

LP WeatherLogic[®] Air & Water Barrier
Louisiana-Pacific Corporation

PR-N138

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Products: LP WeatherLogic[®] Air & Water Barrier

LP Building Solutions, Louisiana-Pacific Corporation, 414 Union Street, Suite 2000, Nashville, TN 37219

(888) 820-0325

www.lpcorp.com

1. Basis of the product report:

- 2018 International Building Code (IBC): Sections 104.11 Alternative materials, 1403.2 Water-resistive barrier, 1505 Fire Classification, and 1507 Requirements for Roof Coverings
- 2015, 2012, and 2009 IBC: Sections 104.11 Alternative materials and 1404.2 Water-resistive barrier, 1505 Fire Classification, and 1507 Requirements for Roof Coverings
- 2018, 2015, 2012, and 2009 International Residential Code (IRC): Sections R104.11 Alternative materials, R703.2 Water-resistive barrier, R902 Fire Classification (Roof Classification for 2012 and 2009 IRC), and R905 Requirements for Roof Coverings
- 2018 and 2015 International Energy Conservation Code (IECC): Sections C102 Alternative materials, R102 Alternative materials, C402.5.1 Air barriers, and R402.4 Air leakage
- 2012 and 2009 IECC: Sections C102 Alternative materials, R102 Alternative materials, C402.4.1 Air barriers, and R402.4 Air leakage
- 2017 Oregon Residential Specialty Code
- Performance Standard for Wood Structural Panels, PS 2
- APA Panel Design Specification
- Qualification reports and other qualification data

2. Product description:

LP WeatherLogic[®] Air & Water Barrier is a system of wood structural panels and tape used to construct roofs and exterior walls with integrated sheathing and water-resistive barrier. When used to construct exterior walls, the system also serves as an air barrier.

LP WeatherLogic Air & Water Barrier panels consist of Louisiana-Pacific 7/16 through 5/8 Performance Category oriented strand board (OSB) Exposure 1 Structural I Rated Sheathing complying with US DOC PS 2 and manufactured in accordance with the in-plant manufacturing standard approved by APA, and adhered with a factory-applied proprietary overlay.

LP WeatherLogic Seam & Flashing Tape is a pressure sensitive, coated polymeric film that is minimum 3-3/4 inches in width. The tape is used for sealing panel joints, penetrations, openings and material transitions. The tape has been tested in accordance with Method F of ASTM D3330, *Standard Test Method for Peel Adhesion of Pressure-Sensitive Tape*, and meets or exceeds the requirements specified in AAMA 711-13, *Voluntary Specification for Self Adhering Flashing Used for Installation of Exterior Wall Fenestration Products*, for Type A, Class Level 3.

LP WeatherLogic Air & Water Barrier has been evaluated for compliance with the IBC and IRC for use as a combination of wall sheathing, water-resistive barrier, and air barrier, and a combination of roof sheathing and roof underlayment. LP WeatherLogic Air & Water Barrier has also been evaluated in accordance with ASTM E2357, *Standard Test Method for Determining Air Leakage of Air Barrier Assemblies*, and ASTM E2273, *Standard Test Method for Determining the Drainage Efficiency of Exterior Insulation and Finish Systems*

(EIFS) Clad Wall Assemblies. LP WeatherLogic Air & Water Barrier exceeds the 75 percent drainage efficiency requirement specified in Exception 1 to Section R703.1.1 of the Oregon Residential Specialty Code.

When installed with LP WeatherLogic Seam & Flashing Tape described in this section in accordance with the installation requirements specified in Section 4 of this report, LP WeatherLogic Air & Water Barrier shall be permitted for use in:

- a) Walls of Type V construction in the IBC and one- and two-family dwellings in the IRC, and as an alternative to the water-resistive barrier required in Chapters 14 of the IBC and Chapter 7 of the IRC.
- b) Roofs with a pitch of 2:12 or greater for Type III and Type V construction in the IBC and one- and two-family dwellings in the IRC as a combination roof sheathing and roof underlayment with the following limitations:
 - 1) For installations under the IBC, Type III-A and Type V-A shall be in accordance with IBC Table 601 footnotes b and d.
 - 2) An ice barrier shall be provided in accordance with Section 1507.1.2 of the 2018 IBC, 1507 of the 2015, 2012, and 2009 IBC, or R905 of the 2018, 2015, 2012, and 2009 IRC.
 - 3) Enclosed attic and rafter spaces shall be ventilated in accordance with applicable code except where unvented assemblies are permitted by Section R806.5 of the 2018, 2015, and 2012 IRC, or Section R806.4 of the 2009 IRC.

The manufacturing processes and quality assurance of the LP WeatherLogic Air & Water Barrier panels and Seam & Flashing Tape are documented in the in-plant manufacturing standard approved by APA.

3. Panel performance properties:

LP WeatherLogic Air & Water Barrier panels meet the design properties specified in APA *Panel Design Specification*, Form D510 (www.apawood.org/resource-library) for Exposure 1 Structural I panels with a span rating of 24/16, 32/16, or 40/20 as designated on the panel trademark.

