SECTION 06 05 73.13
FIRE RETARDANT WOOD SHEATHING

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PART 1 GENERAL

1. SECTION INCLUDES

   A. Fire-retardant wall sheathing.

   B. Fire-retardant roof sheathing.

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.

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.

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 beused.
   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.

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.

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.

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.

8. SEQUENCING

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

9. WARRANTY

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

PART 2 PRODUCTS

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); 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. 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.

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.

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

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.

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. 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.

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