

ICC-ES Evaluation Report

ESR-2588

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DIVISION: 07—THERMAL AND MOISTURE PROTECTION
Section: 07460—Siding**REPORT HOLDER:****COLLINS PRODUCTS, LLC**
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dbarnes@collinsco.com**EVALUATION SUBJECT:****TRUWOOD® SIDING PRODUCTS****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:

- Exterior wall covering
- Wall bracing

2.0 USES

TruWood® lap and panel sidings are used as exterior wall covering materials for buildings permitted to be of Type V-B construction and for structures constructed in accordance with the IRC. The hardboard sidings comply with IBC Sections 1404.3.2 and 2303.1.6 and IRC Table R703.4. The panel siding is also used for conventional light-frame wood construction as braced wall panels within designated braced wall lines as defined in IBC Section 2308.3 and IRC Section R602.10.1, and as structural sheathing for continuously sheathed braced walls in accordance with IRC Section R602.10.5.

3.0 DESCRIPTION

TruWood® siding is a fibrous-felted hardboard panel made from wood fiber that is consolidated under heat and pressure to a uniform density. The product is manufactured in $\frac{7}{16}$ -inch (0.400 inch actual) and $\frac{1}{2}$ -inch (0.490 inch actual) thicknesses and has a factory-applied primer on one face. The product is produced in lap siding and panel configurations having a variety of smooth or embossed surface patterns. TruWood® lap siding products are machined to a variety of groove patterns, lengths (ranging from 48 inches to 192 inches) and widths (ranging from 6 inches to 16 inches). TruWood® panel siding products are

machined to a variety of groove patterns, lengths (ranging from 48 inches to 192 inches) and widths (ranging from 47 inches to 50 inches). TruWood® siding complies with ANSI/AHA A135.6.

Lap siding is available with square or beveled edges, or with a self-aligning feature on the back of each piece to allow for alignment of subsequent courses. Premium lap siding has horizontal shiplap joints. Sure Lock Lap Siding with Concealed Nailing System has tongue-and-groove joints on each piece. Panel siding is available with squared edges on all four edges or with square horizontal edges and shiplap vertical edges.

4.0 DESIGN AND INSTALLATION**4.1 General:**

Installation of TruWood® siding must comply with this report and the manufacturer's published installation instructions. The manufacturer's published installation instructions must be available at the jobsite at all times during installation.

Except where otherwise noted in this report, installation must comply with IBC Table 2308.9.3(5) or IRC Table R703.4, as applicable. A water-resistive barrier in accordance with IBC Section 1403.2 or IRC Section R703.2 must be applied directly beneath the siding. Vertical butt joints of the siding must occur over framing members. A $\frac{3}{16}$ -inch (4.8 mm) gap must be provided at all joints and around all openings. Gaps and vertical end joints must be caulked with an approved sealant. A minimum 6-inch (152 mm) clearance is required from the bottom of the siding to adjacent grade. Siding must not be in direct contact with concrete. All exterior openings must be flashed in accordance with the applicable code. Fasteners used to attach the siding material to pressure-preservative-treated wood must be zinc-coated in accordance with ASTM A 153.

4.2 Lap Siding:

All siding courses must be lapped a minimum of 1 inch (25.4 mm) unless self-aligning or tongue-and-groove joints are provided on the siding. Sixteen-inch-wide (406 mm) Premium lap siding requires three nails per lap siding board on all studs. Successive boards are nailed $\frac{5}{8}$ to $\frac{3}{4}$ inch (15.9 to 19.1 mm) up from the drip edge and in the center of the board. Sure Lock lap siding is nailed on the scribed top edge and locked into the siding piece below it.

4.3 Panel Siding:

Vertical edges of siding with shiplap edges must occur over framing. Vertical edges of square edged siding must occur over framing and should be covered with batten strips.

