

## DIVISION 6 – WOODS AND PLASTICS

### SECTION 06070 – WOOD TREATMENT

#### PART 1 – GENERAL

##### 1.01 RELATED DOCUMENTS

The General Provisions of the contract, including the General Provisions for Construction Projects (2016), Special Provisions, and General Requirements of the Specifications, apply to the work specified in this Section.

##### 1.02 SECTION INCLUDES

- A. Plant preservative and insecticide treatment of lumber and other wood products specified in other Sections of this Specification by pressure and dip methods.
- B. Field treatment of field cut or drilled lumber.

##### 1.03 RELATED SECTIONS

- A. Section 06100 – ROUGH CARPENTRY

##### 1.04 REFERENCES

- A. American Wood-Preservers' Association
  - 1. AWPAC2-00: Lumber, Timber, Bridge Ties and Mine Ties-Preservative Treatment by Pressure Processes.
  - 2. AWPAC9-00: Plywood-Preservative Treatment by Pressure Processes.
  - 3. AWPAC31-00: Lumber Used out of Contact with the Ground and Continuously Protected from Liquid Water-Treatment by Pressure Processes.
  - 4. AWPAM4-01: Care of Preservative-Treated Wood Products.
  - 5. AWPAN1-01: All millwork, Preservative Treatment by Non-Pressure Process.
  - 6. AWPAN2-00: Composite Wood Products, Preservative Treatment by Non-Pressure Process.

#### 1.05 SUBMITTALS

- A. Product Data: Provide data on all treatment products, including field application instructions if applicable.
  - 1. Provide manufacturer's Material Safety Data Sheets on all products, and hazardous materials.
  - 2. Provide ICBO approvals for treatment solutions used.
- B. Preserver Certifications:
  - 1. Provide a Certificate of Treatment showing compliance with these specifications for the following:
    - a. Kiln drying
    - b. Method of treatment performed, including dip treatment.
- C Contractor's Certification: Provide a certification letter stating that all wood used on this job including cuts and penetration were treated and coated with preservatives in compliance with requirements of this contract.
- D. Guarantee: Guarantee form for written guarantee.

#### 1.06 REGULATORY REQUIREMENTS

- A. Comply with State OSHL (Occupancy Safety and Health Law) and pollution controls regulations of the State Department of Health and EPA.

#### 1.07 DELIVERY STORAGE AND HANDLING

- A. Protect AWWA C31 inorganic boron treated wood from contact with the ground, rain or other sources of liquid water until permanent installation of covering construction.

#### 1.08 WARRANTY

- A. Provide a two year guaranty to replace all treated wood which is attacked by subterranean termites up to a total cost of \$20,000.00 over the warranty period (as verified by General Conditions Force Account Method cost accounting).
- B. Provide a five year warranty to replace all treated wood which is attacked by dry wood termites or deteriorates due to dry rot. The Surety shall not be held liable beyond two years of the project acceptance date.

## PART 2 – PRODUCTS

### 2.01 GENERAL

- A. Mill lumber to finish size and shape prior to treating, and treat before assembly. Plywood may be treated in regular panel sizes.
- B. Mark each treated item with the treatment quality mark of an inspection agency approved by the American Lumber Standards Committee Board of Review.
  - 1. For exposed lumber indicated to receive a stained or natural finish, mark end or back of each piece, or omit marking and provide certificates of treatment compliance issued by inspection agency.

### 2.02 PRESSURE TREATMENT WITH WATER-BORNE PRESERVATIVES

- A. Treating solutions:
  - 1. Copper azole, Type A (CBA-A).
  - 2. Inorganic boron (SBX).
- B. Treatment Methods:
  - 1. General:
    - a. All water-borne treatment methods require incising of lumber of nominal 2 inch thickness (1-1/2 inches actual dimension).
    - b. Choice of treatment method and conditions of use of each treating solution shall conform to the treatment schedule contained in Part 3.
  - 2. CBA-A: Treatment methods, depth of penetration and treating solution retention shall conform to AWPA C2 for lumber and C9 for plywood.
  - 3. SBX: Treatment method shall conform to AWPA C31. Treating solution retention shall be a minimum of 0.28 pounds per cubic foot (equivalent to 0.42 DOT).
- C. Drying:
  - 1. Before Treatment:
    - a. CBA-A Treatment: Wood shall be air dried or kiln-dried before treatment to an average moisture content of 28 percent or less per AWPA standards.

