complete TYPAR® Weather Protection System and get the only lifetime limited warranty in the industry.  
Please visit [TYPAR.com](http://TYPAR.com) for installation instructions and warranty information.

# DRAINABLEWRAP™ PEEL AND STICK



**DEFEND AGAINST EXCESS MOISTURE WITHOUT EXCESS EFFORT.**

Install the system. Get a lifetime limited warranty.\* TYPAR® DrainableWrap Peel and Stick, along with the full TYPAR® Weather Protection System, delivers unbeatable coverage.

\*Certain limitations and exclusions apply. See the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads) for full details.





# TYPAR® DRAINABLEWRAP™ PEEL AND STICK

## READY TO BEAT BULK WATER AND TIGHT TIMELINES?

Rely on our one-of-a-kind technology that gives enhanced drainability to our already superior weather barrier material. TYPAR DrainableWrap Peel and Stick is available in 4' 10" rolls so you can cover more area than the average peel-and-stick quickly—without having to worry about which direction you're applying it. With the name TYPAR® comes market-leading trust in defending structures from the elements. And with the ability to peel, stick, and keep moving, comes an edge in staying on schedule.

## LEADING FEATURES AND BENEFITS:

- Delivers ease and speed of peel-and-stick installation
- Provides the tear strength, air holdout, drainability, and breathability of TYPAR® DrainableWrap™
- Drains significantly faster than conventional house wraps, per ASTM E2273 testing, with 94.8% efficiency
- Reduces penetrations from fasteners to help create a tighter building envelope
- Installs in any direction without affecting performance

## INSTALL THE SYSTEM. GET A LIFETIME LIMITED WARRANTY.\*

Our DrainableWrap Peel and Stick, along with our Flashings and Construction Tape, works as a part of the TYPAR® Weather Protection System. Install it all together and get the only lifetime limited warranty in the industry.

### TYPICAL CHARACTERISTICS:

Basis Weight	D5261	4.2 oz/yd <sup>2</sup>
Thickness	D1777	22.9 mils
Drainage Efficiency	E2273	94.8%
Peel Adhesion to Substrates: - OSB                    - Vinyl - Anodized           - Plywood Aluminum	D3330	>2 lbs/in
Cold Temperature Pliability	C765	PASS
Breaking Strength (Grab Tensile)	D5034	67 lbs MD 73 lbs CD
Trapezoidal Tear Strength	D5733	30 lbs MD 33 lbs CD
Hydrostatic Pressure Resistance	AATCC 127-1995	>500 cm
Moisture Vapor Transmission Rate	E96-95	10 perms
Ultraviolet Light Exposure Resistance		6 months
Air Permeance	E2178	<.01 l/m <sup>2</sup> @ 75 Pa
Air Penetration Resistance (Gurley Hill Porosity)		>2500 sec/ 100cc
Water Resistance Test	D779	PASS
Surface Burning Characteristics (ASTM E84)		
Flame Spread Index		Class A
Smoke Spread Index		PASS
<b>ROLL SIZE:</b>		
4' 10" x 100'		

\*TYPAR DrainableWrap Peel and Stick is part of the TYPAR Lifetime Limited System Warranty when used with the complete TYPAR Weather Protection System. Certain limitations and exclusions apply. See the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads) for full details.

The information contained herein is to the best of our knowledge accurate and reliable and is provided for the user's assessment and verification. However, since the circumstances and conditions under which such information and the products discussed can be used may vary and are beyond our control, **we make no warranties, express or implied, other than those warranties described in the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads), subject to the limitations and exclusions described therein.**

NOTE: TYPAR DrainableWrap Peel and Stick is not available in Canada. ICC-ES #1404.



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Building Wraps | Flashings | Construction Tape





# TYPAR® DRAINABLEWRAP™ PEEL AND STICK THREE-PART SPECIFICATIONS

## PART 1. GENERAL

### 1.1 Summary

A. Includes but not limited to:

1. This Section specifies TYPAR DrainableWrap Peel and Stick applied as a drainable water-resistive barrier and air barrier assembly on exterior walls.
2. Install drainable peel-and-stick weather-resistive barrier on exterior side of wall sheathing as outlined in Installation Guide.

### 1.2 References

- A. ASTM E2773-18 "Standard Test Method for Determining the Drainage Efficiency of Exterior Insulation and Finish Systems (EIFS) Clad Wall Assemblies"
- B. ASTM E1677-95 "Standard Specification for an Air Retarder (AR) Material or System for Low-Rise Framed Building Walls"
- C. ASTM E96-90 "Standard Test Method for Water Transmission of Materials"
- D. AATCC-127 "Hydrostatic Head Test"
- E. ASTM D5733-9 Trapezoidal Test.
- F. ASTM D779 Dry Indicator Method, Water Penetration Resistance.
- G. ASTM D3330 Method F, "Standard Test Method for Peel Adhesion of Pressure Sensitive Tape"
- H. ASTM C765 "Standard Test Method for Low-Temperature Flexibility of Preformed Tape Sealants"

### 1.3 Submittals

A. Quality Assurance:

1. Submit copies of test results showing performance characteristics equaling or exceeding those specified.

## PART 2. PRODUCTS

### 2.1 Water-Resistant Barrier

- A. Spunbonded polypropylene weather membrane with a microporous coating and layer of integrated polypropylene fibers, nonwoven, nonperforated and backed with an acrylic adhesive and a release film.
- B. Performance Characteristics:
  1. Drainage Efficiency: 94.8%, when tested in accordance with ASTM E2773.
  2. Peel Adhesion to OSB, Anodized Aluminum, Vinyl and Plywood >2, when tested in accordance with ASTM D3330.
  3. Cold Temperature Pliability, when tested in accordance with ASTM C765: PASS.
  4. Gurley Hill Air Penetration Resistance [TAPPI T 460] [sec/100cc] >2500.
  5. Type I Air Barrier Material when tested in accordance with ASTM E1677.
  6. Type II Water-Resistive Barrier when tested in accordance with ASTM E2556.
  7. Water Vapor Transmission: >10 perms as tested by ASTM E96-90, Method A.
  8. Water Resistance Test ASTM D779.
  9. Basis Weight: 4.2 oz/yd<sup>2</sup> ASTM D5261.
  10. Air-Ins (Air Leakage Test) <.02L/S-M<sup>2</sup> @ 75 PA.
  11. Breaking Strength (Grab Tensile): 67 MD/73 CD lbs/in, when tested in accordance with ASTM D5034.
  12. Trapezoidal Test of 30/33 in accordance with ASTM D5733-9.
  13. Surface Burning Characteristics: Class A, when tested in accordance with ASTM E84. Flame Spread: PASS. Smoke Spread: PASS. NFPA 285: PASS.
- C. Approved Manufacturers:
  1. TYPAR® Weather-Protection Membrane by Berry Global, Inc. [www.TYPAR.com](http://www.TYPAR.com).
- D. Manufacturer's Warranty:
  1. Limited product and limited system warranty available depending on the application, see the TYPAR® Weather Protection System Limited Warranty located at [www.TYPAR.com/downloads](http://www.TYPAR.com/downloads) for warranty details.

### 2.2. Manufacturer's Accessory Products – Sealing Tape/Fasteners

A. Tape(s):

1. TYPAR® Construction Tape.
  - i. Description:
    - a. Face Material Composition: Polyethylene Barrier.
    - b. Face Color: Gray.
    - c. Adhesive Composition: Acrylic.
    - d. Thickness: 3.6mil.
    - e. Dimensions: 1-7/8" x 165'; 3" x 165'

- ii. Performance Characteristics:
  - a. Temperature Resistance: 0°F (-18°C) – Min. application temperature; 230°F (110°C) – Max. application temperature.
  - b. Peel Adhesion PSTC-1\*
  - c. Tensile Strength PSTC-31\*
- iii. Accessories:
  - a. Primer: Use 3M™ Super 77,™ Polyken® spray adhesive or equal.
  - b. Flashing Tape: TYPAR® All-Temperature Flashing, TYPAR® Flexible Flashing, and TYPAR® Butyl Flashing.
  - c. Fastener: Fastener is dependent on substrate construction.
  - d. Sealant: Must comply with ASTM C920 elastomeric polymer sealant.

**B. Flashing:**

**1. TYPAR All-Temperature Flashing.**

- i. Description:
  - a. Face Material Composition: Polyethylene Barrier.
  - b. Face Color: Gray.
  - c. Adhesive Composition: Block Copolymer.
  - d. Thickness: 16mil.
  - e. Release Liner: Polyfilm.
  - f. Dimensions: 4" x 75'; 6" x 75'; 9" x 75'; 12" x 75'
- ii. Performance Characteristics:
  - a. Low Temp Pliability ASTM C765: PASS.
  - b. Nail Sealability ASTM D1970: PASS.
  - c. Tensile Strength ASTM D5034-95: PASS.
  - d. Peel Adhesion ASTM D3330-04: PASS.
- iii. Accessories:
  - a. Primer: Use 3M™ Super 77,™ Polyken spray adhesive or equal.
  - b. Seam Tape: TYPAR® Construction Tape.
  - c. Fastener: Fastener is dependent on substrate construction.
  - d. Sealant: Must comply with ASTM C920 elastomeric polymer sealant.

**2. TYPAR Butyl Flashing.**

- i. Description:
  - a. Face Material Composition: Polyethylene Barrier.
  - b. Face Color: Gray.
  - c. Adhesive Composition: Butyl Rubber Adhesive.
  - d. Thickness: 18.5mil.
  - e. Release Liner: Kraft Paper.
  - f. Dimensions: 4" x 75'; 6" x 75'; 9" x 75'; 12" x 75'
- ii. Performance Characteristics:
  - a. Low Temp Pliability ASTM C765: PASS.
  - b. Nail Sealability ASTM D1970: PASS.
  - c. Tensile Strength ASTM D5034-95: PASS.
  - d. Peel Adhesion ASTM D3330-04: PASS.
- iii. Accessories:
  - a. Primer: Use 3M™ Super 77,™ Polyken spray adhesive or equal.
  - b. Seam Tape: TYPAR Construction Tape.
  - c. Fastener: Fastener is dependent on substrate construction.
  - d. Sealant: Must comply with ASTM C920 elastomeric polymer sealant.

**C. Recommended Sealants Against TYPAR® Logo-Side Coating:**

- 1. Elastomeric polymer-based, butyl rubber, rubber-based, meeting ASTM C920 evaluation.

**D. Recommended Fasteners for Wood, Insulated Sheathing Board, Exterior Gypsum:**

- 1. Plastic cap nails.
- 2. Plastic cap staples.

**E. Recommended Fasteners for Steel Frame Construction:**

- 1. Rust-resistant screws with washers.

**F. Recommended Fastening to Masonry:**

- 1. Sealant: Polyurethane-based, meeting ASTM C920 evaluation.
- 2. Mechanical: Masonry fastener with washer.

**PART 3. EXECUTION**

**3.1 Installation**

- A. TYPAR DrainableWrap Peel and Stick.
  - 1. Install in accordance with manufacturer's instruction over exterior sheathing or open studs. Air infiltration barrier shall be airtight and free from holes, tears, and punctures. All window and door penetrations are to be flashed and sealed per ASTM 2112, AAMA guidelines and manufacturer instructions. Cover with exterior cladding within six months of installation.
- B. TYPAR Construction Tape.
  - 1. Follow the TYPAR flashing installation procedures.
- C. TYPAR All-Temperature Flashing.
  - 1. Follow the TYPAR flashing installation procedures.
- D. TYPAR Butyl Flashing.
  - 1. Follow the TYPAR flashing installation procedures.

\*Pressure-Sensitive Tape Council.



**3.2 Examination**

- A. TYPAR DrainableWrap Peel and Stick.
    - 1. Verify substrate and surface conditions are in accordance with the flashing manufacturer's recommendation.
  - B. TYPAR® Butyl Flashing.
    - 1. Verify substrate and surface conditions are in accordance with the flashing manufacturer's recommendation.
- NOTE: Flashing manufacturer recommends weather barrier be installed prior to the installation of the windows.

**3.3 Protection**

- A. TYPAR Butyl Flashing.
  - 1. Protect installed self-adhesive and flashing tapes from damage during construction.



