

Code Compliance Research Report CCRR-0441

Issue Date: 02-15-2022 Revision Date: 02-16-2023 Renewal Date: 02-28-2024

DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION

Section: 07 46 00 - Siding

REPORT HOLDER:

Duration Millwork 65 Klockner Road Hamilton, NJ 08619 888-388-7852

REPORT SUBJECT:

Duration Beveled Siding Duration Castle Block Siding

1.0 SCOPE OF EVALUATION

- **1.1** This Research Report addresses compliance with the following Codes:
- 2021, 2018 International Building Code® (IBC)
- 2021, 2018 International Residential Code® (IRC)
- 2020 Florida Building Code (FBC), excluding High Velocity Hurricane Zone (HVHZ) (see Section 9)

NOTE: This report references the most recent versions of the codes cited, with FBC code sections shown in brackets where they differ.

- **1.2** *Duration Siding* products have been evaluated for the following properties:
- Durability
- Physical Properties
- Surface Burning
- Wind Load Resistance
- **1.3** *Duration Siding* products have been evaluated for the following:
- Use as an exterior wall cladding on buildings of Type V-B construction under the IBC and FBC, and construction permitted under the IRC and FBC-R.

2.0 STATEMENT OF COMPLIANCE

Duration Siding products comply 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.

3.0 DESCRIPTION

Duration Siding products are composite exterior wall coverings, composed of a blend of a proprietary polymer, fly ash and glass fiber.

- **3.1** The Beveled siding products are provided in six cross-sections in nominal dimensions of 1/2x6, 1/2x8, 5/8x8, 5/8x8 Beaded, 5/8x9, and 5/8x10. See Figure 1 for actual dimensions.
- **3.2** The Castle Block Siding is provided in one cross-section in nominal thickness of 5/4 in. with nominal width of 12 inches. See Figure 2 for actual dimensions.

4.0 PERFORMANCE CHARACTERISTICS

- 4.1 Allowable wind loads are given in Table 2.
- **4.2** *Duration Siding* products have a flame spread index not exceeding 200 when tested in accordance with ASTM E84.

5.0 INSTALLATION

5.1 General:

Duration Siding products 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 *Duration Siding* products shall be installed over an approved structural wood sheathing complying with IBC Section 2303.1.5.







- **5.3** Sheathing must be covered by an approved water-resistive barrier in accordance with IBC Section 1404.2, and Section IRC R703.1.1, and provide a means for draining water that enters the assembly to the exterior.
- **5.4** Flashing shall be installed in accordance with IBC Section 1404.4 [FBC 1405.4], and IRC Section R703.4.
- **5.5** Protection against condensation shall be provided in accordance with IBC Section 1405.3.

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 between the manufacturer's instructions and this report, this report governs.
- **6.2** Duration Siding products are limited to use on buildings permitted to be of combustible, nonfire-resistance-rated construction (Type V-B) under the IBC and FBC and non-fire-resistance-rated construction permitted under the IRC and FBC-R.
- **6.3** The maximum allowable wind pressure for *Duration Siding* products shall be determined from nominal design wind speeds (V_{asd}) in accordance with Chapter 16 of the IBC, and IRC Section R301.2, and shall not exceed the allowable wind loads given in Table 2.
- **6.4** Exterior walls must be braced in accordance with the applicable code.
- **6.5** *Duration Siding* products are manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

- **7.1** Reports of testing in accordance with ICC-ES AC389, Acceptance Criteria for Composite Siding Containing Inorganic Microspheres and Proprietary Resins, Used as an Exterior Wall Cladding, approved October 2009.
- **7.2** Reports of evaluation and engineering analysis for allowable fastener capacities in accordance with NDS-2018, National Design Specification (NDS) for Wood Construction.

- **7.3** Reports of testing in accordance with ASTM E84-18b [16], Test Method for Surface Burning Characteristics of Building Materials.
- **7.4** Documentation of an Intertek approved quality control system for the manufacturing of products recognized in this report.

