

# Listing and Technical Evaluation Report™

A Duly Authenticated Report from an Approved Agency

Report No: 1501-01



Issue Date: July 16, 2018

Revision Date: July 11, 2025

Subject to Renewal: October 1, 2026

## PostSaver® System for Use with Sawn Lumber and Round Posts in Ground Contact Applications

Trade Secret Report Holder:

**Planet Saver Industries, LLC**

Phone: 610-377-3270

Website: [www.planetsaverind.com](http://www.planetsaverind.com)

Email: [barry@planetsaverind.com](mailto:barry@planetsaverind.com)

### CSI Designations:

DIVISION: 06 00 00 - WOOD, PLASTICS AND COMPOSITES

Section: 06 05 83 - Shop-Applied Wood Coating

Section: 06 11 00 - Wood Framing

## 1 Innovative Product Evaluated<sup>1</sup>

### 1.1 PostSaver System

1.1.1 PostSaver System may be marketed with one of the following names:

1.1.1.1 PostSaver® USA

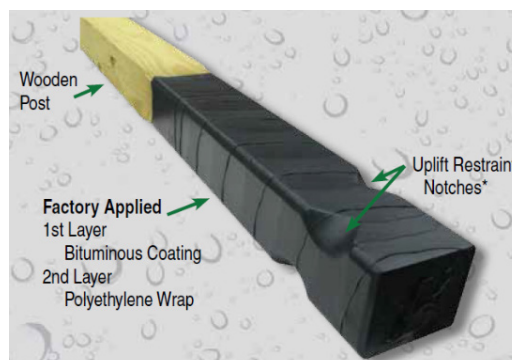
1.1.1.2 SmartPost™

1.1.1.3 GreenPost™

## 2 Product Description and Materials

2.1 The PostSaver System is a factory-applied polyethylene wrap for wood posts and columns that provides protection from decay and termites when applied to one end of preservative-treated or non-preservative treated solid sawn lumber and engineered products made from solid-sawn lumber (e.g., glulam or built-up sawn lumber posts/columns).

2.2 The innovative product evaluated in this report is shown in **Figure 1**.



**Figure 1. PostSaver System**



## 2.3 Materials

### 2.3.1 Wrap:

- 2.3.1.1 Polyethylene sheathing is applied in a spiral technique, with a 1½" overlap (minimum 1¼"), and shrink-wrapped to the bottom of the wood post. Minimum is 0.012" thick (0.30 mm) in accordance with ASTM D4801 and ASTM D4976.

### 2.3.2 Adhesive:

#### 2.3.2.1 Seaboard Modified Emulsion Coating EF-400:

- 2.3.2.1.1 Seaboard EF-400 is an asphalt-based latex modified clay emulsion coating that complies with IBC Section 1805.3.2 and IRC Section R406.2.
  - 2.3.2.1.1.1 Application shall be in accordance with **Section 2.3.2.1.3**. Maximum hydrostatic pressure shall be 2.5 psi (17.2 kPa) when cracks are 1/16" maximum in width.
- 2.3.2.1.2 When applied to exterior surfaces, provides waterproofing in areas where:
  - 2.3.2.1.2.1 Ground-water investigation per IBC Section 1803.5.4 determines hydrostatic pressure conditions exist.
  - 2.3.2.1.2.2 A high water table or other severe soil-water conditions are known to exist per IRC Section R406.2.
- 2.3.2.1.3 The coating is applied to the inside of the polyethylene boot prior to installation on post with minimum thickness of 60-mil (1.5 mm) wet film thickness or 0.040" (1.02 mm) dry. The EF-400 coating is applied at a minimum ambient temperature of 40° F and allowed to cure for 24 hours.

### 2.3.3 Wood Post Members:

- 2.3.3.1 Any grade wood post may be used, but the grade mark shall be visible after fabrication. Preservative-treated and engineered wood must feature a quality label from an accredited third-party inspection agency and the label must be visible at all times.

## 2.4 PostSaver System applied to preservative-treated wood products are acceptable for use in the following AWPAC Use Categories,<sup>2</sup> in accordance with AWPAC U1:

- 2.4.1 **UC4A Ground Contact:** General Use/Non-Critical Component. Typical applications include fence posts, deck posts, guardrail posts, and utility poles located in regions of low natural potential for wood decay and insect attack.
- 2.4.2 **UC4B Ground Contact:** Heavy Duty/Critical Components. Typical applications include building poles, horticultural posts, and utility poles located in regions of high natural potential for wood decay and insect attack.

## 2.5 As needed, review material properties for design in **Section 6** and the regulatory evaluation in **Section 8**.

## 3 Definitions<sup>3</sup>

- 3.1 New Materials<sup>4</sup> are defined as building materials, equipment, appliances, systems, or methods of construction, not provided for by prescriptive and/or legislatively adopted regulations, known as alternative materials.<sup>5</sup> The design strength and permissible stresses shall be established by tests<sup>6</sup> and/or engineering analysis.<sup>7</sup>
- 3.2 Duly authenticated reports<sup>8</sup> and research reports<sup>9</sup> are test reports and related engineering evaluations that are written by an approved agency<sup>10</sup> and/or an approved source.<sup>11</sup>
  - 3.2.1 These reports utilize intellectual property and/or trade secrets to create public domain material properties for commercial end-use.
    - 3.2.1.1 This report protects confidential Intellectual Property and trade secrets under the regulation, 18.U.S.Code.90, also known as Defend Trade Secrets Act of 2016 (DTSA).<sup>12</sup>