# TYPAR® DRAINABLEWRAP™ PEEL AND STICK INSTALLATION GUIDE

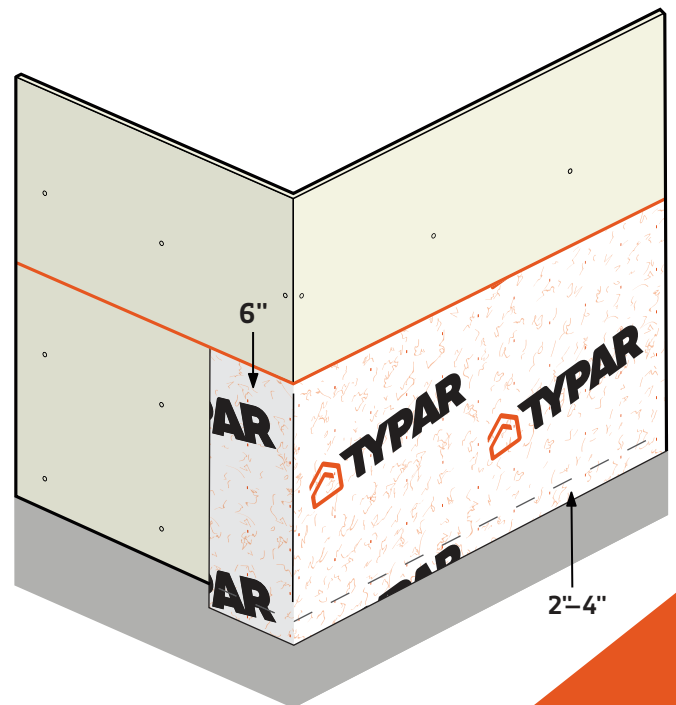
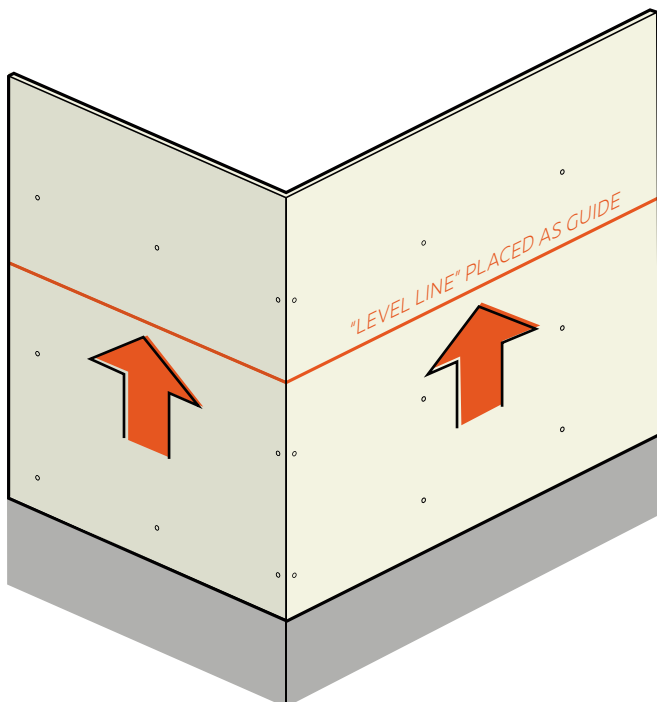
## HORIZONTAL WALL INSTALLATION

Install TYPAR® DrainableWrap™ Peel and Stick over an approved exterior sheathing, after the framing is complete and before the windows and doors have been installed. TYPAR DrainableWrap Peel and Stick is a self-adhered product and does not require any fasteners during installation. If the windows and doors have already been installed, trim the TYPAR DrainableWrap Peel and Stick close to the window frame and flash according to the TYPAR® flashing instructions. All installation procedures and techniques must comply with local code requirements and the latest version of ASTM 2112. Installation methods approved by the American Architectural Manufacturers Association (AAMA) are acceptable for TYPAR products and the TYPAR® Weather Protection System Lifetime Limited Warranty.\*

### STEP 1

Prepare the sheathing to be clean of dust and debris. For best practices, establish "level line" to use as a guide for top edge of TYPAR DrainableWrap Peel and Stick. Follow this level line as you roll out course to minimize wrinkles and ensure maximum adhesion to sheathing. TYPAR DrainableWrap Peel and Stick is comprised of an acrylic adhesive, and can be repositioned on sheathing to ensure a smooth, wrinkle-free application; however, ensure that the adhesive does not make contact with itself.

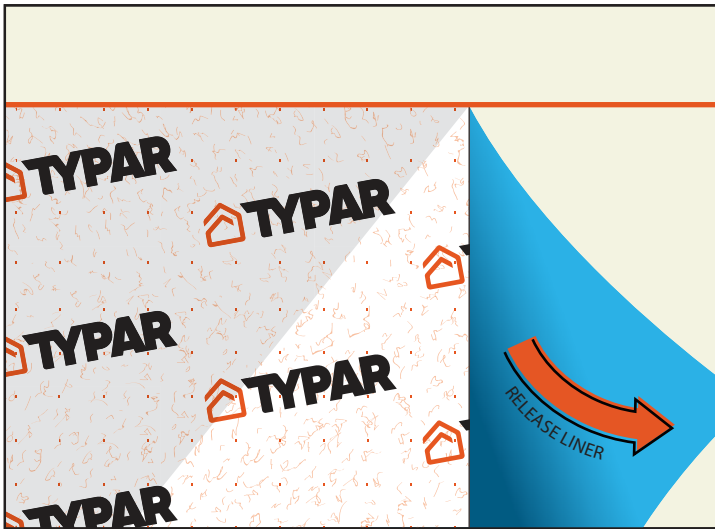
Start at the bottom of one end of the wall with the side without fiber facing up. When starting at a corner, overlap by a minimum of 6" (152 mm). A minimum of a 1" (25.4 mm) overlap on the sill plate is required; however, for maximum protection, a 2"-4" (51-102 mm) overlap on the sill plate is recommended.



**HORIZONTAL WALL INSTALLATION**

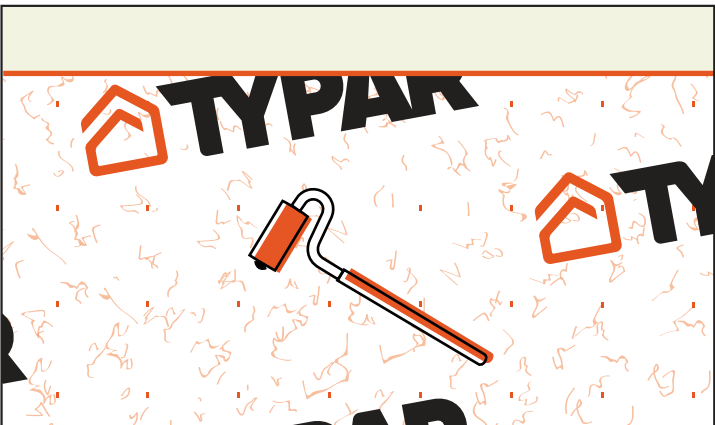
**STEP 2**

Peel single release liner from TYPAR® DrainableWrap™ Peel and Stick and align top of membrane to level line. You may fasten the exposed corner with a plastic cap fastener to hold membrane in place as you continue to the next step. Press roll firmly into place on sheathing using hand pressure, with pressure applied first in middle of roll and working toward outer edges, removing any wrinkles and air bubbles in the process.



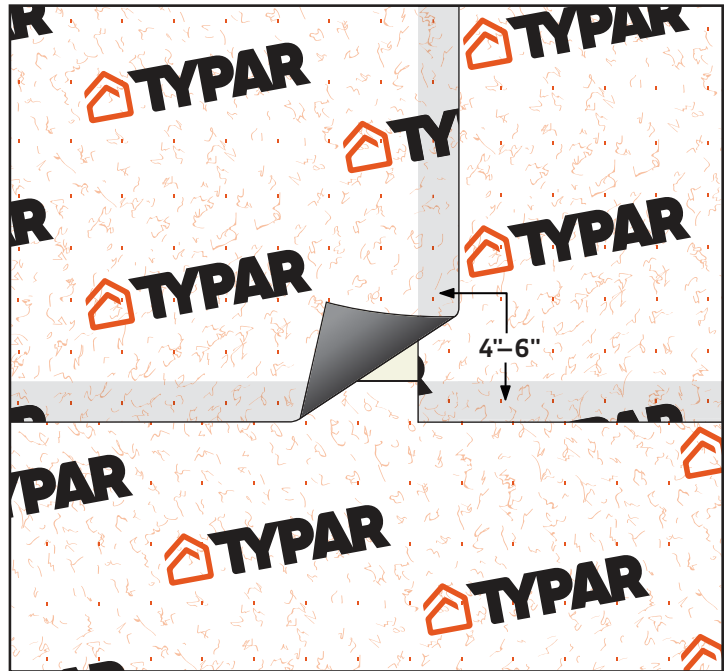
**STEP 3**

Continue unwinding roll, removing release liner and repeating hand pressure application until course is firmly applied to sheathing. For best practices, use a J-roller or other application tool to ensure any remaining wrinkles and air bubbles are removed from the course.



**STEP 4**

Repeat steps (2) and (3) for consecutive rolls, ensuring courses are applied in shingle lap fashion to properly shed water. Recommended overlap for horizontal and vertical applications is 4"-6" (102-152 mm). Use of TYPAR® Construction Tape on horizontal and vertical seams is optional.



**STEP 5**

After the installation is complete, and before the exterior cladding is installed, inspect the TYPAR DrainableWrap Peel and Stick for tears. Repair the issues with TYPAR Construction Tape or TYPAR® flashing.

Do-It-Yourself Install? Exposed corners may be fastened with plastic cap fasteners to hold membrane in place as you roll out each course. Use of plastic cap fasteners is an approved installation accessory and will not void warranty coverage for the TYPAR DrainableWrap Peel and Stick under the TYPAR® Weather Protection System Lifetime Limited Warranty.\*

\*Certain limitations and exclusions apply. See the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads) for full details.

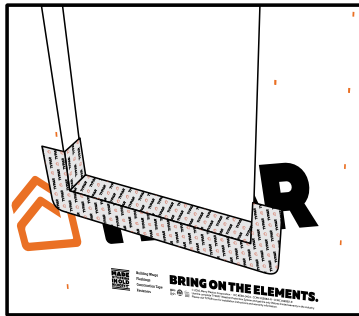


# TYPAR® FLASHING TAPES INSTALLATION GUIDE

## TYPICAL WINDOW FLASHING

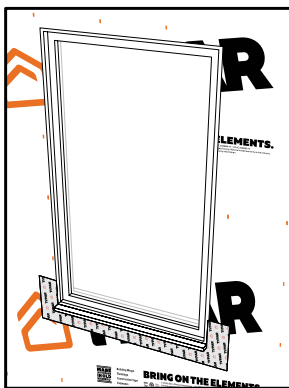
### Step 1

Install the window sill pan according to the manufacturer's instructions. Alternatively, you can create a sill pan using TYPAR® Flexible Flashing. Cut a piece that is 12" longer than the length of the rough opening window sill. Carefully peel off the release liner. Center the flashing in the center of the rough opening and work your way toward the corners and then up the sides. Note: the Flexible Flashing should overlap to the outside of the wall by 2-3." Only stretch the flashing in the corners. Alternatively to above, you can create a sill pan by installing TYPAR® straight flashing along the bottom sill and installing TYPAR® Flexible Flashing on the corners only. If needed, secure the fanned edges of the TYPAR® Flexible Flashing with a plastic-capped nail or plastic-capped staple.



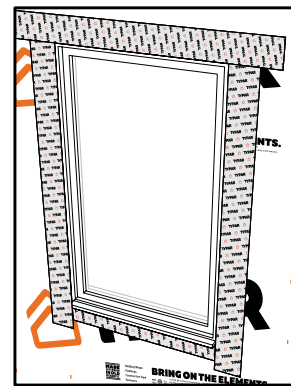
### Step 2

Apply a continuous bead of sealant to the back of the window or on the wall. Do not apply the sealant across the bottom of the sill or on the bottom of the window. This area is left open to allow for proper drainage. Install the window according to the manufacturer's installation instructions.



