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# ICC-ES Report

## ESR-3597

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Issued 05/2015

This report is subject to renewal 05/2016.

**DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION**

**SECTION: 07 46 00—SIDING**

**REPORT HOLDER:**

**BORAL COMPOSITES, INC.**

**200 MANSELL COURT EAST, SUITE 305  
ROSWELL, GEORGIA 30076**

**EVALUATION SUBJECT:**

**BORAL TRUEXTERIOR® SIDING**



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**ICC-ES Evaluation Report****ESR-3597**

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**DIVISION: 07 00 00—THERMAL AND MOISTURE  
PROTECTION****Section: 07 46 00—Siding****REPORT HOLDER:****BORAL COMPOSITES, INC.**  
200 MANSELL COURT EAST, SUITE 305  
ROSWELL, GEORGIA 30076  
(770) 645-4500  
[www.BoralTruExterior.com](http://www.BoralTruExterior.com)**EVALUATION SUBJECT:****BORAL TRUEXTERNAL™ SIDING****1.0 EVALUATION SCOPE****Compliance with the following codes:**

- 2012 *International Building Code*® (IBC)
- 2012 *International Residential Code*® (IRC)

**Property evaluated:**

- Exterior Wall Covering
- Structural
- Durability
- Surface-burning characteristics

**2.0 USES**

Boral TruExterior™ Siding is intended for use as an exterior wall cladding in Type V-B construction (IBC) and nonfire-resistance-rated construction under the IRC.

**3.0 DESCRIPTION**

Boral TruExterior™ Siding consists of a mixture of fly ash and glass fiber in a matrix of polymer which is formed into a board, cut into 16-foot long pieces and coated with a water-based primer. The siding has a 70-percent pre-consumer recycled content. The product is approximately 3/4-inch thick and is available in nominal widths of 6, 8 and 10 inches (152, 203 and 254 mm) and in various profiles. (See Figure 1) Boral TruExterior™ Siding has a flame-spread index of 35 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84.

**4.0 DESIGN AND INSTALLATION****4.1 Design:**

Fastening must be in accordance with Section 4.2 and Table 1 to withstand the tabulated allowable negative wind

pressures. The maximum wind pressure resistance for positive or negative transverse load resistance of Boral TruExterior™ Siding is applicable for each profile shown in Figure 1. The allowable wind pressures for the products shown in Table 1 must exceed the design wind pressures determined in accordance with IBC Chapter 16 or IRC Section R301.2.1.1, as applicable.

**4.2 Installation:**

Installation must comply with the manufacturer's published installation instructions, the applicable code and this report. A copy of this report and the manufacturer's published installation instructions must be available at all times on the jobsite during installation.

Boral TruExterior™ Siding must be installed on wood framing members spaced not more than 24 inches (406 mm) on center on minimum 2-by-4 studs. The framing members must have a minimum specific gravity of 0.42. The siding joints must occur over framing. The siding must be installed using the fasteners described in Table 1. Fasteners must be located at each stud with one fastener being placed in the concealed tongue at the lap joint and the other being located approximately 2 inches from the bottom edge of the siding.

**5.0 CONDITIONS OF USE**

The Boral TruExterior™ Siding, 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** 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 sidings must be installed over a water-resistive barrier in accordance with the applicable code.
- 5.4** The siding must be installed only on exterior walls covered by wood structural panel sheathing capable of supporting imposed loads including but not limited to positive and negative transverse wind loads.
- 5.5** TruExterior™ Siding must be installed on exterior walls braced in accordance with the applicable code.

5.6 TruExterior™ Siding products are produced in East Spencer, North Carolina under a quality-control program with inspections by ICC-ES.

**6.0 EVIDENCE SUBMITTED**

- 6.1 Reports of testing of flexural strength and flexural modulus of rupture in accordance with ASTM D6109.
- 6.2 Report of testing for density in accordance with ASTM D6109, Test Method A.
- 6.3 Report of testing for Linear Coefficient of Thermal Expansion in accordance with ASTM D6341.
- 6.4 Report of accelerated weathering tests in accordance with ASTM G155, Cycle 1.
- 6.5 Report of testing to Impact Resistance in accordance with ASTM D1037, Section 21.
- 6.6 Report of testing to water absorption in accordance with ASTM C1189, Section 9.

