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This MANU-SPEC™ utilizes the Construction Specifications Institute (CSI) *Manual of Practice*, including *MasterFormat™*, *SectionFormat™* and *PageFormat™*. A MANU-SPEC is a manufacturer-specific proprietary product specification using the proprietary method of specifying applicable to project specifications and master guide specifications. Optional text is indicated by brackets []; delete optional text in final copy of specification. Specifier Notes typically precede specification text; delete notes in final copy of specification. Trade/brand names with appropriate symbols typically are used in Specifier Notes; symbols are not used in specification text. Metric conversion, where used, is soft metric conversion.

This MANU-SPEC specifies borate based preservative treatment for wood components used to protect from insects and decay, marketed under the “Advance Guard” trade name, as manufactured by Osmose®, Inc., Advance Guard® brand borate preservative treated wood (Advance Guard PTW) is available nationwide through a network of independently owned and operated wood treatment facilities licensed by Blue Star Ventures, Inc., that supplies pressure treated lumber through retail lumber dealers. Osmose Advance Guard is part of a family of protected building products marketed under the SmartGUARD™ name. Advance Guard applications include: sill plates, joists and subflooring; beams and purlins; stud-framed walls and partitions; roof decks and sheathing; roof and floor trusses; wood blocking and furring; and wood trim. Revise MANU-SPEC section number and title below to suit project requirements, specification practices and section content. Refer to CSI *MasterFormat* for other section numbers and titles, including 06100 Rough Carpentry, 06200 Finish Carpentry and 06400 Architectural Woodwork.

SECTION 06076
PRESERVATIVE TREATMENT
(PRESERVATIVE TREATED WOOD)

PART 1 GENERAL

Specifier Note: Osmose Advance Guard Borate PTW, when treated to a .42 DOT retention, is highly effective in resisting decay, subterranean termites, dry wood termites, Formosan termites, carpenter ants, wood-boring beetles and many other insects. Advance Guard PTW is noncorrosive, easy to handle and workable with common tools. It is available for aboveground, weather protected applications where insect and decay resistant construction materials are recommended. Advance Guard PTW 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 during its service life. Normal exposure to weather during ordinary construction will not adversely affect the treatment in the product. Advance Guard PTW is not recommended for use in decks or other outdoor structures exposed to weathering.

1.01 SUMMARY

- A. Section Includes: Insect and decay protection treatment for wood products specified in other Division 6 sections, including:

Specifier Note: Edit below as applicable to project:

1. Sill plates.
2. Joists and subflooring.
3. Beams and purlins.
4. Stud-framed walls and partitions.
5. Roof decks and sheathing.
6. Roof and floor trusses.

- 7. Wood blocking and furring.

Specifier Note: Revise paragraph below to suit project requirements. Add section numbers and titles per CSI *MasterFormat* and Specifier's practice.

- B. Related Sections: Section(s) related to this section include:
 - 1. Rough Carpentry: Division 6 Rough Carpentry Section.
 - 2. Finish Carpentry: Division 6 Finish Carpentry Section.
 - 3. Engineered Structural Wood Products: Division 6 Engineered Structural Wood Products Section.
 - 4. Manufactured Wood Trusses: Division 6 Manufactured Wood Truss Section.

Specifier Note: Article below may be omitted when specifying manufacturer's proprietary products and recommended installation. Retain Reference Article when specifying products and installation by an industry reference standard. If retained, list standard(s) referenced in this section. Indicate issuing authority name, acronym, standard designation and title. Establish policy for indicating edition date of standard referenced. Conditions of the Contract or Division 1 References Section may establish the edition date of standards. This article does not require compliance with standard, but is merely a listing of references used. Article below should list only those industry standards referenced in this section.

1.02 REFERENCES

- A. General: Standards listed by reference, including revisions by issuing authority, form a part of this specification section to extent indicated. Standards listed are identified by issuing authority, authority abbreviation, designation number, title or other designation established by issuing authority. Standards subsequently referenced herein are referred to by issuing authority abbreviation and standard designation.
- B. Advance Guard PTW does not need to meet American Wood-Preservers' Association (AWPA) standards but it does nonetheless meet:
 - 1. AWPA C9 Plywood - Preservative Treatment by Pressure Treatment.
 - 2. AWPA C31 Lumber Used Out of Contact with the Ground and Continuously Protected from Liquid Water - Treatment by Pressure Processes.
 - 3. AWPA P5 Standard for Waterborne Preservatives.
- C. National Evaluation Services, Inc. (NES).
 - 1. National Evaluation Report (NER): Report No. NER-648.

Specifier Note: Article below should be restricted to statements describing design or performance requirements and functional, not dimensional, tolerances of a complete system. Limit descriptions to composite and operational properties to extent necessary to link multiple components of a system together and to interface with other systems.

