



## Treated Wood and the 2003 International Building Code

The International Building Code recognizes the problems inherent in certain applications and the effectiveness of properly treated wood in enduring those situations. For some applications, the code requires treated wood; for others it allows either pressure-treated wood or a wood classified as naturally resistant to decay. The following excerpts are references to treated wood taken from the 2003 International Building Code.

### Chapter 23 — WOOD

#### SECTION 2303

##### STANDARDS OF QUALITY

##### 2303.1.8 Preservative-treated Wood.

Lumber, timber, plywood, piles and poles supporting permanent structures required by Section 2304.11 to be preservative-treated shall conform to the requirements of the applicable American Wood-Preservers' Association (AWPA) Standard C1, C2, C3, C4, C9, C14, C15, C16, C22, C23, C24, C28, C31, C33 and M4, for species, product, preservative and end use. Preservatives shall conform to AWPA P1/P13, P2, P5, P8 and P9.

##### 2303.1.8.1 Identification.

Wood required by Section 2304.11 to be preservative-treated shall bear the quality mark of an inspection agency that maintains continuing supervision, testing and inspection over the quality of the preservative-treated wood. Inspection agencies for preservative-treated wood shall be listed by an accreditation body\* that complies with the requirements of the American Lumber Standards Treated Wood Program, or equivalent. The quality mark shall be on a stamp or label affixed to preservative-treated wood, and shall include the following information:

1. Identification of treating manufacturer.
2. Type of preservative used.
3. Minimum preservative retention (pcf).
4. End use for which the product is treated.
5. AWPA standard to which the product was treated.
6. Identity of the accredited inspection agency.

##### 2303.1.8.2 Moisture Content.

Where preservative-treated wood is used in enclosed locations where drying in service cannot readily occur, such wood shall be at a moisture content of 19% or less before being covered with insulation, interior wall finish, floor covering or other material.

##### 2304.9.5 Fasteners in Preservative-treated Wood.

Fasteners for preservative-treated wood shall be of hot-dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper. The coating weights for zinc-coated fasteners shall be in accordance with ASTM A-153.\*\* Fastenings for wood foundations shall be as required in AF&PA Technical Report No. 7.

NOTE: 2003 International Residential Code Section 319.3 reads: *Fasteners for pressure preservative and fire-retardant-treated wood shall be of hot-dipped galvanized steel, stainless steel, silicon bronze or copper. Exception: One-half inch diameter or greater steel bolts.*

#### SECTION 2304.11 PROTECTION AGAINST DECAY AND TERMITES

##### 2304.11.1 General.

Where required by this section, protection from decay and termites shall be provided by the use of naturally durable or preservative-treated wood.

##### 2304.11.2 Wood Used Above Ground.

Wood installed above ground in the locations specified in Sections 2304.11.2.1 through 2304.11.2.6 shall be naturally durable wood or preservative-treated wood that uses water-borne preservatives, and shall be treated in accordance with AWPA C2 or C9 or applicable AWPA standards for above ground use.

##### 2304.11.2.1 Joists, Girders and Subfloor.

Where wood joists or the bottom of a wood structural floor without joists are closer than 18 inches, or wood girders are closer than 12 inches, to the exposed ground in crawl spaces or unexcavated areas located within the perimeter of the building foundation, the floor assembly (including posts, girders, joists and subfloor) shall be of naturally durable or preservative-treated wood.

##### 2304.11.2.2 Framing.

Wood framing members, including wood sheathing, which rest on exterior foundation walls and are less than 8 inches from exposed earth; and wood framing members and furring strips attached directly to the interior of exterior masonry or concrete wall below grade shall be of naturally durable or preservative-treated wood.

##### 2304.11.2.3 Sleepers and Sills.

Sleepers and sills on a concrete or masonry slab that is in direct contact with earth shall be of naturally durable or preservative-treated wood.

##### 2304.11.2.4 Girder Ends.

The ends of wood girders entering exterior masonry or concrete walls shall be provided with a 1/2-inch air space on top, sides and end, unless durable or preservative-treated wood is used.

##### 2304.11.2.5 Wood Siding.

Clearance between wood siding and earth on the exterior of a building shall not be less than 6 inches except where siding, sheathing and wall framing are of naturally durable or preservative-treated wood.

##### 2304.11.2.6 Posts or Columns.

Posts or columns supporting permanent structures and supported by a concrete or masonry slab or footing that is in direct contact with the earth shall be of naturally durable or preservative-treated wood.

*Exceptions: 1. Posts or columns that are either exposed to the weather or located in basements or cellars, supported by concrete piers or metal pedestals projected at least 1 inch above the slab or deck and 6 inches above exposed earth, and are separated therefrom by an impervious moisture barrier.*

*2. Posts or columns in enclosed crawl spaces or unexcavated areas located within the periphery of the building, supported by a concrete pier or metal pedestal at a height greater than 8 inches from exposed ground, and are separated therefrom by an impervious moisture barrier.*

##### 2304.11.3 Laminated Timbers.

The portions of glued laminated timbers that form the structural supports of a building or other structure and are exposed to weather

\* Accreditation Body. An approved, third-party organization that is independent of the grading and inspection agencies, and the lumber mills, and that initially accredits and subsequently monitors, on a continuing basis, the competency and performance of a grading or inspection agency related to carrying out specific tasks.

\*\* Supplement to IBC. S61-03/04.

and not properly protected by a roof, eave or similar covering shall be pressure treated with preservative, or be manufactured from naturally durable or preservative-treated wood.

