

SECTION 06 05 73.13

FIRE RETARDANT WOOD TREATMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Fire retardant pressure treatment of lumber and plywood.

1.2 RELATED SECTIONS:

- A. Section 06 11 00 – Rough Carpentry.
- B. Section 06 15 00 – Wood Decking.
- C. Section 06 20 00 – Exterior Finish Carpentry.

1.3 SUBMITTALS

- A. Submit in accordance with requirements of Section 01 30 00 - Administrative Requirements.
- B. Product Data: For each product specified include the following:
 - 1. Manufacturer's technical product data, including component descriptions, construction details, and test results showing compliance with specified performance criteria.
 - 2. Manufacturer's surface preparation and installation instructions.
 - 3. Safety Data Sheets (SDS).
- C. Sustainability Submittals:
 - 1. Product Data: For recycled content, indicated pre-consumer recycled content and cost.
- D. Verification Samples: Provide two samples of specified board, full board width by minimum 4 inches in length, including the selected color and finish.
- E. Informational Submittals:
 - 1. Installer qualifications.
 - 2. Product test reports.
 - 3. Sample warranties.
- F. Closeout Submittals:
 - 1. Maintenance data for installed system.

1.4 QUALITY ASSURANCE

- A. Installer's Qualifications: An entity with demonstrated experience installing systems similar in scope and complexity to those specified.
- B. Mock-Up: Arrange for the construction of a mock-up of the products specified in this section. Example must include one section for each type specified, including the selected color and finish. Owner and Architect will verify acceptance of products and workmanship.
 - 1. Accepted mockups may be incorporated into the work.
 - 2. Provide mockups as indicated on the drawings.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store and handle materials and products in accordance with the manufacturer's instructions and recommendations and industry standards.
- B. Store all materials in the manufacturer's original packaging until ready for installation. Protect all products from damage or exposure to adverse weather conditions.
 - 1. Store products in shaded or cool location.
 - 2. Ensure products are elevated from the soil and protected from moisture and precipitation.

1.6 PROJECT CONDITIONS

- A. Schedule work around the ambient conditions required by the manufacturer. Do not perform work outside manufacturer's recommended limits for environmental conditions.
- B. Prior to fabrication, verify that dimensions are consistent with those found in the construction drawings. Where discrepancies exist, confirm the proper dimensions with the Architect before proceeding with work.

1.7 WARRANTY

- A. Warranty on Fire retardant pressure treatment of lumber and plywood: Manufacturer agrees to replace any materials determined to structurally fail, due to the fire-retardant chemical in the product, beyond the reasonable cost of repair of the damaged portion of the structure incorporating the product within the specified warranty period.
 - 1. Limited Warranty Period: 50 years prorated from date of purchase.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Design Manufacturer: ProWood, a brand of UFP Retail Solutions
 - 1. Address: 2801 East Beltline NE, Grand Rapids, MI 49525.
 - 2. Phone: (800) 598-9663
 - 3. Website: www.prowoodlumber.com

- B. Manufacturer List:
 - 1. Manufacturer:
- C. Substitution Limitations:
 - 1. Submit substitution requests in accordance with provisions of Section 01 60 00.
 - 2. Single manufacturer to provide, from a single source, primary products and accessories specified in this section.

2.2 PERFORMANCE REQUIREMENTS:

- A. Physical Performance: Provide Fire Retardant pressure treated lumber and plywood in accordance with ESR 4373.
 - 1. Pressure-treated fire-retardant wood shall be kiln dried after treatment (KDAT). The kiln drying process is monitored by Timber Products (TP), or Southern Pine Inspection Bureau (SPIB).
 - 2. Structural performance of pressure-treated fire-retardant wood has been tested in accordance with ASTM D5564 for lumber and ASTM D5516 for plywood. Evaluation of plywood data is in accordance with ASTM D3201. Evaluation of lumber data is in accordance with ASTM D6305. The resulting design value and span rating adjustments are published in ICC ESR-4373, which includes evaluation of high temperature (HT) strength testing for roof applications.
 - 3. Pressure-treated fire-retardant wood to comply with AWPA U1 and UCFA use category systems.
 - 4. Pressure-treated fire-retardant wood treatment process meets the AWPA T1 and AWPA P50 formulations standards.
- B. Surface-Burning Characteristics: Meet the following values when tested in accordance with ASTM E84:
 - 1. Class A Flame-Spread Index: 25.
 - a. Provide Fire Retardant pressure treated lumber and plywood that meets UL FR-S classification when tested in accordance with IBC section 2303.2.
- C. Sustainability Performance:
 - 1. Low Chemical emission Certification: Provide Fire retardant treatment for wood that do not contain VOC's, urea formaldehyde or formaldehyde, halogens, sulfates, or chlorides.
 - a. Green Guard GOLD Compliance: Fabricate and Plywood and lumber in accordance with Green Guard GOLD certification and testing requirements.