6.7 Transverse load tests in accordance with ASTM D1037.

6.8 Fastener pull-through tests in accordance with ASTM D1037.

6.9 Analysis of structural tests.

6.10 Report of surface burning testing in accordance with ASTM E84.

**7.0 IDENTIFICATION**

The Boral TruExterior™ Siding boards are labeled with the manufacturer's name and address, the product name, thickness, product traceability code and the evaluation report number (ESR-3597).

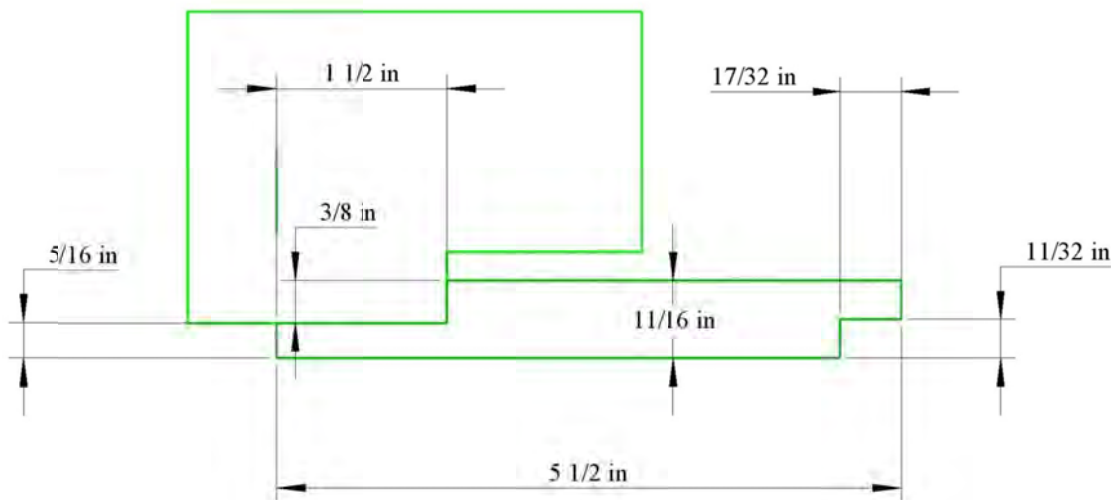
**TABLE 1—ALLOWABLE WIND PRESSURES**

FASTENER DESCRIPTION	FASTENER SCHEDULE	MINIMUM EMBEDMENT INTO FRAMING	ALLOWABLE WIND PRESSURE RESISTANCE	
			16-inch o.c. stud spacing	24-inch o.c. stud spacing
8d Stainless Steel ring shank nail (2 1/2-inch long, 0.092-inch shank (13 ga), 0.208-inch round head (hand driven))	One face nail and one tongue nail, both into and at each stud	1.2 inches	-76 psf	-50 psf
8d Hot dipped galvanized ring shank nail (2 1/2-inch long, 0.113-inch shank, 0.286-inch round head (pneumatically driven))		1.2 inches	-76 psf	-50 psf
6d Hot dipped galvanized ring shank nail (2-inch long, 0.113-inch shank, 0.286-inch round head (pneumatically driven))		0.75 inches	-40 psf	-27 psf

For SI: 1 inch = 25.4 mm, 1 psf = 0.0479 kPa.

