

ICC-ES Evaluation Report**ESR-1980**

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**DIVISION: 06 00 00—WOOD, PLASTICS, AND
COMPOSITES**
SECTION: 06 05 73.13—Preservative Wood Treatment

REPORT HOLDER:

OSMOSE, INCORPORATED
1016 EVEREE INN ROAD
GRIFFIN, GEORGIA 30224-0249
(770) 223-4200
www.osmose.com

EVALUATION SUBJECT:

**NATUREWOOD® AND MICROPRO™/SMART SENSE®
PRESSURE TREATED WOOD**

ADDITIONAL LISTEES:

ALJOMA LUMBER, INC.
10300 NORTHWEST 121 WAY
MEDLEY, FLORIDA 33178

BB&S TREATED LUMBER OF NEW ENGLAND
61 BONNEAU ROAD
NORTH KINGSTOWN, RHODE ISLAND 02852

BRACKETT BROTHERS CORPORATION
4875 BRACKETT LYLES DRIVE
MORGANTON, NORTH CAROLINA 28655

CALIFORNIA CASCADE FONTANA, INC.
8395 SULTANA AVENUE
FONTANA, CALIFORNIA 92335

COASTAL TREATED PRODUCTS COMPANY
POST OFFICE BOX 829
WELDON, NORTH CAROLINA 27890

COLONIE WOOD TREATING & STAIN
70 FULLER ROAD
ALBANY, NEW YORK 12205

CONASAUGA WOOD PRESERVERS
HIGHWAY 411
CONASAUGA, TENNESSEE 37316

D & D WOOD PRESERVING, INC.
POST OFFICE BOX 1802
ALBANY, GEORGIA 31702-1802

EASTEX FOREST PRODUCTS
5429 HARTWICK ROAD
HOUSTON, TEXAS 77093

FORTRESS WOOD PRODUCTS
POST OFFICE DRAWER 4991
MARTINSVILLE, VIRGINIA 24115

GREAT SOUTHERN WOOD—BUSHNELL, INC.
POST OFFICE BOX 759
BUSHNELL, FLORIDA 33513-0759

GREAT SOUTHERN WOOD—BUCKNER, INC.
1320 EAST OLD LEXINGTON ROAD
BUCKNER, MISSOURI 65016

HIXSON LUMBER SALES, INC.
POST OFFICE BOX 1466
MAGNOLIA, ARKANSAS 71753

HOOVER TREATED WOOD PRODUCTS
1742 WARRENTON HIGHWAY, NW
THOMSON, GEORGIA 30824

LAND O LAKES WOOD PRESERVING COMPANY
HIGHWAY 71
TENSTRIKE, MINNESOTA 56683

LAND & SEA FOREST PRODUCTS
400 ROCK RUN ROAD
FAIRLESS HILLS, PENNSYLVANIA 19030

MG BUILDING MATERIALS
9501 HIGHWAY 81 SOUTH
SAN ANTONIO, TEXAS 78211

MAINE WOOD TREATERS
WALKER ROAD
MECHANIC FALLS, MAINE 04256

NEW SOUTH WOOD PRESERVING, LLC
POST OFFICE DRAWER 1505
CONWAY, SOUTH CAROLINA 29526-2601

POTOMAC SUPPLY CORPORATION
1398 KINSALE ROAD
KINSALE, VIRGINIA 22488

SIMMONS WOOD PRODUCTS, INC.
6501 BROADWAY SOUTHEAST
ALBUQUERQUE, NEW MEXICO 87105

S. I. STOREY LUMBER COMPANY
285 STOREY ROAD NORTHWEST
ARMUCHEE, GEORGIA 30105

SUNBELT FOREST PRODUCTS
POST OFFICE BOX 1218
BARTOW, FLORIDA .33830

THOMAS WOOD PRESERVING COMPANY
1964 MURF DRIVE
ELLIOTT, MISSISSIPPI 38926

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

UNIVERSAL FOREST PRODUCTS
2801 EAST BELTLINE, NORTHEAST
GRAND RAPIDS, MICHIGAN 49525

WESTERN WOOD PRESERVING COMPANY
1313 ZEHNDER STREET
SUMNER, WASHINGTON 98390

WESTERN WOOD TREATING, INC.
1492 CHURCHILL DOWNS ROAD
WOODLAND, CALIFORNIA 95776

WOOD PROTECTION LP
POST OFFICE BOX 330376
HOUSTON, TEXAS 77233-0376

WOODSTOCK, INC.
3800 M-30
POST OFFICE BOX 205
WEST BRANCH, MICHIGAN 48661

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2006 *International Building Code*[®] (IBC)
- 2006 *International Residential Code*[®] (IRC)
- Other Codes (see Section 8.0)