- 3.3 An approved agency is “approved” when it is ANAB ISO/IEC 17065 accredited. DrJ Engineering, LLC (DrJ) is accredited and listed in the ANAB directory.
- 3.4 An approved source is “approved” when a professional engineer (i.e., Registered Design Professional, hereinafter RDP) is properly licensed to transact engineering commerce. The regulatory authority governing approved sources is the state legislature via its professional engineering regulations.<sup>13</sup>
- 3.5 Testing and/or inspections conducted for this duly authenticated report were performed by an ISO/IEC 17025 accredited testing laboratory, an ISO/IEC 17020 accredited inspection body, and/or a licensed RDP.
- 3.5.1 The Center for Building Innovation (CBI) is ANAB<sup>14</sup> ISO/IEC 17025 and ISO/IEC 17020 accredited.
- 3.6 The regulatory authority shall enforce<sup>15</sup> the specific provisions of each legislatively adopted regulation. If there is a non-conformance, the specific regulatory section and language of the non-conformance shall be provided in writing<sup>16</sup> stating the nonconformance and the path to its cure.
- 3.7 The regulatory authority shall accept duly authenticated reports from an approved agency and/or an approved source with respect to the quality and manner of use of new materials or assemblies as provided for in regulations regarding the use of alternative materials, designs, or methods of construction.<sup>17</sup>
- 3.8 ANAB is an International Accreditation Forum (IAF) Multilateral Recognition Arrangement (MLA) signatory. Therefore, recognition of certificates and validation statements issued by conformity assessment bodies accredited by all other signatories of the IAF MLA with the appropriate scope shall be approved.<sup>18</sup> Thus, all ANAB ISO/IEC 17065 duly authenticated reports are approval equivalent,<sup>19</sup> and can be used in any country that is an MLA signatory found at this link: <https://iaf.nu/en/recognised-abs/>
- 3.9 Approval equity is a fundamental commercial and legal principle.<sup>20</sup>

#### 4 Applicable Local, State, and Federal Approvals; Standards; Regulations<sup>21</sup>

##### 4.1 Local, State, and Federal

- 4.1.1 Approved in all local jurisdictions pursuant to ISO/IEC 17065 duly authenticated report use, which includes the following featured local jurisdictions and is not limited to: Austin, Baltimore, Broward County, Chicago, Clark County, Dade County, Dallas, Detroit, Denver, DuPage County, Fort Worth, Houston, Kansas City, King County, Knoxville, Las Vegas, Los Angeles City, Los Angeles County, Miami, Nashville, New York City, Omaha, Philadelphia, Phoenix, Portland, San Antonio, San Diego, San Jose, San Francisco, Seattle, Sioux Falls, South Holland, Texas Department of Insurance, and Wichita.<sup>22</sup>
- 4.1.2 Approved in all state jurisdictions pursuant to ISO/IEC 17065 duly authenticated report use, which includes the following featured states, and is not limited to, California, Florida, New Jersey, Oregon, New York, Texas, Washington, and Wisconsin.<sup>23</sup>
- 4.1.3 Approved by the Code of Federal Regulations Manufactured Home Construction: Pursuant to Title 24, Subtitle B, Chapter XX, Part 3282.14<sup>24</sup> and Part 3280<sup>25</sup> pursuant to the use of ISO/IEC 17065 duly authenticated reports.
- 4.1.4 Approved means complying with the requirements of local, state, or federal legislation.

##### 4.2 Standards

- 4.2.1 *ANSI/AWC NDS: National Design Specification (NDS) for Wood Construction*
- 4.2.2 *ASTM D143: Standard Test Methods for Small Clear Specimens of Timber*
- 4.2.3 *ASTM D312: Specification for Asphalt Used in Roofing*
- 4.2.4 *ASTM D1204: Standard Test Method for Linear Dimensional Changes of Nonrigid Thermoplastic Sheet or Film at Elevated Temperature*
- 4.2.5 *ASTM D4801: Standard Specification for Polyethylene Sheet in Thickness of 0.25 mm (0.01 in.) and Greater*
- 4.2.6 *ASTM D4976: Standard Specification for Polyethylene Plastics Molding and Extrusion Materials*



- 4.2.7 *AWPA E1: Laboratory Methods for Evaluating the Termite Resistance of Wood-based Materials: Choice and No-choice Tests*
- 4.2.8 *AWPA P20: All Barrier Protection Systems*
- 4.2.9 *AWPA U1: Use Category System: User Specification for Treated Wood*
- 4.2.10 *EN 252: Field test method for determining the relative protective effectiveness of a wood preservative in ground contact*
- 4.2.11 *ENV 807: Wood preservatives. Determination of the effectiveness against soft rotting micro-fungi and other soil inhabiting micro-organisms*

#### 4.3 Regulations

- 4.3.1 *IBC – 15, 18, 21, 24: International Building Code®*
- 4.3.2 *IRC – 15, 18, 21, 24: International Residential Code®*

### 5 Listed<sup>26</sup>

- 5.1 Equipment, materials, products, or services included in a List published by a nationally recognized testing laboratory (i.e., CBI), an approved agency (i.e., CBI and DrJ), and/or an approved source (i.e., DrJ), or other organization(s) concerned with product evaluation (i.e., DrJ), that maintains periodic inspection (i.e., CBI) of production of listed equipment or materials, and whose listing states either that the equipment or material meets nationally recognized standards or has been tested and found suitable for use in a specified manner.

