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ICC-ES Evaluation Report
ESR-2248

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This report is subject to renewal January 2025.

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:

PRIMESOURCE BUILDING PRODUCTS, INC.

EVALUATION SUBJECT:

GRIP-RITE® HOUSE-WRAP, GRIP-RITE® DOUBLE LAYER HOUSE-WRAP, GRIP-RITE® HOUSE-WRAP-E, GRIP-RITE® HOUSE-WRAP LWE AND GRIP-RITE® COMMERCIAL GRADE WEATHER BARRIER

1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2018, 2015, 2012, 2009 and 2006 *International Building Code®* (IBC)
- 2018, 2015, 2012, 2009 and 2006 *International Residential Code®* (IRC)
- 2018, 2015, 2012, 2009 and 2006 *International Energy Conservation Code®* (IECC)
- 2013 *Abu Dhabi International Building Code* (ADIBC)†

†The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Properties evaluated:

- Water resistance
- Physical properties
- Air barrier material
- Air barrier assembly
- Surface-burning characteristics

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

- 2022 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, 2012 and 2008 ICC 700 *National Green Building Standard™* (ICC 700-2020, ICC 700-2015, ICC 700-2012 and ICC 700-2008)

Attributes verified:

See Section 3.1.

2.0 USES

Grip-Rite® House-Wrap, Grip-Rite® Double Layer House-Wrap, Grip-Rite® House-Wrap-E, Grip-Rite® House-Wrap LWE and Grip-Rite® Commercial Grade Weather Barrier are equivalent to the water-resistive barrier materials specified in 2018 IBC Section 1403.2 and 2015 IBC Section 1404.2 and IRC Section R703.2 and to Grade D paper as described in 2018, 2015, 2012, 2009 and 2006 IBC Section 2510.6 and 2018 and 2015 IRC Section R703.7.3 [2012, 2009 and 2006 IRC Section R703.6.3] with a 60-minute water resistance rating.

2.1 Grip-Rite® House-Wrap LWE:

Grip-Rite® House-Wrap LWE is used as a water-resistive barrier on the exterior side of exterior walls of buildings of Type V-B (IBC) construction and construction permitted under the IRC. Grip-Rite® House-Wrap LWE may be used as an air barrier assembly under 2018 and 2015 IECC Section C402.5.1.2.2 and 2012 IECC Section C402.4.1.2.2 when installed in accordance with Section 4.2 of this report.

2.2 Grip-Rite® House-Wrap-E:

Grip-Rite® House-Wrap-E is used as a water-resistive barrier on the exterior side of exterior walls of buildings of all construction types under the IBC and the IRC. Under the 2018, 2015 and 2012 IBC, the water-resistive barrier may be used on buildings of Type I, II, III, or IV construction that are not greater than 40 feet (12 192 mm) in height above grade, except as permitted under Exception 1 of the 2018 IBC Section 1402.5 and 2015 IBC Section 1403.5. Grip-Rite® House-Wrap-E may be used as an air barrier material under IRC Section N1102.4, 2018, and 2015 IECC Sections C402.5 and R402.4 and 2012 IECC Sections C402.5 and R402.4 (2009 and 2006 Sections 402.4 and 502.4 IECC).

2.3 Grip-Rite® House-Wrap, Grip-Rite® Double Layer House-Wrap, Grip-Rite® Commercial Grade Weather Barrier:

Grip-Rite® House-Wrap, Grip-Rite® Double Layer House-Wrap and Grip-Rite® Commercial Grade Weather Barrier are used as water-resistive barriers on the exterior side of exterior walls of buildings of all construction types under the IBC and the IRC. Under the 2018, 2015 and 2012 IBC, the water-resistive barriers may be used on buildings of Type I, II, III, or IV construction that are not greater than 40 feet (12 192 mm) in height above grade, except as permitted under Exception 1 of 2018 IBC Section 1402.5 and 2015 IBC Section 1403.5. Grip-Rite® House-Wrap, Grip-Rite® Double Layer House-Wrap and Grip-Rite® Commercial Grade Weather Barrier may be used as an air barrier assembly under 2018 and 2015 IECC Section C402.5.1.2.2 and 2012 IECC Section C402.4.1.2.2 when installed in accordance with Section 4.2 of this report.

3.0 DESCRIPTION

3.1 Grip-Rite® House-Wrap and Grip-Rite® Double Layer House-Wrap:

Grip-Rite® House-Wrap is a woven, micro-perforated, polypropylene or polyolefin material, white in color, with a minimum thickness of 4.8 mils [0.0048 inch (0.12 mm)] and a minimum basis weight of 0.24 ounce per square foot (74 g/m^2), and is produced in rolls of varying size. The membranes have a flame-spread index of 25 or less and a maximum smoke-developed index not exceeding 450, when tested in accordance with ASTM E84.