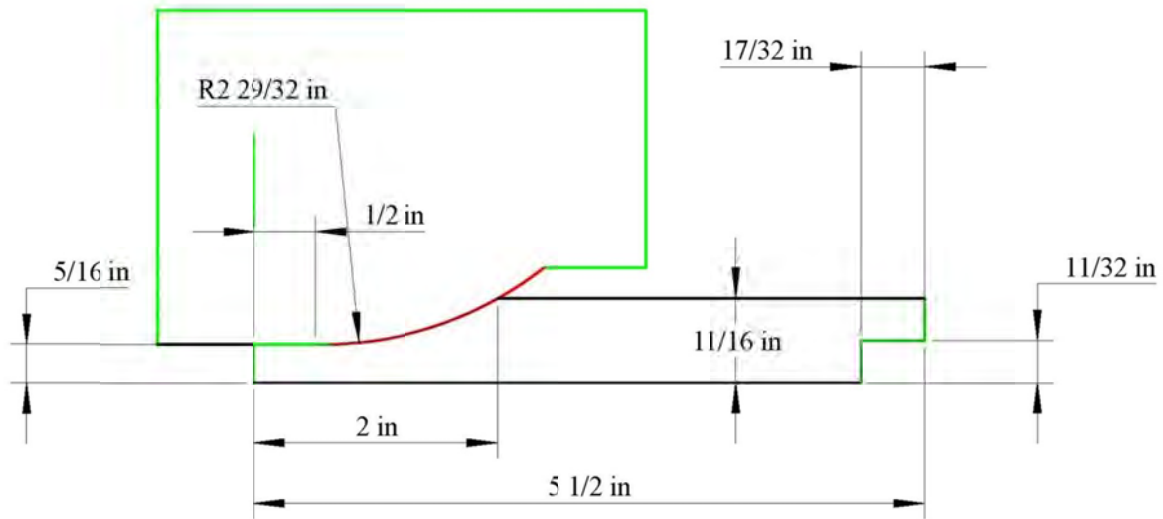
**NOTES:**

1. The wind pressures are based on a maximum exposure of 9.5 inches.
2. The minimum specific gravity of framing is required to be 0.42.
3. Minimum embedment assumes installation of the fastener through the 3/4-inch siding and maximum 1/2-inch-thick sheathing that provides no additional nail holding strength and into framing.

