

Model Specification for Inorganic Boron (SBX) Treated Wood

The following paragraphs are for insertion into a section of generic specifications or generic/ proprietary specifications covering rough carpentry to include preservative treated wood.

PART 1: GENERAL

1.01 REFERENCES

A. American Wood Protection Association (AWPA 2017 Book of Standards):

1. Inorganic Boron (SBX) Sodium Octaborate AWPA listed preservatives:
 - a. Standard P25-16, Inorganic Boron Waterborne Preservative
2. Standard M4, Care of Preservative - Treated Wood Products.
3. Standard U1, Use Category System

B. Product Highlights and EPP (Environmentally Preferable Product)

1. NGBS Green Certified
2. GREENGUARD Gold Certification from UL Environment.

National Institute of Standards and Technology (NIST):

1. PS 1, U.S. Product Standard for Construction and Industrial Plywood.
2. PS 20, American Softwood Lumber Standard.

C. ICC Evaluation Service, Inc.

1. ESR-2667

1.02 QUALITY ASSURANCE

A. Qualifications:

1. Treatment Facility: Provide treated materials that have been produced under quality assurance program conducted by an ALSC-recognized agency.

1.03 DELIVERY, STORAGE, AND HANDLING

If drying after treatment is selected in part 2, retain the two paragraphs below.

A. Packing and Shipping:

1. Provide waterproof covers for preservative treated wood during shipment.

B. Storage and Protection:

1. Store preservative treated wood off the ground and protected from the weather.

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PART 2: PRODUCTS

2.01 Inorganic Boron (SBX) Preservative: Advance Guard®/Hibor®

MANUFACTURER

- A. Koppers Performance Chemicals. Contact: PO Drawer O, 1016 Everee Inn Road, Griffin, GA 30224-0249; Telephone: (800) 241-0240, (770) 233-4200; Fax: (770) 229-5225; E-mail: treatedwood@koppers; Web site: www.kopperspc.com
- B. Preservative Treatment: Inorganic Boron (SBX) meets the following AWPA standards:
 1. P60-14
 2. Above Ground applications UC1, UC2 and UC3A, not subject to contact with liquid water.

2.02 MATERIALS

Lumber for preservative treatment must conform to the following specifications. Select grade and species below. Other species are acceptable for some applications, contact Koppers Performance Chemicals or review code evaluation reports for more information. Not all species are readily available in all areas of the country.

A. Lumber: In accordance with NIST PS 20 and as follows:

1. Grade: No. 1
1. Grade: No. 2
1. Grade: No. 1 Dense.
1. Grade: No. 2 Dense.
1. Grade: Select Structural.
1. Grade: Standard.
1. Grade: Premium.
2. Species: Southern pine.
2. Species: Red pine.
2. Species: Radiata pine.
2. Species: Ponderosa pine.
2. Species: Hem-fir.
2. Species: Coastal Douglas-fir.
2. Species: Spruce-Pine-Fir.
3. Surfacing: S4S.
3. Surfacing: S1S2E.
3. Surfacing: Rough.

Plywood for preservative treatment must conform to the following specifications. Select panel grade, exposure durability, species group, and structural rating from below.

B. Plywood: In accordance with NIST PS 1 and as follows:

1. Panel Grade: A-C.
1. Panel Grade: B-C.
1. Panel Grade: C-C.
1. Panel Grade: C-D.
2. Exposure Durability: Exterior.
2. Exposure Durability: Exposure 1.
3. Southern pine face veneers, Group 1 or 2 - no hardwood core veneers
3. Douglas fir face veneers, Group 1 or 2 - no hardwood core veneers
4. APA Structural Rating: Structural I.
4. APA Structural Rating: Structural II.

C. Preservative: Inorganic Boron (SBX) Sodium Octaborate. Koppers Performance Chemicals.

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2.03 PRESERVATIVE TREATMENT

A. Pressure Treatment: In accordance with requirements of ICC Evaluation Report ESR-2667.

B. Minimum Preservative Retention: In accordance with requirements for the following applications:

1. Above Ground

C. Moisture Content: Drying after treatment is not required.

Select above or below.

C. Moisture Content: Dry after treatment as follows:

1. Lumber: 19%, maximum.
2. Plywood: 18%, maximum.

2.05 SOURCE QUALITY CONTROL

A. Inspection:

1. Untreated Material:

- a. Lumber: Provide lumber that has been inspected and graded by an ALSC-recognized grading agency.
- b. Plywood: Provide plywood that has been inspected and graded before treatment by a code-recognized inspection and testing agency.

2. Treated Material: Provide treated material that bears the Advance Guard®/Hibor® trademark and the quality mark of an ALSC-recognized agency which maintains supervision, testing, and inspection of the quality of the product. Quality marks shall be affixed to each piece and include the following:

- a. Identification of the inspection agency.
- b. Identification of the standard to which the material was treated.
- c. Identification of the treating facility.
- d. Identification of the preservative and retention.
- e. Identification of the end use for which the product is suitable.

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PART 3: EXECUTION

3.01 INSTALLATION

A. Fasteners and Hardware.

- Code-compliant hardware is required with Advance Guard®/Hibor® preservative treated wood products. The IBC section 2304.10.5.1 Fasteners for preservative-treated wood includes an exception for borate (SBX/DOT) treated wood. Exception - Plain carbon fasteners, including nuts and washers, in SBX/DOT preservative-treated wood in an interior dry environment shall be permitted. Under similar conditions, the use of standard galvanized strapping or mild steel anchor bolts 1/2" in diameter and larger is also acceptable for fastening Advance Guard®/Hibor® preservative treated wood products to foundations.
- Protection from water. The borate preservative in Advance Guard®/Hibor® preservative treated wood is water soluble and the treated wood must be protected from liquid water, where permanently installed.
- Advance Guard®/Hibor® Borate Pressure Treated Wood is intended to be used for framing and applications where the wood is not in direct contact with the ground and is continuously protected from liquid water. Normal exposure to weather during ordinary installation will not adversely affect the performance of the product.
- When products are used in weather protected exterior applications (such as fascia board), it is recommended that the product be continuously protected from direct wetting with a minimum of one coat oil-based primer and two coats oil-based finish paint/sealer. Always check the label of the finishing product and follow the manufacturer's instructions.
- Advance Guard®/Hibor® Borate Pressure Treated Wood Products should not be used for decks or other outdoor structures exposed to weathering.