- b. SBX Treatment: Wood having a moisture content higher than 28% is acceptable when treating with SBX.

2. After Treatment:

- a. All 1 inch and 2 inch lumber and all plywood shall be dried to a moisture content of 19 percent or less after treatment.

2.03 PRESSURE TREATMENT WITH OIL-BORNE PRESERVATIVES

A. Treating Solution:

- 1. 0.50 percent by weight chlorpyrifos, 0.75 percent by weight 3-iodo-2-propynyl butyl carbamate (IPBC). The solvent used in formulating the preservative solution shall meet the requirements of AWPAs hydrocarbon solvent Type C, Standard P9, Paragraph 3.1.
- 2. For interior application use low odor mineral spirits as solvent.

B. Treatment Methods:

- 1. Treated wood shall attain the following net retention requirements: 0.0175 pounds of Chlorpyrifos per cubic foot of wood, 0.035 pound of 3-Iodo-2 propynyl butyl carbamate per cubic foot of wood.

C. Drying:

- 1. Before Treatment: All wood treated with oil-borne preservatives shall be kiln-dried to an average moisture content of 12% to 15% per AWPAs standards.
- 2. After Treatment: Wood shall be thoroughly dried and virtually odor-free prior to installation.

2.04 PRESERVATION BY DIP TREATMENT

A. Treating Solution:

- 1. Any of the Oil-Borne Preservatives listed above.
- 2. A solution of 1 quart chlorpyrifos in 55 gallons of a 0.50 percent IPBC solution.

B. Treatment Methods:

1. Immersion treat for a minimum period of 15 minutes. Hollow-core flush wood doors shall be immersion treated for a period of 5 minutes.
2. Do not incise lumber scheduled to be left unpainted or receive a clear finish.

C. Drying:

1. After Treatment: Wood shall be thoroughly dried and virtually odor-free prior to installation.

2.05 FIELD TREATMENT

A. Treatment Method:

1. Treat in accordance with AWPAs Standard M4-98 using two heavy brush coats of a treating solution.
2. Doors shall be treated after manufacture but, where applicable, before application of plastic laminate.

PART 3 – EXECUTION

3.01 SCHEDULE OF TREATMENTS

A. Species:

1. Treat all wood species except all-heart redwood.
2. All water-borne and oil-borne treatment solutions are applicable to douglas-fir and hem-fir species except for CBA-A treatment which is acceptable for hem-fir species only.

B. Application:

1. Pressure Treatment:
  - a. General: Unless otherwise stipulated, all lumber and plywood shall be pressure treated.
  - b. Hardwood flooring and exposed lumber 1-1/2" (net thickness) and over that will be unpainted or receive a clear finish shall be and pressure treated with oil-borne preservative. Do not incise lumber.

- c. SBX treated wood shall not be used in areas exposed to direct precipitation (e.g. exposed decking, trellises, fencing, etc.) unless painted or covered with a finish material.
- 2. Dip Treatment: All finish lumber under 1-1/2 inch net thickness (except hardwood flooring); doors (solid wood and solid-core flush wood doors); finish plywood; and mill work items, such as for cabinet work, shelving and similar wood work that will be exposed to view in the finished work.
- 3. Field Cuts: Treat end cuts, notches and penetrations into treated lumber or plywood. Exception: Cuts and penetrations made in SBX treated wood 2 inches or less in nominal thickness need not be field treated.

#### PART 4 – MEASUREMENT AND PAYMENT

##### 4.01 BASIS OF MEASUREMENT AND PAYMENT

- A. Work under this section will not be measured nor paid for separately, but shall be considered incidental to and included in the price bid for the various items of work in this project.

END OF SECTION