Properties evaluated:

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

2.0 USES

NatureWood[®] and MicroPro[™]/Smart Sense[®] 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:

NatureWood[®] and MicroPro[™]/Smart Sense[®] preservative-treated wood products are recognized for use in aboveground, ground-contact, and freshwater contact applications to resist attack by fungal decay and subterranean termites, including Formosan termites.

NatureWood[®] and MicroPro[™]/Smart Sense[®] wood preservatives are produced by Osmose, Inc., and are used by the wood-preservative treatment facilities listed in Table

3 of this report to preservative-treat wood products, in accordance with the following, as applicable:

- a. Standard MP-SS-01, Osmose, Inc., Quality Control Manual for MicroPro[™]/Smart Sense[®] Pressure-Treated Wood Products.
- b. Standard NW-01, Quality Control Procedures for Osmose, Inc., NatureWood[®] Brand Pressure Treated Wood Products.
- c. Standard NW-DECK-01, Quality Control Procedures for Osmose, Inc., NatureWood[®] Brand Pressure Treated Wood Decking.

3.2 Preservative System:

NatureWood[®] and MicroPro[™]/Smart Sense[®] wood preservatives are waterborne, copper-quat preservative systems used for wood members that are required by the applicable code to be protected against fungal decay or termites, or where such protection is desired.

NatureWood[®] and MicroPro[™]/Smart Sense[®] wood preservatives compositions are based on copper combined with a quaternary ammonium compound (quat). The ratio of copper, expressed as CuO, to quat is either 1:1 or 2:1, by weight.

3.3 Wood Species:

NatureWood[®] (NW) and MicroPro[™]/Smart Sense[®] (MP/SS) wood preservatives are used to preservative-treat the following materials:

- a. Dimensional lumber and timbers of the following species consisting of primarily sapwood: southern pine, ponderosa pine, red pine, radiata pine, German Scots pine and Caribbean pine.
- b. Dimensional lumber and timbers of the following species consisting of primarily heartwood (NW only): Douglas fir, hem-fir, lodgepole pine, jack pine and redwood. MP/SS is allowed with incised 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 and hem-fir.

Species and minimum preservative retention levels are provided in Table 1 for NatureWood[®] (NW) treated wood, and in Table 2 for MicroPro[™]/Smart Sense[®] (MP/SS) treated wood.

4.0 INSTALLATION

4.1 General:

NatureWood[®] and MicroPro[™]/Smart Sense[®] preservative-treated wood is installed as preservative-treated lumber, timbers and plywood in accordance with the requirements of the applicable code.

Osmose, Inc., and industry-published installation instructions for wood and preservative-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 Osmose, Inc., instructions and this report.

4.2 Applications:

NatureWood[®] and MicroPro[™]/Smart Sense[®] preservative-treated wood products may be used in locations where wood is permitted and/or in locations required by the code

to be fungal decay or termite resistant in all building types and occupancies as defined by the applicable code. Typical applications are listed in Table 3.

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

4.3 Fasteners:

4.3.1 NatureWood® (NW): Fasteners used with NatureWood® preservative-treated wood products must be in accordance with Section 2304.9.5 of the IBC and Section R319.3 of the IRC. Aluminum fasteners and other aluminum building products (flashing, siding, etc.) must not be placed in direct contact with NatureWood® preservative-treated wood products.

4.3.2 MicroPro™/Smart Sense® (MP/SS): Fasteners used with MicroPro™/Smart Sense® preservative-treated wood products must be in accordance with Section 2304.9.5 of the IBC and Section R319.3 of the IRC. Aluminum fasteners and other aluminum building products (flashing, siding, etc.) may be placed in direct contact with MicroPro™/Smart Sense® preservative-treated wood products.

