ICC-ES Evaluation Report

ESR-1721

Reissued May 2024

This report also contains:

- CBC Supplement

Subject to renewal May 2026

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DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES **Section: 06 05 73.33—Preservative Wood Treatment**	**REPORT HOLDER:** **ARCH TREATMENT TECHNOLOGIES, INC.** **ADDITIONAL LISTEES:** **BESTWAY ENTERPRISES, INC.** **CULPEPER WOOD PERSERVERS** **EVERWOOD TREATMENT COMPANY** **GREAT SOUTHERN WOOD** **H. M. STAUFFER & SONS, INC.** **HOOVER TREATED WOOD PRODUCTS, INC.** **MIDWEST MANUFACTURING** **NORTHERN CROSSARM CO. INC.** **PETERSON WOOD TREATING, INC.** **SOUTHEAST FOREST PRODUCTS** **THUNDERBOLT WOOD TREATING** **UNITED WOOD PRESERVING, LLC**	**EVALUATION SUBJECT:** **WOLMANIZED® OUTDOOR® PRESERVATIVE-TREATED WOOD**	

1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2018, 2015, 2012 and 2009 *International Building Code®* (IBC)

- 2018, 2015, 2012 and 2009 *International Residential Code®* (IRC)
- 2013 *Abu Dhabi International Building Code* (ADIBC)†
- Other Codes (see Section 8.0)

†The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Properties evaluated:

- Preservative-treated wood
- Decay resistance
- Termite resistance
- Corrosion
- Structural

1.2 Evaluation to the following green standards:

- 2020, 2015, 2012 and 2008 ICC 700 *National Green Building Standard™* (ICC-700-2020, ICC 700-2015, ICC 700-2012 and ICC 700-2008)

Attributes verified:

See Section 3.1.

2.0 USES

Wolmanized® Outdoor® preservative-treated wood is used for wood members that are required by the code to be protected against decay and termites.

3.0 DESCRIPTION

3.1 General:

Wolmanized® Outdoor® preservative-treated wood products are recognized for use in above ground, ground contact, and freshwater contact applications, and resist attack by fungal decay and subterranean termites, including Formosan termites.

Wolman® E brand wood preservatives are produced by Arch Treatment Technologies, Inc., and are used by independently owned and operated wood preserving plants listed in Table 3 of this report to preservative-treat wood products in accordance with Wolmanized® Outdoor® Wood Standards and Wolman® E Quality Control Procedures.

The attributes of the Wolmanized® Outdoor® preservative-treated wood products have been verified as conforming to the provisions of (i) ICC 700-2020. ICC 700-2015 and ICC 700-2012 Sections 602.1.6 and 11.602.1.6; and (ii) ICC 700-2008 Section 602.8 for termite-resistant materials. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. These standards often provide supplemental information as guidance. See Section 4.2 for limitations on termite-resistance use.

3.2 Preservative System:

Wolman® E wood preservatives are based on copper combined with the organic fungicides tebuconazole and propiconazole. There are four formulations: copper azole Type B (CA-B), copper azole Type C (CA-C), dispersed (micronized) copper azole Type B (µCA-B or MCA-B or MCA) and dispersed (micronized) copper azole Type C (µCA-C or MCA-C). The CA-B formulations contain copper and tebuconazole. The CA-C formulations contain copper, propiconazole and tebuconazole.

3.3 Wood Species:

Wolman® E CA-B and CA-C wood preservatives are used to preservative-treat the following materials:

a. Dimension lumber and timbers of the following species primarily consisting of sapwood: southern pine, ponderosa pine, red pine, radiata pine, Scots pine, and Caribbean pine.
b. Dimension lumber and timbers of the following species primarily consisting of heartwood: Douglas fir, western hemlock, hem-fir.
c. Lumber, of nominal size of 2-by-8 or less, for decking and specialty use of the species listed in (a) and (b), above.
d. Southern pine and Douglas fir plywood.
e. Round and sawn posts and building poles of southern pine, ponderosa pine, red pine, Douglas fir, hem-fir and western hemlock.
f. Round timber piling, southern pine, ponderosa pine, and red pine.

Minimum preservative retention levels are provided in Table 1 of this evaluation report.

Wolman® E µCA-B (MCA-B or MCA) and µCA-C (MCA-C) wood preservatives are used to preservative-treat the following materials:

a. Dimension lumber and timbers of the following species primarily consisting of sapwood: southern pine, ponderosa pine, red pine, radiata pine, and Caribbean pine.
b. Dimension lumber and timbers of the following species primarily consisting of heartwood: Western hemlock, hem-fir.
c. Lumber of nominal size 2-by-8 or less, for decking and specialty use of the species listed in (a) and (b) above.
d. Southern pine and Douglas-fir plywood.
e. Round and sawn building posts and building poles of Southern pine, ponderosa pine, red pine, hem-fir and Western hemlock.
f. Round timber piling, Southern pine, ponderosa pine and red pine.

Minimum preservative retention levels are provided in Table 1 of this evaluation report.

4.0 INSTALLATION

4.1 General:

Wolmanized® Outdoor® preservative-treated wood is installed as preservative-treated lumber, timbers and plywood in accordance with the requirements of the applicable code.

Arch Treatment Technologies' and industry published installation instructions for wood and pressure-treated wood and this report must be strictly adhered to, and a copy of the instructions must be available at all times on the jobsite during installation.

The instructions within this report govern if there are any conflicts between Arch Treatment Technologies' instructions and this report.

4.2 Applications:

Wolmanized® Outdoor® preservative-treated wood products are recognized for use in locations where wood is used and/or in locations required by the code to be fungal decay or termite resistant. The treated wood products are recognized for use in aboveground, ground contact and freshwater applications in all building types and occupancies where permitted by the applicable code. Typical applications are described in Table 2.

Locations requiring preservative-treated wood for fungal decay or termite resistance are described in 2304.12 of the 2018 and 2015 IBC, Section 2304.11 of the 2012 and 2009 IBC, and Sections R317 and R318 of the IRC.

4.3 Fasteners:

Fasteners used with Wolmanized® Outdoor® preservative-treated (CA-B, CA-C) wood products must be in accordance with Section 2304.10.5 of the 2018, 2015 IBC, 2304.9.5 of the 2012 and 2009 IBC and Section R317.3 of the IRC. Aluminum fasteners and other aluminum building products (siding, flashing) must not be in direct contact with Wolmanized® Outdoor® preservative-treated (CA-B, CA-C) wood products.

Fasteners used with Wolmanized® Outdoor® preservative-treated µCA-B (MCA-B or MCA) and µCA-C (MCA-C) wood products must be in accordance with Section 2304.10.5 of the 2018 and 2015 IBC, Section 2304.9.5 of the 2012 and 2009 IBC, and Section R317.3 of the IRC. In addition to materials specified in these sections of the IBC and IRC, aluminum fasteners and other aluminum building products (siding, flashing) may also be used in direct contact with Wolmanized® Outdoor® preservative-treated µCA-B (MCA-B or MCA) and µCA-C (MCA-C) wood products.

4.4 Structural:

4.4.1 Duration of Load: The maximum load duration factor allowed for structural members pressure-treated with Wolman® E wood preservatives must be 1.6 in accordance with Section 2.3 of the American Wood Council / American Forest & Paper Association (AWC/AF&PA) *National Design Specification® for Wood Construction* (NDS).

4.4.2 Incising Factor: When the treated wood products have been incised, the reference design values must be multiplied by the incising factor, C_i, in accordance with Section 4.3.8 of the NDS.

5.0 CONDITIONS OF USE:

The Wolmanized® Outdoor® preservative-treated wood described in this report complies with, or is a suitable alternative to what is specified in those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 Dimension lumber designated for "Decking Use" must be a maximum of 2 inches (51 mm) thick and 8 inches (203 mm) wide.

5.2 Use of the preservative-treated wood is limited to the type of applications noted in Section 4.2 of this report.

5.3 Wolman® E wood preservatives are not recognized for use in treating LVL, OSB, or FRTW wood products.

5.4 Surface treatment of field cuts must be in accordance with the recommendations of Arch Treatment Technologies, Inc.

5.5 The Wolmanized® Outdoor® treated wood products are limited to the wood species noted in Section 3.3 with minimum retentions noted in Table 1.

5.6 The treatment process followed by each of the treaters recognized in this report must comply with this report, Arch Treatment Technologies Wolmanized® Outdoor Wood Manual of Standard Practice.

5.7 Treatment of wood products is at the facilities of the treaters noted in Table 3, under a quality control program with inspections by ICC-ES and Timber Products Inspection Inc. (AA-664 and AA-696) or Southern Pine Inspection Bureau (AA-680).

5.8 The following physically above ground applications are required to be treated to ground contact (AWPA Use Category 4A) requirements.

5.8.1 Components which are difficult to maintain, repair or replace and are critical to the performance and safety of the entire system/construction. Examples would be typical deck or dock joists or beams.

5.8.2 Components subject to hazards comparable to ground contact due to climate, artificial or natural processes or construction which include the following:

5.8.2.1 When there is a reasonable expectation that soil, vegetation, leaf litter or other debris may build up and remain in contact with treated wood.

5.8.2.2 When the construction itself, other structures or anticipated vegetation growth will not allow air to circulate underneath the construction and between decking boards.

5.8.2.3 When treated wood is installed less than six inches above the ground (final grade after landscaping) and supported on permeable building materials such as treated wood or concrete.

5.8.2.4 When treated wood is in direct contact with non-durable untreated wood or any older construction with any evidence of decay.

5.8.2.5 When treated wood is wetted on a frequent or recurrent basis such as on a freshwater floating dock or by a watering system.

5.8.2.6 When treated wood is used in tropical climates.

6.0 EVIDENCE SUBMITTED

6.1 Data in accordance with Appendix A, Copper-Azole Wood Preservative Treatment Systems (formerly AC143), of the ICC-ES Acceptance Criteria for Proprietary Wood Preservative Systems—Common Requirements for Treatment Process, Test Methods and Performance (AC326), dated October 2015 (Editorially revised June 2018).

6.2 Quality control documentation in accordance with Section 5.0 of AC326 with AWPA M22 and AWPA M23 compliance.

7.0 IDENTIFICATION

7.1 Wolmanized® Outdoor® preservative-treated lumber and plywood must be labeled or stamped with the ICC-ES name or mark, the name or logo of the inspection agency (Timber Products Inspection Inc. or Southern Pine Inspection Bureau) and the agency IAS accreditation number; the Wolmanized® Wood logo (see Figure 1) or the alternate trade name (see Table 3); the production plant identification; the preservative designation CA-B, CA-C µCA-B (MCA-B or MCA) or µCA-C (MCA-C); the intended end use; and the evaluation report number (ESR-1721). See Figure 1 for sample label.

7.2 The report holder's contact information is the following:

ARCH TREATMENT TECHNOLOGIES, INC.
3941 BONSAL ROAD
CONLEY, GEORGIA 30288
(404) 362-3970
www.wolmanizedwood.com
wolmanizedwoodinfo@arxada.com

7.3 The additional listees' contact information is the following:

BESTWAY ENTERPRISES, INC.
3877 LUKER ROAD
CORTLAND, NEW YORK 13045

CULPEPER WOOD PRESERVERS
POST OFFICE BOX 1148
CULPEPER, VIRGINIA 22701

EVERWOOD TREATMENT COMPANY
11349 HIGHWAY 31
SPANISH FORT, ALABAMA 36527

GREAT SOUTHERN WOOD, INC.
1100 US HIGHWAY 431 NORTH
ABBEVILLE, ALABAMA 36310

H. M. STAUFFER & SONS, INC.
33 GLENOLA DRIVE
LEOLA, PENNSYLVANIA 17540

HOOVER TREATED WOOD PRODUCTS, INC.
154 WIRE ROAD
THOMSON, GEORGIA 30824

MIDWEST MANUFACTURING
5331 KANE ROAD
EAU CLAIRE, WISCONSIN 54703

NORTHERN CROSSARM CO. INC.
POST OFFICE BOX 34
CHIPPEWA FALLS, WISCONSIN 54729

PETERSON WOOD TREATING, INC.
2 RANDY JOHNSON STREET, INDUSTRIAL PARK
SUPERIOR, WISCONSIN 54880

SOUTHEAST FOREST PRODUCTS
3077 CARTER HILL ROAD
MONTGOMERY, ALABAMA 36111

THUNDERBOLT WOOD TREATING
POST OFFICE BOX 890
RIVERBANK, CALIFORNIA 95367

UNITED WOOD PRESERVING, LLC
338 EAST WASHINGTON AVENUE, SUITE D
MUSCLE SHOALS, ALABAMA 35661

7.4 The Manufacturing Locations for Listees are noted in Table 3.

8.0 OTHER CODES

In addition to the codes referenced in Section 1.0, the products described in this report were evaluated for compliance with the requirements of the following legacy codes and earlier editions of the International Codes:

- 2006, 2003, and 2000 *International Building Code*®
- 2006, 2003 and 2000 *International Residential Code*®

The Wolmanized® Outdoor® preservative-treated wood products described in this report comply with, or are suitable alternatives to what is specified in, the codes listed above, subject to the provisions of Sections 8.1 through 8.6.

8.1 Uses:

See Section 2.0.

8.2 Description:

See Section 3.0.

8.3 Installation:

See Section 4.0, except for the following modifications:

Locations requiring preservative-treated wood for decay or termite resistance are described in Section 2304.11 of the 2000, 2003 and 2006 IBC, Sections R323 and R324 of the 2000 IRC, and Sections R319 and R320 of the 2003 IRC and 2006 IRC.

Fasteners used with Wolmanized® Outdoor® preservative-treated wood products must be in accordance with Section 2304.9.5 of the 2000, 2003 and 2006 IBC, Section R323.3 of the 2000 IRC, and Section R319.3 of the 2003 IRC, Section R319.3 of the 2006 IRC, except that aluminum fasteners are also permitted in contact with Wolmanized® Outdoor® preservative-treated (µCA-B (MCA-B or MCA) and µCA-C or MCA-C) wood products.

8.4 Conditions of Use:

See Section 5.0.

8.5 Evidence Submitted:

See Section 6.0.

8.6 Identification:

See Section 7.0.

TABLE 1—MINIMUM PRESERVATIVE RETENTION REQUIREMENTS FOR WOLMANIZED® OUTDOOR® PRESERVATIVE-TREATED WOOD PRODUCTS BY END USE

END USE	MINIMUM ACTIVES RETENTION[1] pcf (kg/m^3)			
	CA-B[2]	CA-C[3]	µCA-B[2] (MCA-B or MCA)	µCA-C[3] (MCA-C)
Above ground - general use	0.10 (1.7)	0.060 (1.0)	0.060 (1.0)	0.060 (1.0)
Above ground - decking & specialties use				
• Species listed in Section 3.3 (primarily sapwood)	0.080 (1.3)	0.060 (1.0)	0.060 (1.0)	0.060 (1.0)
• Species listed in Section 3.3 (primarily heartwood)	0.21 (3.3)	0.15 (2.4)	0.15 (2.4)	0.15 (2.4)
Ground contact - general use	0.21 (3.3)	0.15 (2.4)	0.15 (2.4)	0.15 (2.4)
Ground contact - heavy duty	0.31 (5.0)	0.25 (4.0)[4]	0.23 (3.7)[4]	0.23 (3.7)[4]
Ground contact – wood foundation systems	0.31 (5.0)	0.25 (4.0)[4]	0.23 (3.7)[4]	0.23 (3.7)[4]
Ground contact – extreme duty	0.41 (6.6)	0.35 (5.7)[4]	0.33 (5.3)[4]	0.33 (5.3)[4]

[1]Retention is expressed in pounds of preservative per cubic foot (kilograms per cubic meter) of preservative actives.
[2]Minimum retention of CA-B and µCA-B (MCA-B or MCA) expressed as copper metal + tebuconazole.
[3]Minimum retention of CA-C and µCA-C (MCA-C) expressed as copper metal + tebuconazole + propiconazole.
[4]Retentions for these products differ from those listed in AWPA Standard U1.

TABLE 2—TYPICAL APPLICATIONS FOR WOLMANIZED® OUTDOOR® PRESERVATIVE-TREATED WOOD PRODUCTS

SERVICE CONDITIONS	USE ENVIROMENT	AWPA USE CATEGORY[2,]	TYPICAL APPLICATIONS
Interior construction, above ground, dry	Continuously protected from weather or other sources of moisture	UC1 INTERIOR DRY	Interior construction - millwork and furnishings
Interior construction, above ground, damp	Protected from weather, but may be subject to sources of moisture	UC2 INTERIOR DAMP	Interior construction - interior beams, timbers, flooring millwork and sill plates
Exterior construction, above ground, coated and rapid water runoff	Exposed to all weather cycles, including intermittent wetting	UC3A ABOVE GROUND Protected	Exterior - coated millwork, siding and trim
Exterior construction, above ground, uncoated and poor water runoff Excludes above ground applications with ground contact type hazards (see Section 5.8)	Exposed to all weather cycles including intermittent wetting but with sufficient air circulation so wood can readily dry	UC3B ABOVE GROUND Exposed	Decking, joists and beams for decks and freshwater docks[1], railings, fence pickets, uncoated millwork
Ground contact or Fresh Water Non-critical components Includes above ground applications with ground contact type hazards or that are critical or hard to replace	Exposed to all weather cycles, including continuous or prolonged wetting	UC4A GROUND CONTACT General Use	Fence, deck, and guardrail posts, joists and beams for decks and freshwater docks[1]
Ground contact or Fresh Water Critical components or difficult replacement	Exposed to all weather cycles, including continuous or prolonged wetting, high decay potential includes salt water splash	UC4B GROUND CONTACT Heavy Duty	Permanent wood foundations, sawn and round building poles, wood used in salt water splash zones
Ground Contact or Fresh Water Critical structural components	Exposed to all weather cycles, Severe environments Extreme decay potential	UC4C GROUND CONTACT Extreme Duty	Land & Freshwater piling, foundation piling, (severe decay areas)

[1]Joists and beams shall be treated to requirements for UC4A when they are difficult to maintain, repair or replace and are critical to the performance and safety of the entire system/construction.
[2]Refer to the AWPA 2017 Book of Standards, Standard U-1 Table 2-1 for a complete description of use category designations and typical applications.

TABLE 3—WOOD PRESERVATIVE TREATMENT LOCATIONS

LISTEES	WOOD PRESERVATIVE TREATMENT LOCATIONS	TRADENAME[1]
Bestway Enterprises, Inc. (Treater Name Bestway of New York) Bestway South	Courtland, NY Stony Point, NC	-
Culpeper Wood Preservers	Coleridge, NC Columbia, SC Cove City, NC Orangeburg, SC Roanoke Rapids, NC	-
Everwood Treatment Company	Spanish Fort, AL	-
Great Southern Wood, Inc	Jesup, GA Lake Panasoffkee/Bushnell, FL Millwood, Kentucky Tuscumbia, AL	Weather-Shield YellaWood
H. M. Stauffer & Sons, Inc.	Leola, PA	-
Hoover Treated Wood Products, Inc.	Oxford, PA Pine Bluff, AR Thomson, GA	Micro-Guard
Midwest Manufacturing	Eau Claire, WI Pioneer, OH	-
Northern Crossarm Co. Inc.	Chippewa Falls, WI	-
Peterson Wood Treating, Inc.	Superior, WI	-
Southeast Forest Products	Louisville, AL	-
Thunderbolt Wood Treating	Riverbank, CA	-
United Wood Preserving, LLC	Muscle Shoals, AL	-

[1]All treatment locations may use the new Wolmanized® Outdoor® Wood trade name as noted in this report.

[1]Other Trademarks may be used as permitted by Table 3.
[2]Refer to Table 1 for Minimum Retentions and Preservative Designations.
[3]Refer to Table 2 for Descriptions of End Uses.
[4]Inspection Agency Name and IAS Accreditation Number.
[5]Refer to Table 3 for Treating Company Names and Plant Locations.

FIGURE 1—SAMPLE PRODUCT LABEL

DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES
Section: 06 05 73.33—Preservative Wood Treatment

REPORT HOLDER:

ARCH TREATMENT TECHNOLOGIES, INC.

EVALUATION SUBJECT:

WOLMANIZED® OUTDOOR® PRESERVATIVE-TREATED WOOD

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Wolmanized® Outdoor® preservative-treated wood products, described in ICC-ES evaluation report ESR-1721, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2019 *California Building Code* (CBC)

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2019 *California Residential Code* (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The Wolmanized® Outdoor® preservative-treated wood products, described in Sections 2.0 through 7.0 of the evaluation report ESR-1721, comply with CBC Chapter 23, provided the design and installation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of 23, as applicable.

2.1.1 OSHPD:

The applicable OSHPD Sections of the CBC are beyond the scope of this supplement.

2.1.2 DSA:

The applicable DSA Sections of the CBC are beyond the scope of this supplement.

2.2 CRC:

The Wolmanized® Outdoor® preservative-treated wood products, described in Sections 2.0 through 7.0 of the evaluation report ESR-1721, comply with CRC Chapters 3, provided the design and installation are in accordance with the 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report.

This supplement expires concurrently with the evaluation report, reissued May 2024.

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