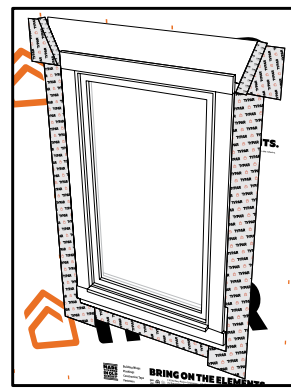
### Step 3

Cut two pieces of TYPAR® flashing long enough to extend 1" above the window head flange and 1" below the window sill flange. Carefully peel off the release liner and apply the flashing on both sides of the window. Make sure to cover the entire window flange, and press firmly either by hand or using a J-roller. Ensure there are no wrinkles or bubbles. Cut a piece of TYPAR® flashing for the head flashing. Ensure that the piece is long enough to extend by 1" on both sides of the jamb flashing. Remove the release liner and carefully install the flashing. Cover the window flange and press firmly by hand or using a J-roller.



### Step 4

Release the upper flap of the TYPAR® WRB that you cut earlier. Tape the 45-degree cuts using TYPAR® Construction Tape or TYPAR® flashing. DO NOT tape the WRB along the top of the window flange.



TYPAR® BuildingWrap is part of a complete Weather Protection System, which also includes TYPAR® MetroWrap™, TYPAR® Flashings and Construction Tape. For more information, visit [TYPAR.com](http://TYPAR.com)



# ALL-TEMPERATURE FLASHING



**APPLY SOME SERIOUS STICKING POWER. AND TACKLE THE EXTREME CONDITIONS.**

Install the system. Get a lifetime limited warranty.\* TYPAR® All-Temperature Flashing, along with the full TYPAR® Weather Protection System delivers unbeatable coverage.

\*Certain limitations and exclusions apply. See the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads) for full details.





# TYPAR® ALL-TEMPERATURE FLASHING

## WHEN WE SAY MAXIMUM ADHESION, WE MEAN IT.

Bitter cold. Searing heat. They won't compromise your ability to get the strongest seal possible. TYPAR All-Temperature Flashing is engineered to perform in a broad range of extremes and protect against moisture penetration at windows, doors and through-wall entry points. Whether we're talking OSB, plywood, aluminum, vinyl, or the building wrap, it sticks tight under the toughest conditions. Its easy-to-install properties make it ideal for faster, hassle-free installation during construction. And its durable character defends homes for years after the cladding is up.

## LEADING FEATURES AND BENEFITS:

- Suitable for installation down to 0° F (-18° C)
- Thermally stable up to 180° F (82° C)
- Sticks to wet surfaces
- Self-seals around nail penetrations
- Split poly backing for easy install
- No primer required
- No VOC, NFCC, or CFC
- Two-year shelf life
- Lifetime limited warranty\*

## INSTALL THE SYSTEM. GET A LIFETIME LIMITED WARRANTY:

TYPAR All-Temperature Flashing, Building Wraps, and Construction Tape make up the complete TYPAR® Weather Protection System. It's the only lineup with superior air and water holdout, exceptional tear strength, optimal breathability, and this: lifetime limited warranty coverage.\*

\*TYPAR All-Temperature Flashing is part of the TYPAR® Lifetime Limited System Warranty when used with the complete TYPAR Weather Protection System. Certain limitations and exclusions apply. See the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads) for full details.

The information contained herein is to the best of our knowledge accurate and reliable and is provided for the user's assessment and verification. However, since the circumstances and conditions under which such information and the products discussed can be used may vary and are beyond our control, **we make no warranties, express or implied, other than those warranties described in the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads), subject to the limitations and exclusions described therein.**

## TYPICAL CHARACTERISTICS:

Adhesive	Block copolymer
90 Peel Adhesion	
Plywood	5.0 lb/in
OSB	3.8 lb/in
Facer	4.6 lb/in
Mold Growth (ASTM G21)	No growth
Application Temp	0°F (-18°C) to 180°F (82°C)
Nail Sealability (AAMA 711-13)	PASS
UV Stability	6 months

## ROLL SIZES:

4" x 75'	6" x 75'	9" x 75'
12" x 75'		





# TYPAR® ALL-TEMPERATURE FLASHING THREE-PART SPECIFICATIONS

## PART 1. GENERAL

### 1.1 Section Includes

- A. Self-adhering Flashing: TYPAR All-Temperature Flashing
- B. Primers
- C. Fasteners

### 1.2 References

- A. ASTM International
  - 1. ASTM D-3330-04, Standard test method for peel or stripping strength of adhesive bonds
  - 2. ASTM C-765, Standard practice for cold pliability
  - 3. ASTM D-1970, Standard specification for self-adhesion polymer modified bituminous sheet materials

### 1.3 Submittals

- A. Product Data: Submit manufacturer current technical literature for each type of product
- B. Submit copies of test results showing performance characteristics equaling or exceeding those specified

### 1.4 Quality Assurance

- A. Qualifications
  - 1. Installer shall have documented successful experience with installation of TYPAR Flashing products
  - 2. Installation shall be in accordance with manufacturer's installation guidelines and recommendations

## PART 2. PRODUCTS

### 2.1 Manufacturer

- A. Berry Plastics, 70 Old Hickory Blvd, Old Hickory, TN 37138, +1 615-847-7000; [www.TYPAR.com](http://www.TYPAR.com)

### 2.2 Materials

- A. Self-adhering/straight flashing
  - 1. Description
    - i. Face material composition: polypropylene barrier
    - ii. Face color: gray
    - iii. Adhesive composition: block copolymer
    - iv. Thickness: 16mil
    - v. Release liner: polyfilm
    - vi. Dimensions: 4in x 25ft; 4in x 75ft; 6in x 75ft; 9in x 75ft; 12in x 75ft
- B. Performance characterizations
  - 1. Low temp pliability ASTM C-765 PASS
  - 2. Nail sealability ASTM D-1970 PASS
  - 3. Tensile strength ASTM D-5034-95 PASS
  - 4. Peel adhesion ASTM D-3330-04 PASS

### 2.3 Accessories

- A. Primer: Use 3M™ Super77™ or equal
- B. Seam tape: TYPAR construction
- C. Fastener: Fastener is dependent on substrate construction
- D. Sealant: Must comply with ASTM C920 elastomeric polymer sealant

## PART 3. EXECUTION

### 3.1 Examination

- A. Verify substrate and surface conditions are in accordance with the flashing manufacturer's recommendation
- NOTE – Flashing manufacturer recommends weather barrier be installed prior to the installation of the windows

### 3.2 Installation

- A. Follow the TYPAR flashing installation procedures

### 3.3 Protection

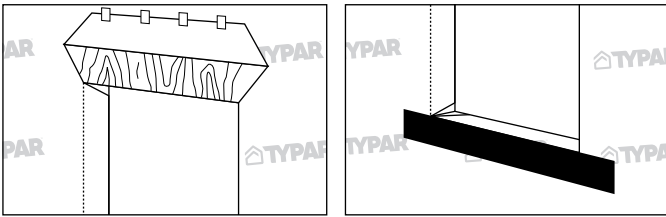
- A. Protect installed flashing from damage during construction

# TYPAR® ALL-TEMPERATURE FLASHING SELF-ADHERING WINDOW FLASHING

## TYPAR ALL-TEMPERATURE FLASHING—TYPICAL INSTALLATION

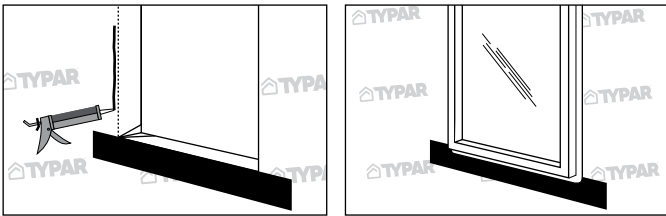
### STEP 1

Make diagonal cuts on weather-resistant barrier. Gently lift and tape in place. Cut flashing long enough to extend beyond opening by a minimum of the width of flashing you are using. Attach flashing along bottom of rough opening.



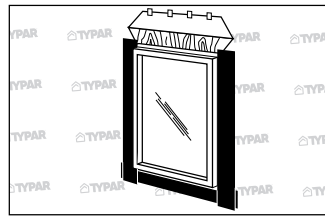
### STEP 2

Before installing window, apply a continuous bead of sealant to interior window's mounting flange. Install window per manufacturer's instructions. Using release paper as a guide, slowly peel back release paper and press TYPAR All-Temperature Flashing in place.



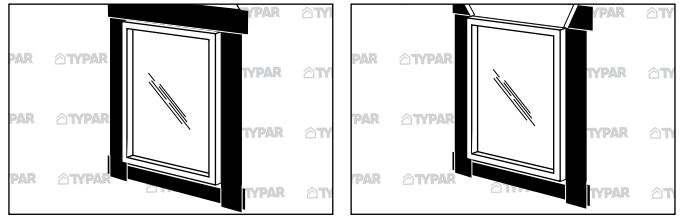
### STEP 3

Embed jamb flashing into the sealant and fasten in place. Run jamb flashing beyond sill flashing and above where sill flashing will intersect. Using release paper to help guide flashing, peel release paper off as you press flashing in place. Insure flashing covers all nails and mounting slots on window's mounting flange.



### STEP 4

Cut head flashing so it will extend beyond jamb flashing. Finally, lay weather-resistant barrier over head flashing. Apply sheathing tape over both diagonal cuts.



**NOTE:** All installation procedures and techniques must comply with local code requirements and latest version of ASTM 2112.

Installation methods approved by the American Architectural Manufacturers Association (AAMA) are acceptable for TYPAR® products and TYPAR® Weather Protection System Limited Warranty.

**WARNING:** Flashing will not address the water intrusion which may occur through the window itself.

For more information, visit [TYPAR.com](http://TYPAR.com).

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Please visit [TYPAR.com](http://TYPAR.com) for installation instructions and warranty information.  
Building Wraps | Flashings | Construction Tape | Fasteners



3385





# BUTYL FLASHING



**EASY TO HANDLE EVERY DAY. WITH DURABILITY FOR THE LONG HAUL.**

Install the system. Get a lifetime limited warranty.\* TYPAR® Butyl Flashing, along with the full TYPAR® Weather Protection System delivers unbeatable coverage.

\*Certain limitations and exclusions apply. See the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads) for full details.





# TYPAR® BUTYL FLASHING

## WORKS WELL WITH CAULKS, SEALANTS, AND YOU.

TYPAR Butyl Flashing definitely delivers on the basics. It's designed to peel quickly, stick fast, and keep projects on budget. But going beyond the fundamentals, it's formulated without VOCs, and it's compatible with most caulks and sealants used for window installation. Compared to rubberized asphalt-based flashings, TYPAR Butyl Flashing simply brings more to the job. It's pliable in cold weather. It's stable at high temperatures. Plus it maintains a flexible, but tight seal for far greater durability and long-lasting performance.

## LEADING FEATURES AND BENEFITS:

- Contains no VOCs and won't off-gas
- Won't interact with most caulks and sealants
- Split poly backing for easy installation
- Suitable for installation down to 30° F (-1° C)
- Thermally stable up to 180° F (82° C)
- Remains pliable for a more durable seal
- Lifetime limited warranty\*

## INSTALL THE SYSTEM. GET A LIFETIME LIMITED WARRANTY.\*

TYPAR Butyl Flashing, Building Wraps and Construction Tape make up the complete TYPAR® Weather Protection System. It's the only lineup with superior air and water holdout, exceptional tear strength, optimal breathability, and this: lifetime limited warranty coverage.\*

## TYPICAL CHARACTERISTICS:

Adhesive	Butyl rubber copolymer
Recommended Exposure Limit	180 days
Low Temperature Flexibility (ASTM D3330)	PASS
Nail Sealability (ASTM D1970)	PASS
Tensile Strength (ASTM D5034)	PASS

## ROLL SIZES:

4" x 75'	6" x 75'	9" x 75'	12" x 75'
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\*TYPAR Butyl Flashing is part of the TYPAR® Lifetime Limited System Warranty when used with the complete TYPAR Weather Protection System. Certain limitations and exclusions apply. See the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads) for full details.