LP WeatherLogic Air & Water Barrier panels shall be designed for wind uplift at a design span not exceeding the span rating shown in the trademark in accordance with Sections 1609 of the IBC and 2304.8.2 of the 2018 and 2015 IBC or 2304.7.2 of the 2012 and 2009 IBC, and R301.2.1 of the IRC. Roof coverings shall be mechanically fastened to the panels to resist the design wind uplift.

LP WeatherLogic Air & Water Barrier has been tested in accordance with ASTM E96, *Standard Test Methods for Water Vapor Transmission of Materials*, and have the following characteristics:

- a) Vapor permeance of 1.27 perms and equivalent Water Vapor Transmission (WVT) rate of 8.84 g/(24h-m²) when tested in accordance with ASTM E96 (desiccant method) at 73.4 ± 1°F and 50 ± 2% relative humidity.
- b) Vapor permeance of 5.35 perms and equivalent WVT rate of 36.1 g/(24h-m²) when tested in accordance with ASTM E96 (water method) at 73.4 ± 1°F and 50 ± 2% relative humidity.

When manufactured in compliance with facing materials for structural insulated panels (SIPs) in accordance with Table 2 of ANSI/APA PRS 610.1 referenced in Section R610.3 of the 2018 IRC, Section R610.3.2 and Table R610.3.2 of the 2015 IRC, and Section R613.3.2 and Table R613.3.2 of the 2012 and 2009 IRC, the water-resistive barrier properties of the LP WeatherLogic Air & Water Barrier are not affected by the manufacturing processes.

4. Product installation:
LP WeatherLogic Air & Water Barrier recognized in this report shall be installed in accordance with recommendations provided by the manufacturer (<https://lpcorp.com/resources/product-literature/installation-instructions/lp-weatherlogic-installation-instructions>).
5. Fire-resistant construction:
 - 5.1. LP WeatherLogic Air & Water Barrier meets Class III (or C) flame spread index and smoke-developed index when tested in accordance with ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*.
 - 5.2. LP WeatherLogic Air & Water Barrier meets a Class B fire classification as the underlayment for roof assemblies covered with ASTM D3018, *Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules*, Class A asphalt fiberglass shingles when tested in accordance with ASTM E108, *Standard Test Methods for Fire Tests of Roof Coverings*.

Exception: LP WeatherLogic Air & Water Barrier produced at the Clarke County plant (Mill number 520) with a Performance Category of 15/32 or greater meets a Class A fire classification as the underlayment for roof assemblies covered with ASTM D3018 Class A asphalt fiberglass shingles.

LP WeatherLogic Air & Water Barrier is permitted to be used with nonclassified roof coverings in accordance with Table 1505.1 footnote b and Section 1505.5 of the IBC, and Section R902.1 of the IRC.
6. Limitations:
 - a) LP WeatherLogic Air & Water Barrier recognized in this report shall be used in a design span not exceeding the span rating shown in the trademark.
 - b) LP WeatherLogic Air & Water Barrier is limited to dry service conditions where the average equilibrium moisture content of sawn lumber is less than 16 percent.
 - c) When used as roof assemblies and coverings, LP WeatherLogic Air & Water Barrier is limited to a slope of not less than 2 units vertical in 12 units horizontal (17% slope).
 - d) LP WeatherLogic Air & Water Barrier meets a Class B fire classification as the underlayment for roof assemblies covered with ASTM D3018 Class A asphalt fiberglass shingles except that LP WeatherLogic Air & Water Barrier produced at the Clarke County plant (Mill number 520) with a Performance Category of 15/32 or greater meets a Class A fire classification.
 - e) LP WeatherLogic Air & Water Barrier is produced by LP at the Clarke County manufacturing facility in Thomasville, AL and at the Swan Valley manufacturing facility in Minitonas, Manitoba, Canada under a quality assurance program audited by APA.
 - f) This report is subject to re-examination in one year.
7. Identification:
LP WeatherLogic Air & Water Barrier described in this report is identified by a label or stamp bearing the manufacturer's name and/or trademark (Louisiana-Pacific Corporation), the APA assigned plant number (520 for the Clarke County plant and 457 for the Swan Valley plant), the product thickness and span rating, the APA logo, the report number PR-N138, and a means of identifying the date of manufacture.



Figure 1. Typical LP WeatherLogic Air & Water Barrier Mark

APA – *The Engineered Wood Association* is an approved national standards developer accredited by American National Standards Institute (ANSI). APA publishes ANSI standards and Voluntary Product Standards for wood structural panels and engineered wood products. APA is an accredited certification body under ISO/IEC 17065 by Standards Council of Canada (SCC), an accredited inspection agency under ISO/IEC 17020 by International Code Council (ICC) International Accreditation Service (IAS), and an accredited testing organization under ISO/IEC 17025 by IAS. APA is also an approved Product Certification Agency, Testing Laboratory, Quality Assurance Entity, and Validation Entity by the State of Florida, and an approved testing laboratory by City of Los Angeles.

**APA – THE ENGINEERED WOOD ASSOCIATION
HEADQUARTERS**

7011 So. 19th St. • Tacoma, Washington 98466
Phone: (253) 565-6600 • Fax: (253) 565-7265 • Internet Address: www.apawood.org

PRODUCT SUPPORT HELP DESK
(253) 620-7400 • E-mail Address: help@apawood.org

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