

ICC-ES Evaluation Report

ESR-1834

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**DIVISION: 06 00 00—WOOD, PLASTICS AND
COMPOSITES**
Section: 06 05 73.13—Preservative Wood Treatment
Section: 06 05 83—Shop-Applied Wood Coatings
REPORT HOLDER:
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EVALUATION SUBJECT:
POSTSAVER® SYSTEM
1.0 EVALUATION SCOPE
Compliance with the following codes:

- 2012, 2009 and 2006 *International Building Code*® (IBC)
- 2012, 2009 and 2006 *International Residential Code*® (IRC)
- Other Codes (see Section 8.0)

Properties evaluated:

- Decay resistance
- Termite resistance

2.0 USES

The Postsaver® System is used as a barrier system for protection of sawn lumber posts and round posts used in ground-contact applications.

3.0 DESCRIPTION
3.1 General:

The Postsaver® System consists of a preformed polyethylene boot or a polyethylene spiral wrap and asphalt-based adhesive which is factory-applied to cover one end of wood posts. The system is used to protect solid-sawn lumber and engineered products made from solid-sawn lumber (glulam and nail-lam columns) from decay and termites and is used for both preservative-treated wood and nonpreservative-treated wood.

3.2 Materials:

3.2.1 Boot: The boot is a preformed polyethylene boot that is shrink-wrapped and adhered to one end of the wood posts as specified in Section 3.2.3. The polyethylene boot material is a minimum of 0.30 millimeter thick, complying with ASTM D4801.

3.2.2 Wrap: The wrap is a polyethylene strip that is spirally applied to one end of the wood posts so that there is a nominally 38-millimeter overlap (the overlap is a minimum of 31 mm or 1¼ inches) and the post butt ends are completely encased. The polyethylene strip is shrunk after wrapping and adhered as specified in Section 3.2.3. The polyethylene wrap material is a minimum of 0.30 millimeter thick, complying with ASTM D4801.

3.2.3 Asphalt-based Adhesive: One of the following adhesives is used:

3.2.3.1 Bitumen: Bitumen is applied to the inside of the boot as an interlayment to the wood post. The bitumen is liquified during the heat-shrinking process which penetrates the wood. The bitumen coverage rate is determined as a percent of the total surface area covered by the boot. The bitumen is prepared from asphalt complying with ASTM D312 or EN13304, Type 3, with an average minimum thickness of 0.25 millimeter.

3.2.3.2 Asphalt Emulsion: An asphalt emulsion is applied to the post as an interlayment to the boot or spiral wrap. The asphalt emulsion is liquified during the heat-shrinking process which penetrates the wood and boot. The emulsion prepared from asphalt must have a softening point of 90-110°F (32-43°C) in accordance with ASTM D36 and penetration of 180-220 units at 77°F (25°C) in accordance with ASTM D5.

3.2.4 Wood Posts: Wood post members, used in the manufacture of the Postsaver® System, are of any grade marked wood species of sawn lumber posts and round posts. The grade mark must be visible after fabrication for grades other than No. 2. When preservative-treated wood members are used, they must bear a quality mark by an accredited third-party inspection agency and the quality mark must be visible after fabrication. Engineered wood products, using solid-sawn lumber, must be evaluated in a current ICC-ES evaluation report and labeled by an accredited third-party inspection agency; and the label must be visible after fabrication.

4.0 INSTALLATION
4.1 General:

Postsaver® System fabricated wood posts are installed in accordance with this report and the manufacturer's published installation instructions.

The "ground level" is identified on the boot material or on the label. The posts are installed with the boot in the ground, and the top of the boot must be installed a minimum of 2 inches (51 mm) above exposed earth for preservative-treated posts and a minimum of 8 inches (203 mm) for nonpreservative-treated posts.

4.2 Applications:

The Postsaver[®] System fabricated wood posts are permitted for ground-contact locations requiring preservative-treated wood under the applicable code. The Postsaver[®] System is used to protect nonpreservative-treated wood posts used as interior supports in ground contact. The boot material must extend a minimum of 8 inches (203 mm) above exposed earth. The Postsaver system is also used to protect preservative-treated wood posts which are recognized for aboveground exterior use but are installed as support posts in ground contact.