1.03 SYSTEM DESCRIPTION

- A. Performance Requirements: Provide borate wood preservative treatment which will [Insert performance criteria.] [Perform in accordance with manufacturer's stated performance criteria without defects, damage or failure.]

Specifier Note: Article below includes submittal of relevant data to be furnished by Contractor before, during or after construction. Coordinate this article with Architect's and Contractor's duties and responsibilities in Conditions of the Contract and Division 1 Submittal Procedures Section.

1.04 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Product Data: Submit product data, including manufacturer's SPEC-DATA™ product sheet, for specified products.
- C. Quality Assurance Submittals: Submit the following:
 - 1. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
 - 2. Evaluation Report: [NER-648] [Specify model code evaluation report submittal to suit project requirements.]

3. Certificates: Certification from treating plant certifying wood treatment applied complies with the criteria and physical requirements for borate preservative treated wood products as specified herein.
4. Closeout Submittals: Submit the following: [Insert requirements.].
5. Warranty: Warranty documents specified herein.

Specifier Note: Article below should include prerequisites, standards, limitations and criteria that establish an overall level of quality for products and workmanship for this section. Coordinate below article with Division 1 Quality Assurance Section.

1.05 QUALITY ASSURANCE

- A. Source Quality: Obtain borate preservative treated wood products from a single approved source.
- B. Wood Treatment Plant Qualifications: Wood treatment plant experienced in performing work of this section which has specialized in the treatment of wood similar to that required for this project, licensed by the manufacturer.
- C. Independent third party inspection.
- D. Kiln Dried After Treatment (KDAT), if required.

Specifier Note: Paragraph below should list obligations for compliance with specific code requirements particular to this section. General statements to comply with a particular code are typically addressed in Conditions of the Contract and Division 1 Regulatory Requirements Section. Repetitive statements should be avoided. Edit paragraph below to suit project requirements.

- E. Regulatory Requirements: Provide borate preservative treatment that complies with the following regulatory requirements:
 1. [Insert name of applicable code.] requirements for insect and decay preservative treated wood.

Specifier Note: Retain quality mark requirement below for all borate preservative treated wood product applications.

- F. Quality Mark: All borate preservative treated wood members shall bear a permanent ink stamp indicating the following:
 1. Manufacturer's name.
 2. Treatment plant name.
 3. Quality mark of an AWWA approved independent inspection agency.
 4. Symbol "SBX" (sodium borate), preservative retention level and date of treatment.
 5. AWWA treatment standard, wood species and the words "Above Ground and Continuously Protected from Liquid Water."

Specifier Note: Article below should include special and unique requirements. Coordinate article below with Division 1 Product Requirements Section.

1.06 DELIVERY, STORAGE & HANDLING

- A. General: Comply with Division 1 Product Requirements Sections.
- B. Exposure: Prevent exposure to precipitation during shipping, storage or installation. Store material off ground and under cover. Allow materials exposed to incidental moisture to dry thoroughly prior to covering with vapor or moisture retarding finish materials.

Specifier Note: Coordinate article below with Conditions of the Contract and with Division 1 Closeout Submittals (Warranty) Section.

1.07 WARRANTY

- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.

Specifier Note: Coordinate paragraph below with manufacturer's warranty requirements. Osmose, Inc., offers a 20 year limited warranty against structural damage due to termites, carpenter ants and fungal decay under the Advance Guard Residential Limited Warranty when treated to .42 DOT retention. Consult manufacturer for complete details.

- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents.

Specifier Note: Coordinate paragraph below with manufacturer's warranty requirements.

1. Warranty Period: Twenty (20) years.

PART 2 PRODUCTS

2.01 BORATE PRESERVATIVE TREATED WOOD PRODUCTS

Specifier Note: Retain first 3 paragraphs below for proprietary method specification. Add product attributes, performance characteristics, material standards and descriptions as applicable. Use of such phrases as "or equal" or "or approved equal" or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining "or equal" products.

- A. Manufacturer: Osmose, Inc. - Wood Preserving Division.

Specifier Note: Paragraph below is an addition to CSI *SectionFormat* and a supplement to MANU-SPEC. Retain or delete paragraph below per project requirements and Specifier's practice.

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Specifier Note: Advance Guard borate preservative treated wood products are intended for aboveground, weather protected applications only. They are not to be used in areas subject to precipitation, wetting, dampness or condensation. Advance Guard wood products must be typically kiln dried after treatment (KDAT) to a maximum moisture content of 19% for lumber and 18% for plywood. Wood treated with Advance Guard's EPA registered Tim-bor® Industrial Wood Preservative is easy to work with common tools. The product is colorless and nonblooming. It will not darken or discolor most woods.

