

# Code Compliance Research Report CCRR-0201

Issue Date: 04-24-2014 Revision Date: 09-29-2020 Renewal Date: 04-30-2021

DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION Section: 07 46 00 – Siding

# **REPORT HOLDER:**

CHELSEA BUILDING PRODUCTS 565 Cedar Way Oakmont, PA 15139 (414) 826-8077 www.chelseabuildingproducts.com www.everlastsiding.com

# REPORT SUBJECT: Everlast<sup>®</sup> Composite Siding

## **1.0 SCOPE OF EVALUATION**

**1.1** This research report addresses compliance with the following Codes:

- 2018, 2015, 2012 International Building Code<sup>®</sup> (IBC)
- 2018, 2015, 2012 International Residential Code<sup>®</sup> (IRC)
- 2020 Florida Building Code-Building (FBC), excluding High Velocity Hurricane Zone (See Section 9.0)

NOTE: This report references 2018 Code sections with [2015, 2012, FBC] Code sections shown in brackets where they differ.

**1.2** *Everlast*<sup>®</sup> *Composite Siding* has been evaluated for the following properties:

- Durability
- Fire Resistance
- Surface Burning
- Weather Resistance
- Wind Load Resistance (Negative Transverse)

**1.3** The *Everlast® Composite Siding* is a rigid polyvinyl chloride (PVC) solid cross section cladding intended for use as an exterior siding attached to an approved structural sheathing.

#### **2.0 STATEMENT OF COMPLIANCE**

The *Everlast® Composite Siding* complies with the Codes listed in Section 1.1, for the properties stated in Section 1.2 and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.0.

## **3.0 DESCRIPTION**

**3.1** Materials and Processes – *Everlast® Composite Siding* consists of a cellular polyvinyl chloride (PVC) material with an acrylic cap and is an approved alternative in applications where vinyl siding and polypropylene siding are permitted.

**3.2** Everlast<sup>®</sup> Composite Siding products are provided in two styles: horizontal lap siding and vertical board and batten siding.

**3.2.1.** Horizontal lap siding is provided in two exposure widths: 6-7/8 inch with a nominal thickness of 0.225 inches, and 4-1/2 inch with a nominal thickness of 0.215 inches. See Figure 1. Lap siding is horizontally installed, with fasteners spaced a maximum of 16 inches o.c.

**3.2.2.** Vertical board and batten siding are provided in one exposure width: 11 inches with a nominal thickness of 0.325 inches. See Figure 2. Board and batten siding are vertically installed, with fasteners spaced a maximum of 7.5 inches o.c.

# 4.0 PERFORMANCE CHARACTERISTICS

**4.1** Windload Resistance – Maximum allowable design pressures are shown in Table 1 for the *Everlast® Composite Siding* when installed in accordance with this report.

**4.1.1.** Everlast<sup>®</sup> Composite Siding has not been evaluated for resisting positive wind pressure. Siding must be installed over structural wood sheathing designed to resist positive design wind pressures in accordance with the applicable code.



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**4.1.2.** Windload resistance values are in accordance with ASTM D3679 and ASTM D7254.

Exception: A pressure equalization factor (PEF) was not applied to reduce the required test pressure.

**4.2** *Everlast® Composite Siding* complies with IBC Section 2605.2 for use as an exterior plastic veneer.

**4.3** Materials used have a flame spread index of less than 200 when tested in accordance with ASTM E 84.

**4.4** Everlast<sup>®</sup> Composite Siding installed on the exterior of fire-resistance rated walls does not reduce the fire-resistance rating of the wall assembly that has been established in accordance with IBC Section 703.2.

# **5.0 INSTALLATION**

Installation shall be in accordance with the manufacturer's installation instructions and this report. Where differences occur between this report and the manufacturer's installation instructions, this report shall govern.

**5.1** Everlast<sup>®</sup> Composite Siding shall be installed over an approved structural wood sheathing; complying with Section 2303.1.5 [2303.1.4] of the IBC and FBC.

**5.2** Sheathing must be covered by an approved water-resistive barrier in accordance with IBC Section 1403.2 [1404.2 of the FBC], and IRC Section R703.7.3 [R703.1.1 of the FBC-R] and provide a means for draining water that enters the assembly to the exterior.

**5.3** Flashing shall be installed in accordance with Section 1404.4 [1405] of the IBC and FBC, IRC Section R703.4 [R703.8] and FBC-R Section R703.4.

**5.4** Protection against condensation shall be provided in accordance with Section 1402.2 [1405.3] of the IBC and Section 1405.3 of the FBC.

#### 6.0 CONDITIONS OF USE

The *Everlast® Composite Siding* applications identified in this report are deemed to comply with the intent of the provisions of the referenced building codes subject to the following conditions:

**6.1** Wind design pressures determined from allowable stress design (also known as nominal) wind speeds ( $V_{asd}$ ) in accordance with the applicable code shall not exceed the allowable wind design pressures as identified in Table 1 for *Everlast® Composite Siding*.

**6.2** *Everlast*<sup>®</sup> *Composite Siding* products are limited to the following construction types:

**6.2.1.** Nonload-bearing exterior trim on buildings of combustible construction.

**6.2.2.** Use on buildings of Type V construction (A and B) and all construction types permitted under the IRC and FBC-R.

**6.2.3.** *Everlast*<sup>®</sup> *Composite Siding* may be installed on the exterior of fire-resistance rated walls.

**6.3** Compatibility of the supporting construction materials with all fasteners, components, and other hardware components is subject to approval by the code official.