**2304.11.4 Wood in Contact with the Ground or Fresh Water.**

Wood in contact with the ground (exposed earth) that supports permanent structures shall be of naturally durable or preservative-treated wood using waterborne preservatives and shall be treated in accordance with AWPA C2, C9 or other applicable AWPA standard for soil or fresh water contact, where used in the location specified in Sections 2304.11.4.1 and 2304.11.4.2

*Exception: Untreated wood is permitted where such wood is continuously and entirely below the ground water level or submerged in fresh water.*

**2304.11.4.1 Posts or Columns.**

Posts and columns supporting permanent structures that are embedded in concrete in direct contact with the earth or embedded in concrete exposed to the weather, or in direct contact with the earth, shall be of preservative-treated wood.

**2304.11.4.2 Wood Structural Members.**

Wood structural members that support moisture-permeable floors or roofs that are exposed to the weather, such as concrete or masonry slabs, shall be of naturally durable or preservative-treated wood unless separated from such floors or roofs by an impervious moisture barrier.

**2304.11.5 Supporting Member for Permanent Appurtenances.**

For those portions of wood members that form the structural supports of buildings, balconies, porches or similar permanent building appurtenances where such members are exposed to the weather without adequate protection from a roof, eave, overhand or other covering to prevent moisture or water accumulation on the surface or at joints between members.

*Exception: When a building is located in a geographical region where experience has demonstrated that climatic conditions preclude the need to use durable materials where the structure is exposed to the weather.*

**2304.11.6 Termite Protection.**


In geographical areas where hazard of termite damage is known to be very heavy, the floor framing shall be of natural durable or preservative-treated wood, or provided with approved methods of termite protection.

**2304.11.7 Wood Used in Retaining Walls and Cribs.**

Wood installed in retaining or crib walls shall be of preservative-treated wood treated in accordance with AWPA C2 or C9 for soil and fresh water contact.

**INTRODUCTION**

The American Lumber Standards Committee (ALSC) is responsible for the oversight and accreditation of third party inspection agencies for treated wood. In order to comply with the International Building Code, treated wood must be marked with the quality stamp or end tag of an accredited ALSC agency.

WWPI recognizes quality marks for treated wood are sometimes confusing with much product information including proprietary brands, warranties, etc. To help clarify the situation, WWPI created the CheckMark Identification Program to easily find and recognize the various ALSC accredited agency's trademarks. Look for the CheckMark  on the stamp or end-tag to quickly find the ALSC accredited agency's logo.

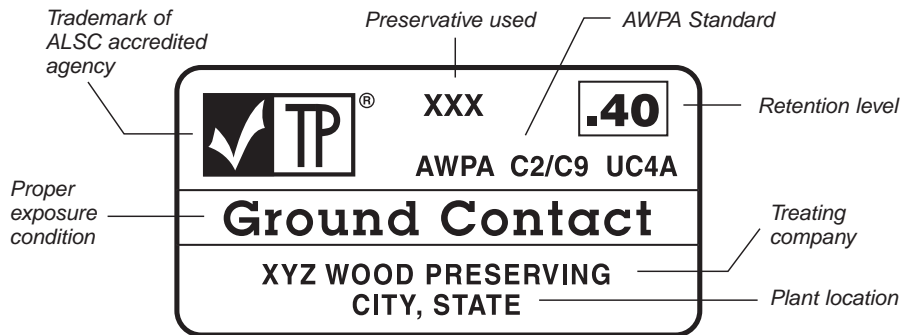
The treating industry also produces products that do not require ALSC oversight; such products include landscape timbers for non-structural applications, decking products which carry their own manufacturer's warranty, etc.

The American Lumber Standards Committee certifies three agencies that serve the West. Those meeting the ALSC criteria include:



"Third party" agencies verify that pressure-treated wood was properly treated in accordance with AWPA standards. Third party inspection is not mandated by law, but is necessary to comply with the IBC. To be certain of receiving the treated wood that was specified, only accept or approve treated wood with a quality stamp or end tag of an accredited ALSC agency.

**INTERPRETING A QUALITY MARK**



**TREATING STANDARDS**

| APPLICATION  | RETENTION LBS./CU. FT. |      |      | AWPA STANDARDS FOR STRUCTURAL APPLICATIONS   |
|--|------------------------|------|------|--|
|  | ACQ/ACZA               | CA-B | DOT  |  |
| Above Ground   | 0.25                   | 0.10 | N/A  | C1 . . . . . General<br>C2 . . . . . Lumber-Timbers<br>C3 . . . . . Piles<br>C4 . . . . . Poles<br>C9 . . . . . Plywood<br>C14 . . . . Highway<br>C15 . . . . Commercial-Residential<br>C16 . . . . Farms<br>C22 . . . . Permanent Wood Foundations<br>C23 . . . . Pole Buildings<br>C24 . . . . Sawn Timber Piles<br>C28 . . . . Glue-Laminated Beams<br>C31 . . . . Out of Contact with Ground and Continuously Protected from Liquid Water<br>C33 . . . . Structural Composite Lumber |
| Ground Contact, Fresh Water Immersion                              | 0.40                   | 0.21 | N/A  |  |
| In Ground (Structural)   | 0.60                   | 0.31 | N/A  |  |
| Above Ground, Continuously Protected from Liquid Water (Sillplate) | 0.25                   | 0.10 | 0.25 |  |

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