### 6 Tabulated Properties Generated from Nationally Recognized Standards

#### 6.1 General

- 6.1.1 The PostSaver System provides protection to non-preservative treated and preservative-treated wood posts and columns that are used in ground contact applications. Non-preservative treated wood posts and columns protected with the PostSaver System shall only be used in applications where the building code does not require the above ground portion of the member to be preservative-treated (i.e., covered conditions or applications not exposed to weather).
- 6.1.2 Wood members shall comply with all applicable building codes for each application and the design shall be based on the requirements of each individual application.
- 6.1.3 Duration of load increases shall be in accordance with the limitations of the applicable building code, but not greater than 1.6 in accordance with NDS Section 2.3.
- 6.1.4 Where the application exceeds the limitations set forth herein, design shall be permitted in accordance with accepted engineering procedures, experience, and technical judgment.

#### 6.2 Decay

- 6.2.1 PostSaver System was tested in accordance with EN 252 and ENV 807 for decay. No decay was reported in any of the wrapped stakes at the five year mark of the EN 252 test plan. Wrapping in the ENV 807 testing provided an adequate barrier to prevent moisture intrusion or access to air, which are required in decay.

#### 6.3 Termite Resistance

- 6.3.1 PostSaver System was tested in accordance with AWPA E1 for termite resistance. Results indicated termites did not feed on wrapped wood even in the absence of other sources of food.



#### 6.4 *Dynamic Impact Performance*

- 6.4.1 As part of EN 252 testing, field stakes were purposely punctured/cut in an effort to show equivalent performance to intact barrier stakes after five years of exposure to below-grade contact. Test results confirm those stakes with deliberate punctures/cuts performed as well as those stakes left intact and all exhibited no sign of fungal attack.

#### 6.5 *Strength*

- 6.5.1 As an alternative to ASTM D143 testing, PostSaver System was analyzed by an independent engineer for the ability of the lumber to retain strength properties after being subjected to high heat during the heat shrink process of installing the polyethylene wrap. The conclusion of the analysis letter states:

New posts on which PostSaver System boots have been installed according to the manufacturer recommended procedures, will not have impaired structural strength compared to either untreated or preservative-treated posts of the same species, quality, and dimensions.

#### 6.6 *Ground Contact Condition in Residential Wood Foundations*

- 6.6.1 PostSaver System meets Special Requirement 4.2 in AWP A U1 (see **Section 2.4**) for use in wood foundation systems with a ground contact condition, in accordance with IRC Section R402.1.2.<sup>27</sup>

#### 6.7 *Uplift Resistance*

- 6.7.1 For structural applications, embedded wood posts, either in earth or in concrete footings, shall be designed to resist axial loads as specified in IBC Section 1807.3.
- 6.7.1.1 See **Appendix A** for details regarding uplift resistance performance.
- 6.7.1.2 In accordance with IBC Section 1807.3.1 Item 2, posts embedded in earth shall not be used to provide lateral support for structural or non-structural materials such as plaster, masonry, or concrete, unless bracing is provided that develops the limited deflection required.
- 6.7.1.2.1 This application is outside the scope of this report.
- 6.8 Where the application falls outside of the performance evaluation, conditions of use, and/or installation requirements set forth herein, alternative techniques shall be permitted in accordance with accepted engineering practice and experience. This includes but is not limited to the following areas of engineering: mechanics or materials, structural, building science, and fire science.

### 7 **Certified Performance**<sup>28</sup>

- 7.1 All construction methods shall conform to accepted engineering practices to ensure durable, livable, and safe construction and shall demonstrate acceptable workmanship reflecting journeyman quality of work of the various trades.<sup>29</sup>
- 7.2 The strength and rigidity of the component parts and/or the integrated structure shall be determined by engineering analysis or by suitable load tests to simulate the actual loads and conditions of application that occur.<sup>30</sup>

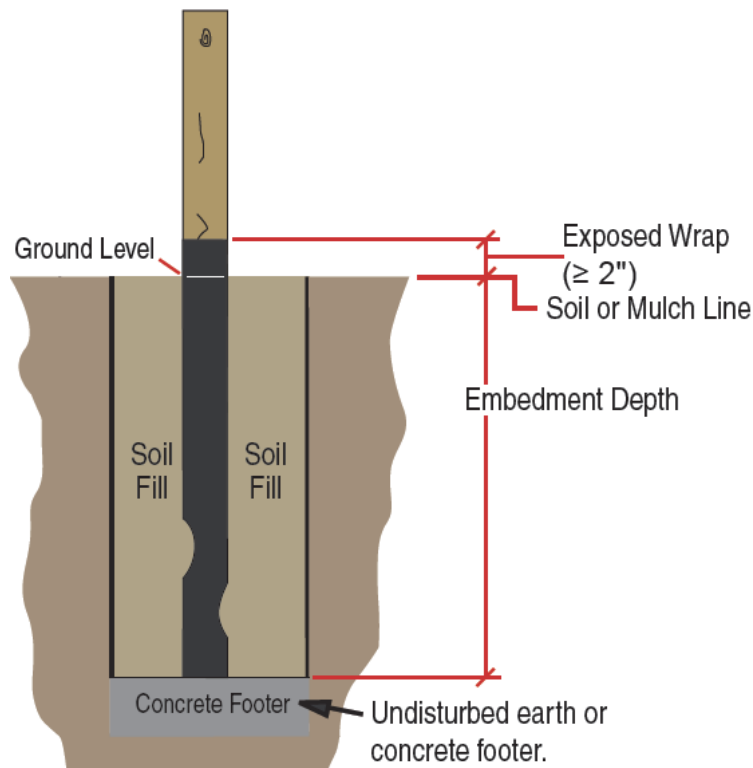
### 8 **Regulatory Evaluation and Accepted Engineering Practice**

