

## ICC-ES Evaluation Report

**ESR-2246**

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**DIVISION: 07 00 00—THERMAL AND MOISTURE  
PROTECTION****Section: 07 25 00—Water-Resistive Barriers/Weather  
Barriers****REPORT HOLDER:****JUMPSTART CONSULTANTS, INC.  
4649 CAROLINA AVENUE, BUILDING I  
RICHMOND, VIRGINIA 23222  
(804) 321-5867****EVALUATION SUBJECT:****WATER-RESISTIVE BARRIERS****ADDITIONAL LISTEE:****NATIONAL SHELTER PRODUCTS, INC.  
50 S.E. BUSH STREET  
ISSAQUAH, WASHINGTON 98027  
(800) 552-7775**[www.drylinewrap.com](http://www.drylinewrap.com)**PRODUCT NAMES: DRYLINE™ W BUILDING WRAP,  
DRYLINE™ LP BUILDING WRAP, DRYLINE™ HP  
BUILDING WRAP AND DRYLINE™ RAINDRAIN™  
DRAINAGE WRAP****1.0 EVALUATION SCOPE****Compliance with the following codes:**

- 2006 *International Building Code*® (IBC)
- 2006 *International Residential Code*® (IRC)

**Properties evaluated:**

- Water resistance
- Surface-burning characteristics
- EIFS wall draining characteristics (Dryline™ RainDrain™ only)

**2.0 USES**

The products described in this report are used as water-resistive barriers on the exterior side of exterior walls of buildings of any construction type under the IBC and construction permitted under the IRC. They are equivalent to Grade D paper as described in IBC Section 2510.6 and IRC Section R703.6.3, with a 60-minute water-resistance rating. All products have a flame spread index of less than 25 and a smoke-developed index of less than 450, when tested in accordance of ASTM E 84. In addition, Dryline™ RainDrain Drainage Wrap may be used as a component of an EIFS drainage system as described in Section 4.2.

**3.0 DESCRIPTION**

The water-resistive barriers listed in this report are all comprised of a polyolefin fabric with variations in composition as described in Sections 3.1, 3.2 and 3.3.

**3.1 Dryline™ W Building Wrap:**

These products consist of a woven, microperforated, polyolefin fabric with an additional polyolefin coating, and are various colors. The finished product has a nominal basis weight of 65 grams per square meter (1.9 ounces per square yard) and is produced in rolls of varying sizes.

**3.2 Dryline™ LP Building Wrap, Dryline™ HP Building  
Wrap:**

These products consist of a nonwoven, microporous polyolefin fabric and membrane and are various colors. The finished product is available in low-perm and high-perm versions. The finished product has a minimum nominal basis weight of 90 grams per square meter (2.6 ounces per square yard) and is produced in rolls of varying sizes.

**3.3 Dryline™ RainDrain™ Drainage Wrap:**

This product consists of a microperforated polyolefin material with a three-dimensional surface, and is white in color. The finished product has a nominal basis weight of 70 grams per square meter (2.1 ounces per square yard) and is produced in rolls of varying sizes.

**4.0 INSTALLATION****4.1 General:**

The water-resistive barriers described in this report are installed after wall framing is completed and before or after windows and doors are installed. The roll is placed approximately 6 inches (152 mm) from the starting corner and is fastened to the sheathing with corrosion-resistant staples with minimum 1-inch (25.4 mm) crowns, corrosion-resistant nails having minimum  $\frac{3}{8}$ -inch-diameter (9.5 mm) heads, or corrosion-resistant nails having 1-inch-diameter (25.4 mm) plastic washer heads, spaced at a minimum of 6 inches (152 mm) vertically; and is then unrolled around the building and fastened with nails or staples spaced between 16 and 24 inches (406 to 609 mm) on center at top and bottom sill plates and at framing members and no more than 24 inches (609 mm) on center in the field. The printed side of the barrier is installed facing the outside. A minimum of 6 inches (152 mm) of overlap is to 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. When use

is over wood-based sheathing in exterior plaster applications, two layers of Grade D water-resistive barrier with a 60-minute water-resistive rating must be applied over sheathing in accordance with IBC Section 2510.6 or IRC Section R703.6.3. For cementitious coatings or exterior insulation and finish systems, application is to be in accordance with the evaluation report on the exterior coating.

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

#### 4.2 EIFS Wall Covering Assembly with Drainage:

The assembly described in this section complies with Section 4.10 of the ICC-ES Acceptance Criteria for EIFS Clad Drainage Wall Assemblies (AC235). This assembly is limited to the use of Dryline™ RainDrain™ Drainage Wrap and to use in Type V-B construction, in Group R, Division 1 and 3, Occupancies. The system consists of minimum  $1\frac{5}{32}$ -inch-thick (11.9 mm), Exposure 1 OSB sheathing applied to wood studs spaced 16 inches (406 mm) on center and fastened in accordance with Chapter 23 of the IBC or IRC Section R604, and a mechanically attached drainage EIFS. Dryline™ RainDrain™ Drainage Wrap is applied as described in Section 4.1 of this report. A minimum 1-inch-thick (25.4 mm), flat or grooved face, Type 1 expanded polystyrene (EPS), recognized in ICC-ES evaluation report [ESR-1788](#), is placed over the Dryline™ RainDrain™ Drainage Wrap and fastened to the wood sheathing along the EPS edges. The fasteners are placed 6 inches (152 mm) from the EPS edges and 12 inches (305 mm) on center in the field of the EPS. The fasteners must be either the Wind-lock or the Wind-Devil 2 attachment system. Fasteners must be sized and spaced to meet wind resistance requirements of the applicable code, penetrating a minimum of  $\frac{1}{4}$  inch (6.4 mm) through the sheathing. A weep screed, as set forth in IBC Section 2512.1.2 or IRC Section R703.6.2.1, is required. The EIFS base coat, fabric and finish coat are applied over the EPS in accordance with the applicable ICC-ES evaluation report.

## 5.0 CONDITIONS OF USE

The 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 The water-resistive barriers must be installed in accordance with the manufacturer's published installation instructions, the requirements of the applicable code and this report. In the event of a conflict between this report and the manufacturer's published installation instructions, this report governs.
- 5.2 The water-resistive barriers must be covered by an exterior wall finish complying with the requirements of the applicable code.
- 5.3 When Dryline™ RainDrain™ Drainage Wrap is used in an EIFS wall covering assembly with drainage as described in Section 4.2, the assembly must be specifically recognized in the EIFS manufacturer's ICC-ES evaluation report.

## 6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with the ICC-ES Acceptance Criteria for Water-resistive Barriers (AC38), dated February 2008.
- 6.2 Data in accordance with Section 4.10 of the ICC-ES Acceptance Criteria for EIFS Clad Drainage Wall Assemblies (AC235), dated October 2004 (editorially revised April 2008), and ASTM E 2273.
- 6.3 Report of testing in accordance with ASTM E 84.

## 7.0 IDENTIFICATION

The products described in this report are identified by a label on the container of each roll of membrane and by printing on the product, with the name, address and telephone number of the report holder or the additional listee, the product name, and the evaluation report number (ESR-2246).