4.4 Structural:

4.4.1 Duration of Load: The maximum load duration factor allowed for NatureWood® and MicroPro™/Smart Sense® preservative-treated wood products used for structural members is 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 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 NatureWood® and MicroPro™/Smart Sense® preservative-treated wood products described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Dimensional lumber designated for "Decking Use" must not be more than 2 inches (51 mm) thick or 8 inches (203 mm) wide.
- 5.2 Use of the preservative-treated wood is limited to the types of applications noted in Section 4.2 of this report.
- 5.3 Surface treatment of field cuts must be in accordance with the recommendations of Osmose, Inc.
- 5.4 NatureWood® and MicroPro™/Smart Sense® preservative-treated wood products are limited to the wood species noted in Section 3.3 and the minimum retentions noted in Tables 1 and 2.
- 5.5 Treatment of wood products is at the facilities of the treaters noted in Table 4, under a quality control program with inspections by either Timber Products Inspection Inc. (AA-664 and AA-696) or Southern Pine Inspection Bureau, Inc. (AA-680).

6.0 EVIDENCE SUBMITTED

Data in accordance with Appendix B, Copper-quaternary and Copper-zinc Wood Preservative Treatment Systems (formerly AC78), of the ICC-ES Acceptance Criteria for Proprietary Wood Preservative Systems—Common Requirements for Treatment Process, Test Methods and Performance (AC326), dated October 2008.

7.0 IDENTIFICATION

NatureWood® and MicroPro™/Smart Sense® preservative-treated wood products, lumber and plywood must be labeled with the name of the inspection agency (Timber Products Inspection Inc. or Southern Pine Inspection Bureau, Inc.); product name or logo (see Figure 1); the treatment company name and plant location (refer to Table 4); the name or designation of the preservative components; minimum retention; the intended end use; and the evaluation report number (ESR-1980). Sample labels are shown in Figure 1.

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:

- 2003 *International Building Code*® (2003 IBC)
- 2003 *International Residential Code*® (2003 IRC)
- 2000 *International Building Code*® (2000 IBC)
- 2000 *International Residential Code*® (2000 IRC)
- 1997 *Uniform Building Code*™ (UBC)
- BOCA® *National Building Code/1999* (NBBC)
- 1999 *Standard Building Code*® (SBC)

The NatureWood® and MicroPro™/Smart Sense® 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 and 2003 IBC, Sections R323 and R324 of the 2000 IRC, Sections R319 and R320 of the 2003 IRC, Section 2304 of the SBC, Section 2311 of the NBBC, and Section 2306 of the UBC.

Fasteners used with NatureWood® and MicroPro™/Smart Sense® preservative-treated wood products must be in accordance with Section 2304.9.5 of the 2000 and 2003 IBC, Section R323.3 of the 2000 IRC, Section R319.3 of the 2003 IRC, Section 2306.3 of the SBC, Section 2311.3.3 of the NBBC, and Section 2304.3 of the UBC, except that aluminum fasteners are also permitted with MP/SS.

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 AND SPECIES FOR NATUREWOOD® PRESERVATIVE-TREATED WOOD PRODUCTS BY END USE

NatureWood® Minimum Retention (pcf)		Species listed in Section 3.3.a and 3.3.d							Species listed in Section 3.3.b and 3.3.d			
		Sapwood Species							Heartwood Species			
Service Condition ³	PCF ⁴	Mixed Southern Pine Includes Plywood	Radiata Pine	Red Pine	Ponderosa Pine	Eastern White Pine	Caribbean Pine	German Scots Pine	Douglas-Fir Includes Plywood	Hem-Fir Includes Decking	Lodgepole Pine	Jack Pine
Above Ground Decking, Fencing	0.15	✓	✓	✓	✓	✓	✓	✓	NA	NA	NA	NA
Above Ground - General Use	0.20	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ground Contact - General Use	0.40	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ground Contact - Critical Structures - Foundation Use	0.60	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA	NA

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

²Minimum active retention expressed as CuO and quat.

³See Table 3 for description of Service Conditions.

⁴SI conversion: 1PCF = 16.02 kg/m³.