- 8.1 PostSaver System complies with the following legislatively adopted regulations and/or accepted engineering practice for the following reasons:
- 8.1.1 PostSaver System has been evaluated to determine its suitability as a barrier system for protection of sawn lumber and round posts used in ground-contact applications where it is required by code to provide the following:
- 8.1.1.1 Weather resistance in accordance with AWP A E1 and EN 252
- 8.1.1.2 Resistance to fungal decay as required by IBC Section 2304.12 and IRC Section R304

- 8.1.1.3 Protection from subterranean termites where required by IBC Section 2304.12 and IRC Section R305
- 8.1.1.4 Dynamic impact performance in accordance with EN 252
- 8.1.1.5 Strength retention of lumber in barrier system in accordance with ASTM D143
- 8.2 Any building code, regulation and/or accepted engineering evaluations (i.e., research reports, duly authenticated reports, etc.) that are conducted for this Listing were performed by DrJ, which is an ISO/IEC 17065 accredited certification body and a professional engineering company operated by RDP or approved sources. DrJ is qualified<sup>31</sup> to practice product and regulatory compliance services within its scope of accreditation and engineering expertise,<sup>32</sup> respectively.
- 8.3 Engineering evaluations are conducted with DrJ's ANAB accredited ICS code scope of expertise, which is also its areas of professional engineering competence.
- 8.4 Any regulation specific issues not addressed in this section are outside the scope of this report.

## 9 Installation

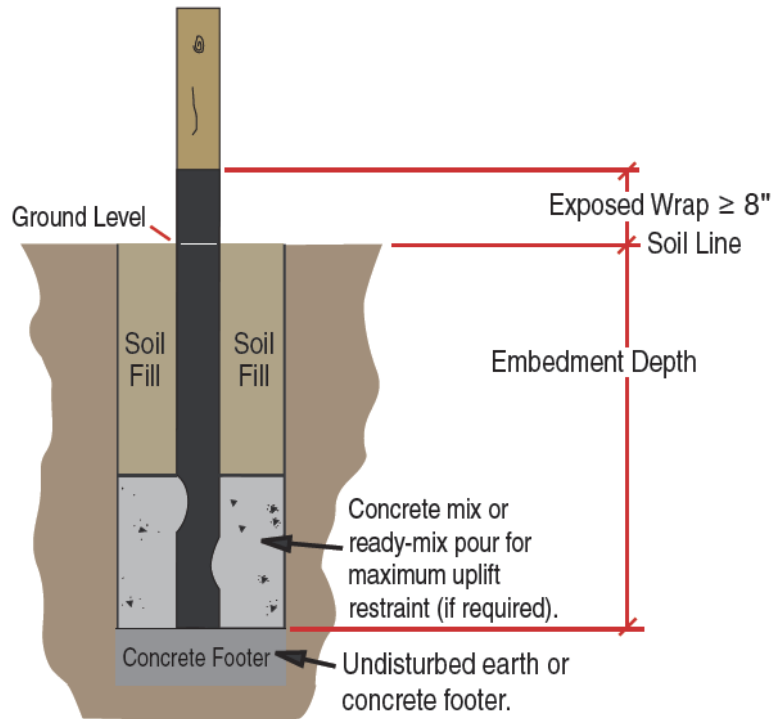
- 9.1 Installation shall comply with the approved construction documents, the manufacturer installation instructions, this report, and the applicable building code.
- 9.2 In the event of a conflict between the manufacturer installation instructions and this report, contact the manufacturer for counsel on the proper installation method.
- 9.3 *General*
  - 9.3.1 For non-structural applications such as fence posts, mailbox posts, or signposts, the top of the PostSaver System wrap must be a minimum of 2" above the ground level or concrete surface line (see **Figure 2**).
  - 9.3.1.1 **Note:** Uplift Restraint Notches in bottom of the post are enlarged for illustration purposes in the details below.



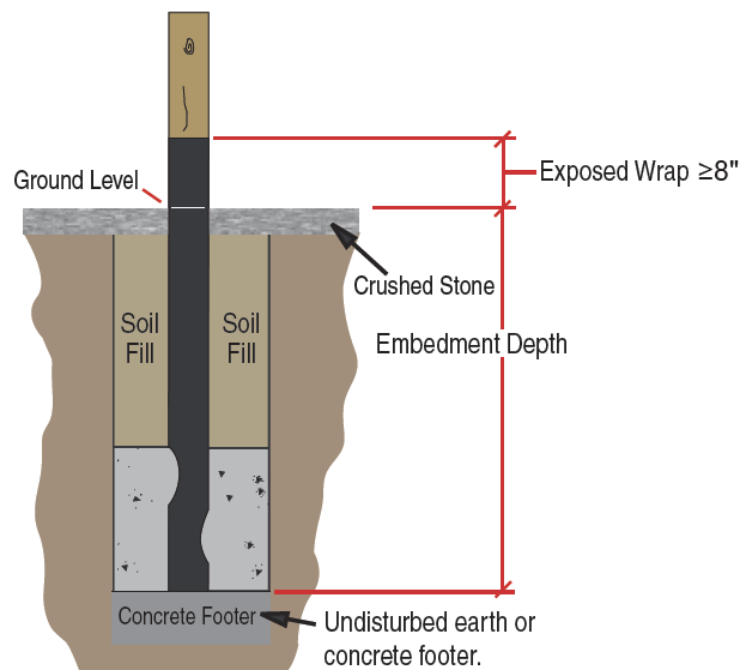
**Figure 2.** Section View for Non-Structural Applications