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 2012 and 2009 IRC and Sections R319 and R320 of the 2006 IRC.

4.3 Structural:

The grade, size and shape of the wood members must comply with the applicable building code for their intended use. The structural analysis and design of the wood members must be in accordance with the applicable building code.

The maximum load duration factor allowed for Postsaver[®] System fabricated wood posts is 1.6, in accordance with Section 2.3 of the AF&PA, National Design Specification for Wood Construction (NDS).

5.0 CONDITIONS OF USE

The Postsaver[®] System fabricated wood posts 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 Installation must comply with this report, the manufacturer's published installation instructions and the applicable code. In the event of a conflict between the manufacturer's published installation instructions and this report, this report governs.
- 5.2 Penetration of the boot or wrap material below "Ground Level" on the post by fasteners, bolts and nails is not permitted.
- 5.3 The use of Postsaver[®] System fabricated wood posts is limited to the applications noted in Section 4.2.
- 5.4 Postsaver[®] System fabricated wood posts, using nonpreservative-treated wood members, are not permitted in applications where the untreated portions of the wood members are directly exposed to the weather.
- 5.5 Postsaver[®] System fabricated wood posts must not be installed in areas infested with Formosan termites.
- 5.6 Postsaver[®] System fabricated wood posts are manufactured by Advanced Solutions, LLC, in Lebanon, Pennsylvania, under a quality control program with inspections by Timber Products Inspection, Inc. (AA-664).

6.0 EVIDENCE SUBMITTED

Data in accordance with ICC-ES Acceptance Criteria for Barrier Systems for Protection of Wood Posts Against Decay and Termites, (AC313), dated May 2012.

7.0 IDENTIFICATION

Each Postsaver[®] System fabricated wood post covered by this report must bear a label with the name of the inspection agency (Timber Products Inspection, Inc.); the name of the report holder (Postsaver[®] USA); the name and address of the listee fabricating the product; ground level for installation and the evaluation report number (ESR-1834). A sample label is shown in Figure 1 of this report.

8.0 OTHER CODES

8.1 Evaluation Scope:

In addition to the codes referenced in Section 1.0, the product described in this report was evaluated for compliance with the requirements of the following 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)
- BOCA[®] *National Building Code/1999* (NBBC)
- 1999 *Standard Building Code*[®] (SBC)
- 1997 *Uniform Building Code*[™] (UBC)

The Postsaver[®] System described in this report complies with, or is a suitable alternative to what is specified in, the codes listed above, subject to the provisions of Section 8.2 through 8.7.

8.2 Uses:

See Section 2.0.

8.3 Description:

See Section 3.0.

8.4 Installation:

8.4.1 **General:** See Section 4.1.

8.4.2 **Applications:** See Section 4.2 except that the last paragraph is revised to read:

- **Under the 2003 IBC and the 2003 IRC:** Locations requiring preservative-treated wood for fungal decay or termite resistance are described in Section 2304.11 of the IBC or Sections R319 and R320 of the IRC.
- **Under the 2000 IBC and IRC:** Locations requiring preservative-treated wood for fungal decay or termite resistance are described in Section 2304.11 of the IBC or Sections R323 and R324 of the IRC.
- **Under the NBBC, SBC, and UBC:** Locations requiring preservative-treated wood for fungal decay or termite resistance are described in Section 2304 of the SBC, Section 2311 of the NBBC, or Section 2306 of the UBC, as applicable.

8.4.3 **Structural:** See Section 4.3, except that the maximum load duration factor under the UBC is 1.33.

8.5 Conditions of Use:

See Section 5.0.

8.6 Evidence Submitted:

See Section 6.0.

8.7 Identification:

See Section 7.0.

2011	2012
POSTSAVER [®] USA ESR-1834	Manufacturer Name Location
Minimum distance from top of boot to ground level (exposed earth) is: 2 inches if post is preservative-treated 8 inches if post is nonpreservative-treated	
Quality Monitored by Timber Products Inspection	

¹The marks may appear in the form of indelible ink stamps, burn branding, noncorrosive metal tags, paper or vinyl tags, stencil or other approved methods. Copies of these marks will be on file at Postsaver[®] USA and the agency offices.

FIGURE 1—SAMPLE LABEL