- B. Proprietary Product(s)/System(s): Advance Guard Preservative treated wood Products.
- C. Borate Preservative Treatment: Disodium octoborate tetrahydrate (DOT) treatment for insect and decay protective pressure treatment of wood as produced by manufacturer's licensed treatment plants, producing material meeting the following minimum standards:
 1. Preservative Treatment Standard: AWPA P5.
 2. Structural Lumber Treatment Standard: Comply with AWPA C31.
 3. Plywood Treatment Standard: Comply with AWPA C9.
 4. Treatment Level: Provide borate preservative treatment retention level recommended by manufacturer to provide the following minimum protection, as indicated on wood product quality stamp specified in Quality Assurance article: .42 DOT retention if warranty is required or expected.

Specifier Note: Select one of two following borate active ingredient minimum retention levels based upon building code and local conditions. 0.42 DOT retention is required to qualify for Advance Guard Limited Residential Warranty in all applications.

- a. Protection against North American subterranean termites, decay and insects: 0.25 pcf (4 kg/m³) DOT retention (0.17 pcf (2.7 kg/m³) B₂O₃) minimum retention.
- b. Protection against North American subterranean termites, decay and insects, and Formosan termites: 0.42 pcf (6.7 kg/m³) DOT retention (0.28 pcf (4.5 kg/m³) B₂O₃) minimum retention (required for warranty).

2.02 PRODUCT SUBSTITUTIONS

- A. Substitutions: No substitutions permitted.

2.03 RELATED MATERIALS

Specifier Note: Wood species qualifying under Advance Guard warranties include a variety of softwood lumber and plywood. Approved softwood lumber types are Douglas fir, hem-fir, Southern pine and spruce-pine-fir. Approved plywood types are: Southern yellow pine and Douglas fir.

- A. Wood Materials: Refer to Division 6 Sections for related wood materials required to be treated as specified herein.
- B. Field Applied End Coat: Preservative solution approved by preservative treated wood manufacturer for application:
 1. Osmose, Inc., Tim-bor disodium octaborate tetrahydrate (DOT), 10% solution.

2. Copper Naphthenate, 2% solution, copper metal basis.
3. Other preservative approved by Advance Guard manufacturer.

2.04 SOURCE QUALITY

Specifier Note: Coordinate paragraph below with Division 1 Quality Control Section.

- A. Tests, Inspections: [Specify tests, inspections and other source quality requirements.].

PART 3 EXECUTION

Specifier Note: Article below is an addition to the CSI *SectionFormat* and a supplement to MANU-SPEC. Revise article below to suit project requirements and Specifier's practice.

3.01 MANUFACTURER'S INSTRUCTIONS

- A. Compliance: Comply with manufacturer's product data, including product literature, technical bulletins, product wraps and labels and product catalog installation instructions for installation.

3.02 INSTALLATION

- A. Select borate preservative treated wood members in accordance with appropriate untreated lumber and plywood span tables. Provide ventilation of building cavities as required by code.
- B. Install borate preservative treated wood in accordance with requirements of applicable codes and related Division 6 sections. Avoid milling operations that could adversely affect preservative characteristics of borate preservative treated wood.
- C. End Cut Treatment: Treat end cuts of borate preservative treated wood members over 2 inches (51 mm) in thickness with field applied end coat prior to installation for Spruce-Pine-Fir (SPF) and Douglas Fir (DF) only.

Specifier Note: Verify requirements of local building code and edit paragraph below as required.

- D. Sill Plate: Where applicable, provide sill plate of [Borate preservative treated wood] [CCA pressure treated wood].

Specifier Note: Verify fastener requirements of local building code and edit paragraph below as required.

- E. Install using fasteners required by applicable code for use with untreated lumber and plywood.

3.03 FINISHING

Specifier Note: For painting or staining of Advance Guard PTW, a light sanding or brushing is all that is necessary to ensure proper coating adhesion. Complete application recommendations are available from the manufacturer. Avoid frequent or prolonged inhalation of sawdust from treated wood. When sawing and machining treated wood, wear a dust mask. When power sawing or machining, wear goggles to protect eyes from flying particles. Surfaces must be clean and dry before application.

- A. Prepare borate preservative treated wood for application of finishes in accordance with manufacturer's recommendations. Sand surfaces lightly, clean and check for moisture prior to finishing.
- B. Apply paint or stain in accordance with Division 9 Section "Painting."

3.04 PROTECTION

- A. Protection: Protect borate preservative treated wood from damage during construction. Protect from moisture prior to installation of finishes.

END OF SECTION

Advance Guard® and Osrose® are registered trademarks of S-T-N Holdings.
AdvanceGuard PTW products are produced by independently owned and operated wood preserving companies.
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