- 9.3.2 For structural applications requiring building code compliance such as support columns for post-frame construction, the top of the PostSaver System wrap must be a minimum of 8" above the ground level (see **Figure 3** and **Figure 4**).

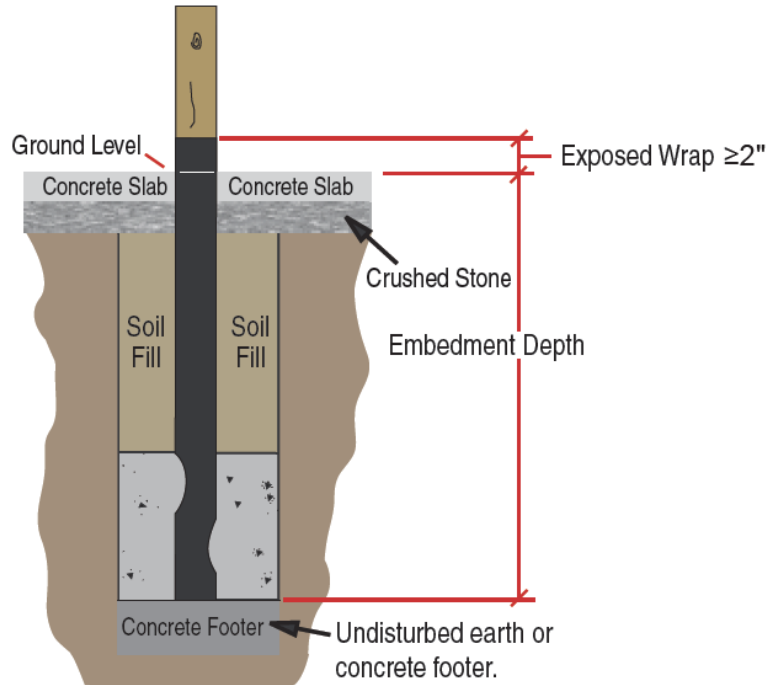


**Figure 3.** Section View for Structural Application with Exposed Soil



**Figure 4.** Section View for Structural Application with Crushed Stone

- 9.3.3 If a concrete slab is installed, the top of the PostSaver System wrap must be a minimum of 2" above the top of the concrete surface line (see **Figure 5**).



**Figure 5.** Section View for Structural Application with Concrete Slab

## 10 Substantiating Data

- 10.1 Testing has been performed under the supervision of a professional engineer and/or under the requirements of ISO/IEC 17025 as follows:
- 10.1.1 Rate of decay in preservative-treated wood stakes and dynamic impact performance in accordance with EN 252
  - 10.1.2 Prevention of decay by soil-inhabiting microflora in accordance with ENV 807
  - 10.1.3 Termite resistance in accordance with AWPA E1
  - 10.1.4 Professional engineering letter regarding AWPA E10
  - 10.1.5 Professional engineering letter regarding the PostSaver System process heat effects on post strength.
- 10.2 Information contained herein may include the result of testing and/or data analysis by sources that are approved agencies, approved sources, and/or an RDP. Accuracy of external test data and resulting analysis is relied upon.
- 10.3 Where applicable, testing and/or engineering analysis are based upon provisions that have been codified into law through state or local adoption of regulations and standards. The developers of these regulations and standards are responsible for the reliability of published content. DrJ's engineering practice may use a regulation-adopted provision as the control. A regulation-endorsed control versus a simulation of the conditions of application to occur establishes a new material as being equivalent to the regulatory provision in terms of quality, strength, effectiveness, fire resistance, durability, and safety.





- 10.4 The accuracy of the provisions provided herein may be reliant upon the published properties of raw materials, which are defined by the grade mark, grade stamp, mill certificate, or duly authenticated reports from approved agencies and/or approved sources provided by the supplier. These are presumed to be minimum properties and relied upon to be accurate. The reliability of DrJ's engineering practice, as contained in this duly authenticated report, may be dependent upon published design properties by others.
- 10.5 *Testing and Engineering Analysis:*
- 10.5.1 The strength, rigidity, and/or general performance of component parts and/or the integrated structure are determined by suitable tests that simulate the actual conditions of application that occur and/or by accepted engineering practice and experience.<sup>33</sup>
- 10.6 Where additional condition of use and/or regulatory compliance information is required, please search for PostSaver System on the DrJ Certification website.

