

ICC-ES Evaluation Report

ESR-4560

Reissued March 2024

This report also contains:


- CBC Supplement

Subject to renewal March 2025

- FBC Supplement

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<p>DIVISION: 07 00 00— THERMAL AND MOISTURE PROTECTION</p> <p>Section: 07 46 33.13— Laminated Film PVC Siding</p>	<p>REPORT HOLDER: CHAMCLAD</p>	<p>EVALUATION SUBJECT: CHAMCLAD SIDING AND SOFFITS</p>	
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1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2018 [International Building Code® \(IBC\)](#)
- 2018 [International Residential Code® \(IRC\)](#)

Properties evaluated:

- Exterior veneer
- Durability
- Wind load resistance
- Exterior walls of Types I, II, III and IV Construction

1.2 Evaluation to the following green code(s) and/or standards:

- 2022 [California Green Building Standards Code \(CALGreen\)](#), Title 24, Part 11
- 2020, 2015, 2012 and 2008 ICC 700 [National Green Building Standard™](#) (ICC 700-2020, ICC 700-2015, ICC 700-2012 and ICC 700-2008)

Attributes verified:

See Section 3.0

2.0 USES

ChamClad Sidings and Soffits are used as exterior wall coverings over a code-complying sheathing or substrate capable of supporting the imposed loads on buildings of all types of construction and on structures constructed in accordance with the IRC.

3.0 DESCRIPTION

ChamClad Siding and Soffit is an extruded poly vinyl chloride (PVC) cladding conforming to the requirements of ASTM D3679 with a PVC film laminated to the exterior surface of the panels. Siding products include a variety of accessories such as corners and J-channel trims (with and without corner caps) made from PVC with a PVC film laminated to exposed exterior surfaces.

The cladding panels are available in a flat, V-groove and U-channel profile. The siding is produced in nominal wall thicknesses of 0.5 inch (12.7 mm), widths of 6 and 12 inches (126 and 165 mm) and a standard length of 12 and 20 feet (3.7 and 6.1 m) with longer lengths available.

Panels are formed with an upper edge having nail slots and a lower edge that stacks into the upper edge of the lower course. The cladding is available in a range of colors.

The attributes of the ChamClad Sidings and Soffits have been verified as conforming to the provisions (i) CALGreen Section A4.405.1.3 and A5.406.1.2 for reduced maintenance; (ii) ICC 700-2020 Section 601.7 and 11.601.7; (iii) ICC 700-2015 and ICC 700-2012 Section 601.7, 11.601.7 and 12.1(A).601.7; and (iv) ICC 700-2008 Section 601.7 for site-applied finishing materials. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions are outside the scope of this report. These codes or standards often provide supplemental information as guidance.

4.0 DESIGN AND INSTALLATION

4.1 General:

ChamClad Siding and Soffits must be installed in accordance with the manufacturer's published installation instructions, the applicable code, and this report. The manufacturer's published installation instructions and this report must be strictly adhered to, and a copy of the instructions must be available on the jobsite at all times during installation.

The ChamClad Siding must be backed by substrate capable of withstanding the imposed positive and negative design wind loads. Sheathing substrate must be fastened to the wall framing in accordance with the applicable code, taking into account the transverse wind loads to which it will be subjected in use.

The substrate must be covered with an approved water-resistive barrier where required by code. Flashing in accordance with the applicable code must be installed at all openings, penetrations, abutments with dissimilar materials, and at terminations of the siding and soffit.

Fasteners used with the cladding installation must be either hot-dipped galvanized or stainless steel. Screws must be #8 truss head, modified truss head or wafer head type. Screws shall have a low-profile head with a diameter of 0.40 inches and a height of 0.11 inches and have a length to achieve a minimum penetration depth of 1.25 inches (32 mm). There must be a gap between the fastener head and the panel to allow for thermal expansion. The fasteners must be installed in the center of the fastening slots at maximum intervals of 16 inches on center (406 mm).

See the manufacturer's published installation instructions for details for the installation of siding and specific trim and accessories.

4.2 Sheathing Substrates:

Solid sheathing must comply with one of the following:

- Minimum $7/16$ -inch-thick (12.7 mm) Exposure 1 oriented strand board (OSB) sheathing complying with US DOC PS-2.
- Minimum $7/16$ -inch-thick (12.7 mm) solid plywood sheathing complying with US DOC PS-1.

4.3 Wind Resistance:

4.3.1 General: Design wind pressures must be determined in accordance with IBC Chapter 16 or IRC Section R301.2.1.1, as applicable, and must not exceed the allowable pressures in [Table 1](#).

The cladding panels must be installed on exterior walls covered with solid sheathing capable of supporting the imposed loads, including but not limited to, positive and negative transverse wind loads.