The information contained herein is to the best of our knowledge accurate and reliable and is provided for the user's assessment and verification. However, since the circumstances and conditions under which such information and the products discussed can be used may vary and are beyond our control, **we make no warranties, express or implied, other than those warranties described in the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads), subject to the limitations and exclusions described therein.**



September 2020 | Made in USA of US and Global Components. TYPAR® is a trademark of Berry Global, Inc. or one of its affiliates. Please visit [TYPAR.com](http://TYPAR.com) for installation instructions and warranty information. Building Wraps | Flashings | Construction Tape



# TYPAR® BUTYL FLASHING THREE-PART SPECIFICATIONS

## PART 1. GENERAL

### 1.1 Section Includes

- A. Self-adhering Flashing: **TYPAR BUTYL Flashing**
- B. Primers
- C. Fasteners

### 1.2 References

- A. ASTM International
  - 1. ASTM D-3330-04, Standard test method for peel or stripping strength of adhesive bonds
  - 2. ASTM C-765, Standard practice for cold pliability
  - 3. ASTM D-1970, Standard specification for self-adhesion polymer modified bituminous sheet materials

### 1.3 Submittals

- A. Product Data: Submit manufacturer current technical literature for each type of product
- B. Submit copies of test results showing performance characteristics equaling or exceeding those specified

### 1.4 Quality Assurance

- A. Qualifications
  - 1. Installer shall have documented successful experience with installation of TYPAR Flashing products
  - 2. Installation shall be in accordance with manufacturer's installation guidelines and recommendations

## PART 2. PRODUCTS

### 2.1 Manufacturer

- A. Berry Plastics, 70 Old Hickory Blvd, Old Hickory, TN 37138, +1 615-847-7000; [www.TYPAR.com](http://www.TYPAR.com)

### 2.2 Materials

- A. Self-adhering/straight flashing
  - 1. Description
    - i. Face material composition: **polyethylene barrier**
    - ii. Face color: **gray**
    - iii. Adhesive composition: **Butyl Rubber Adhesive**
    - iv. Thickness **18.5 mil**
    - v. Release liner: **Kraft Paper**
    - vi. Dimensions: 4in x 25ft; 4in x 75ft; 6in x 75ft; 9in x 75ft; 12in x 75ft
- B. Performance characterizations
  - 1. Low temp pliability ASTM C-765 PASS
  - 2. Nail sealability ASTM D-1970 PASS
  - 3. Tensile strength ASTM D-5034-95 PASS
  - 4. Peel adhesion ASTM D-3330-04 PASS

### 2.3 Accessories

- A. Primer: Use 3M™ Super77™ or equal
- B. Seam tape: TYPAR construction
- C. Fastener: Fastener is dependent on substrate construction
- D. Sealant: Must comply with ASTM C920 elastomeric polymer sealant

## PART 3. EXECUTION

### 3.1 Examination

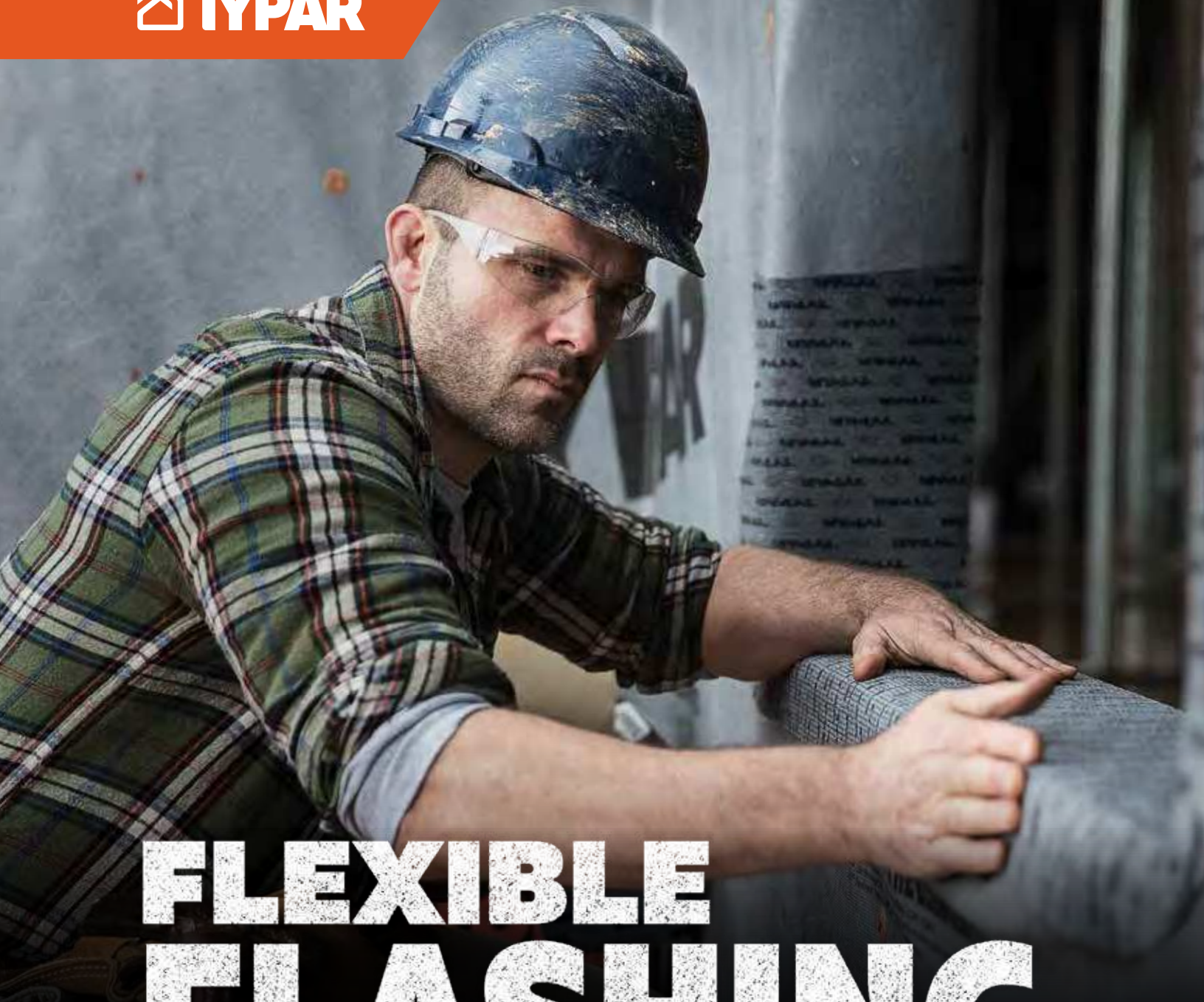
- A. Verify substrate and surface conditions are in accordance with the flashing manufacturer's recommendation
- NOTE – Flashing manufacturer recommends weather barrier be installed prior to the installation of the windows

### 3.2 Installation

- A. Follow the TYPAR flashing installation procedures

### 3.3 Protection

- A. Protect installed flashing from damage during construction



# FLEXIBLE FLASHING



**CONFORMING TO THE JOB. WITHOUT COMPROMISING ON THE PERFORMANCE.**

Install the system. Get a lifetime limited warranty.\* TYPAR® Flexible Flashing, along with the full TYPAR® Weather Protection System delivers unbeatable coverage.

\*Certain limitations and exclusions apply. See the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads) for full details.





# TYPAR® FLEXIBLE FLASHING

## WHEN PROJECTS THROW A CURVE, YOU'RE COVERED.

Rounded windows can be a challenge. But as far as we're concerned, the problem of getting a complete seal—and doing it efficiently—is solved. TYPAR Flexible Flashing is a two-ply oriented, high-density polyethylene film mated to a premium rubber adhesive and release sheet. That simply means it's a high-performance, highly conformable peel-and-stick product that blocks air and moisture intrusion in tricky places. Rely on it to play an integral role in ensuring all parts of your weather barrier system deliver the best level of defense.

## LEADING FEATURES AND BENEFITS:

- Extremely rugged, yet easily conformable
- Ensures tight seal around curved windows, window flanges, sill plates, corners, and joists
- Improves air and moisture holdout
- Self-seals around nail penetrations
- Lifetime limited warranty\*

## INSTALL THE SYSTEM. GET A LIFETIME LIMITED WARRANTY.\*

TYPAR Flexible Flashing, Building Wraps and Construction Tape make up the complete TYPAR® Weather Protection System. It's the only lineup with superior air and water holdout, exceptional tear strength, optimal breathability and this: lifetime limited warranty coverage.\*

## TYPICAL CHARACTERISTICS:

Adhesive	Butyl rubber copolymer
Recommended Exposure Limit	180 days
Low Temperature Flexibility (ASTM D903)	PASS
Nail Sealability (ASTM D1970)	PASS
Tensile Strength (ASTM D2523)	PASS

## ROLL SIZES:

6" x 75'	9" x 75'
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\*TYPAR Flexible Flashing is part of the TYPAR® Lifetime Limited System Warranty when used with the complete TYPAR Weather Protection System. Certain limitations and exclusions apply. See the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads) for full details.

The information contained herein is to the best of our knowledge accurate and reliable and is provided for the user's assessment and verification. However, since the circumstances and conditions under which such information and the products discussed can be used may vary and are beyond our control, **we make no warranties, express or implied, other than those warranties described in the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads), subject to the limitations and exclusions described therein.**



August 2019 | Made in USA of US and Global Components. TYPAR® is a trademark of Berry Global, Inc. or one of its affiliates. Please visit [TYPAR.com](http://TYPAR.com) for installation instructions and warranty information.  
Building Wraps | Flashings | Construction Tape



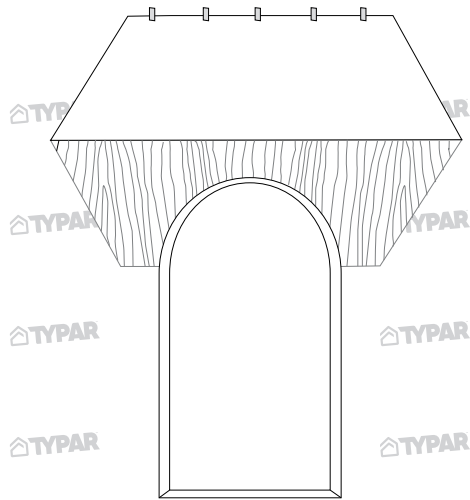
# TYPAR® FLEXIBLE FLASHING SELF-ADHERING WINDOW FLASHING

## FOR CURVED APPLICATIONS

### TYPAR® FLEXIBLE FLASHING- TYPICAL INSTALLATION

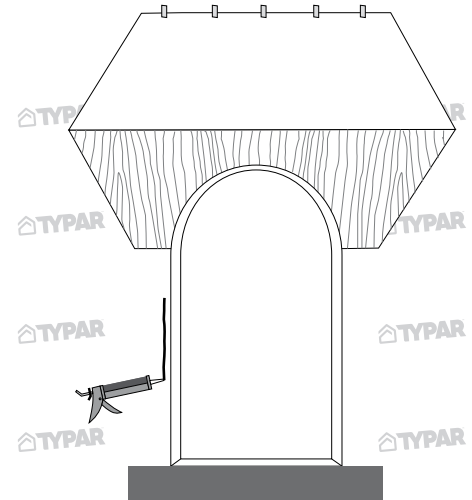
#### STEP 1

Cut horizontal slits where the curve starts on the window, out to a distance equal to the width of flashing used. Continue at a 45 degree angle upwards until you are above the top center of the window by at least the width of the flashing. Temporarily tape this flap up out of the way.



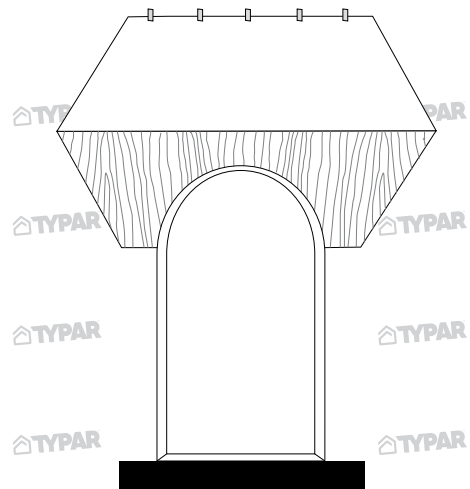
#### STEP 3

Apply a continuous bead of sealant around the interior edge of the window's nailing flange at, or just inside, the manufacturer's nailing slots or holes. Nail the window in place according to manufacturer's instructions.



