

# Code Compliance Research Report CCRR-0427

Issue Date: 04-13-2022 Revision Date: 04-14-2025 Renewal Date: 04-30-2026

# DIVISION: 07 00 00 THERMAL AND MOISTURE PROTECTION Section: 07 46 33 Plastic Siding

#### **REPORT HOLDER:**

Ply Gem Residential Solutions – A Division of Cornerstone Building Brands 2405 Campbell Road Sidney, OH 45365 (937) 498-6720 www.cornerstonebuildingbrands.com

#### REPORT SUBJECT: Everplank Horizontal Siding Everplank Board & Batten Siding

# **1.0 SCOPE OF EVALUATION**

**1.1** This Research Report addresses compliance with the following Codes:

- 2024, 2021 International Building Code<sup>®</sup> (IBC)
- 2024, 2021 International Residential Code® (IRC)

NOTE: This report references the most recent Code editions noted. Section numbers in earlier editions may differ.

**1.2** Everplank Siding has been evaluated for the following properties:

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

**1.3** Everplank Siding has been evaluated for the following uses:

• Use as an exterior wall cladding on buildings of Type V construction and all construction types permitted under the IRC.

### 2.0 STATEMENT OF COMPLIANCE

Everplank 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.

# 2.1 2024 IBC and IRC Evaluation Reports

The Intertek CCRR is an *Evaluation Report* for approval of an alternate material, design, or method of construction in accordance with Section 104.2.3.6.1 of the 2024 IBC and Section R104.2.2.6.1 of the 2024 IRC.

# 3.0 DESCRIPTION

**3.1** Everplank Siding is extruded from polyvinyl chloride (PVC) based resin and manufactured with a nominal wall thickness of 0.048 inches backed with a polyurethane foam. Siding is provided in two profiles; Horizontal siding (Figure 1) and Board and Batten (Figure 2). The foam encapsulates the backside of the siding.

**3.2** The siding is provided in ten colors: White, Desert Sand, Wicker, Pebblestone Clay, Rugged Canyon, Harbor Grey, Deep Granite, Quiet Willow, English Wedgewood, and Scottish Thistle.

#### 4.0 PERFORMANCE CHARACTERISTICS

**4.1** Flame Spread – Everplank Siding has a flame spread index not exceeding 200 when tested in accordance with ASTM E 84. The foam backing material has a flame spread index not exceeding 75 and smoke development index not exceeding 450 when tested in accordance with ASTM E 84.

**4.2** Wind Resistance – Design pressures applicable to allowable stress design (ASD) determined in accordance with the applicable code shall not exceed the allowable wind loads specified for the product.



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**4.2.1** Everplank Siding products are not evaluated for resisting positive wind pressure. Siding must be installed over structural sheathing designed to resist positive wind design pressures in accordance with the applicable code.

**4.2.2** Allowable negative wind design pressures are given in Table 2 for Everplank Siding installed in accordance with Section 5.0.

**4.3** Ignition Resistance / IBC Section 1405.1.1.1 – Everplank Horizontal and Board and Batten Siding did not exhibit sustained flaming when exposed to a radiant heat flux of  $13.1 \text{ kW/m}^2$  and  $12 \text{ kW/m}^2$ , respectively, in accordance with NFPA 268.

#### 5.0 INSTALLATION

#### 5.1 General:

Everplank Siding must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

#### 5.2 Application:

**5.2.1** Except as noted herein, Everplank Siding products must comply with the prescriptive requirements of IBC Section 1404.14, or IRC Sections R703.4 and R703.11.1.

**5.2.2** Everplank accessories utilized for installation include: Starter strip, J-channel, drip cap and inside/outside corner trim.

**5.2.3** Everplank siding shall be installed over an approved water-resistive barrier and structural sheathing. For IBC Type V construction and the IRC the siding shall be installed over an approved structural wood sheathing; plywood complying with DOC PS 1 or Oriented Strand Board (OSB) Exposure 1 sheathing complying with DOC PS 2.

**5.2.4** Everplank Horizontal siding shall be fastened horizontally to the exterior wall every 16 inches along the nail hem with fastener penetration through the exterior sheathing and secured to a wood or steel stud. Fasteners shall be corrosion resistant. See Table 2.