## 11 Findings

- 11.1 As outlined in **Section 6**, the PostSaver System has performance characteristics that were tested and/or meet applicable regulations. In addition, they are suitable for use pursuant to its specified purpose.
- 11.2 When used and installed in accordance with this duly authenticated report and the manufacturer installation instructions, the PostSaver System shall be approved for the following applications:
- 11.2.1 Resistance to fungal decay as required by IBC Section 2304.12 and IRC Section R304
- 11.2.2 Protection from subterranean termites where required by IBC Section 2304.12 and IRC Section R305
- 11.2.3 Weather resistance in accordance with AWP A E1, AWP A P20, and EN 252
- 11.2.4 Dynamic impact performance in accordance with EN 252
- 11.2.5 Strength retention of lumber in barrier system
- 11.2.6 Residential foundation application with a ground contact condition
- 11.3 Any application specific issues not addressed herein can be engineered by an RDP. Assistance with engineering is available from Planet Saver Industries, LLC.
- 11.4 IBC Section 104.2.3<sup>34</sup> (IRC Section R104.2.2<sup>35</sup> and IFC Section 104.2.3<sup>36</sup> are similar) in pertinent part state:
- 104.2.3 Alternative Materials, Design and Methods of Construction and Equipment.** The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative is not specifically prohibited by this code and has been approved.
- 11.5 **Approved:**<sup>37</sup> Building regulations require that the building official shall accept duly authenticated reports.<sup>38</sup>
- 11.5.1 An approved agency is "approved" when it is ANAB ISO/IEC 17065 accredited.
- 11.5.2 An approved source is "approved" when an RDP is properly licensed to transact engineering commerce.
- 11.5.3 Federal law, Title 18 US Code Section 242, requires that, where the alternative product, material, service, design, assembly, and/or method of construction is not approved, the building official shall respond in writing, stating the reasons why the alternative was not approved. Denial without written reason deprives a protected right to free and fair competition in the marketplace.
- 11.6 DrJ is a licensed engineering company, employs licensed RDPs and is an ANAB Accredited Product Certification Body – Accreditation #1131.
- 11.7 Through the IAF Multilateral Arrangement (MLA), this duly authenticated report can be used to obtain product approval in any jurisdiction or country because all ANAB ISO/IEC 17065 duly authenticated reports are equivalent.<sup>39</sup>



## 12 Conditions of Use

- 12.1 Material properties shall not fall outside the boundaries defined in **Section 6**.
- 12.2 As defined in **Section 6**, where material and/or engineering mechanics properties are created for load resisting design purposes, the resistance to the applied load shall not exceed the ability of the defined properties to resist those loads using the principles of accepted engineering practice.
- 12.3 As listed herein, PostSaver System shall not be used in areas where exposure to Formosan subterranean termites is expected.<sup>40</sup>
- 12.4 Do not drop or dump PostSaver System products when unloading. Do not pick up the wrapped/barrier area of the post with a forklift or crane.
- 12.5 Take all normal precautions to not damage the lumber material when handling. Do not use chains to unload material.
- 12.6 Protect the wooden posts by keeping them off the ground when storing on a jobsite.
- 12.7 Always protect the wrapped/barrier area from excessive heat.
- 12.8 Do not apply banding on the wrapped/barrier area of the posts.
- 12.9 Penetration of the wrap material below ground level by fasteners, bolts, or nails is not permitted. Fastener penetration of the wrap material is permitted as long as it is at least 2" above ground level and there is no direct exposure to weather.
- 12.10 Use of PostSaver System with non-preserved treated wood is not permitted in applications where untreated areas of the wood are subject to direct exposure to the weather.
- 12.11 Use in tropical climate zones is outside the scope of this report.
- 12.12 When required by adopted legislation and enforced by the building official, also known as the Authority Having Jurisdiction (AHJ) in which the project is to be constructed:
  - 12.12.1 Any calculations incorporated into the construction documents shall conform to accepted engineering practice and, when prepared by an approved source, shall be approved when signed and sealed.
  - 12.12.2 This report and the installation instructions shall be submitted at the time of permit application.
  - 12.12.3 This innovative product has an internal quality control program and a third-party quality assurance program.
  - 12.12.4 At a minimum, this innovative product shall be installed per **Section 9**.
  - 12.12.5 The review of this report by the AHJ shall comply with IBC Section 104.2.3.2 and IBC Section 105.3.1.
  - 12.12.6 This innovative product has an internal quality control program and a third party quality assurance program in accordance with IBC Section 104.7.2, IBC Section 110.4, IBC Section 1703, IRC Section R104.7.2, and IRC Section R109.2.
  - 12.12.7 The application of this innovative product in the context of this report is dependent upon the accuracy of the construction documents, implementation of installation instructions, inspection as required by IBC Section 110.3, IRC Section R109.2, and any other regulatory requirements that may apply.
- 12.13 The approval of this report by the AHJ shall comply with IBC Section 1707.1, where legislation states in part, *"the building official shall make, or cause to be made, the necessary tests and investigations; or the building official shall accept duly authenticated reports from approved agencies in respect to the quality and manner of use of new materials or assemblies as provided for in Section 104.2.3",* all of IBC Section 104, and IBC Section 105.3.
- 12.14 Design loads shall be determined in accordance with the regulations adopted by the jurisdiction in which the project is to be constructed and/or by the building designer (i.e., owner or RDP).
- 12.15 The actual design, suitability, and use of this report for any particular building, is the responsibility of the owner or the authorized agent of the owner.



