EVALUATION REPORT

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PROTECTO WRAP COMPANY 1955 South Cherokee Street **Denver, CO 80223** (800) 759-9727 www.protectowrap.com

PROTECTO SEAL 45 (PS45) FLASHING TAPETM, PW-100/40 FLASHING TAPETM, TILE FLASH 60 XLTM, BT20XL BUTYLTM, BT25XLTM, PROTECTO SUPER STICK BUILDING TAPETM, UNIVERSAL PRIMER FREE MEMBRANE, and DIAMOND KOTE® HIGH PERFORMANCE BUILDING TAPE.

CSI Section:

07 65 00 Flexible Flashing

1.0 RECOGNITION

Protecto Wrap's Self-adhering Flashings; Protecto Seal 45 (PS45) Flashing Tape, PW-100/40 Flashing Tape, BT25XL, Protecto Super Stick Building Tape, Diamond Kote® High Performance Building Tape and Universal Primer Free, as well as Protecto Wrap's Hip and Ridge Tapes/Membranes; BT20XL Butyltm and Tile Flash 60 XLtm as recognized in this report, have been evaluated for durability and weather resistance and found to meet the intent of the provisions of the following codes and regulations:

- 2018, 2015, 2012, and 2009 International Building Code® (IBC)
- 2018, 2015, 2012, and 2009International Residential Code® (IRC)

2.0 LIMITATIONS

Use of the Protecto Seal 45 (PS45) Flashing Tape, PW-100/40 Flashing Tape, BT20XL Butyl, BT25XL, Protecto Super Stick Building Tape, Universal Primer Free Membrane, Tile Flash 60 XLTM, and Diamond Kote® High Performance Building Tape recognized in this report is subject to the following limitations:

- 2.1 Installation shall be in accordance with this report, the manufacturer's installation instructions, and applicable code. In the event of a conflict, the most restrictive shall govern.
- 2.2 The Tile Flash 60 XLTM tape shall not be installed in a manner that leaves it exposed to the weather or installed where it may be subject to direct weather exposure.

2.3 The Tile Flash 60 XLTM tape is limited to use on clay or concrete roof tiles when specifically recognized in an approved. code compliant evaluation report.

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- 2.4 Installation of Protecto Seal 45 (PS45) Flashing TapeTM, PW-100/40 Flashing Tape™, Tile Flash 60 XL™, BT20XL ButylTM, BT25XLTM, Protecto Super Stick Building TapeTM, Universal Primer Free Membrane, and Diamond Kote® High Performance Building Tape is permitted for use with wood, steel, aluminum, fiberglass, and vinyl-framed flanged windows and doors. These products are also permitted for use on substrates such as plywood and oriented strand board that comply with the requirements of the applicable code or fiber cement board recognized for use as an exterior wall sheathing in a nationally recognized code compliant evaluation report.
- 2.5 Protecto Seal 45 (PS45) Flashing Tape™, PW-100/40 Flashing TapeTM, Tile Flash 60 XLTM, BT20XL ButylTM, BT25XLTM, Protecto Super Stick Building TapeTM, Universal Primer Free Membrane, and Diamond Kote® High Performance Building Tape are recognized for use on Type V construction under the IBC and residential structures constructed in accordance with the IRC.
- **2.6** In accordance with Section 1402.5 of the 2018 IBC and Section 1403.5 of the 2015 IBC, "fenestration products shall not be considered part of the water-resistive barrier" for purposes of compliance with the acceptance criteria of NFPA 285, and the flashing products recognized in this report may be used on buildings of all construction types. For compliance with Section 1403.5 of the 2012 IBC, the flashing products when installed on exterior walls "on buildings of Type I, II, III, or IV construction that are greater than 40 feet (12.19 m) in height above grade plane shall be tested in accordance with and comply with the acceptance criteria of NFPA 285."
- 2.7 Protecto Wrap Company's flashing tapes recognized in this report are manufactured in Denver, Colorado.