#### STEP 2

Cut a strip of TYPAR® Peel and Stick Flashing to extend past the edges of the rough opening on both sides by a little less than the width of the side (jamb) flashing to be installed in step #4. Using the release paper as a guide slowly peel back the release paper and press in place

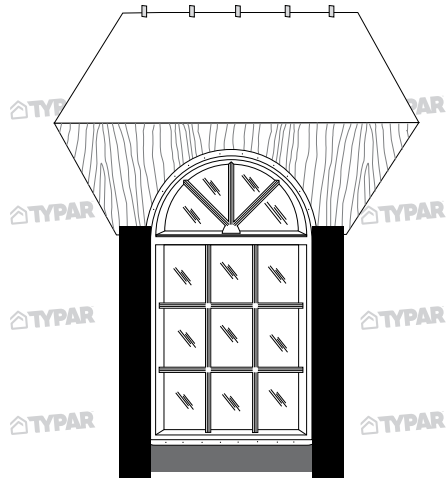


CONTINUED ON REVERSE.



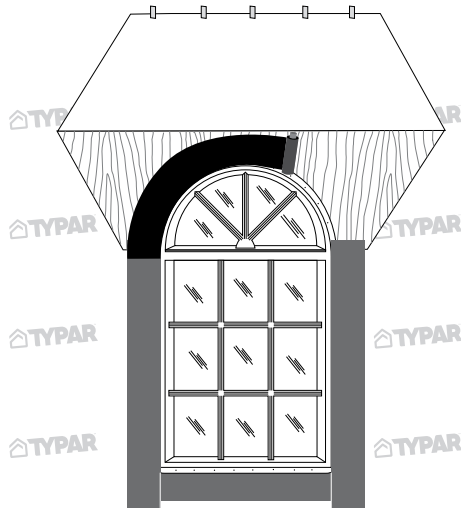
**STEP 4**

Cut two strips for the sides (jamb) of the window that cover the width of the previously installed flashing at the base. Slowly peel the release paper off as you press the flashing in place. Insure the flashing covers all nails and mounting slots on the window's mounting flange.



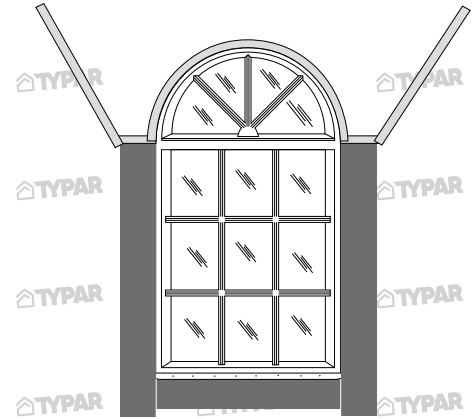
**STEP 5**

Cut a piece of TYPAR Flexible Flashing for the head of the window that is the length of the curve plus two times the width of the flashing. Slowly peel the release paper and press the edge next to the window frame. Cover all nails and mounting slots.



**STEP 6**

Fold down the flap (from step #1) over the head flashing and tape the horizontal and diagonal slits with TYPAR® Construction Tape.



**NOTE:** All installation procedures and techniques must comply with local code requirements and latest version of ASTM 2112.

Installation methods approved by the American Architectural Manufacturers Association (AAMA) are acceptable for TYPAR® products and TYPAR® Weather Protection System limited warranty.

**WARNING:** Flashing will not address the water intrusion which may occur through the window itself.

**For more information, visit [TYPAR.com](http://TYPAR.com).**



# TYPAR® FLEXIBLE FLASHING THREE-PART SPECIFICATIONS

## PART 1. GENERAL

### 1.1 Section Includes

- A. Self-adhering Flashing (TYPAR® All-Temperature Flashing, TYPAR® Flexible Flashing, and TYPAR® Butyl Flashing)
- B. Primers
- C. Fasteners

### 1.2 References

- A. ASTM International
  - 1. ASTM D-3330, Standard test method for peel adhesion of pressure sensitive tape
  - 2. ASTM D-5034, Standard practice for tensile strength of polymer or plastic sheet products
  - 3. ASTM D-1970, Standard specification for water penetration around nails and cold temperature pliability

### 1.3 Submittals

- A. Product Data: Submit current manufacturer technical literature for each type of product
- B. Submit copies of test results showing performance characteristics equaling or exceeding those specified

### 1.4 Quality Assurance

- A. Qualifications
  - 1. Installer shall have documented successful experience with installation of TYPAR® flashing products
  - 2. Installation shall be in accordance with manufacturer's installation guidelines and recommendations

## PART 2. PRODUCTS

### 2.1 Manufacturer

- A. Berry Plastics, 70 Old Hickory Blvd, Old Hickory, TN 37138; [www.TYPAR.com](http://www.TYPAR.com)

### 2.2 Materials

- A. Self-adhering/straight flashing
  - 1. Description
    - i. Face material composition: woven polypropylene barrier
    - ii. Face color: gray
    - iii. Adhesive composition: butyl rubber adhesive
    - iv. Thickness: 15mil
    - v. Release liner: siliconized paper
    - vi. Dimensions: 4 in. X 75ft.; 6 in. X 75ft.; 9 in. X 75ft.
- B. Self-adhering flexible flashing
  - 1. Description
    - i. Face material composition: conformable textured cross-laminated polyolefin
    - ii. Face color: dark gray
    - iii. Adhesive composition: adhesive to copolymer
    - iv. Thickness: 50mil
    - v. Release liner: siliconized paper
    - vi. Dimensions: 6 in. X 75 ft.; 9 in. X 75 ft.
- C. Performance characterizations
  - 1. Low temp Flex ASTM D-903 PASS
  - 2. Nail sealability ASTM D-1970 PASS
  - 3. Tensile strength ASTM D-5034 PASS

### 2.3 Accessories

- A. Primer: Use 3M™ Super77™ or equivalent
- B. Seam tape: TYPAR® Construction Tape
- C. Fastener: Fastener is dependent on substrate construction
- D. Sealant: Must comply with ASTM C920 elastomeric polymer sealant

**PART 3. EXECUTION****3.1 Examination**

A. Verify substrate and surface conditions are in accordance with the flashing manufacturer's recommendation.

NOTE - Flashing manufacturer recommends weather barrier be installed prior to the installation of the windows.

**3.2 Installation**

A. Follow the TYPAR® flashing installation procedures.

**3.3 Protection**

A. Protect installed flashing from damage during construction.





METROWRAP™ COMMERCIAL  
BRING ON THE ELEMENTS

# CONSTRUCTION TAPE



**SEALING OFF SEAMS AND EDGES. WITH SUPERIOR STRENGTH AND EASE.**

Install the system. Get a lifetime limited warranty.\* TYPAR® Construction Tape, along with the full TYPAR® Weather Protection System delivers unbeatable coverage.

\*Certain limitations and exclusions apply. See the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads) for full details.





# TYPAR® CONSTRUCTION TAPE

## APPLY A LITTLE PRESSURE AND GET BIG-TIME PERFORMANCE.

It's just tape, right? Not even close. TYPAR Construction Tape does a critical job in maintaining the highest levels of integrity for the building envelope. It tears quickly, and its pressure-sensitive adhesive sticks aggressively—even if you're working under low-temperature conditions. Depend on it to grab tight immediately and stay strong for years, ensuring that air and moisture don't force their way in at seams and edges. TYPAR Construction Tape is a superior line of defense for your homes and structures, available by the roll.

## LEADING FEATURES AND BENEFITS:

- Engineered for commercial and residential applications
- Apply to corners, joints, and seams
- Seals against air and moisture infiltration
- UV- and weather-resistant
- Easy-tear edge for fast application
- Excellent tensile strength
- Performs in cold weather; apply down to 0° F (-18° C)
- Lifetime limited warranty\*\*

## INSTALL THE SYSTEM. GET A LIFETIME LIMITED WARRANTY.\*\*

TYPAR Construction Tape, Building Wraps and Flashings make up the complete TYPAR® Weather Protection System. It's the only lineup with superior air and water holdout, exceptional tear strength, optimal breathability and this: lifetime limited warranty coverage.\*\*

TYPICAL CHARACTERISTICS:	
Peel Adhesion (PSTC-1*)	Immediate
TYPAR®	35 oz/in
Stainless Steel	75 oz/in
Tensile Strength (PSTC-31*)	20 lbs/in
Elongation	136%
Temperature Resistance:	0°F (-18°C) – Min. application temperature 230°F (110°C) – Max. use temperature

\*Pressure-Sensitive Tape Council.

ROLL SIZES:	
1-7/8" x 165'	3" x 165'

\*\*TYPAR Construction Tape is part of the TYPAR® Lifetime Limited System Warranty when used with the complete TYPAR Weather Protection System. Certain limitations and exclusions apply. See the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads) for full details.

The information contained herein is to the best of our knowledge accurate and reliable and is provided for the user's assessment and verification. However, since the circumstances and conditions under which such information and the products discussed can be used may vary and are beyond our control, **we make no warranties, express or implied, other than those warranties described in the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads), subject to the limitations and exclusions described therein.**



## TYPAR® Construction Tape Three Part Specs:

### SPECIFICATIONS:

#### PART I – GENERAL

- 1.1 Section Includes
  - A. Tymar Construction Top
  - B. Primers.
  - C. Fasteners.
- 1.2 References
  - A. ASTM International
    - 1. ASTM D-903, Standard Test Method for Peel or Stripping Strength of adhesive bonds.
    - 2. ASTM D –2533, Standard practice for Twisting Load-Strain Properties.
    - 3. ASTM D-1970, Standard Specification for Self-Adhesion polymer modified bituminous sheet materials.
- 1.3 Submittals:
  - A. Product Data: Submit manufacturer current technical literature for each type of product.
  - B. Submit copies of test results showing performance characteristics equaling or exceeding those specified.
- 1.4 Quality Assurance
  - A. Qualifications
    - 1. Installer shall have documented successful experience with installation of TYPAR Flashing products.
    - 2. Installation shall be in accordance with manufacturer's installation guidelines and recommendations.

#### PART 2 - PRODUCTS

- 2.1 Manufacturer
  - A. Berry Global, Inc., 70 Old Hickory Blvd, Old Hickory, TN 37138; 800-284-2780; www. TYPAR.com
- 2.2 Materials
  - A. Tymar Construction Tape
    - 1. Description
      - a. Face material composition: polyethylene barrier
      - b. Face color: Gray
      - c. Adhesive composition: Acrylic
      - d. Thickness: 3.6mil
      - e. Dimensions: 1-7/8" x 165', 3" x 165'
    - B. Performance characterizations
      - 1. Temperature Resistance: 0°F (-18°C) – Min. application temperature  
230°F (110°C) – Max. application temperature
      - 2. Peel Adhesion PSTC-1\*
      - 3. Tensile strength PSTC – 31\*
- 2.3 Accessories
  - A. Primer: Use 3M™ Super77™ or equal
  - B. Flashing Tape: Tymar All-Temperature Flashing, Tymar Flexible Flashing, and Tymar Butyl Flashing
  - C. Fastener: Fastener is dependent on substrate construction
  - D. Sealant: Must comply with ASTM C920 elastomeric polymer sealant

#### PART 3 – EXECUTION

- 3.1 Examination
  - A. Verify substrate and surface conditions are in accordance with the flashing manufacturer's recommendation.
- 3.2 Installation
  - A. Follow the TYPAR flashing installation procedures
- 3.3 Protection
  - A. Protect installed self-adhesive and flashing tapes from damage during construction



MADE IN USA. ICC #ESR-1404 • CCMC #12884-R • CCMC #12892-R  
Tymar is a registered trademark of Berry Global, Inc. and any of its affiliates ©2019  
Please visit [tymar.com](http://tymar.com) for installation instructions and warranty information  
Berry Global, Inc. 70 Old Hickory Blvd., Old Hickory, TN 37138 USA, [tymar.com](http://tymar.com)



# DOUBLE-SIDED SEAMING TAPE



**A TIGHT, SHINGLED SEAL FOR DRAINABLE WRAP.™**

Install the system. Get a lifetime limited warranty.\* TYPAR® Double-Sided Seaming Tape, along with the full TYPAR® Weather Protection System delivers unbeatable coverage.