TABLE 2—MINIMUM PRESERVATIVE RETENTION REQUIREMENTS AND SPECIES FOR MICROPRO™/SMART SENSE® PRESERVATIVE-TREATED WOOD PRODUCTS BY END USE

MicroPro™ / SmartSense® Minimum Retention (pcf)		Species listed in Section 3.3.a and 3.3.d						Section 3.3.b and 3.3.d	
		Sapwood Species						Heartwood Species	
Service Condition ³	PCF ⁴	Mixed Southern Pine Includes Plywood	Radiata Pine	Red Pine	Ponderosa Pine	German Scots Pine	Caribbean Pine	Incised Hem Fir	Douglas-Fir Plywood
Above Ground Vertical Use Fence Boards and Pickets	0.10	✓	✓	✓	✓	✓	✓	✓	NA
Above Ground Decking, Fencing	0.15	✓	✓	✓	✓	✓	✓	✓	NA
Above Ground - General Use	0.15	✓	✓	✓	✓	✓	✓	✓	✓
Ground Contact - General Use	0.34	✓	✓	✓	✓	NA	✓	✓	✓
Ground Contact - Critical Structures - Foundation Use	0.60	✓	✓	✓	NA	NA	NA	NA	✓

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

²Minimum active retention expressed as CuO and quat.

³See Table 3 for description of Service Conditions.

⁴SI conversion: 1PCF = 16.02 kg/m³.

TABLE 3—TYPICAL APPLICATIONS FOR NATUREWOOD® AND MICROPRO™/SMART SENSE® PRESERVATIVE-TREATED WOOD PRODUCTS

SERVICE CONDITIONS	AWPA USE CATEGORY	TYPICAL APPLICATIONS
Above ground - decking	—	Decking, rails, spindles, lattice, other specialties
Above ground - general use	UC3B	Decking, rails, spindles, trim and fascia, framing, flooring, sill plates, trellises, gazebos, fencing
Ground and freshwater contact – general use	UC4A	Deck support posts, fence posts, retaining walls, docks
Ground contact - critical structural	UC4B	Permanent wood foundations, sawn and round building poles

TABLE 4—WOOD PRESERVATIVE TREATMENT LOCATIONS

LISTEE	WOOD PRESERVATIVE TREATMENT LOCATIONS
Aljoma Lumber, Inc.	Medley, FL
BB&S Treated Lumber of New England	North Kingstown, RI
Brackett Brothers Corp.	Morganton, NC
California Cascade Fontana, Inc.	Fontana, CA
Coastal Treated Products Co.	Weldon, NC Belington, WV Havana, FL Hopwood, PA Oxford, PA
Colonie Wood Treating & Stain	Albany, NY
Conasauga Wood Preservers	Conasauga, TN
D & D Wood Preserving, Inc.	Albany, GA
Eastex Forest Products	Houston, TX
Fortress Wood Products	Martinsville, VA Elizabeth City, NC Greensboro, NC
Perry Logistics dba Fortress Wood Products	Henderson, NC
Great Southern Wood-Bushnell, Inc.	Bushnell, FL
Great Southern Wood-Buckner, Inc.	Buckner, MO
Hixson Lumber Sales, Inc.	Magnolia, AR Caddo Hills, TX Hillsboro, IL Pine Bluff, AR Plumerville, AR Gilmer, TX Willis, TX Winnfield, LA
Hoover Treated Products	Thomson, GA Milford, VA Pine Bluff, AR Detroit, MI
Land O Lakes Wood Preserving Co.	Tenstrike, MN
Land & Sea Forest Products	Fairless Hills, PA
MG Building Materials	San Antonio, TX
Maine Wood Treaters	Mechanic Falls, ME
New South Wood Preserving, LLC	Camden, SC
New South Wood Preserving, LLC	Conway, SC
Potomac Supply Corporation	Kinsale, VA
Simmons Wood Products, Inc.	Albuquerque, NM
S.I. Storey Lumber Company	Armuchee, GA
Sunbelt Forest Products	Bartow, FL
Thomas Wood Preserving Company	Elliott, MS
TrueGuard, LLC	White City, OR Washougal, WA Loveland, CO Fort Collins, CO
Universal Forest Products	Auburndale, FL Granger, IN
Western Wood Preserving Co.	Sumner, WA
Western Wood Treating, Inc.	Woodland, CA
Wood Protection LP	Houston, TX
Woodstock, Inc.	West Branch, MI

**TABLE 5—LISTEES AND PRIVATE BRAND NAMES FOR EACH COMPANY FOR
WOOD TREATED WITH NATUREWOOD® AND MICROPRO/™SMART SENSE® WOOD PRESERVATIVES**