4.4 Use on Exterior Walls in Types I, II, III, and IV Construction in accordance with IBC Section 1405.1 (Ignition Resistance):

The ChamClad Siding and Soffit can be used on the exterior side of exterior walls on buildings of all construction types when installed over a layer of DuPont™ Tyvek® CommercialWrap® ([ESR-2375](#)). The siding shows no sustained flaming at a maximum tolerable level of incident radiant heat flux of 12.5 kW/m², when tested in accordance with NFPA 268. The minimum fire separation distance required shall be determined from IBC Table 1405.1.1.1.2. The installation of the siding must comply with the applicable requirements in IBC Section 1405.1.

5.0 CONDITIONS OF USE:

The ChamClad PVC Siding and Soffits described in this report comply with, or 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 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 The siding must be installed only on exterior walls covered by a wood structural panel sheathing or other substrate capable of supporting the imposed loads, including but not limited to positive and negative transverse wind loads. The substrate must be covered with a water-resistive barrier as required by the code.
- 5.3 Exterior walls must be braced or sheathed to resist racking loads with approved materials in accordance with the requirements of the applicable code.
- 5.4 The sidings can be used on all types of construction under the 2018 IBC, and to structures constructed in accordance with the IRC. For Types I, II, III and IV construction, installation must comply with Section 4.4 of this report.
- 5.5 The siding and soffit panels are produced in Edmonton, Alberta, Canada under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

- 6.1 Report of testing in accordance with ASTM D3679.
- 6.2 Report of testing in accordance with ASTM E330.
- 6.3 Report of testing in accordance with NFPA 285 and NFPA 268.

7.0 IDENTIFICATION

- 7.1 The siding products described in this report are identified by a label on the packaging bearing the manufacturer’s name (ChamClad) and address, the product name, the manufacturer’s lot number, and the evaluation report number (ESR-4560).
- 7.2 The report holder’s contact information is the following:

CHAMCLAD
10235-184 STREET NW
EDMONTON, ALBERTA T5S 2J4
CANADA
(780) 454-4430
www.chamclad.com

TABLE 1—ALLOWABLE WIND PRESSURES

PRODUCT NAME	FASTENER SPACING	FASTENER TYPE	ALLOWABLE NEAGATIVE WIND PRESSURE (psf)
ChamClad 6-inch Wall Panel	16 inches o.c.	Min. 2-inch-long, #8 corrosion-resistant screws	76

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 46 33.13—Laminated File PVC Siding

REPORT HOLDER:

CHAMCLAD

EVALUATION SUBJECT:

CHAMCLAD SIDING AND SOFFITS

1.0 REPORT PURPOSE AND SCOPE**Purpose:**

The purpose of this evaluation report supplement is to indicate that ChamClad Siding and Soffits, described in ICC-ES evaluation report ESR-4560, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2019 *California Building Code* (CBC)

For evaluations of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2019 *California Residential Code* (CRC)

2.0 CONCLUSIONS**2.1 CBC:**

The ChamClad Siding and Soffits, described in Sections 2.0 through 7.0 of the evaluation report ESR-4560, comply with CBC Chapter 14, provided the design and installation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the applicable provisions of the CBC.

2.1.1 OSHPD:

The applicable OSHPD Sections of the CBC are beyond the scope of this supplement.

2.1.2 DSA:

The applicable DSA Sections of the CBC are beyond the scope of this supplement.

2.2 CRC:

The ChamClad Siding and Soffits, described in Sections 2.0 through 7.0 of the evaluation report ESR-4560, comply with CRC Chapter 7, provided the design and installation are in accordance with the 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report and the applicable provisions of the CRC.

This supplement expires concurrently with the evaluation report, reissued March 2024.

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 46 33.13—Laminated Film PVC Siding

REPORT HOLDER:

CHAMCLAD

EVALUATION SUBJECT:

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1.0 REPORT PURPOSE AND SCOPE**Purpose:**

The purpose of this evaluation report supplement is to indicate that ChamClad Siding and Soffits, described in ICC-ES evaluation report ESR-4560, has also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2020 *Florida Building Code—Building*
- 2020 *Florida Building Code—Residential*

2.0 CONCLUSIONS

The ChamClad Siding and Soffits, described in Sections 2.0 through 7.0 of ICC-ES evaluation report ESR-4560, comply with the *Florida Building Code*. The design requirements shall be determined in accordance with the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable. The installation requirements noted in ICC-ES evaluation report ESR-4560 for the 2018 *International Building Code*® meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code—Residential*.

Use of the ChamClad Siding and Soffits for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* or the *Florida Building Code—Residential* has not been evaluated and is outside the scope of this supplemental report.

For products falling under Florida Rule 61G20-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).

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