



SECTION 06 05 73.13
FIRE RETARDANT WOOD SHEATHING

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PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Fire-retardant wall sheathing.
- B. Fire-retardant roof sheathing.

1.2 RELATED SECTIONS

- A. Section 06 10 00 - Rough Carpentry.
- B. Section 06 20 00 - Finish Carpentry.
- C. Section 07 46 34 - Cellular PVC Siding.

1.3 REFERENCES

- A. ASTM International (ASTM):
 1. ASTM D 1037 - Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle Panel Materials.
 2. ASTM D 5516 - Standard Test Method for Evaluating the Flexural Properties of Fire Retardant Treated Softwood Plywood Exposed to Elevated Temperatures.
 3. ASTM D 6305 - Standard Practice for Calculating Bending Strength Design Adjustment Factors for Fire-Retardant- Treated Plywood Roof Sheathing.
 4. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
 5. ASTM E 108 - Standard Test Methods for Fire Tests of Roof Coverings.
 6. ASTM E 119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
 7. ASTM E 661 - Standard Test Method for Performance of Wood and Wood-Based Floor and Roof Sheathing Under Concentrated Static and Impact Loads.
 8. ASTM E 2126 - Standard Test Methods for Cyclic (Reversed) Load Test for Shear Resistance of Vertical Elements of the Lateral Force Resisting Systems for Buildings.
- B. California Department of Forestry & Fire Protection - Office of State Fire Marshal Fire Engineering (CSFM):
 1. CSFM 12-7A-1 - Fire Resistive Standard for Exterior Wall Siding and Sheathing
 2. CSFM 12-7A-3 - Fire Resistive Standard for Soffited Eaves of Exterior Walls.
 3. BML No. 8140-2027:0005 - LP FlameBlock & LP SmartSide Siding.
 4. BML No. 8140-2027:0006 - LP FlameBlock & solid wood siding.
 5. BML No. 8140-2027:0007 - LP FlameBlock & cedar or redwood siding.

- C. City of LA - Research Report (RR):
 - 1. RR 25875 - LP FlameBlock Fire-Rated OSB Sheathing.
- D. ICC Evaluation Service (ICC-ES):
 - 1. ICC-ES Acceptance Criteria for Foam Plastic Insulation (AC12).
 - 2. ICC-ES Acceptance Criteria for Wood Structural Panels Laminated with an Inert, Inorganic Fire Shield (AC264)
 - 3. ESR-1365 - LP FlameBlock Fire-Rated OSB Sheathing
- E. Material-Method Approval No. for City & County of Honolulu, Hawaii (MM):
 - 1. MM2011-0017 - LP FlameBlock Fire-Rated OSB Sheathing.
- F. National Fire Protection Association (NFPA):
 - 1. NFPA 255 - Standard Method of Test of Surface Burning Characteristics of Building Materials.
 - 2. NFPA 286 - Standard Test Method of Fire Test for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth, National Fire Protection Association.
- G. NYC Building - Office of Technical Certification and Research (OTCR):
 - 1. Material Acceptance #29-18 - LP FlameBlock Fire-Rated OSB Sheathing.
- H. PEI Evaluation Services - Product Evaluation Report (PER):
 - 1. PER-06013 - LP FlameBlock Fire-Rated OSB Sheathing.
- I. Underwriters Laboratories (UL) & Underwriters Laboratories Canada (ULC):
 - 1. UL 723 - Standard for Surface Burning Characteristics of Building Materials.
 - 2. UL 790 - Standard for Tests for Fire Resistance of Roof Covering Materials.
 - 3. UL 1715 - Standard for Fire Test for Interior Finish Material.
 - 4. ULC S101 - Standard Method of Fire Endurance Tests of Building & Construction Material
- J. Uniform Building Code (UBC):
 - 1. UBC 26-2 - Test Method for the Evaluation of Thermal Barriers.
- K. US Voluntary Product Standard (PS):
 - 1. PS 2-10 - Performance Standard for Wood-Based Structural-Use Panels.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
- B. Product Data:
 - 1. Manufacturer's data sheets on each product to be used.
 - 2. Preparation instructions and recommendations.
 - 3. Storage and handling requirements and recommendations.
 - 4. Typical installation methods.
- C. Test Reports: Certified test reports from recognized testing laboratories showing compliance with specified structural fire sound and performance characteristics and physical properties.
- D. Shop Drawings: Include details of materials, construction and finish. Include relationship with adjacent construction.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.

- B. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
- C. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.
- D. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
 - 1. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
 - 2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
 - 3. Retain mock-up during construction as a standard for comparison with completed work.
 - 4. Do not alter or remove mock-up until work is completed or removal is authorized.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
- B. Protect from damage due to weather, excessive temperature, and construction operations.

1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.8 SEQUENCING

- A. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

1.9 WARRANTY

- A. Manufacturer's Warranty: Provide manufacturer's standard limited warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: LP Building Products, which is located at: 414 Union St. Suite 2000; Nashville, TN 37219; Toll Free Tel: 888-820-0325; Fax: 877-523-7192; Email:[request info \(customer.support@lpcorp.com\)](mailto:request_info(customer.support@lpcorp.com)); Web:<https://lpcorp.com>
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.2 PERFORMANCE REQUIREMENTS

- A. Flame Spread and Smoke Developed Performance:
 - 1. Flame Spread: Less than 25 when tested in accordance with ASTM E 84, UL 723, or NFPA 255.
 - 2. Smoke Developed: Less than 100 when tested in accordance with ASTM E 84, UL 723, or NFPA 255.
 - 3. Advance of Flame: Not to exceed 10.5 feet (3200 mm) after 30 minute test duration.

- B. Thermal Barrier Index: Minimum 20 minutes when tested in accordance with ASTM E 119, UBC 26.2, and UL 1715.
- C. Structural Performance:
 - 1. Meet or exceed structural and Exposure 1 requirements for Category indicated.
 - 2. Meet or exceed bond durability and weather resistance requirements of ICC Acceptance Criteria AC264.

2.3 FIRE-RETARDANT WALL SHEATHING

- A. Basis of Design: LP FlameBlock; as manufactured by LP - Building Products. Fire-rated OSB sheathing certified to meet building code requirements for fire resistant construction and provide designs values greater than or equal to FRT plywood of the same thickness.
 - 1. Exterior Wall Sheathing:
 - a. Coating location: 2 sides, reference assemblies.
 - b. Coating location: 1 side, reference assemblies.
 - 2. Interior Wall Sheathing:
 - a. Coating location: 1 side, reference assemblies.
 - b. Coating location: 2 sides, reference assemblies.

2.4 FIRE-RETARDANT ROOF SHEATHING

- A. Basis of Design: LP FlameBlock; as manufactured by LP - Building Products.
 - 1. Fire-rated OSB sheathing certified to meet building code requirements for fire resistant construction and provide designs values greater than or equal to FRT plywood of the same thickness.
 - 2. Roof Sheathing:
 - a. Coating location: 1 side.
 - b. Panels lie flat with no delamination.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly constructed and prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions approved submittals and in proper relationship with adjacent construction.
 - 1. Accurately fit, align, securely fasten, and install free from distortion or defects.
 - 2. Impose no loads other than the weight of the erectors on the structure before it is permanently sheathed.
 - 3. Exercise caution when removing temporary bracing to apply sheathing.
 - 4. After sheathing, do not exceed design loads on members with construction materials.

3.4 CLEANING AND PROTECTION

- A. Clean products in accordance with the manufacturers recommendations.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION