

ICC-ES Report

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ESR-1721

Reissued 05/2015 This report is subject to renewal 05/2016.

DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES SECTION: 06 05 73.13—PRESERVATIVE WOOD TREATMENT

REPORT HOLDER:

ARCH TREATMENT TECHNOLOGIES, INC.

5660 NEW NORTHSIDE DRIVE, SUITE 1100 ATLANTA, GEORGIA 30328

EVALUATION SUBJECT:

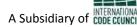
WOLMANIZED® OUTDOOR® PRESERVATIVE-TREATED WOOD



Look for the trusted marks of Conformity!

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A Subsidiary of the International Code Council®

DIVISION: 06 00 00—WOOD, PLASTICS AND

COMPOSITES

Section: 06 05 73.13—Preservative Wood Treatment

REPORT HOLDER:

ARCH TREATMENT TECHNOLOGIES, INC. 5660 NEW NORTHSIDE DRIVE, SUITE 1100

ATLANTA, GEORGIA 30328

(925) 680-0777

www.wolmanizedwood.com ptwinfo@wolmanizedwood.com

EVALUATION SUBJECT:

WOLMANIZED® OUTDOOR® PRESERVATIVE-TREATED

WOOD

ADDITIONAL LISTEES:

AMELIA LUMBER COMPANY 16951 LEIDIG STREET AMELIA, VIRGINIA 23002

BESTWAY ENTERPRISES, INC.

3877 LUKER ROAD

CORTLAND, NEW YORK 13045

BURT LUMBER COMPANY 911 GREENSBORO ROAD WASHINGTON, GEORGIA 30673

CABO ROJO TREATING PLANT CORPORATION

BARRIO BALLAJA, KM 1.1

CARRETERA 312-313, APARTADO 765 CABO ROJO, PUERTO RICO 00623

CONRAD FOREST PRODUCTS 68765 WILDWOOD ROAD NORTH BEND, OREGON 97459

COX INDUSTRIES, INC. 860 CANNON BRIDGE ROAD

ORANGEBURG, SOUTH CAROLINA 29115

EAST TENNESSEE FOREST PRODUCTS

945 POTTERTOWN ROAD MOSHEIM, TENNESSEE 37818

ESCUE WOOD PRESERVING, INC. 164 POST MILLWOOD ROAD MILLWOOD, KENTUCKY 42762

EVERWOOD TREATMENT COMPANY

11349 HIGHWAY 31

SPANISH FORT, ALABAMA 36527

EXTERIOR WOOD, INC. 2685 INDEX STREET

WASHOUGAL, WASHINGTON 98671

FOLLEN WOOD PRESERVING COMPANY, INC.

1242 LANGLEY AVENUE JACKSON, MISSISSIPPI 39204

GEORGIA-PACIFIC, LLC

19560 ALABAMA HIGHWAY 1272 ATHENS, ALABAMA 35614-6810

GREAT SOUTHERN ENTERPRISES 41815 HIGHWAY 195 SOUTH HALEYVILLE, ALABAMA 35565

H. M. STAUFFER & SONS, INC.

33 GLENOLA DRIVE

LEOLA, PENNSYLVANIA 17540

HAGER WOOD PRESERVING, LLC

1211 JUDD AVENUE

WYOMING, MICHIGAN 49509

LITTRELL BROTHERS LUMBER 20345 HIGHWAY 31 NORTH VINEMONT, ALABAMA 35179

LONG LIFE TREATED WOOD 8150 OLD RAILROAD ROAD HEBRON, MARYLAND 21830

MADISON WOOD PRESERVERS, INC.

216 OAK PARK ROAD MADISON, VIRGINIA 22727

McCREADY LUMBER COMPANY

4801 WURNO ROAD PULASKI, VIRGINIA 24301

MID-STATES WOOD PRESERVERS

147 SHELBY ROAD

SIMSBORO, LOUISIANA 71275-0560

NORTHEAST TREATERS, INC. 201 SPRINGFIELD ROAD

BELCHERTOWN, MASSACHUSETTS 01007-0802

PETERSON WOOD TREATING, INC.

2 RANDY JOHNSON STREET, INDUSTRIAL PARK

SUPERIOR, WISCONSIN 54880

PITTS LUMBER COMPANY

ROUTE 17

SALUDA, VIRGINIA 23149

ROBBINS PRESERVING & MANUFACTURING

1301 NORTH NEBRASKA AVENUE

TAMPA, FLORIDA 33602

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SAVANNAH WOOD PRESERVING COMPANY 501 STILES AVENUE SAVANNAH, GEORGIA 31415

TIMBER WHOLESALERS 357 COUNTY ROAD 5 SW WILLMAR, MINNESOTA 56201

TRI-STATE LUMBER, INC. 105 HOMAN ROAD FULTON, MISSISSIPPI 38843

TRUEGUARD, LLC 725 SOUTH 32ND STREET WASHOUGAL, WASHINGTON 98671

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

UNIVERSAL FOREST PRODUCTS, INC. 2801 EAST BELTLINE GRAND RAPIDS, MICHIGAN 49525

VARN WOOD PRODUCTS, LLC 107 NORTH BRANTLEY AVENUE HOBOKEN, GEORGIA 31542

WOOD PRESERVERS, INC. 15939 HISTORY LAND HIGHWAY WARSAW, VIRGINIA 22572

WOODTREATERS, INC. 224 SAWDUST ROAD ROCKY POINT, NORTH CAROLINA 28457

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2012 and 2009 International Building Code® (IBC)
- 2012 and 2009 International Residential Code® (IRC)
- 2013 Abu Dhabi International Building Code (ADIBC)[†]
- Other Codes (see Section 8.0)
- ^TThe 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

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 aboveground, 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.

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 (μ CA-B or MCA-B) and dispersed (micronized) copper azole Type C (μ CA-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 consisting of primarily sapwood: southern pine, ponderosa pine, red pine, radiata pine, Scots pine, and Caribbean pine.
- Dimension lumber and timbers of the following species consisting of primarily heartwood: Douglas fir, western hemlock, hem-fir.
- 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.
- Round and sawn posts and building poles of southern pine, ponderosa pine, red pine, Douglas fir, hem-fir and western hemlock.
- 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 μ CA-B (MCA-B) and μ CA-C (MCA-C) wood preservatives are used to preservative-treat the following materials:

- Dimension lumber and timbers of the following species consisting of primarily sapwood: southern pine, ponderosa pine, red pine, radiata pine, and Caribbean pine.
- Dimension lumber and timbers of the following species consisting of primarily heartwood: Western hemlock, hem-fir.
- 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.
- Round and sawn building posts and building poles of Southern pine, ponderosa pine, red pine, hem-fir and Western hemlock.
- 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 Section 2304.11 of the 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 2304.9.5 of the 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 Deservative-treated μ CA-B (MCA-B) and μ CA-C (MCA-C) wood products must be in accordance with Section 2304.9.5 of the IBC and Section R317.3 of the IRC. Aluminum fasteners and other aluminum building products (siding, flashing) may be used in direct contact with Wolmanized Outdoor preservative-treated μ CA-B (MCA-B) and μ CA-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 Forest & Paper Association (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 Timber Products Inspection Inc. (AA-664 and AA-696) or Southern Pine Inspection Bureau (AA-680).

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 March 2014.
- 6.2 Quality control documentation in accordance with Section 5.0 of AC326 with AWPA M22 and AWPA M23 compliance.

7.0 IDENTIFICATION

Wolmanized[®] Outdoor[®] preservative-treated lumber and plywood must be labeled or stamped with 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 µCA-C (MCA-C); the intended end use; and the evaluation report number (ESR-1721). See Figure 1 for sample label.

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 International Building Code® (2006 IBC)
- 2006 International Residential Code® (2006 IRC)
- 2003 International Building Code® (2003 IBC)
- 2003 International Residential Code® (2003 IRC)
- 2000 International Building Code® (2000 IBC)
- 2000 International Residential Code® (2000 IBC)

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 Outdoo

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/m³)			
	CA-B ²	CA-C ³	μCA-B ² (MCA-B)	μCA-C³ (MCA-C)
Above ground - general use	0.10 (1.7)	0.060 (1.0)	0.060 (1.0)	0.050 (0.8)
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)	0.050 (0.8)
Species listed in Section 3.3 (primarily heartwood)	0.21 (3.3)	0.15 (2.4)	0.15 (2.4)	0.14 (2.2)
Ground contact - general use	0.21 (3.3)	0.15 (2.4)	0.15 (2.4)	0.14 (2.2)
Ground contact - heavy duty	0.31 (5.0)	0.25 (4.0)4	0.23 (3.7)	0.23 (3.7)
Ground contact – wood foundation systems	0.31 (5.0)	0.25 (4.0)4	0.23 (3.7)	0.23 (3.7)
Ground contact – extreme duty	0.41 (6.6)	0.35 (5.7)4	0.33 (5.3)	0.33 (5.3)

¹Retention is expressed in pounds of preservative per cubic foot (kilograms per cubic meter) of preservative actives.

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

SERVICE CONDITIONS	AWPA USE CATEGORY ¹	TYPICAL APPLICATIONS	
Above ground, interior dry uses	UC1	Interior construction, furnishings and millwork	
Above ground, interior damp uses	UC2	Interior beams, timbers, flooring, millwork and sill plates	
Above ground protected, exterior uses when coated and with rapid water runoff	UC3A	Coated millwork, siding, spindles, fascia and trim	
Above ground exposed - general use	UC3B	Decking, rails, spindles, trim and fascia, framing, flooring, sill plates, trellises, gazebos, fencing	
Ground contact - general use, ground or freshwater	UC4A	Deck support posts, fence posts, retaining walls	
Ground contact - heavy duty, ground or freshwater	UC4B	Important components such as permanent wood foundations, sawn and round building poles	
Ground contact extreme use, ground or freshwater uses— critical structural components	UC4C	Critical structural components such as land and freshwater foundation piling	

¹ μCA-B (MCA-B) and μCA-C (MCA-C) have not been evaluated by and are not listed in the American Wood Protection Association (AWPA) Standards.

²Minimum retention of CA-B and µCA-B (MCA-B) expressed as copper metal + tebuconazole.

³Minimum retention of CA-C and µCA-C (MCA-C) expressed as copper metal + tebuconazole + propiconazole.

⁴Retentions for these products differ from those listed in AWPA Standard U1.

TABLE 3—WOOD PRESERVATIVE TREATMENT LOCATIONS

LISTEES	WOOD PRESERVATIVE TREATMENT LOCATIONS		
Amelia Lumber Company	Amelia, VA		
Bestway Enterprises, Inc. [Treater Name Bestway of New York] Bestway of Gouverneur Bestway of New England Bestway of Pennsylvania Bestway South	Courtland, NY Gouverneur, NY S. Lancaster, MA Cresco, PA Stony Point, NC		
Burt Lumber Company	Washington, GA		
Cabo Rojo Treating Plant Corporation	Cabo Rojo, PR		
Conrad Forest Products	Arbuckle, CA North Bend, OR Rainier, OR		
Cox Industries, Inc. [Treater Name Cox Wood Preserving] Cove City Wood Preserving Structural Wood Preserving Cox of VA	Orangeburg, SC Cove City, NC Coleridge, NC Blackstone, VA	DuraPine [®]	
East Tennessee Wood Preserving Company	Mosheim, TN		
Escue Wood Preserving	Millwood, KY		
Everwood Treatment Company	Spanish Fort, AL		
Exterior Wood, Inc.	Washougal, WA	Elite Decking™	
Follen Wood Preserving, Inc.	Jackson, MS		
Georgia-Pacific, LLC	Athens, AL		
Great Southern Enterprises	Haleyville, AL		
H. M. Stauffer & Sons, Inc.	Leola, PA		
Hager Wood Preserving, LLC	Wyoming, MI		
Littrell Brothers Lumber	Vinemont, AL		
Long Life Treated Wood	Hebron, MD		
Madison Wood Preservers, Inc.	Madison, VA	MadWood™	
McCready Lumber Company	Pulaski, VA		
Mid-States Wood Preservers	Simsboro, LA		
Northeast Treaters of Massachusetts Northeast Treaters of New York	Belchertown, MA Athens, NY	WeatherShield [®]	
Peterson Wood Treating, Inc.	Superior, WI		
Pitts Lumber Company	Saluda, VA		
Robbins Preserving & Manufacturing	Tampa, FL Gainesville, GA Orlando, FL Rockwell, NC Thomaston, GA	NaturalMC™	
Savannah Wood Preserving Company	Savannah, GA		
Timber Wholesalers	Willmar, MN		
Tri-State Lumber Inc.	Fulton, MS		
TrueGuard, LLC (HQ) [Treater name Allweather Wood]	Loveland, CO		
United Wood Preserving, LLC	Muscle Shoals, AL		
Universal Forest Products, Inc. UFP Stockertown, LLC	Stockertown, PA	Weathershield® ProWood®	
Varn Wood Products, LLC	Hoboken, GA		
Wood Preservers, Inc.	Warsaw, VA		
Woodtreaters, Inc.	Rocky Point, NC		

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



Preservative Designation²
End Use³
ESR-1721
Quality Monitored by
[Inspection Agency Name AA-###]

Treating Company Name And Plant Location(s)⁴

FIGURE 1—SAMPLE PRODUCT LABEL

¹Other Trademarks may be used as permitted by Table 3.

²Refer to Table 1 for Minimum Retentions and Preservative Designations.

³Refer to Table 2 for Descriptions of End Uses; if the product is listed by AWPA, the Use Category designation may be included.

⁴Refer to Table 3 for Treating Company Names and Plant Locations.