Grip-Rite® Double Layer House-Wrap, consists of two independent layers of Grip-Rite House-Wrap, rolled together into a single roll for use when two layers of Grade D paper are required for installation under exterior plaster applied over wood-based solid sheathing in accordance with 2018, 2015, 2012, 2009 and 2006 IBC Section 2510.6 and 2018 and 2015 IRC Section 703.7.3 [2012, 2009 and 2006 IRC Section R703.6.3] the product is produced in rolls of varying size.

When tested in accordance with ASTM E2357, the air barrier assembly described in Section 4.2 of this report incorporating Grip-Rite® House-Wrap has an air leakage rate not exceeding 0.02 L/(s·m^2) @ 75 Pa ([0.004 cfm/ft^2 @ 0.3 w.g. (1.57 psf)] in accordance with 2018 and 2015 IECC Section C402.5.1.2.2 and 2012 IECC Section C402.4.1.2.2.

The attributes of the water-resistive barrier 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; (iii) 2018 IgCC Section 701.3.1.1 for air barriers; (iv) 2015 and 2012 IgCC Section 605.1.2.1 for air barriers; (v) 2020 ASHRAE 189.1 Section 7.3.1.2; (vi) 2017 and 2014 ASHRAE 189.1 Section 7.3.1.1 for air barriers; (vii) 2014 ASHRAE 189.1 Section 7.3.1.1 and 2011 ASHRAE 189.1 Section 7.4.2.9 for air barriers; (viii) ICC 700-2020 Sections 602.1.8, 11.602.1.8, 1202.6 and 13.104.1.4 for water-resistive barriers, (ix) ICC 700-2015 Sections 602.1.8, 11.602.1.8 and 12.6.602.1.8 for water-resistive barriers; (x) ICC 700-2012 Sections 602.1.8, 11.602.1.8 and 12.5.602.1.8 for water-resistive barriers; and (xi) ICC 700-2008 Section 602.9 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.

3.2 Grip-Rite® House-Wrap-E:

Grip-Rite® House-Wrap-E is a cross-woven, perforated, coated polyethylene fabric with a minimum thickness of 5 mils [0.005 inch (0.13 mm)] and a minimum basis weight of 0.24 ounce per square foot (74 g/m^2), and is produced in rolls of varying size. The membrane has a flame-spread index of 25 or less and a maximum smoke-developed index not exceeding 450, when tested in accordance with ASTM E84.

When used as an air barrier material, the membrane has an air leakage rate not exceeding 0.02 L/(s·m^2) at 75 Pa [0.004 cfm/ft^2 at 0.3 w.g. (1.57 psf)].

3.3 Grip-Rite® Commercial Grade Weather Barrier:

Grip-Rite® Commercial Grade Weather Barrier is a high-density polyethylene (HDPE) woven material, coated on both sides with a low-density polyethylene coating, with a minimum thickness of 5 mils [0.005 inch (0.13 mm)] and a minimum basis weight of 0.32 ounce per square foot (98 g/m^2), and is produced in rolls of varying size. The membrane has a flame-spread index of 25 or less and a maximum smoke-developed index not exceeding 450, when tested in accordance with ASTM E84.

When tested in accordance with ASTM E2357, the air barrier assembly described in Section 4.2 of this report incorporating Grip-Rite® Commercial Grade Weather Barrier has an air leakage rate not exceeding 0.02 L/(s·m^2) at 75 Pa [0.004 cfm/ft^2 at 0.3 w.g. (1.57 psf)] in accordance with 2018 and 2015 IECC Section C402.5.1.2.2 and 2012 IECC Section C402.4.1.2.2.

3.4 Grip-Rite® House-Wrap LWE:

Grip-Rite® House-Wrap LWE is a high-density polyethylene (HDPE) woven material, coated on one side with a low-density polyethylene coating, with a minimum thickness of 4 mils [0.004 inch] and a minimum basis weight of 0.21 ounce per square foot (65 g/m^2), and is produced in rolls of varying size.

When tested in accordance with ASTM E2357, the air barrier assembly described in Section 4.2 of this report incorporating Grip-Rite® House-Wrap LWE has an air leakage rate not exceeding 0.02 L/(s·m^2) at 75 Pa [0.004 cfm/ft^2 at 0.3 w.g. (1.57 psf)] in accordance with 2018 and 2015 IECC Section C402.5.1.2.2 and 2012 IECC Section C402.4.1.2.2.