8.0 IDENTIFICATION

The *Duration Siding* products produced in accordance with this report shall be identified with labeling that includes the name of manufacturer, the Intertek Mark, and the Code Compliance Research Report number (CCRR-0441) as shown:



CODE COMPLIANCE CCRR-0441

CERTIFIED TO: ICC-ES AC389

9.0 OTHER CODES

9.1 FLORIDA BUILDING CODE

9.1.1 Scope of Evaluation:

The *Duration Siding* products were evaluated for compliance with the Florida Building Code – Building and Florida Building Code – Residential.

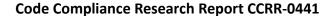
9.1.2 Conclusion:

The *Duration Siding* products 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 *Duration Siding* products 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 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 the https://bpdirectory.intertek.com is recommended to ascertain the current version and status of this report.

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Table 1 - Properties Evaluated

Property	2021 IBC	2021 IRC	2020 FBC - Building	2020 FBC - Residential
Exterior Wall Performance Requirements	1402	R703.1	1403	R703.1
Materials	104.11 1403	R104.11 R703	104.11 1403	R703
Weather Protection	1404.2	R703	1403.2	R703
Wind Load Resistance	1609	R703.1.2	1609	R703.1.2

Table 2 – Allowable Wind Pressure Summary for *Duration Siding*⁽¹⁾

Product	Profile	Reveal (in.)	Fastener Spacing (to Framing) ⁽²⁾ (in. o.c.)	Allowable Wind Pressure (psf)	Fastener	
Duration Beveled Siding	1/2x6	4	16	31	0.092 in. shank dia., 0.237 in head dia., 1.75 inch long, stainless steel, ring shank nail placed 1 in. from top edge 0.092 in. shank dia., 0.237 in head dia., 2.5 inch long, stainless steel, ring shank nail placed 1-1/4 in. from bottom edge	
	1/2x8	6	16	31		
	5/8x9	7	16	40		
	5/8x10	8	16	40		
	5/8x8 Beaded	6	16	40		
	5/8x8	6	16	40		
Duration Castle Block Siding	5/4x12	10-1/8	24	43	 0.092 in. shank dia., 0.175 in head dia., 2.25 inch long, stainless steel, ring shank nails, toenailed through the tongue. 0.092 in. shank dia., 0.175 in head dia., 2.5 inch long, stainless steel, ring shank nails, face-nailed 1-1/2 in. from the top and bottom edges. 	

⁽¹⁾ Allowable wind loads are applicable to wind design pressure derived from nominal wind speed (V_{asd}) per Section 1609.3.1 of the IBC and FBC.

⁽²⁾ Fasteners must penetrate sheathing into framing. Sheathing must have a minimum specific gravity of 0.50, wood framing a minimum specific gravity of 0.42







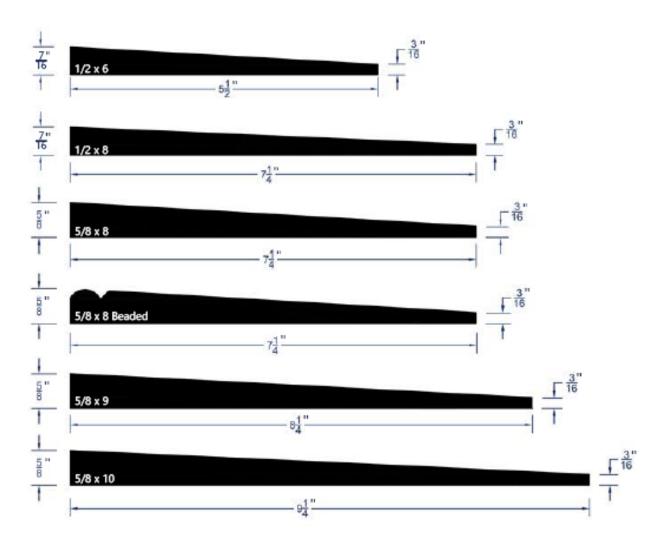


Figure 1 - Duration Beveled Siding

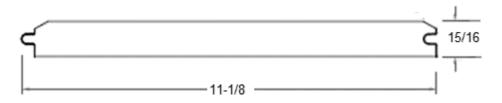


Figure 2 - Duration Castle Block Siding