\*Certain limitations and exclusions apply. See the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads) for full details.





# TYPAR® DOUBLE-SIDED SEAMING TAPE

## WHEN GOING FOR THE SHINGLING EFFECT, GET THIS.

Superior materials. And smarter installation techniques. It takes both to eliminate the vulnerabilities and enhance the performance of your weather barrier. TYPAR Double-Sided Seaming Tape delivers the sticking power and installation speed needed to seal off building wrap seams with the proper shingled effect. We've made it part of our lineup to better protect the walls—and make sure no water gets through.

## LEADING FEATURES AND BENEFITS:

- Preserves shingling effect
- Helps create sealed weather barrier
- Installs well over wide temperature range
- High-performance adhesive
- Sticks aggressively
- UV- and weather-resistant
- Lifetime limited warranty\*

## INSTALL THE SYSTEM. GET A LIFETIME LIMITED WARRANTY.\*

TYPAR Double-Sided Seaming Tape, Building Wraps and Flashings make up the complete TYPAR® Weather Protection System. It's the only lineup with superior air and water holdout, exceptional tear strength, optimal breathability and this: lifetime limited warranty coverage.\*

## TYPICAL CHARACTERISTICS:

Peel Adhesion (PSTC 101 Mod; steel, 30 min dwell)	(Air Side) 110 oz/in 12.03 N/cm  (Liner Side) 120 oz/in 13.13 N/cm
Tensile Strength (PSTC-31*)	12 lbs/in
Elongation	155%
Temperature Resistance	15°F (-9°C) – Min. application temperature 200°F (92°C) – Max. application temperature

\*Pressure-Sensitive Tape Council.

## ROLL SIZE:

1.5" x 180'

\*TYPAR Double-Sided Seaming Tape is part of the TYPAR® Lifetime Limited System Warranty when used with the complete TYPAR Weather Protection System. Certain limitations and exclusions apply. See the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads) for full details.

The information contained herein is to the best of our knowledge accurate and reliable and is provided for the user's assessment and verification. However, since the circumstances and conditions under which such information and the products discussed can be used may vary and are beyond our control, **we make no warranties, express or implied, other than those warranties described in the TYPAR Weather Protection System Limited Warranty located online at [TYPAR.com/downloads](http://TYPAR.com/downloads), subject to the limitations and exclusions described therein.**



August 2019 | Made in USA of US and Global Components. TYPAR® is a trademark of Berry Global, Inc. or one of its affiliates. Please visit [TYPAR.com](http://TYPAR.com) for installation instructions and warranty information.  
Building Wraps | Flashings | Construction Tape





# TYPAR® WEATHER PROTECTION SYSTEM LIMITED WARRANTY

**IMPORTANT NOTICE: Read this entire TYPAR® WEATHER PROTECTION SYSTEM PRODUCTS Limited Warranty and Limitation of Liability ("Limited Warranty") before installing this product. Refer to the Installation Instructions for the installation requirements. By installing or using this product, you are acknowledging that this Limited Warranty is part of the terms of sale.**

Berry Global Corporation ("Berry") provides the following Limited Warranty for its TYPAR® Weather Protection System Products listed below ("Product" or "Products," as applicable) to the Owner of a Structure in the United States or Canada, subject to the terms and conditions stated below.

**Wrap:** TYPAR® BuildingWrap and TYPAR® MetroWrap™, TYPAR® DrainableWrap, TYPAR® DrainableWrap™ Peel & Stick

**Flashings:** TYPAR® Flexible Flashing, TYPAR® All Temperature Flashing and TYPAR® Butyl Flashing

**Tape:** TYPAR® Construction Tape

## DEFINITIONS

As used in this Limited Warranty, the following terms have the following meanings:

- **"Structure"** means a (1) Single-Family Residence, (2) a detached unit or building within a multi-family, apartment, condominium or other residential project, or (3) a commercial building.
- **"Single-Family Residence"** means a dwelling which is designed, occupied or intended for occupancy by one family, which is permanently situated on a lot owned by the owner of the dwelling, which is physically detached from any other dwelling, and which does not include a manufactured or modular home.
- **"Owner"** means the first owner of a Structure following the installation of the Products. The Owner of a Single-Family Residence must also reside in (or intend to reside in) the Single-Family Residence or lease the Single-Family Residence to others for use as a Single-Family Residence.
- **"Specifications," "Characteristics" and "Installation Instructions"** are those that Berry publishes at <http://www.typar.com/downloads> and that are in effect on the date of the purchase of the Products from Berry or an authorized reseller.

## SINGLE-FAMILY RESIDENCE LIMITED LIFETIME PRODUCT WARRANTY

Berry warrants to the Owner of a Structure that is a Single-Family Residence, for the lifetime of the Product(s) installed on such Structure, that the Product(s) will perform according to published Specifications and Characteristics if installed in strict accordance with published Installation Instructions, accepted industry standards and applicable building codes in a properly designed and constructed wall system. If any Product(s) fail(s) to meet performance Specifications or Characteristics, Berry will provide, at no cost, replacement product(s) for the failed Product(s), if available, or substantially similar product(s) being manufactured by Berry at the time of the replacement.

## 15-YEAR LIMITED PRODUCT WARRANTY FOR STRUCTURES OTHER THAN SINGLE-FAMILY RESIDENCES

Berry warrants to the Owner of a Structure other than a Single-Family Residence, for a period of 15 years from the date of purchase of the Product(s) installed on such Structure, that the Product(s) will perform according to published Specifications and Characteristics if installed in strict accordance with published Installation Instructions, accepted industry standards and applicable building codes in a properly designed and constructed wall system. If any Product(s) fail(s) to meet performance Specifications or Characteristics, Berry will provide, at no cost, replacement product(s) for the failed Product(s), or affected portions thereof, such replacement to consist of the same Product(s), if available, or substantially similar product(s) being manufactured by Berry at the time of replacement.

**LIMITED LIFETIME SYSTEM WARRANTY FOR STRUCTURES UP TO THREE STORIES IN HEIGHT**

For Products comprising the entire building envelope of a new Structure up to three stories in height, and otherwise in accordance with the terms and conditions set forth herein, Berry will pay for the reasonable costs of construction (labor and materials) necessary to repair the actual area of damage to the wall system of the Structure caused solely by the failure of the Product(s) if installed in strict accordance with published Installation Instructions, accepted industry standards and applicable building codes in a properly designed and constructed wall system. To qualify for this Limited Lifetime System Warranty, the entire building envelope of the Structure must be constructed exclusively of a combination of the Products that includes at least one Product from each of the three Product categories listed on the previous page (wrap, flashing and tape). Use of any other building envelope product, when an applicable Product is available from Berry, or installation of Products on a Structure four or more stories in height, voids this Limited Lifetime System Warranty. This Limited Lifetime System Warranty shall apply only to a Structure on which the Products are installed during original construction.

**10-YEAR LIMITED SYSTEM WARRANTY FOR STRUCTURES FOUR OR MORE STORIES IN HEIGHT**

Berry warrants to the Owner of a new Structure four or more stories in height, for a period of 10 years from the date of purchase of the Products comprising the entire building envelope of such Structure, that the Products will perform according to published Specifications and Characteristics if installed in strict accordance with published Installation Instructions, accepted industry standards and applicable building codes in a properly designed and constructed wall system. To qualify for this Limited System Warranty, the entire building envelope of the Structure must be constructed exclusively of a combination of the Products that includes at least one Product from each of the three Product categories listed on the previous page (wrap, flashing and tape). Use of any other building envelope product, when an applicable Product is available from Berry voids this 10-Year Limited System Warranty. This 10-Year Limited System Warranty shall apply only to a Structure on which the Products are installed during original construction. If any Products fail to meet performance Specifications or Characteristics, Berry will pay for the reasonable costs of construction (labor and materials) necessary to repair the actual area of damage to the wall system of the Structure caused solely by the failure of the Product(s).

**BERRY’S RESPONSIBILITY AND LIABILITY, IF ANY, FOR REPAIRS UNDER THE LIMITED SYSTEM WARRANTY SHALL BE LIMITED TO REPAIR COSTS OF NO MORE THAN \$10 PER SQUARE FOOT OF DAMAGED EXTERIOR WALL AREA AND SHALL IN NO EVENT EXCEED A PROJECT MAXIMUM OF \$500,000 USD, REGARDLESS OF SQUARE FOOTAGE OR NUMBER OF STRUCTURES AFFECTED.**

**ADDITIONAL LIMITED WARRANTY TERMS, CONDITIONS, AND EXCLUSIONS**

This Limited Warranty is non-transferable and applies only to Product(s) purchased and installed in the United States or Canada on or after January 1, 2017.

Neither replacement of Product(s) nor repair of any Structure under this Limited Warranty shall renew or extend the warranty term, such term to always begin to run from the date of purchase of the Product(s) to which this Limited Warranty applies. This Limited Warranty does not apply to replacement Product(s).

No representative, agent or employee of Berry has the authority to modify the terms of this Limited Warranty. This Limited Warranty and all the terms contained herein constitute the entire agreement between Berry and the Owner.

**FAILURE TO COMPLY WITH PRODUCT INSTALLATION INSTRUCTIONS VOIDS ALL WARRANTIES UNLESS IT IS CLEARLY ESTABLISHED BY THE OWNER THAT THE DEFECT OR FAILURE IS UNRELATED TO SUCH NONCOMPLIANCE.**

This Limited Warranty is not a statement of the useful life of the Product(s).

**HOW TO MAKE A LIMITED WARRANTY CLAIM**

All claims under this Limited Warranty must be made in writing to Berry Plastics Corporation, 101 Oakley Street, Evansville, IN 47710, Attention: General Counsel. All claims must be postmarked no later than sixty (60) days after discovery of the condition giving rise to the claim, and within the warranty period, and must include the name, address and phone number of the Owner, nature of the claim, date of discovery of the condition giving rise to the claim, list of the Product(s) involved and the type, number of stories and address of the Structure affected. All claims also must include acceptable proof, in Berry’s sole discretion, of the date of purchase of the Product(s). Failure to follow these claim procedures will void this Limited Warranty.

**INSPECTION**

If Berry determines that an inspection or investigation of a claim is necessary, the Owner must provide access for a Berry representative to inspect the Structure specified in the claim and conduct an investigation, including but not limited to taking photographs and samples. Failure to follow these claim procedures will void this Limited Warranty.



**LIMITATION OF REMEDY**

**THE EXCLUSIVE REMEDY OF THE OWNER, AND THE SOLE LIABILITY OF BERRY FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE SALE, INSTALLATION, OR USE OF THESE PRODUCTS SHALL BE THIS LIMITED WARRANTY.**

To the extent permitted by law, any controversy or dispute arising out of or relating to this Limited Warranty, including alleged torts, shall be resolved by arbitration administered by the American Arbitration Association in accordance with its Commercial Arbitration Rules (including, if such controversy or dispute involves a Single-Family Residence, its Supplementary Procedures for Consumer-Related Disputes), and judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof. Any arbitration shall be conducted in Vanderburgh County, Indiana. The laws of the State of Indiana (without giving effect to its conflicts of law principles) govern all matters relating to this Limited Warranty. Some jurisdictions do not allow mandatory arbitration, so the above provision may not apply to you.

**NOTICE OF ARBITRATION AGREEMENT**

**This Limited Warranty provides that all disputes between you and Berry will be resolved by BINDING ARBITRATION.**

**You thus GIVE UP YOUR RIGHT TO GO TO COURT to assert or defend your rights under this Limited Warranty (EXCEPT for matters that may be taken to SMALL CLAIMS COURT).**

**Your rights will be determined by a NEUTRAL ARBITRATOR and NOT a judge or jury.**

**You are entitled to a FAIR HEARING, BUT the arbitration procedures are SIMPLER AND MORE LIMITED THAN RULES APPLICABLE IN COURT.**

**Arbitrator decisions are as enforceable as any court order and are subject to VERY LIMITED REVIEW BY A COURT.**

**FOR MORE DETAILS, visit: [www.adr.org/consumer\\_arbitration](http://www.adr.org/consumer_arbitration)**

**LIMITATION OF WARRANTY**

**THE LIMITED WARRANTY IN THIS DOCUMENT IS COMPLETE AND IN LIEU OF ALL OTHER WARRANTIES. TO THE FULL EXTENT PERMITTED BY LAW, BERRY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER WARRANTIES CREATED OR IMPLIED BY STATUTE, CUSTOM OR USAGE OF TRADE.**

This Limited Warranty gives you specific legal rights, and you may have additional rights, which vary from state to state.

