



Treated Wood and the 2003 International Residential Code

The International Residential 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 Residential Code.

Chapter 3 BUILDING PLANNING SECTION R319 PROTECTION AGAINST DECAY

R319.1 Location Required.

In areas subject to decay damage, the following locations shall require the use of an approved species and grade of lumber, pressure treated in accordance with American Wood-Preservers' Association (AWPA) Standard C1, C2, C3, C4, C9, C15, C18, C22, C23, C24, C28, C31, C33, P1, P2 and P3, or decay-resistant heartwood of a naturally durable species.

1. Wood joists or the bottom of a wood structural floor when closer than 18 inches or wood girders when closer than 12 inches to exposed ground in crawl spaces or unexcavated area located within the periphery of the building foundation.
2. All wood framing members that rest on concrete or masonry exterior foundation walls and are less than 8 inches from exposed ground.
3. Sills and sleepers on a concrete or masonry slab that is in direct contact with the ground unless separated from such slab by an impervious moisture barrier.

4. The ends of wood girders entering exterior masonry or concrete walls having clearances of less than 0.5 inch on tops, sides and ends.
5. Wood siding, sheathing and wall framing on the exterior of a building having a clearance of less than 6 inches from the ground.
6. Wood structural members supporting moisture-permeable floors or roofs that are exposed to the weather, such as concrete or masonry slabs, unless separated from such floors or roofs by an impervious moisture barrier.
7. Wood furring strips or other wood framing members attached directly to the interior of exterior masonry walls or concrete walls below grade except where an approved vapor retarder is applied between the wall and the furring strips or framing members.

R319.1.1 Ground Contact.

All wood in contact with the ground and that supports permanent structures intended for human occupancy shall be approved pressure preservatively treated wood suitable for ground contact use.

R319.1.2 Geographical Areas.

In geographical areas where experience has demonstrated a specific need, approved naturally durable or pressure preservatively treated wood shall be used for those portions of wood members that form the structural supports of buildings, balconies, porches or similar permanent building appurtenances when such members are exposed to the weather without adequate protection from a roof, eave, overhang or other covering that would prevent moisture or water accumulation on the surface or at joints between members. Depending on local experience, such members may include:

1. Horizontal members such as girders, joists and decking.

2. Vertical members such as posts, poles and columns.
3. Both horizontal and vertical members.

R319.1.3 Posts, Poles and Columns.

Posts, poles and columns supporting permanent structures that are imbedded in concrete in direct contact with the ground or embedded in concrete exposed to the weather shall be approved pressure preservatively treated wood suitable for ground contact use.

R319.1.4 Wood Columns.

Wood columns shall be approved wood of natural decay resistance or approved pressure preservatively treated wood.

Exceptions: 1. Posts or columns which are either exposed to the weather or located in basements or cellars, supported by piers or metal pedestals projecting 1 inch above the floor or finished grade and 6 inches above exposed earth, and are separated therefrom by an approved 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, are separated therefrom by an impervious moisture barrier.

R319.2 Quality Mark.

Lumber and plywood required to be pressure preservatively treated in accordance with Section R319.1 shall bear the quality mark of an approved inspection agency that maintains continuing supervision, testing and inspection over the quality of the product and that has been approved by an accreditation body* that complies with the requirements of the American Lumber Standard Committee treated wood program (see Quality Assurance Section).

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* 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.

R319.2.1 Required Information.

The required quality mark on each piece of pressure preservatively treated lumber or plywood shall contain the following information:

1. Identification of the treating plant.
2. Type of preservative.
3. The minimum preservative retention.
4. End use for which the product was treated.
5. Standard to which the product was treated.
6. Identity of the approved inspection agency.
7. The designation "Dry," if applicable.

R319.3 Fasteners.

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 R320 PROTECTION AGAINST TERMITES

R320.1 Subterranean Termite Control.

In areas favorable to termite damage, methods of protection shall be by chemical soil treatment, pressure preservatively treated wood in accordance with the AWPA Standards listed in Section R319.1, naturally termite-resistant wood or physical barriers (such as metal or plastic termite shields) or any combination of these methods.

R320.1.1 Quality Mark.

Lumber and plywood required to be pressure preservatively treated in accordance with Section R320.1 shall bear the quality mark of an approved inspection agency which maintains continuing supervision, testing and inspection over the quality of the product and which has been approved by an accreditation body that complies with the requirements of the American Lumber Standard Committee treated wood program (see Quality Assurance Section).

R320.3 Pressure Preservatively Treated and Naturally Resistant Wood.


Heartwood of redwood and eastern red cedar shall be considered termite resistant. Pressure preservatively treated wood and naturally termite-resistant wood shall not be used as a physical barrier unless a barrier can be inspected for any termite shelter tubes around the inside and outside edges and joints of a barrier.

R320.3.1 Field Treatment.

Field cut ends, notches and drilled holes of pressure preservatively treated wood shall be retreated in the field in accordance with AWPA M4.

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 C2 Lumber-Timbers C3 Piles C4 Poles C9 Plywood C14 Highway C15 Commercial-Residential C16 Farms C22 Permanent Wood Foundations C23 Pole Buildings C24 Sawn Timber Piles C28 Glue-Laminated Beams C31 Out of Contact with Ground and Continuously Protected from Liquid Water 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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