2.3 MATERIALS

- A. Dimension Lumber: As specified in Section 06 10 00 - Rough Carpentry.
- B. Structural Plywood: As specified in Section 06 10 00 - Rough Carpentry.

- C. Finish Lumber and Plywood: As specified in Section 06 20 00 - Finish Carpentry.
- D. Fasteners and Metal Hardware: Provide corrosion resistant steel fasteners with hot-dip zinc coating per ASTM A153/A153M, provide corrosion resistant hardware per ASTM A653 / A653M in compliance with building code requirements.
 - 1. Use only code approved fasteners as specified in ICC-ES ESR 2645. Fasteners must be galvanized steel, stainless steel, silicon bronze or copper, in accordance with 2009 and 2006 IBC Section 2304.9.5, 2009 IRC Section R317.3 or 2006 IRC Section R319.3

2.4 FIRE RETARDANT PRESSURE TREATMENT OF LUMBER AND PLYWOOD

- A. Fire retardant treatment for wood, including roof and floor trusses, roof decks and sheathing; subflooring, beams and purlins, blocking and furring, studs, joists and paneling, architectural millwork and trim, interior non-load bearing partitions and exterior load-bearing walls.
 - 1. Basis of Design Product: ProWood FR, by ProWood, a brand of UFP Retail Solutions
 - 2. Physical Characteristics:
 - a. Lumber: Comply with AWPA U1 UCFA, Type A or ICC-ES ESR 4373.
 - b. Plywood: Comply with AWPA U1, UCFA, Type A or ICC-ES ESR 4373.
 - c. Treatment: ProWood FR manufactured by UFP Industries and will be carried out at qualified locations in accordance with ICC-ES Evaluation report ESR-4373.
 - d. Kiln dry after treatment to 19 percent maximum moisture content for lumber and 15 percent for plywood.
 - e. Treat wood for use in the following applications:
 - 1) Roof and floor trusses.
 - 2) Roof decks and sheathing.
 - 3) Subflooring.
 - 4) Beams and purlins.
 - 5) Interior non-load bearing partitions.
 - 6) Studs and joists.
 - 7) Exterior load-bearing walls protected by weather barrier.
 - 8) Millwork and trim.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. General: Comply with manufacturer's printed installation instructions, clean substrates of projections and substances detrimental to application.

3.3 INSTALLATION

- A. General: Install in accordance with manufacturer's current installation instructions, industry recognized best practices, all code bodies having jurisdiction, and approved shop drawings.
 - 1. Do not install damaged products.
 - 2. Refer to manufacturer's published technical data for expansion and contraction due to changes in temperature.
- B. As with untreated wood, avoid exposure to precipitation during shipping, storage or installation. Apply a water resistive barrier or underlayment over dry sheathing as soon as practical to avoid precipitation on the panel. Panels that get wet should be allowed to dry before covering or be replaced.
 - 1. Ensure that pressure-treated fire-retardant wood shall not in areas where, in service, it is exposed to precipitation, direct wetting, or condensation.
- C. Pressure-treated fire-retardant wood shall be installed in compliance with the requirements of the applicable building codes and product recommendations.
 - 1. Pressure-treated fire-retardant wood used in structural applications shall be installed in accordance with the conditions and limitations listed in ICC ESR-4373.

3.4 CLEANING AND PROTECTION

- A. Clean and remove all stains, grime, or other soils using manufacturer's recommended methods. Only use materials and methods approved by the manufacturer for use on the finishes specified.
- A. Damaged products must be repaired or replaced prior to substantial completion.
- B. Protect installed products until completion of work specified in this section.

END OF SECTION 060573