**LIMITATION OF LIABILITY**

This Limited Warranty sets forth Berry's maximum liability for the Products.

**BERRY'S RESPONSIBILITY AND LIABILITY, IF ANY, IN CONNECTION WITH THE PRODUCTS AND THIS LIMITED WARRANTY SHALL BE LIMITED TO REPLACEMENT OR REPAIR, AS SET FORTH ABOVE. TO THE FULL EXTENT PERMITTED BY LAW, BERRY SHALL NOT BE LIABLE IN TORT, CONTRACT OR OTHERWISE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, EXEMPLARY, EXPECTATION OR OTHER DAMAGES OF ANY KIND ARISING OUT OF, RELATING TO OR IN CONNECTION WITH THE PRODUCTS OR THIS LIMITED WARRANTY, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOST REVENUE, LOSS OF USE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.**

**DISCLAIMER – WHAT THIS LIMITED WARRANTY DOES NOT COVER**

This Limited Warranty shall not apply to damage to Products or Structures caused by or resulting from any of the following:

- Normal wear and tear.
- Abuse, mishandling, nonstandard use or application, neglect, improper maintenance, accident, modification, damage or vandalism by any party other than Berry.
- Foreign objects or agents, or use of materials incompatible with the Products, including but not limited to any caulks or sealants containing solvents or plasticizers coming into contact with the adhesive portion of TYPAR® Butyl Flashing.
- Defects in the Structure or a component of the Structure.
- Structural settlement, movement or vibration.
- Any penetration of the building envelope of the Structure, unless in accordance with applicable published installation instructions for the Products.
- Use of any Product(s) in an area containing a pool, hot tub, whirlpool, Jacuzzi, steam room, sauna or spa, or any other area exposed to a heightened amount of moisture, humidity or heat.
- Acts of God, including but not limited to lightning, flood, hail or high winds.
- UV Exposure of the Product(s) in excess of those set forth in the Specifications or Characteristics.
- Any defect arising out of the performance of any non-Berry product.

TYPAR® BuildingWrap is part of a complete Weather Protection System, which also includes TYPAR® MetroWrap, TYPAR® Flashings, TYPAR® DrainableWrap and TYPAR® Construction Tape.

TYPAR® is a registered trademark of Fiberweb, LLC, a wholly owned subsidiary of Berry Global Corporation

For more information, visit [www.TYPAR.com](http://www.TYPAR.com)





# ICC-ES Evaluation Report

## ESR-1404

Reissued November 2022

Revised January 2023

This report is subject to renewal November 2023.

**DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION**  
**Section: 07 25 00—Water-Resistive Barriers/Weather Barriers**  
**Section: 07 27 00—Air Barriers**

**REPORT HOLDER:**

FIBERWEB, INC.

**ADDITIONAL LISTEE:**

CERTAINTED CORPORATION

**EVALUATION SUBJECT:**

**TYPAR® BUILDINGWRAP, TYPAR® METROWRAP™, TYPAR® DRAINABLEWRAP™, TYPAR® DRAINABLEWRAP™ PEEL AND STICK, TYPAR® DRAINABLEWRAP™ COMMERCIAL, AND CERTAWRAP™ WEATHER RESISTANT BARRIERS (PRIVATE LABEL I)**

**1.0 EVALUATION SCOPE**

**1.1 Compliance with the following codes:**

- 2021, 2018, 2015 and 2012 *International Building Code®* (IBC)
- 2021, 2018, 2015 and 2012 *International Residential Code®* (IRC)
- 2021, 2018, 2015 and 2012 *International Energy Conservation Code®* (IECC)

**Properties evaluated:**

- Surface-burning characteristics
- Water-resistance
- Air leakage
- Exterior walls of Type I, II, III and IV construction

**1.2 Evaluation to the following green code(s) and/or standards:**

- 2022 and 2019 *California Green Building Standards Code* (CALGreen), Title 24, Part 11

- 2021, 2018, 2015 and 2012 *International Green Construction Code®* (IgCC)
- 2020, 2017, 2014 and 2011 *ANSI/ASHRAE/USGBC/IES Standard 189.1—Standard for the Design of High-Performance Green Buildings, Except Low-Rise Residential Buildings*
- 2020, 2015 and 2012 *ICC 700 National Green Building Standard™* (ICC 700-2020, ICC 700-2015 and ICC 700-2012)

**Attributes verified:**

- See Section 3.0

**2.0 USES**

Typar® BuildingWrap, Typar® MetroWrap™ and CertaWrap™ Weather Resistant Barriers are used as water-resistive barriers on the exterior side of exterior walls of buildings of all construction types under the IBC and construction permitted under the IRC. Under the IBC for Types I, II, III and IV construction of buildings greater than 40 feet (12.2 m), see Section 4.3.1.

Typar® DrainableWrap™, Typar® DrainableWrap™ Peel and Stick, and Typar® DrainableWrap™ Commercial are used as a water-resistive barrier on the exterior side of exterior walls of buildings and construction permitted under the IRC. Under the IBC for Types I, II, III, and IV construction of buildings greater than 40 feet (12.2 m), see Section 4.3.2.

Typar® BuildingWrap, Typar® MetroWrap™, Typar® DrainableWrap™, Typar® DrainableWrap™ Peel and Stick, Typar® DrainableWrap™ Commercial and CertaWrap™ are also equivalent to Grade D building paper in accordance with Section 2510.6 of the 2021 IBC (the exception to Section 2510.6 of the and 2012 IBC), and Section R703.7.3 of the 2021, 2018 and 2015 IRC (2012 IRC Section R703.6.3). All products may be used as air barrier materials under IRC Section N1102.4.1 and 2021, 2018 and 2015 IECC Sections C402.5 and R402.4 (2012 IECC Sections C402.4 and R402.4).

**3.0 DESCRIPTION**

Typar® BuildingWrap and CertaWrap are nonwoven, nonperforated, polypropylene materials with a nominal thickness of 11 mils [0.011 inch (0.279 mm)] and a basis weight of 2.8 ounces per square yard (95 g/m<sup>2</sup>).

Typar® MetroWrap™ is a nonwoven, nonperforated, polypropylene material with a nominal thickness of 13.7 mils [0.0137 inch (0.348 mm)] and a basis weight of 3.5 ounces per square yard (119 g/m<sup>2</sup>).

Typar® DrainableWrap™ is a nonwoven, nonperforated, polypropylene material with a nominal thickness of 30 mils [0.03 inch (0.762 mm)] and a basis weight of 3.0 ounces per square yard (102 g/m<sup>2</sup>).

Typar® DrainableWrap™ Peel and Stick is identical to the Typar® DrainableWrap™ product except that it is backed with an acrylic adhesive and a release film; the product has a nominal thickness of 22 mils [0.022 inch (0.56 -mm)].

Typar® DrainableWrap™ Commercial consists of layered nonwoven, nonperforated, polypropylene materials with a nominal thickness of 20 mils [0.02 inch (0.508 mm)] and a basis weight of 3.7 ounces per square yard (125 g/m<sup>2</sup>).

All products are available in rolls of varying size.

Typar® BuildingWrap, Typar® DrainableWrap™, Typar® DrainableWrap™ Peel and Stick, Typar® MetroWrap™, Typar® DrainableWrap™ Commercial and CertaWrap™ have a flame-spread index of less than 25 and a smoke-developed index of less than 450 when tested in accordance with ASTM E84 (UL 723).

When used as an air barrier material, the membranes have an air leakage rate not exceeding 0.02 L/(S-M<sup>2</sup>) at 75 Pa [0.004 cfm/ft<sup>2</sup> at 0.3 w.g. (1.57 psf)].

The attributes of the Typar® BuildingWrap, Typar® MetroWrap™, Typar® DrainableWrap™, Typar® DrainableWrap™ Peel and Stick, Typar® DrainableWrap™ Commercial and CertaWrap™ Weather Resistant Barriers have been verified as conforming to the provisions of (i) CALGreen Section 5.407.1 for water-resistive barriers; (ii) 2021 IgCC Section 701.3.1.2, 2018 IgCC Section 701.3.1.1 and 2012 and 2015 IgCC Section 605.1.2.1 for air barriers; (iii) 2020 ASHRAE 189.1 Section 7.3.1.2, 2017 and 2014 ASHRAE 189.1 Section 7.3.1.1 and 2011 ASHRAE 189.1 Section 7.4.2.9 for air barriers; (iv) ICC 700-20 Section 602.1.8, 11.602.1.8, 1202.6 and 13.104.1.4, ICC 700-2015 Section 602.1.8, 11.602.1.8 and 12.6.602.1.8 and ICC 700-2012 Section 602.1.8, 11.602.1.8 and 12.5.602.1.8 for water-resistive barriers. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. These codes or standards often provide supplemental information as guidance.

## 4.0 INSTALLATION

### 4.1 Water-resistive Barrier:

Typar® BuildingWrap, Typar® MetroWrap™, Typar® DrainableWrap™, Typar® DrainableWrap™ Commercial and CertaWrap™ are installed after wall framing is completed and before windows and doors are installed. The roll is placed approximately 6 inches (152 mm) from the starting corner and fastened with corrosion-resistant cap staples or cap nails approved by the manufacturer and is then unrolled around the building and fastened as set forth in the manufacturer's published installation instructions. The printed side must be installed facing the outside. A minimum of 6 inches (152 mm) of overlap shall be provided for vertical seams and 2 inches (51 mm) for horizontal seams, except where the manufacturer's installation instructions specify a greater overlap dimension.

Typar® DrainableWrap™ Peel and Stick is installed after wall framing is completed and before windows and doors

are installed. The exterior wall surfaces must be dry and free of dirt, dust or other foreign matter that would inhibit proper adhesion. Installation is limited to plywood, OSB, vinyl and aluminum substrates. Typar® DrainableWrap™ Peel and Stick must be applied when the ambient air and surface temperatures are above 50°F (10°C) and below 176°F (80°C). The membrane is installed horizontally over the substrate in accordance with the applicable code. The membrane must be installed with a minimum of 2-inch (50.8 mm) sidelaps and 2-inch (50.8 mm) headlaps

When use is over wood-based sheathing in exterior plaster applications, two layers of product must be applied over sheathing in accordance with 2012 IBC Section 2510.6 or 2018 and 2015 IRC Section R703.7.3 (2012 IRC Section R703.6.3), as applicable.

When used over wood based sheathing in exterior plaster applications in accordance with 2021 IBC Section 2510.6 and 2021 IRC Section R703.7.3 installations must be as follows:

- For dry climate zones (B) in accordance with 2021 IBC Section 2510.6.1 or 2021 IRC Section R703.7.3.1, the product must be applied in accordance with 2021 IBC Section 2510.6.1 Item 1 and 2021 IRC Section R703.7.3.1 Item 1, as applicable.

- For moist climate zones (A) or marine climate zones (C) in accordance with 2021 IBC Section 2510.6.2 or 2021 IRC Section R703.7.3.2, the product must be applied in accordance the dry climate zone (B) provisions noted above and with the additional requirements noted in 2021 IBC Section 2510.6.2 Item 1 or 2021 IRC Section R703.7.3.2 Item 1, as applicable.

For cementitious coatings or exterior insulation and finish systems, application must be in accordance with the evaluation report on the exterior coating.

The manufacturer's published installation instructions and this report must be strictly adhered to. If requested by the code official, a copy of this report must be available at the jobsite during installation.

### 4.2 Air Barrier Material:

When used as an air barrier, the product must be installed in accordance with the manufacturer's installation instruction and this report.

### 4.3 Exterior Walls of Types I, II, III and IV construction:

The water-resistive barriers may be used as a component of exterior walls on buildings of Types I, II, III or IV construction as follows:

**4.3.1 Typar® BuildingWrap, Typar® MetroWrap™ and CertaWrap™:** Under the IBC, Typar® BuildingWrap, Typar® MetroWrap™ and CertaWrap™ water-resistive barriers have been evaluated for use on exterior walls of buildings of any height above grade when the wall assembly complies with Table 1; the water-resistive barriers may also be installed on exterior walls of buildings of any height above grade when the wall assembly complies with exception 1 of 2021 and 2018 IBC Section 1402.5 (exception 1 of in 2015 IBC Section 1403.5).