### 13 Identification

- 13.1 The innovative product listed in **Section 1.1** is identified by a label on the board or packaging material bearing the manufacturer name, product name, this report number, and other information to confirm code compliance.
- 13.2 Additional technical information can be found at [www.planetsaverind.com](http://www.planetsaverind.com).

### 14 Review Schedule

- 14.1 This report is subject to periodic review and revision. For the latest version, visit [www.drjcertification.org](http://www.drjcertification.org).
- 14.2 For information on the status of this report, please contact [DrJ Certification](#).



## Appendix A

### PostSaver System Uplift Resistance

#### 1 PostSaver System Uplift Resistance

1.1 Allowable uplift resistances are provided in **Table 1**.

1.1.1 Values are based on the weight of the concrete footing and the weight of the backfill soil.

**Table 1.** Allowable Uplift Resistance<sup>1,2,3,4,5</sup>

Embedment, De (ft)	Allowable Uplift (lb)					
	Diameter of Concrete Footing (in)					
	12	16	18	20	24	30
1/2	165	330	430	545	805	1,290
1	200	395	515	650	955	1,520
1 1/2	240	465	600	750	1,105	1,755
2	275	530	685	855	1,255	1,985
2 1/2	315	595	770	960	1,405	2,070
3	350	660	850	1,065	1,550	2,070
3 1/2	390	730	935	1,165	1,700	2,070
4	425	795	1,020	1,270	1,850	2,070
4 1/2	465	860	1,105	1,375	2,000	2,070
5	500	930	1,185	1,475	2,070	2,070
5 1/2	535	995	1,270	1,580	2,070	2,070
6	575	1,060	1,355	1,685	2,070	2,070
6 1/2	610	1,125	1,440	1,790	2,070	2,070
7	650	1,195	1,525	1,890	2,070	2,070
7 1/2	685	1,260	1,605	1,995	2,070	2,070
8	725	1,325	1,690	2,070	2,070	2,070

SI: 1 in = 25.4 mm, 1 ft = 0.305m, 1 lb = 4.45 N

- Bulk density of the concrete assumed to be 135 lb/ft<sup>3</sup> as specified in ASTM C90. Compressive strength,  $f_c$ , of concrete shall be 3,000 psi.
- Unit weight of the backfill soil assumed to be 95 lb/ft<sup>3</sup>.
- Thickness of concrete footing shall be 20 in minimum.
- Allowable values based on load duration factor of 1.6
- Post lumber Southern Pine (SP) No. 2 or better. Post can be the following: 4 x 6, 6 x 6, 3-ply 2 x 6, 4-ply 2 x 6.



