APA PRODUCT REPORT®

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ForceField® Weather-Resistive Barrier OSB — PR-N136
Georgia-Pacific Wood Products LLC

Revised December 14, 2017

Products: Georgia-Pacific ForceField® Weather-Resistive Barrier OSB
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1. Basis of the product report:
   - 2015, 2012 and 2009 International Building Code (IBC): Sections 104.11 Alternative materials and 1404.2 Water-resistive barrier
   - 2015, 2012 and 2009 International Residential Code (IRC): Sections R104.11 Alternative materials and R703.2 Water-resistive barrier
   - 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
   - Performance Standard for Wood-Based Structural-Use Panels, PS 2
   - 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 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*. Georgia-Pacific ForceField weather-resistive barrier OSB products meet the applicable sections of *ICC Evaluation Service Acceptance Criteria for Water-Resistive Membranes Factory-Bonded to Wood-Based Structural Sheathing Used as Water-Resistive Barriers*, AC310, and shall be permitted for use as a combination of wall sheathing, water-resistive barrier, and air barrier.

   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 walls of Type V construction in the International Building Code (IBC) and one- and two-family dwellings in the International Residential Code (IRC), and as an alternative to the water-resistive barrier required in Chapter 14 of the 2015 IBC and Chapter 7 of the 2015 IRC.

   ForceField seam tape used for sealing joints and penetrations is a pressure sensitive, coated polymeric film. The tape is minimum 3 inches wide and 0.012 inch thick. The tape 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*. The seam tape exhibits a peel adhesion of 55 oz/in. on stainless steel, tensile strength of 39 lbf/in., and elongation of 190%.

   The Georgia-Pacific flashing tape used for sealing openings and material transitions is a pressure sensitive adhesive-based product designed to adhere to ForceField without primer or conditioning. The flashing tape is minimum 4 inches wide and 0.009 inch thick, meeting

or exceeding the requirements specified in AAMA 711, *Voluntary 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.

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,* and have the following characteristics:
   a) Vapor permeance of 1.5 perms and equivalent Water Vapor Transmission (WVT) rate of 9.8 g/(24h-m^2) when tested in accordance with ASTM E96 (desiccant method) at 73.4 ± 1°F and 50 ± 2% relative humidity.
   b) Vapor permeance of 2.8 perms and equivalent WVT rate of 17.9 g/(24h-m^2) when tested in accordance with ASTM E96 (water method) at 73.4 ± 1°F and 50 ± 2% relative humidity.

When manufactured to comply as facing materials for structural insulated panels (SIPs) in accordance with 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 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:
Georgia-Pacific ForceField weather-resistive barrier OSB products meet 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*.

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 percent.
   c) Georgia-Pacific ForceField weather-resistive barrier OSB products are produced by Georgia-Pacific Wood Products LLC at the manufacturing facilities in Allendale, SC, Fordyce, AR, and Hosford, FL, and under a quality assurance program audited by APA.
   d) 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 (531 for the Allendale, 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, and Validation Entity by the State of Florida, and an approved testing laboratory by City of Los Angeles.

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