**4.3.2 Typar® DrainableWrap™, Typar® DrainableWrap™ Peel and Stick, and Typar® DrainableWrap™ Commercial:** Under the IBC, Typar® DrainableWrap™, Typar® DrainableWrap™ Peel and Stick, and Typar® DrainableWrap™ Commercial water-resistive barriers have been evaluated for use on exterior walls of buildings not greater than 40 feet (12.2 m) above grade; the water-resistive barriers may be installed on exterior walls of

buildings of any height above grade when the wall assembly complies with exception 1 of 2021 and 2018 IBC Section 1402.5 (exception 1 of in 2015 IBC Section 1403.5).

**5.0 CONDITIONS OF USE**

The Typar® BuildingWrap, Typar® MetroWrap™, Typar® DrainableWrap™, Typar® DrainableWrap™ Peel and Stick, Typar® DrainableWrap™ Commercial and CertaWrap™ Weather Resistant Barrier products described in this report comply with, or are suitable alternates to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Installation must comply with this report and the manufacturer’s published installation instructions. In the event of conflict between the manufacturer’s instructions and this report, this report governs.
- 5.2 The water-resistive barrier must be covered by an exterior wall finish complying with the requirements of the applicable code.
- 5.3 Use on exterior walls of buildings of Types I, II, III and IV construction must be in accordance with Section 4.3 and Table 1 for the applicable edition of the IBC.
- 5.4 The products must not be installed where ASTM E2556 Type I or II building paper is required.
- 5.5 The product is manufactured under a quality control program with inspections by ICC-ES.

**6.0 EVIDENCE SUBMITTED**

- 6.1 Data in accordance with the ICC-ES Acceptance Criteria for Water-resistive Barriers (AC38), approved August 2016 (editorially revised July 2021).
- 6.2 Report of testing in accordance with ASTM E84 (UL 723).
- 6.3 Reports of testing in accordance with ASTM E2178.

- 6.4 Report of testing in accordance with NFPA 285 and supporting fire analysis.

**7.0 IDENTIFICATION**

- 7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-1404) along with the name, registered trademark, or registered logo or the report holder [and/or listee] must be included in the product label.
- 7.2 In addition, the Typar® BuildingWrap, Typar® MetroWrap™, Typar® DrainableWrap™, Typar® DrainableWrap™ Peel and Stick, Typar® DrainableWrap™ Commercial and CertaWrap™ products are identified by a label, on the container of each roll of membrane, bearing the company name (Fiberweb, or CertainTeed Corporation), the product name, the manufacturing location (Old Hickory, TN), and the evaluation report number (ESR-1404).
- 7.3 The report holder’s contact information is the following:  
**FIBERWEB, INC.**  
**70 OLD HICKORY BOULEVARD**  
**OLD HICKORY, TENNESSEE 37138**  
**(615) 847-7000**  
[www.typar.com](http://www.typar.com)
- 7.4 The Additional Listee’s contact information is the following:

**CERTAINTED CORPORATION**  
**20 MOORES ROAD**  
**MALVERN, PENNSYLVANIA 19355**

**TABLE 1—NFPA 285 WALL ASSEMBLY**

<b>I. Base Wall System</b> (Use either 1, 2 3 or 4)	1. Concrete Wall
	2. Concrete Masonry Wall (CMU)
	3. Standard Clay Brick Wall
	4. Steel Stud Framed Wall (Use a, b, c, or d, as applicable) – Minimum 20-gauge, 3 <sup>5</sup> / <sub>8</sub> -inch-deep, studs with lateral bracing every 4 feet vertically, spaced 24 inches on center maximum
	a. Interior Wallboard – Minimum of 1 layer of 5/ <sub>8</sub> -inch-thick Type X gypsum wallboard on interior face of studs
	b. Cavity Insulation – None
	c. Floorline Firestopping – (where studs are outboard of the floor assembly): 4 lb/ft <sup>3</sup> mineral wool in each stud cavity and at each floorline – attached with Z-clips
	d. Exterior Sheathing – minimum 1 layer of 1/ <sub>2</sub> -inch-thick, exterior glass-mat gypsum sheathing complying with ASTM C1177
<b>II. Air and Water Barrier</b> Applied to I. Base Wall Systems 1, 2, 3 or 4	1. Typar® BuildingWrap, Typar® MetroWrap™ and CertaWrap™
<b>III. Exterior Insulation<sup>1</sup></b>	1. None
<b>IV. Exterior Cladding<sup>2</sup></b>	1. Brick: Standard nominal 4-inch thick clay brick. Use standard brick veneer anchors installed maximum 24 inches on center vertically on each stud with a 2-inch maximum air gap between exterior insulation and brick.

For SI: 1 inch = 25.4 mm; 1 lb/ft<sup>3</sup> = 16 kg/m<sup>3</sup>

Notes:

<sup>1</sup> Use minimum 24 gauge (0.033-inch thick) galvanized steel flashing around all window and door openings in the exterior wall.

<sup>2</sup> Exterior cladding must comply with the applicable provisions of IBC Chapter 14 and IRC Chapter 7.

**DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION****Section: 07 25 00—Water-Resistive Barriers/Weather Barriers****Section: 07 27 00—Air Barriers****REPORT HOLDER:****FIBERWEB, INC.****EVALUATION SUBJECT:****TYPAR® BUILDINGWRAP, TYPAR® METROWRAP™, TYPAR® DRAINABLEWRAP™, TYPAR® DRAINABLEWRAP™ PEEL AND STICK, TYPAR® DRAINABLEWRAP™ COMMERCIAL AND CERTAWRAP™ WEATHER RESISTANT BARRIERS (PRIVATE LABEL I)****1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that the Typar® BuildingWrap, Typar® MetroWrap™, Typar® DrainableWrap™, Typar® DrainableWrap™ Peel and Stick, Typar® DrainableWrap™ Commercial and CertaWrap™ Weather Resistant Barriers, described in ICC-ES evaluation report ESR-1404, have also been evaluated for compliance with the codes noted below.

**Applicable code editions:**

- 2022 California Building Code (CBC)

For evaluation of applicable Chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2022 California Residential Code (CRC)
- 2022 California Energy Code (CEC)

**2.0 CONCLUSIONS****2.1 CBC:**

The Typar® BuildingWrap, Typar® MetroWrap™, Typar® Drainable Wrap, Typar® DrainableWrap™ Peel and Stick, Typar® DrainableWrap™ Commercial and CertaWrap™ Weather Resistant Barriers, described in Sections 2.0 through 7.0 of the evaluation report ESR-1404, comply with CBC Chapter 14, provided the design and installation are in accordance with the 2021 *International Building Code*® (IBC) provisions noted in the evaluation report ESR-1404. Use as an air barrier must be in accordance with the CEC.

**2.1.1 OSHPD:** The applicable OSHPD Sections and Chapters of the CBC are beyond the scope of this supplement.

**2.1.2 DSA:** The applicable DSA Sections and Chapters of the CBC are beyond the scope of this supplement.

**2.2 CRC:**

The Typar® BuildingWrap, Typar® MetroWrap™, Typar® DrainableWrap™, Typar® DrainableWrap™ Commercial and CertaWrap™ Weather Resistant Barriers, described in Sections 2.0 through 7.0 of the evaluation report ESR-1404, comply with CRC Chapter 7, provided the design and installation are in accordance with the 2021 *International Residential Code*® (IRC) provisions noted in the evaluation report ESR-1404 and the applicable provisions of the CRC. Use as an air barrier must be in accordance with the CEC.

This supplement expires concurrently with the evaluation report ESR-1404, reissued November 2022 and revised January 2023.

**DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION**

**Section: 07 25 00—Water-Resistive Barriers/Weather Barriers**

**Section: 07 27 00—Air Barriers**

**REPORT HOLDER:**

**FIBERWEB, INC.**

**ADDITIONAL LISTEE:**

**CERTAINTED CORPORATION**

**EVALUATION SUBJECT:**

**TYPAR® BUILDINGWRAP, TYPAR® METROWRAP™, TYPAR® DRAINABLEWRAP™, TYPAR® DRAINABLEWRAP™ PEEL AND STICK, TYPAR® DRAINABLEWRAP™ COMMERCIAL AND CERTAWRAP™ WEATHER RESISTANT BARRIERS (PRIVATE LABEL I)**

## 1.0 REPORT PURPOSE AND SCOPE

**Purpose:**

The purpose of this evaluation report supplement is to indicate that Typar® BuildingWrap, Typar® MetroWrap™, Typar® DrainableWrap™, Typar® DrainableWrap™ Peel and Stick, Typar® DrainableWrap™ Commercial and CertaWrap™ Weather Resistant Barriers, described in ICC-ES evaluation report ESR-1404, have also been evaluated for compliance with the codes noted below.

**Applicable code editions:**

- 2020 Florida Building Code—Building
- 2020 Florida Building Code—Residential

## 2.0 CONCLUSIONS

The Typar® BuildingWrap, Typar® MetroWrap™ Typar® DrainableWrap™, Typar® DrainableWrap™ Peel and Stick, Typar® DrainableWrap™ Commercial and CertaWrap™ Weather Resistant Barriers, described in Sections 2.0 through 7.0 of ICC-ES evaluation report ESR-1404, comply with the 2020 Florida Building Code—Building and the 2020 Florida Building Code—Residential. The design requirements shall be determined in accordance with the Florida Building Code—Building or the Florida Building Code—Residential, as applicable. The installation requirements noted in ICC-ES evaluation report ESR-1404 for the 2018 International Building Code® meet the requirements of the Florida Building Code—Building or the Florida Building Code—Residential, as applicable.

Use of the Typar® BuildingWrap, Typar® MetroWrap™ Typar® DrainableWrap™, Typar® DrainableWrap™ Peel and Stick, Typar® DrainableWrap™ Commercial and CertaWrap™ Weather Resistant Barriers has also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the Florida Building Code—Building or the Florida Building Code—Residential.

For products falling under Florida Rule 61G20-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the evaluation report, reissued November 2022 and revised January 2023.



# SUBSTITUTION REQUEST

(During the Bidding/Negotiating Phase)



<b>PROJECT:</b> _____	<b>SUBSTITUTION REQUEST NUMBER:</b> _____
_____	<b>FROM:</b> _____
<b>TO:</b> _____	<b>DATE:</b> _____
_____	<b>A/E PROJECT NUMBER:</b> _____
<b>RE:</b> _____	<b>CONTRACT FOR:</b> _____

<b>SPECIFICATION TITLE:</b> _____	<b>DESCRIPTION:</b> _____
<b>SECTION:</b> _____	<b>PAGE:</b> _____
	<b>ARTICLE/PARAGRAPH:</b> _____

**PROPOSED SUBSTITUTION:** \_\_\_\_\_

**MANUFACTURER:** TYPAR **ADDRESS:** 70 Old Hickory Blvd, Old Hickory TN **PHONE:** \_\_\_\_\_

**TRADE NAME:** TYPAR - A Berry Global Brand **MODEL NO.:** \_\_\_\_\_

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.  
 Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

- The Undersigned certifies:
- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
  - Same warranty will be furnished for proposed substitution as for specified product.
  - Same maintenance service and source of replacement parts, as applicable, is available.
  - Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
  - Proposed substitution does not affect dimensions and functional clearances.
  - Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

**SUBMITTED BY:** \_\_\_\_\_

**SIGNED BY:** \_\_\_\_\_

**FIRM:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**TELEPHONE:** \_\_\_\_\_

**A/E's REVIEW AND RECOMMENDATION:**

- Approve Substitution—Make submittals in accordance with Specification Section 01 33 00 Submittal Procedures.
- Approve Substitution as noted—Make submittals in accordance with Specification Section 01 33 00 Submittal Procedures.
- Reject Substitution—Use specified materials.
- Substitution Request received too late—Use specified materials.

**SIGNED BY:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**SUPPORTING DATA ATTACHED:**  Drawings  Product Data  Samples  Tests  Reports  \_\_\_\_\_