**6.4** Only those types of fasteners and fastening methods described in this report have been evaluated for the installation of the *Everlast® Composite Siding*. Other methods of attachment are outside the scope of this report.

**6.5** All products are manufactured by Chelsea Building Products in accordance with the manufacturer's approved quality control system with inspections by Intertek.





# 7.0 SUPPORTING EVIDENCE

**7.1** Manufacturer's drawings and installation instructions.

**7.2** Reports of testing demonstrating compliance with ICC-ES AC227, Acceptance Criteria for Rigid Cellular PVC Nonload-Bearing Exterior Trim, revised November 2017.

**7.3** Reports of testing in accordance with ASTM D7254-15 [-07, -17], Standard Specification for Polypropylene (PP) Siding, and ASTM D3679-13 [-11, -17], Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Siding for: Extent of Burn, Heat Shrinkage, Impact Resistance, Surface Distortion, Coefficient of Linear Expansion, and Windload Resistance.

**7.4** Reports of testing demonstrating compliance with ASTM D635-14 [-10], Test Method for Rate of Burning and/or Extent and Time of Burning of Self-supporting Plastics in a Horizontal Position.

**7.5** Reports of testing demonstrating compliance with ASTM D1929-16 [-12], Test Method for Determining Ignition Properties of Plastics.

**7.6** Reports of evaluation and engineering analysis for allowable fastener capacities in accordance with NDS-2018 [2015, 2012], National Design Specification (NDS) for Wood Construction, and sealed by a Professional Engineer registered in the State of Florida.

**7.7** Documentation of an Intertek approved quality control system for the manufacturing of products recognized in this report.

#### **8.0 IDENTIFICATION**

*Everlast*<sup>®</sup> *Composite Siding* that is produced in accordance with this report shall be identified with labeling on the product skids that includes the following information:

**8.1** Name and/or trademark of the manufacturer and the manufacturer's address.

**8.2** The Intertek Code Compliance Research Report mark and number (CCRR-0201).



## 9.0 FLORIDA BUILDING CODE

**9.1 Scope of Evaluation:** The *Everlast® Composite Siding* were evaluated for compliance with the *Florida Building Code – Building* and *Florida Building Code – Residential* 

**9.2 Conclusion:** The Everlast® Composite Siding, described in Sections 2.0 through 7.0 of this Research Report, comply with the Florida Building Code – Building and Florida Building Code – Residential under the following provisions:

- Use of the Everlast® Composite Siding for compliance with the High-Velocity Hurricane Zone provisions of the Florida Building Code – Building and the Florida Building Code – Residential has not been evaluated and is outside the scope of this Research Report.
- Intertek is an approved evaluation entity and quality assurance entity pursuant to Florida Statute 553.842 Product Evaluation and Approval.

#### **10.0 CODE COMPLIANCE RESEARCH REPORT**

**10.1** Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

**10.2** Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

**10.3** Reference to the Intertek website address: <u>whdirectory.intertek.com</u> is recommended to ascertain the current version and status of this report.







Product	Profile		Fastener			Allowable
	Exposure Width	Nominal Thickness	Description	Spacing	Substrate	Design Pressure <sup>(2)</sup>
Horizontal Lap Siding	6.875 inches	0.225 inches	#10 by 2-1/2-inch stainless steel flat head screws	16-inch o.c.	Every screw penetrating into stud (minimum G≥0.42)	68 psf
			2-inch-long roofing nail, 1/8-inch smooth shank diameter, 7/16- inch diameter head	16-inch o.c.	Every nail penetrating into stud (minimum G≥0.42)	51 psf
	4.5 inches	0.215 inches	#9 by 2-1/2-inch stainless steel flat head screws	16-inch o.c.	Every screw penetrating into stud (minimum G≥0.42)	98 psf
			2-inch-long roofing nail, 1/8-inch smooth shank diameter, 7/16- inch diameter head	16-inch o.c.	Every nail penetrating into stud (minimum G≥0.42)	77 psf
Vertical Board and Batten Siding	11 inches	0.325 inches	#8 by 1-5/8-inch stainless steel flat head screws	7.5-inch o.c.	Every screw penetrating into ½ inch wood sheathing (minimum G≥0.50)	80 psf

# TABLE 1 – EVERLAST® COMPOSITE SIDING ALLOWABLE DESIGN PRESSURES<sup>(1)</sup>

<sup>(1)</sup> A pressure equalization factor (PEF) was not applied to reduce the required test pressure.

<sup>(2)</sup> Allowable loads are applicable to wind design pressure derived from allowable stress design (also known as nominal) wind speed ( $V_{asd}$ ) per IBC Section 1609.3.1.

<sup>(3)</sup> Wood studs are SPF or other wood with a specific gravity (G) of 0.42 or greater.





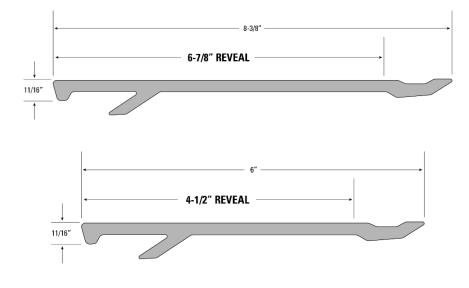


FIGURE 1 – EVERLAST® COMPOSITE SIDING, LAP SIDING

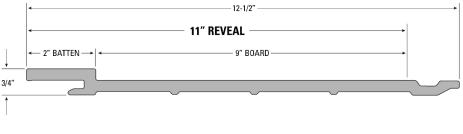


FIGURE 2 - EVERLAST® COMPOSITE SIDING, BOARD AND BATTEN SIDING

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