4.0 INSTALLATION

4.1 General:

Grip-Rite® House-Wrap, Grip-Rite® Double Layer House-Wrap Grip-Rite® Commercial Grade Weather Barrier, Grip-Rite® House-Wrap-E and Grip-Rite® House-Wrap LWE must be installed after wall framing and sheathing are installed in accordance with the applicable code, and before windows and doors are installed. The roll is placed approximately 6 inches (Grip-Rite® House-Wrap, Grip-Rite® Double Layer House-Wrap or Grip-Rite® House-Wrap-E) or 3 inches (Grip-Rite® Commercial Grade Weather Barrier or Grip-Rite® House-Wrap LWE) from the starting corner and fastened to the sheathing with corrosion-resistant staples with minimum 1-inch (25.4 mm) crowns, or corrosion-resistant nails having 1-inch-diameter (25.4 mm) plastic washer heads; or to steel framing with corrosion-resistant, minimum No. 7, Type S screws with 1-inch-diamater (25.4 mm) plastic washers, spaced at a minimum of 12 inches (305 mm) and a maximum of 18 inches (457 mm) on center. Grip-Rite® House-Wrap, Grip-Rite® Double Layer House-Wrap,Grip-Rite® Commercial Grade Weather

Barrier, Grip-Rite® House-Wrap-E and Grip-Rite® House-Wrap LWE must be unrolled around the building and fastened into top and bottom sill plates with nails or staples spaced at a maximum of 8 inches (203 mm) on center; and into vertical framing members with nails or staples spaced a minimum of 12 inches (305 mm) and a maximum of 18 inches (457 mm) on center. The printed side must be installed facing the outside. A minimum of 8 inches (203 mm) of overlap must be provided for vertical seams and 6 inches (152 mm) for horizontal seams. Inside and outside corners must be wrapped a minimum of 8 inches (203 mm) to create a double layer at all corners.

When use is over wood-based sheathing in exterior plaster applications, two layers of the membrane are to be applied in accordance with 2018, 2015, 2012, 2009 and 2006 IBC Section 2510.6 and 2018 and 2015 IRC Section R703.7.3 [2012, 2009 and 2006 IRC Section R703.6.3], unless the membrane is separated from the stucco by an intervening, substantially non-water-absorbing layer or drainage space, in which case a single layer is permissible in accordance with the exception to 2018, 2015, 2012, 2009 and 2006 IBC Section 2510.6 and 2018, and 2015 IRC Section R703.7.3 and 2012, 2009 and 2006 IRC Section R703.6.3. Grip-Rite® Double Layer House-Wrap, consisting of two independent layers of Grip-Rite® House-Wrap, may be installed in one application in lieu of two layers of the Grade D membrane being independently installed in accordance with 2018, 2015, 2012, 2009 and 2006 IBC Section 2510.6 and 2018, and 2015 IRC Section R703.7.3 [2012, 2009 and 2006 IRC Section R703.6.3].

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

When used as an air barrier, the Grip-Rite® House-Wrap-E must be installed in accordance with the manufacturer's published installation instructions and this report.

4.2 Air Barrier Assembly:

When Grip-Rite® House-Wrap, Grip-Rite® Double-Layer House-Wrap, Grip-Rite® House-Wrap-LWE and Grip-Rite® Commercial Grade Weather Barrier water-resistive barriers are used as a component of an air barrier assembly, the water-resistive barriers must be attached to the exterior side of sheathing with fasteners specified in the manufacturer's published installation instructions. Seams in the water-resistive barrier must be sealed with $1^{7}/_{8}$-inch (47.6 mm) Grip-Rite® House-Wrap Tape. Minimum $^{1}/_{2}$-inch-thick (12.7 mm) gypsum wallboard on the interior side of the assembly must be attached to the wall framing per prescribed code provisions, with all the joints taped and sealed with joint compound. Penetrations in the air barrier assembly must be sealed in accordance with 2018 and 2015 IECC Section C402.5.1(3) and 2012 IECC Section C402.4.2.

5.0 CONDITIONS OF USE

The Grip-Rite® House-Wrap, Grip-Rite® Double Layer House-Wrap, Grip-Rite® Commercial Grade Weather Barrier, Grip-Rite® House-Wrap-E and Grip-Rite® House-Wrap LWE water-resistive barriers described in this report comply with, or are suitable alternatives 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, the manufacturer's published installation instructions and the applicable code. If requested by the code official, a copy of this report must be available at the jobsite during installation. In the event of a conflict between this report and the manufacturer's published installation instructions, this report governs.

5.2 The air leakage rate noted in Section 3.0 is for the membrane as an air barrier material only. The design and evaluation of an air barrier assembly, of which the membrane is a component, is outside the scope of this report.

5.3 The membranes must be covered with an approved exterior wall covering complying with the applicable code.

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 December 2020).

6.2 Report of testing in accordance with ASTM E2178.

6.3 Report of testing in accordance with ASTM E2357.

6.4 Report of testing in accordance with ASTM E84.

7.0 IDENTIFICATION

7.1 Grip-Rite® House-Wrap, Grip-Rite® Double Layer House-Wrap Grip-Rite® Commercial Grade Weather Barrier, Grip-Rite® House-Wrap LWE and Grip-Rite® House-Wrap-E are identified by a label on the container of each roll of product, and by printing on the product bearing the report holder's name (PrimeSource Building Products, Inc.); the manufacturing location, and the evaluation report number (ESR-2248).

7.2 The report holder's contact information is the following:

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