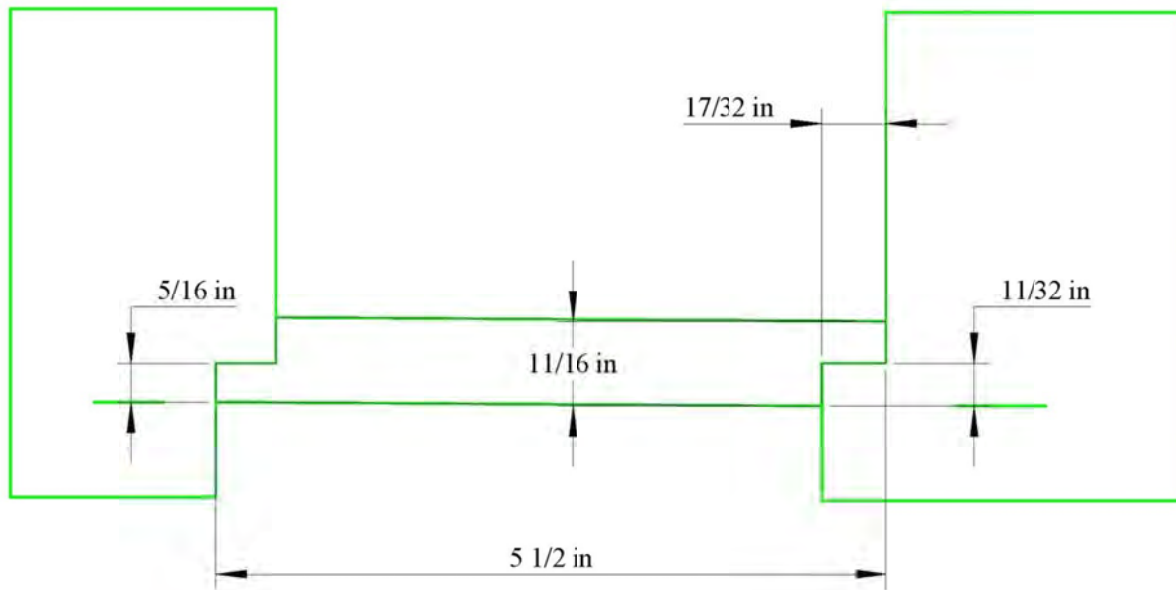


**CHANNEL**

**FIGURE 1—SIDING PROFILES**

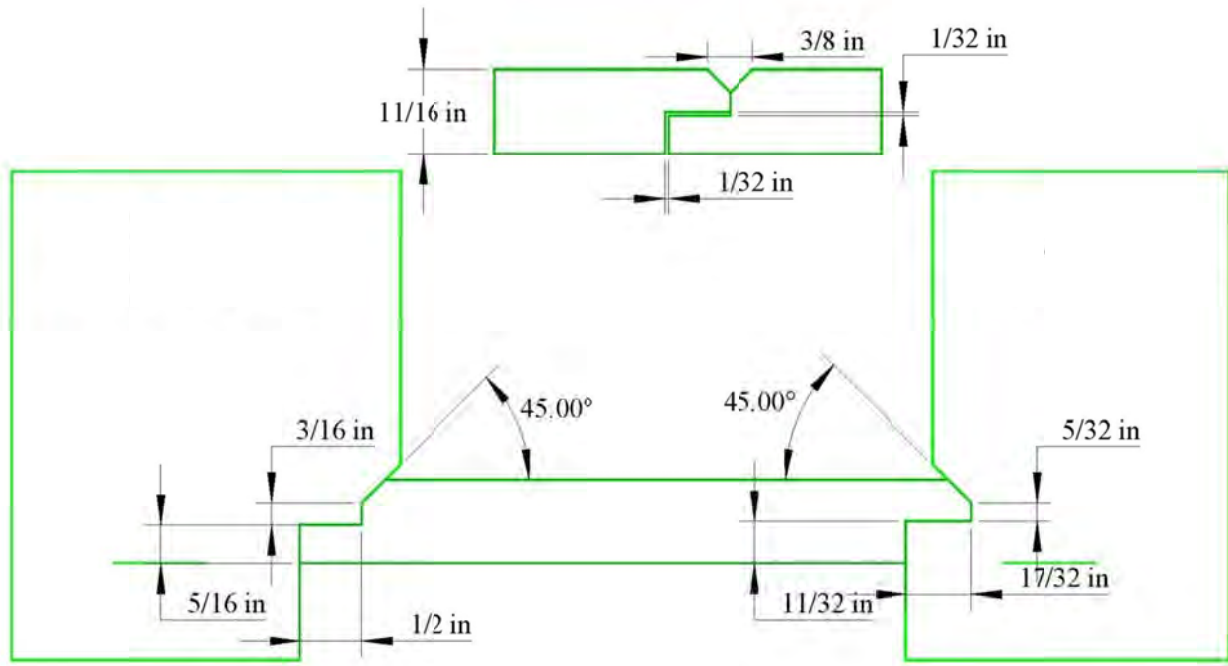


COVE/DUTCH LAP

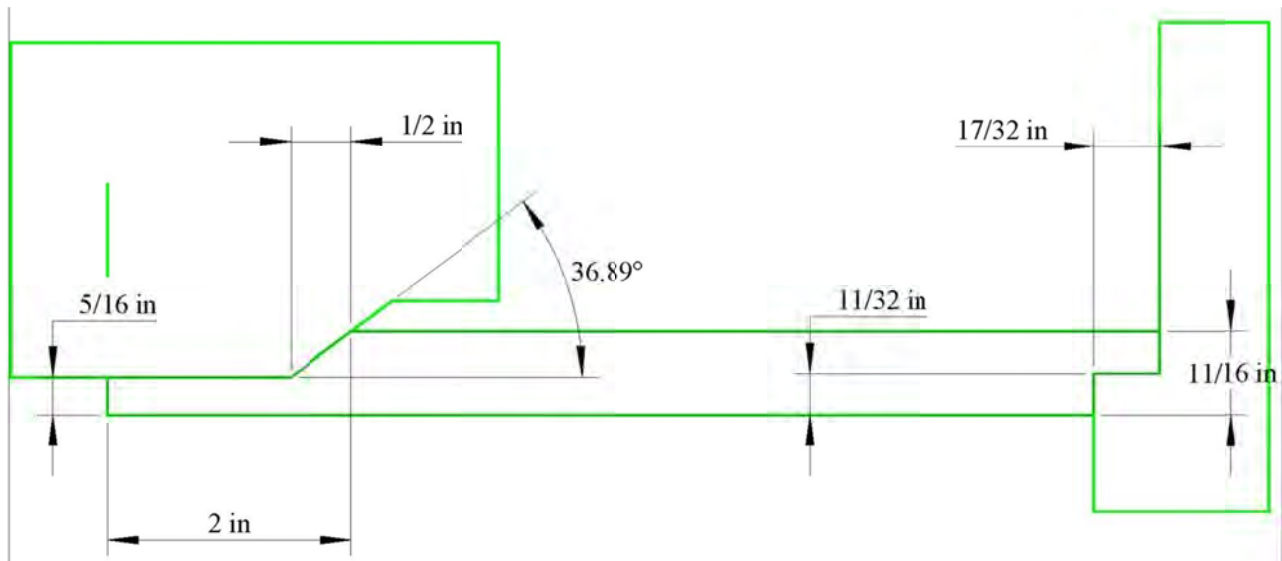


SHIPLAP

FIGURE 1—SIDING PROFILES (Continued)



V RUSTIC



CHANNEL BEVEL

FIGURE 1—SIDING PROFILES (Continued)