

ForceField[®] Weather-Resistive Barrier OSB
Georgia-Pacific Wood Products LLC

PR-N136

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Products: Georgia-Pacific ForceField[®] Weather-Resistive Barrier OSB
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1. Basis of the product report:
 - 2021 and 2018 International Building Code (IBC): Sections 104.11 Alternative materials and 1403.2 Water-resistive barrier, 1505 Fire Classification, and 1507 Requirements for Roof Coverings
 - 2015 and 2012 IBC: Sections 104.11 Alternative materials and 1404.2 Water-resistive barrier, 1505 Fire Classification, and 1507 Requirements for Roof Coverings
 - 2021, 2018, 2015, and 2012 International Residential Code (IRC): Sections R104.11 Alternative materials, R703.2 Water-resistive barrier, R902 Fire Classification (Roof Classification for 2012 IRC), and R905 Requirements for Roof Coverings
 - 2021, 2018, and 2015 International Energy Conservation Code (IECC): Sections C102 Alternative materials, R102 Alternative materials, R402.4 Air leakage (Mandatory), C402.5 Air leakage-thermal envelope (Mandatory), and C402.5.1 Air barriers
 - 2012 IECC: Sections C102 Alternative materials, R102 Alternative materials, R402.4 Air leakage (Mandatory), C402.4 Air leakage (Mandatory), and C402.4.1 Air barriers
 - US DOC PS 2-18 and PS 2-10 recognized in the 2021 IBC and IRC, and 2018, 2015, and 2012 IBC and IRC, respectively
 - APA Panel Design Specification
 - Qualification reports and other qualification data

2. Product description:

Georgia-Pacific ForceField[®] weather-resistive barrier OSB products consist of Georgia-Pacific 7/16 through 19/32 Performance Category oriented strand board panels manufactured in accordance with the in-plant manufacturing standard approved by APA and adhered with a factory-applied proprietary overlay. The Exposure 1 OSB complies with US DOC PS 2 for wood structural panels.

Georgia-Pacific ForceField weather-resistive barrier OSB products have been evaluated for compliance with the International Building Code (IBC) and International Residential Code (IRC) for use as a combination of wall sheathing, water-resistive barrier, and air barrier, and a combination of roof sheathing and roof underlayment. Georgia-Pacific ForceField weather-resistive barrier OSB products have also been evaluated in accordance with ASTM D5651, *Standard Test Method for Surface Bond Strength of Wood-Base Fiber and Particle Panel Materials*, and ASTM E2357, *Standard Test Method for Determining Air Leakage of Air Barrier Assemblies*.

When installed with ForceField seam tape described in this section in accordance with the installation requirements specified in Section 4 of this report, Georgia-Pacific ForceField weather-resistive barrier OSB products 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 Chapter 14 of the IBC and Chapter 7 of the IRC, and
- 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 2021 and 2018 IBC, 1507.2.8.2 of the 2015 and 2012 IBC, R905.1.2 of the 2021, 2018, and 2015 IRC, or R905.2.7.1 of the 2012 IRC, and
- 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 2021, 2018, 2015, and 2012 IRC.

ForceField seam tape used for sealing joints and penetrations on walls is a pressure-sensitive, coated polymeric film. The tape is minimum 3 inches wide and has been tested in accordance with PSTC 101, *Peel Adhesion of Pressure Sensitive Tape*, and PSTC 131, *Breaking Strength and Elongation of Pressure Sensitive Tapes* for Type A, Class Level 3.

The Georgia-Pacific flashing tape used for sealing joints, penetrations, openings and material transitions on walls and roofs is a pressure-sensitive adhesive-based product designed to adhere to ForceField without primer or conditioning. The flashing tape is minimum 4 inches wide, meeting or exceeding the requirements specified in AAMA 711, *Specification for Self-Adhering Flashing Used for Installation of Exterior Wall Fenestration Products*.

The manufacturing processes and quality assurance of the Georgia-Pacific ForceField weather-resistive barrier OSB products are documented in the in-plant manufacturing standard approved by APA.

3. Panel performance properties:
Georgia-Pacific ForceField weather-resistive barrier OSB products meet the design properties specified in APA *Panel Design Specification*, Form D510 (www.apawood.org/resource-library) for Exposure 1 panels with a span rating of 24/16, 32/16, or 40/20 as designated in the panel trademark.

Georgia-Pacific ForceField water-resistive barrier OSB products 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, 2304.8.2 of the 2021, 2018 and 2015 IBC or 2304.7.2 of the 2012 IBC, and R301.2.1 of the IRC. Roof coverings shall be mechanically fastened to the panels to resist the design wind uplift.

Georgia-Pacific ForceField water-resistive barrier 7/16 Performance Category OSB products have been tested in accordance with ASTM E96, *Standard Test Methods for Water Vapor Transmission of Materials*.

When manufactured to comply as 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 2021 and 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 IRC, the water-resistive barrier properties of the Georgia-Pacific ForceField water-resistive barrier OSB products are not affected by the manufacturing processes.

4. Product installation:
Georgia-Pacific ForceField weather-resistive barrier OSB products recognized in this report shall be installed in accordance with recommendations provided by the manufacturer (www.gpforcefield.com).
5. Fire-resistant construction:
 - a) Georgia-Pacific ForceField weather-resistive barrier OSB products meet Class II (or B) flame spread index and smoke-developed index when tested in accordance with ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*.

- b) Georgia-Pacific ForceField weather-resistive barrier OSB products meet a Class A 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*.
 - c) Georgia-Pacific ForceField weather-resistive barrier OSB products may be used in Class A fire classification construction for roofing materials outside of ASTM D3018, *Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules*, Class A asphalt fiberglass shingles, where an additional underlayment tested in accordance with ASTM E108, *Standard Test Methods for Fire Tests of Roof Coverings*, is applied directly over the ForceField weather-resistive barrier OSB products.
 - d) Georgia-Pacific ForceField weather-resistive barrier OSB products are permitted to be used with non-classified 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) Georgia-Pacific ForceField weather-resistive barrier OSB products recognized in this report shall be used in a design span not exceeding the span rating shown in the trademark.
 - b) Georgia-Pacific ForceField weather-resistive barrier OSB products are limited to dry service conditions where the average equilibrium moisture content of sawn lumber is less than 16%.
 - c) When used as roof assemblies and coverings, Georgia-Pacific ForceField weather-resistive barrier OSB products are limited to a slope of not less than 2 units vertical in 12 units horizontal (17% slope).
 - d) Georgia-Pacific ForceField weather-resistive barrier OSB products are produced by Georgia-Pacific Wood Products LLC at the manufacturing facilities in Clarendon, SC, Fordyce, AR, and Hosford, FL, and under a quality assurance program audited by APA.
 - e) This report is subject to re-examination in one year.
7. Identification:
- Georgia-Pacific ForceField water-resistive barrier OSB products described in this report are identified by a label or stamp bearing the manufacturer's name and/or trademark (Georgia-Pacific), the APA assigned plant number (532 for the Clarendon, SC plant, 475 for the Fordyce, AR plant, and 500 for the Hosford, FL plant), the product thickness and span rating, the APA logo, the report number PR-N136, and a means of identifying the date of manufacture.



Figure 1. Typical ForceField 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, Validation Entity, and Product Evaluation Entity by the State of Florida, and an approved testing laboratory by City of Los Angeles.

**APA – THE ENGINEERED WOOD ASSOCIATION
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