**5.2.5** Everplank Board and Batten siding shall be fastened vertically to the exterior wall every 12 inches along the nail hem with fastener penetration through the exterior sheathing. Fasteners shall be corrosion resistant. See Table 2.

#### 6.0 CONDITIONS OF USE

**6.1** Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.

**6.2** For codes recognized in this report, design wind pressures shall be determined in accordance with the IBC Chapter 16 and IRC Section R301.2.

**6.3** Wind Design pressures shall be determined from allowable stress design wind speeds ( $V_{asd}$ ) and shall not exceed the allowable wind pressures shown in Table 2.

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

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

**6.6** Everplank Siding is manufactured by Ply Gem Residential Solutions under a quality control program with inspections by Intertek Testing Services NA, Inc.

#### 7.0 SUPPORTING EVIDENCE

7.1 Manufacturer's drawings and installation instructions.

**7.2** Reports of testing demonstrating compliance with ICC-ES AC37, Acceptance Criteria for Vinyl Siding, revised October 2017, and ICC-ES AC377, Acceptance Criteria for Spray-Applied Foam Plastic Insulation, approved February 2020.



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**7.3** Reports of testing in accordance with ASTM D 7793-21 [20], Standard Specification for Insulated Siding. Thermal resistance not evaluated and outside the scope of this report.

**7.4** Reports of testing in accordance with ASTM E84-21a [18B], Test Methods for Surface Burning Characteristics of Building Materials.

**7.5** Reports of testing in accordance with NFPA 268-22 [17], Standard Test Method for Determining Ignitability of Exterior Wall Assemblies Using a Radiant Heat Energy Source.

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

#### 8.0 IDENTIFICATION

Everplank Siding packaging is identified with the following information:

- Product name
- The statement, "See Intertek CCRR-0427 at <u>bpdirectory.intertek.com</u> for uses and performance levels."
- The Intertek Mark as shown below, and the Code Compliance Research Report number.



#### 9.0 OTHER CODES

This section is not applicable.

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

**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 <u>https://bpdirectory.intertek.com</u> is recommended to ascertain the current version and status of this report.

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#### **TABLE 1 – PROPERTIES EVALUATED**

	APPLICABLE CODE SECTIONS <sup>1</sup>		
PROPERTY	IBC	IRC	
Exterior Wall Performance Requirements	1402	R703.1	
Materials	104.11	R104.11	
Weather Protection	1404.2	R703	
Wind Load Resistance	1609	R703.1.2	

<sup>1</sup>Section numbers pertain to the most recent edition cited in Section 1.1 of this Report

# TABLE 2 - WIND RESISTANCE – MAXIMUM ALLOWABLE NEGATIVE DESIGN PRESSURE (PSF)<sup>(1)</sup>

	Exposure Width (inches)	Installation			Allowable
Product Name		Fastener	Sheathing <sup>(2)</sup>	Framing	Negative Design Pressure (psf)
Everplank Horizontal Siding	7	1-1/2 inch long, 1/8 inch shank dia., 7/16 inch head dia., galvanized roofing nails spaced 16 inches o.c.	½ inch wood sheathing (See 5.2.4)	SPF nominal 2x4 spaced 16 inches o.c.	57
		<ul> <li>#8 Self-drilling, tapping screw with min. 7/16- inch head dia.</li> <li>Min. length sufficient to penetrate beyond the back surface of the supporting steel.<sup>(3)</sup></li> </ul>	Structural Sheathing board <sup>(2)</sup>	Min. 33 mil (20 ga.) Light gage structural steel framing.	
Everplank Board & Batten Siding	10	1-1/2 inch long, 1/8 inch shank dia., 3/8 inch head dia., galvanized roofing nails spaced 12 inches o.c.	½ inch Zip Wall OSB (See 5.2.5)	n/a	34

<sup>(1)</sup> Design Pressures are determined in accordance with Annex 1 of ASTM D7793, using a pressure equalization factor (PEF) of 0.70 and safety factor of 1.5.

<sup>(2)</sup> Approved structural sheathing rated for the required wind design pressure.

<sup>(3)</sup> Tapping screws shall penetrate beyond the back surface of the supporting steel by a minimum of three full exposed threads.



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# FIGURE 1 – EVERPLANK HORIZONTAL SIDING PROFILE



FIGURE 2 – EVERPLANK BOARD AND BATTEN SIDING PROFILE