4.4 Panel Siding Used as Wall Bracing:

TruWood® panel siding with a minimum 48-inch (1219 mm) width as described in this report may be used as wall bracing in accordance with method number 8 in IBC Section 2308.9.3 and IRC Section R602.10.3.

4.5 Design:

The siding products are limited to use on structures of conventional light-frame wood construction under the IBC in areas where wind speeds (three-second gust) do not exceed 100 miles per hour (80 miles per hour fastest mile). In areas utilizing the IRC, the siding products are limited to use on structures in areas where wind speeds (three-second gust) are less than 110 miles per hour (90 miles per hour fastest mile). The panel siding products are limited to use in Seismic Design Categories A, B or C, when they are used to resist seismic loads.

4.6 Finishing:

The primed siding must be cleaned, dried and finish-painted in accordance with the manufacturer's published installation instructions.

5.0 CONDITIONS OF USE

The TruWood® siding 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 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 All windows, doors and other exterior openings must be flashed in accordance with the applicable code. Horizontal joints between siding panels must be flashed and sealed in accordance with the manufacturer's instructions.
- 5.3 The siding products are limited to use on structures as described in Section 4.5.
- 5.4 The sidings must be installed over a water-resistive barrier in accordance with the applicable code.
- 5.5 Truwood® siding panels used to meet the bracing requirements of method number 8 in IBC Section 2308.9.3 and IRC Section R602.10.3 must comply with Section 4.4.
- 5.6 TruWood® siding products are produced in Klamath Falls, Oregon, under a quality control program with inspections by the Composite Panel Association (AA-614).

6.0 EVIDENCE SUBMITTED

- 6.1 Manufacturer's published installation instructions and product literature.

- 6.2 Reports of tests in accordance with ANSI/AHA A 135.6.

- 6.3 Reports of racking resistance tests in accordance with ASTM E 72, following the procedures in Section 4.1 of AC269, dated June 2007.

- 6.4 Quality control documentation.

7.0 IDENTIFICATION

Each package containing the TruWood® siding products described in this report is identified by a stamp bearing the manufacturer's name (Collins Products, LLC), the product name, the address of the manufacturing plant, the name or trademark of the inspection agency (Composite Panel Association), the date of manufacture and the evaluation report number (ESR-2588). Additionally, each package must bear a note indicating conformance to ANSI/AHA A135.6.

8.0 OTHER CODES

8.1 Evaluation Scope:

The products in this report were also evaluated for compliance with the requirements of the 1997 *Uniform Building Code*™ (UBC).

8.2 Uses:

See Section 2.0, except TruWood® siding is for buildings permitted to be of Type V-N construction. Use of the shiplap panels for shear resistance is as noted in Section 8.4.

8.3 Description:

See Section 3.0.

8.4 Installation and Design:

See Section 4.0, except for the following:

TruWood® panel siding with a minimum 48-inch (1219 mm) width as described in this report may be used as wall bracing in accordance with method number 8 in UBC Section 2320.11.3. TruWood® siding products are limited to use on structures of conventional light-frame wood construction in areas where the basic wind speed (fastest mile) does not exceed 80 miles per hour (161 km/h). When TruWood® Shiplap Panel siding is installed in accordance with UBC Section 2310.6 and Table 23-II-C, the allowable racking shear design values must be as given in Table 1.

8.5 Conditions of Use:

See Section 5.0, except for the following:

Truwood® siding panels used to meet the bracing requirements of method number 8 in UBC Section 2320.11.3 must comply with Section 8.4.

8.6 Evidence Submitted:

See Section 6.0.

8.7 Identification:

See Section 7.0.

TABLE 1—TRUWOOD® SHIPLAP PANEL SIDING—ALLOWABLE RACKING SHEAR DESIGN LOADS

PANEL THICKNESS (inch)	DESIGN LOAD (lb./ft.) ¹
7/16	155
1/2	202

For SI: 1 inch = 25.4 mm, 1 lb./ft. = 14.59 N/m.

¹Values obtained on aged samples at 1/8-inch deflection.