COMPANY	PRIVATE BRAND NAME	
	NatureWood®	MicroPro™/Smart Sense®
Osmose, Inc.		
Aljoma Lumber, Inc.,	Note 1	Note 1
BB&S Treated Lumber of New England	Note 1	Note 1
Brackett Brothers Corp.	Note 1	Note 1
Coastal Treated Products Co.	Note 1	Note 1
California Cascade Fontana, Inc.	Note 1	Note 1
Colonie Wood Treating & Stain	Note 1	Note 1
Conasauga Wood Preservers	Note 1	Note 1
D & D Wood Preserving, Inc.	Note 1	Note 1
Davis Brothers' Lumber Company	Note 1	Note 1
Eastex Forest Products	Top Choice	Note 1
Fortress Wood Products	Note 1	Note 1
Perry Logistics dba Fortress Wood Products, Henderson, NC	Note 1	Note 1
Great Southern Wood Preserving	Yella Wood and Thompsonized	Yella Wood
Hixson Lumber Sales	Top Choice	Note 1
Hoover Treated Products	Note 1	Note 1
Land O Lakes Wood Preserving Co.	Note 1	Note 1
Land & Sea Forest Products	Top Choice	Note 1
MG Building Materials	Note 1	Note 1
Maine Wood Treaters	Note 1	Note 1
New South Wood Preserving, LLC	Thompsonized and Top choice	Note 1
Potomac Supply Corp.	Great Deck and Top Choice	Note 1
S.I. Storey Lumber Co.	Note 1	Note 1
Simmons Wood Products, Inc.	Note 1	Note 1
Sunbelt Forest Products	Note 1	Note 1
Texas Forest Products	Note 1	Note 1
Thomas Wood Preserving Co.	Note 1	Note 1
TrueGuard, LLC	All Weather Deck and Top Choice	All Weather Deck
Universal Forest Products	ProWood ACQ ProWood Dry Thompsonized and Top choice	ProWood Micro ProWood Microshades ProWood Dry
Western Wood Preserving Co.	Note 1	Note 1
Western Wood Treating, Inc.	Note 1	Note 1
Wood Protection LP	Note 1	Note 1
Woodstock, Inc.	Note 1	Note 1

¹The private brand name shall be as noted for the report holder, Osmose, Inc.

NatureWood®

MicroPro® / Smart Sense®

NatureWood
PRESERVED WOOD PRODUCTS

UC3B
Copper Quaternary
Compounds

ABOVE GROUND

ESR-1980
MONITORED BY:
(INSPECTION AGENCY NAME)

WOOD TREATING COMPANY
CITY, STATE

Smart Sense
MicroPro

Micronized Copper Quaternary
Compounds

ABOVE GROUND

ESR-1980

MONITORED BY:
(INSPECTION AGENCY NAME)

Wood Treating Company
City, State

NatureWood
PRESERVED WOOD PRODUCTS

UC4A
Copper Quaternary
Compounds

GROUND CONTACT

ESR-1980
MONITORED BY:
(INSPECTION AGENCY NAME)

WOOD TREATING COMPANY
CITY, STATE

Smart Sense
MicroPro

Micronized Copper Quaternary
Compounds

GROUND CONTACT

ESR-1980

MONITORED BY:
(INSPECTION AGENCY NAME)

Wood Treating Company
City, State

NatureWood
PRESERVED WOOD PRODUCTS

UC4B
Copper Quaternary
Compounds

**GROUND CONTACT &
PERMANENT WOOD FOUNDATION**

KDAT

ESR-1980
MONITORED BY:
(INSPECTION AGENCY NAME)

WOOD TREATING COMPANY
CITY, STATE

Smart Sense
MicroPro

Micronized Copper Quaternary
Compounds

**GROUND CONTACT,
STRUCTURAL, &
PERMANENT WOOD FOUNDATION**

KDAT
ESR-1980

MONITORED BY:
(INSPECTION AGENCY NAME)

Wood Treating Company
City, State

NatureWood
PRESERVED WOOD PRODUCTS

Copper Quaternary
Compounds

DECKING USE

ESR-1980
MONITORED BY:
(INSPECTION AGENCY NAME)

WOOD TREATING COMPANY
CITY, STATE

FIGURE 1— SAMPLE PRODUCT LABELS
(Product must also be labeled with minimum retentions as specified in Tables 1 and 2)