## Notes

- 1 For more information, visit [drjcertification.org](http://drjcertification.org) or call us at 608-310-6748.
- 2 These are AWPAs designated wood preservation systems and retentions that have been determined to be effective in protecting wood products under specified exposure conditions. The strength of the UCS and its focus is that all wood uses can be placed into one of five major Use Categories that clearly describe the exposure conditions that specific wood products can be subjected to in service. The major Use Categories are further broken down into sub-categories to define the associated degree of biodegradation hazard and product service life expectations for specific products and exposure conditions. The Use Category system is designed to help specifiers and product users locate the appropriate AWPAs Standards that specifies preservatives deemed acceptable for specific products and end-use environments.
- 3 Capitalized terms and responsibilities are defined pursuant to the applicable building code, applicable reference standards, the latest edition of [TPI 1](#), the [NDS](#), [AISI S202](#), [US professional engineering law](#), [Canadian building code](#), [Canada professional engineering law](#), [Qualtim External Appendix A: Definitions/Commentary](#), [Qualtim External Appendix B: Project/Deliverables](#), [Qualtim External Appendix C: Intellectual Property and Trade Secrets](#), definitions created within Design Drawings and/or definitions within Reference Sheets. Beyond this, terms not defined shall have ordinarily accepted meanings as the context implies. Words used in the present tense include the future; words stated in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural, the singular.
- 4 <https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1702>
- 5 Alternative Materials, Design and Methods of Construction and Equipment: The provisions of any regulation code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by a regulation. Please review <https://www.justice.gov/atr/mission> and <https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#104.2.3>
- 6 <https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1706.2~:text=the%20design%20strengths%20and%20permissible%20stresses%20shall%20be%20established%20by%20tests>
- 7 The design strengths and permissible stresses of any structural material shall conform to the specifications and methods of design of accepted engineering practice. <https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1706.1~:text=Conformance%20to%20Standards-.The%20design%20strengths%20and%20permissible%20stresses-.of%20any%20structural>
- 8 <https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1707.1~:text=the%20building%20official%20shall%20make%2C%20or%20cause%20to%20be%20made%2C%20the%20necessary%20tests%20and%20investigations%3B%20or%20the%20building%20official%20shall%20accept%20duly%20authenticated%20reports%20from%20approved%20agencies%20in%20respect%20to%20the%20quality%20and%20manner%20of%20use%20of%20new%20materials%20or%20assemblies%20as%20provided%20for%20in%20Section%20104.2.3>
- 9 <https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1703.4.2>
- 10 [https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#approved\\_agency](https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#approved_agency)
- 11 [https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#approved\\_source](https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#approved_source)
- 12 <https://www.law.cornell.edu/uscode/text/18/1832> (b) Any organization that commits any offense described in subsection (a) shall be fined not more than the greater of \$5,000,000 or 3 times the value of the stolen trade secret to the organization, including expenses for research and design and other costs of reproducing the trade secret that the organization has thereby avoided. The federal government and each state have a [public records act](#). To follow DTSA and comply state public records and trade secret legislation requires approval through ANAB ISO/IEC 17065 accredited certification bodies or approved sources. For more information, please review this website: [Intellectual Property and Trade Secrets](#).
- 13 <https://www.nspe.org/resources/issues-and-advocacy/professional-policies-and-position-statements/regulation-professional> AND <https://apassociation.org/list-of-engineering-boards-in-each-state-archive/>
- 14 <https://www.cbiteest.com/accreditation/>
- 15 <https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#104.1~:text=directed%20to%20enforce%20the%20provisions%20of%20this%20code>
- 16 <https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#104.2.3> AND <https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#105.3.1>
- 17 <https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1707.1>
- 18 <https://iaf.nu/en/about-iaf-mla/#~:text=Once%20an%20accreditation%20body%20is%20a%20signatory%20of%20the%20IAF%20MLA%2C%20it%20is%20required%20to%20recognise%20certificates%20and%20validation%20and%20verification%20statements%20issued%20by%20conformity%20assessment%20bodies%20accredited%20by%20all%20other%20signatories%20of%20the%20IAF%20MLA%2C%20with%20the%20appropriate%20scope>
- 19 True for all ANAB accredited product evaluation agencies and all International Trade Agreements.
- 20 <https://www.justice.gov/crt/deprivation-rights-under-color-law> AND <https://www.justice.gov/atr/mission>
- 21 Unless otherwise noted, the links referenced herein use un-amended versions of the 2024 International Code Council (ICC) 2024 International Code Council (ICC) model codes as foundation references. Mississippi versions of the [IBC 2024](#) and the [IRC 2024](#) are un-amended. This material, product, design, service and/or method of construction also complies with the 2000-2012 versions of the referenced codes and the standards referenced therein. As pertinent to this technical and code compliance evaluation, CBI and/or DrJ staff have reviewed any state or local regulatory amendments to assure this report is in compliance.
- 22 See [Adoptions by Publisher](#) for the latest adoption of a non-amended or amended model code by the local jurisdiction. <https://up.codes/codes/general>
- 23 See [Adoptions by Publisher](#) for the latest adoption of a non-amended or amended model code by state. <https://up.codes/codes/general>
- 24 <https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3282/subpart-A/section-3282.14>
- 25 <https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280>
- 26 <https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280#p-3280.2> (Listed%20or%20certified); <https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#listed> AND <https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#labeled>
- 27 Special Requirement 4.2 was added to this IRC section in 2018. The 2015, 2012, and 2009 IRC notes to use Commodity Specification A, Category 4B, and Section 5.2 in AWPAs U1. Section 5.2 was referenced in error in some cases: use Tables in Section 5 with UC4B in the corresponding version of AWPAs U1 referenced by the 2015, 2012, or 2009 IRC as applicable.
- 28 <https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1703.4>



- 29 <https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280#:~:text=All%20construction%20methods%20shall%20be%20in%20conformance%20with%20accepted%20engineering%20practices%20to%20insure%20durable%2C%20livable%2C%20and%20safe%20housing%20and%20shall%20demonstrate%20acceptable%20workmanship%20reflecting%20journeyman%20quality%20of%20work%20of%20the%20various%20trades>
- 30 <https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280#:~:text=The%20strength%20and%20rigidity%20of%20the%20component%20parts%20and/or%20the%20integrated%20structure%20shall%20be%20determined%20by%20engineering%20analysis%20or%20by%20suitable%20load%20tests%20to%20simulate%20the%20actual%20loads%20and%20conditions%20of%20application%20that%20occur>
- 31 Qualification is performed by a legislatively defined Accreditation Body. ANSI National Accreditation Board (ANAB) is the largest independent accreditation body in North America and provides services in more than 75 countries. DrJ is an ANAB accredited product certification body.
- 32 <https://anabpd.ansi.org/Accreditation/product-certification/AllDirectoryDetails?prqID=1&orgID=2125&statusID=4#:~:text=Bill%20Payment%20Date-,Accredited%20Scopes-,13%20ENVIRONMENT.%20HEALTH>
- 33 See Code of Federal Regulations (CFR) Title 24 Subtitle B Chapter XX Part 3280 for definition: <https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280>
- 34 [2021 IBC Section 104.11](#)
- 35 [2021 IRC Section R104.11](#)
- 36 2018: <https://up.codes/viewer/wyoming/ifc-2018/chapter/1/scope-and-administration#104.9> AND 2021: <https://up.codes/viewer/wyoming/ibc-2021/chapter/1/scope-and-administration#104.11>
- 37 Approved is an adjective that modifies the noun after it. For example, Approved Agency means that the Agency is accepted officially as being suitable in a particular situation. This example conforms to IBC/IRC/IFC Section 201.4 (<https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#201.4>) where the building code authorizes sentences to have an ordinarily accepted meaning such as the context implies.
- 38 <https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1707.1>
- 39 Multilateral approval is true for all ANAB accredited product evaluation agencies and all International Trade Agreements.
- 40 The Formosan subterranean termite (*Coptotermes Formosanus*) has now become established in Florida and other southern states. At least one colony has been found in California (1995). [www.termite.com/termites/formosan-subterranean-termite.html](http://www.termite.com/termites/formosan-subterranean-termite.html)