3.0 PRODUCT USE

3.1 General: Protecto Seal 45 (PS45) Flashing Tape, PW-100/40 Flashing Tape, BT20XL Butyl, BT25XL, Protecto Super Stick Building TapeTM, Universal Primer Free Membrane, and Diamond Kote® High Performance Building Tape are for use as flashing around wall penetrations to create an air/vapor barrier. The Tile Flash 60 XL is for use as flashing under concrete or clay hip and ridge roofing tiles. All products comply with Level 3 classification, for exposures up to 176°F (80°C), in accordance with AAMA 711.





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3.2 Installation:

3.2.1 Installation General: The flashing tapes shall be installed in accordance with the manufacturer's published installation instructions and any special requirements in this report. The tapes are applied to clean, dry surfaces that are free of dirt, dust, frost, loose nails, and other similar protrusions. The tapes shall be applied only when the ambient air and surface temperature is above 40°F (4.4°C).

3.2.2 Hip and Ridge Tape: For roof tile installations, the tape shall be loosely applied along the top of the hip or ridge, allowing the tape to conform to the tile pans. the end joints of the tape shall be overlapped a minimum of 6 inches (152 mm), which is done prior to the hip or cap ridge installation. The desired length of tape is cut and firmly pressed into the center of the tile pans and smoothed out until it conforms tightly to the tile contour. Air bubbles and wrinkles shall be eliminated as outlined in the manufacturer's published installation instructions. The tape shall be protected from exposure to the weather after application.

3.2.3 Self-Adhering Flashing for Wall Penetrations: The release sheet is peeled back approximately 12 inches (305 mm) when applying the tapes around windows and doors. The tape is applied over the joint of the window or door frame and sheathing. The tape needs to cover the entire width of the door or window flange and be sufficiently wide so that the remainder of the tape extends a minimum of 2 inches (51 mm) onto the sheathing that lies adjacent to the door or window flange. The tape shall not be stretched during installation. Joints between horizontal and vertical strips shall overlap a minimum of 4 inches (102 mm). The waterresistive barrier at the top of windows or doors shall be lapped a minimum of 4 inches (102 mm) over the top of the horizontal strip of flashing tape. The water-resistive barrier shall be installed such that the edge is flush with the edge of the windows or door frame. Overlaps between the flashing tapes and water-resistive barrier shall be in a single lap to prevent moisture entry due to the flow of water. Contact with solvent based sealants shall be avoided.

3.2.4 Self-Adhering Flashing for Roof Applications: Products shall be installed onto any exterior grade solid sheathing normally used for roof decking. The membranes shall be placed such that all laps shed water in both vertical and horizontal installations. Valleys require a minimum 18-inch-wide roll of Protecto Seal 45 centered down the full length of the valley. The membrane shall start at the lowest point of roof slope and work up the slope. Edge laps shall be 4 inches minimum and end laps shall be 6 inches minimum. All laps should be firmly pressed and/or rolled to minimize creases and wrinkles and insure a positive seal. All terminations edges and overlaps should be sealed with Protecto Sealant 25XL.

The installation shall also comply with 2018 IBC Section 1404.4; 2015, 2012, or 2009 IBC Section 1405.4; or 2018 or 2015 IRC Section R703.4 (Section R703.8 of the 2012 and 2009 IRC) as applicable. Exterior windows and doors shall be installed in accordance with 2018 IBC Section 1404.13; 2015, 2012, or 2009 IBC Section 1405.13; or IRC R612, as applicable.

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4.0 PRODUCT DESCRIPTION

4.1 Self Adhering Flashings

4.1.1 Protecto Seal 45 (PS45) Flashing TapeTM: Protecto Seal 45 is a nominally 0.045-inch-thick (45 mil or 1.14 mm) pressure-sensitive flashing tape faced with either a polymer film, woven fabric, or an aluminized polymer film. The tape includes a release backing to prevent self-adhesion of the material. Rolls measure 50 feet (15.24 m) in length and are produced in 2-inch to 36-inch widths (5.1 to 91.4 cm).

4.1.2 PW-100/40 Flashing TapeTM: PW 100/40XL is manufactured identically to Protecto Seal 45 without the aluminum laminate and is nominally 0.045-inch-thick (45 mil or 1.14 mm). Rolls measure 75 feet (22.86 meters) in length and are produced in 4-inch to 36-inch widths (10.2 cm to 91.4 cm).

4.1.3 BT25XLTM: BT25XL is a cold applied self-adhering membrane with a nominal thickness of 0.025 inch (25 mil or 0.60 mm) and composed of a cross-laminated High Density Polyethylene surface coated on one side with a layer of polymer modified asphalt adhesive. Rolls measure 75 feet (22.86 meters) and 100 feet (30.48 m) in length and are produced in 4-inch to 36-inch widths (102 to 914 mm).

- **4.1.4 Protecto Super Stick Building TapeTM:** Protecto Super Stick Building Tape is a window and door flashing tape designed to be applied at temperatures down to -20°F (-28°C) without the use of primer or mechanical fasteners on most substrates. Rolls measure 75 feet (22.86 meters) in length and are produced in 3-inch to 12-inch widths (76 to 305 mm).
- **4.1.5** Universal Primer Free Membrane: Universal Primer Free Membrane is a self-adhering block copolymer based flashing tape with a nominal thickness of 0.017 inch (17 mil or 0.43 mm) designed to be applied at temperatures down to -20°F (-28°C) without the use of primer or mechanical fasteners on most substrates. Rolls measure 50 feet (15.24 meters) in length and are produced in 2-inch to 36-inch widths (51 to 914 mm).
- **4.1.6 Diamond Kote** High Performance Building Tape: Diamond Kote High Performance Building Tape is a window and door flashing tape designed to be applied at temperatures down to -20°F (-28°C) without the use of primer or mechanical fasteners on most substrates. Rolls

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measure 75 feet (22.86 meters) in length and are produced in 3-inch to 12-inch widths (76 to 305 mm).

4.2 Hip and Ridge Tapes/ Membranes:

4.2.1 BT20XL ButylTM: BT20XL Butyl is a cold applied self-adhering membrane with a nominal thickness of 0.020-inch (20 mil or 0.50 mm) and composed of a Thermoplastic Olefin (TPO) film coated on one side with a layer of proprietary recycled butyl adhesive. Rolls measure 50 feet (15.24 m) and 75 feet (22.86 m) in length and are produced in 4-inch to 36-inch widths (102 to 914 mm).

4.2.2 Tile Flash 60 XLTM: Tile Flash 60 XL is a pressure-sensitive self-adhering cold-applied tape manufactured from bituminous and synthetic resins and used as flashing on concrete or clay hip and ridge roofing tiles. The tape is faced with an aluminum coated black film on one side and is backed with a release film that protects the adhesive and prevents the product from sticking to itself. The tape is nominally 0.060-inch-thick (60 mil or 1.52 mm). Rolls measure 50 feet (15.24 meters) in length and are produced in 2-inch to 36-inch widths (51 to 914 mm).

5.0 IDENTIFICATION

The products recognized in this report shall be labeled with the company name (Protecto Wrap Company), the name of the product, the manufacturing location (Denver, CO), and the UES Evaluation Report number (ER-362). One of the IAPMO Uniform ES Marks of Conformity, as shown below, may also be used. The Tile Flash Roofing Tape labelling shall include a statement that the product is only intended for concealed areas of the roof.





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6.0 SUBSTANTIATING DATA

Data and test reports submitted for this report are from laboratories recognized as being in compliance with ISO/IEC 17025 and the following:

6.1 Data in accordance with:

- ICC-ES Acceptance Criteria for Flexible Flashing Materials (AC148) dated July 2017, editorially revised May 2018.
- AAMA 711-13 and 711-07, Voluntary Specification for Self-Adhering Flashing Used for Installation of Exterior Wall Fenestration Products.
- **6.2** Literature and published installation instructions from the manufacturer.

7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research carried out by IAPMO Uniform Evaluation Service on Protecto Seal 45 (PS45) Flashing Tape, PW-100/40 Flashing Tape, BT20XL Butyl, BT25XL, Protecto Super Stick Building TapeTM, Universal Primer Free Membrane, Tile Flash 60XLTM, and Diamond Kote[®] High Performance Building Tape to assess conformance to the codes shown in Section 1.0 of this report and serves as documentation of the product certification. Products recognized in this report are manufactured at locations noted in Section 2.7 under a quality control program with periodic inspections under the supervision of IAPMO UES.

For additional information about this evaluation report please visit www.uniform-es.org or email us at info@uniform-es.org