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DIVISION: 07 00 00 Thermal and Moisture Protection
Section: 07 46 33 Plastic Siding

REPORT HOLDER:
CertainTeed Corporation
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REPORT SUBJECT:
ICON™ Composite Siding

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2015 International *Building Code*® (IBC)
- 2015 International *Residential Code*® (IRC)
- 2017 *Florida Building Code* (see Section 9)
Excluding High-Velocity Hurricane Zone

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

1.2 ICON™ Composite Siding has been evaluated for the following properties (see Table 1):

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

1.3 ICON™ Composite Siding has been evaluated for the following uses (see Table 1):

- Exterior wall covering on buildings to Type VB construction (IBC) and all construction types permitted under the IRC.

2.0 STATEMENT OF COMPLIANCE

CertainTeed's ICON™ 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 ICON™ Composite Siding is an extruded composite exterior cladding product. ICON™ Composite Siding is produced in pre-primed planks at 12 foot and 16 foot in length with an embossed face. ICON™ Composite Siding has a nominal width of 8.25 inches with a 7" exposed width. See Figure 1 for details.

3.2 Galvanized Steel, type G30, 3 ½ inch ICON™ starter strips are used at the first course of the installed Siding. See Figure 2.

4.0 PERFORMANCE CHARACTERISTICS

4.1 Durability: The ICON™ Composite Siding met the conditions of acceptance after 10 freeze/thaw cycles in accordance with Section 4.2.1 of AC92. ICON also meet the conditions of acceptance after 2000 hours of weathering in accordance with Section 4.1 of AC92

4.2 Surface Burning: ICON™ Composite Siding has a Class C flame spread index of less than 200 when tested in accordance with ASTM E84.

4.3 Weather Protection: ICON™ Composite Siding was evaluated for water penetration resistance in conformance with ASTM E331 and IBC Section 1403.2. See installation requirements, Section 5 of this report.



4.4 Wind Load Resistance: The maximum allowable wind pressure for ICON™ Composite Siding is determined from nominal design wind speeds (V_{asd}) in accordance with IBC Chapter 16 and IRC section R301.1.2.11 shall not exceed the allowable wind loads specified in Table 2.

4.4.1 ICON™ Composite Siding must be installed over structural wood sheathing designed to resist positive wind design pressures in accordance with the applicable code.

4.5 Termite Resistance: ICON™ Composite Siding was evaluated for resistance to termite attack in accordance with AWP A E1-15. The ICON™ Siding achieved a 10 rating indicating little to no attack.

5.0 INSTALLATION

5.1 General:

ICON™ Composite 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 Siding shall be installed using corrosion resistant nails or screws over a code approved structural wood sheathing; plywood complying with DOC PS 1 or Oriented Strand Board (OSB) Exposure 1 sheathing complying with DOC PS 2, per IBC 2303.15 and IRC R604.

5.2.2 Siding may be installed over a maximum of 1" thick foam plastic insulation complying with ASTM C 578 when installed in accordance with Table 2.

5.2.3 An approved water-resistive barrier shall be installed over the sheathing or the sheathing and foam plastic insulation, complying with Section 1404.2 of the IBC and Section R703.2 of the IRC.

5.2.4 Flashing shall be installed in accordance with IBC 1405.4 and IRC R703.4.

5.3 ICON™ starter strip shall be installed with galvanized roofing nails with a head diameter of 3/8 inches and shank

diameter of 1/8 inches, 1-3/4 inches long when installed without 1" foam plastic insulation. Icon starter strips shall be installed with galvanized siding nails with a head diameter of 7/32 inches and a shank diameter of 3/32 inches, 2-1/2 inches long when installed with 1" foam plastic insulation.

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 Anchorage of furring strips is not within the scope of this report and must be designed and installed to meet required design wind loads in accordance with applicable codes.

6.3 The ICON™ Composite Siding is manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

7.1 Reports of tests of surface burning performance in accordance to ASTM E84, Wind Driven Rain resistance in accordance to ASTM E331, Windload Resistance in accordance to ASTM E330 and Termite Resistance in accordance to AWP A E1-15.

7.2 Data in accordance with the ICC-ES Acceptance Criteria for Composite Siding Containing Inorganic Microspheres and Proprietary Resins, Used as an Exterior Wall Cladding (AC389), Approved October 2009 including: Flexural Properties, Density, Thermal Expansion, Impact Resistance, Water Absorption, and effects of weathering.

7.3 Data in accordance to ICC-ES Acceptance Criteria for Polymer-based, Polymer-modified and High-pressure Laminate Exterior and Interior Wall Cladding (AC92), Approved December 2013 including effects of Freeze-Thaw and Transverse (wind) load performance.





8.0 IDENTIFICATION

The ICON™ Composite Siding is identified with the manufacturer’s name (CertainTeed), address and telephone number, the product name (ICON), the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-0275).



9.0 FLORIDA BUILDING CODE

9.1 Scope of Evaluation:

The ICON™ Siding was evaluated for compliance with the 2017 Florida Building Code – Building, Florida Building Code – Residential and Florida Building Code.

9.2 Conclusion:

The ICON™ Composite Siding described in Sections 2.0 through 7.0 of this Research Report, comply with the 2017 Florida Building Code–Residential subject to the following conditions:

- Use of the ICON™ Siding for compliance with the High-Velocity Hurricane Zone provisions of the 2017 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 a Florida State Product Evaluation Entity.

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	2015 IBC SECTION ¹	2015 IRC SECTION ¹	2017 FBC - Building	2017 FBC – Residential
Surface Burning	2606.3	R316.3	2603.3	R316.3
Weather Protection	1403.2	R703	1403.2	R703
Wind Load Resistance	1609	R301.1.2.11	1609	R703.1.2

¹ Section numbers may be different for earlier versions of the International and Florida codes.

TABLE 2 – SIDING INSTALLATION AND MAXIMUM ALLOWABLE WIND PRESSURE

Sheathing	Stud Type ¹	Fastener ²	Spacing (inches On Center) ²	Maximum Allowable Wind Pressure (PSF)
7/16" Oriented Strand Board (OSB)	Wood	Roofing nails with a head diameter of 3/8 inch, shank diameter of 1/8 inch and, a minimum length of 1-1/4 inches	16	44
1" Foam Plastic Insulation and 7/16" OSB	Wood	Siding nails with a head diameter of 7/32 inch, shank diameter of 3/32 inch and, a minimum length of 2-1/2 inches	16"	26
7/16" OSB	Wood	Galvanized roofing nails with a head diameter of 0.375 inch, a shank diameter of 0.120 inch and a minimum length of 1-3/4 inches	24"	27
7/16" OSB	Wood	Galvanized siding nails with a head diameter of 0.219 inches, shank diameter of 0.113 inch and, a minimum length of 2 inches	16	40
7/16" OSB	Wood	Galvanized siding nails with a head diameter of 0.219 inches, shank diameter of 0.113 inch and, a minimum length of 2 inches	24"	31
5/8" Exterior Gypsum	20 Gauge (33 mil) Steel	#10 flat head tapping screws with a 0.385 inch head diameter, shank diameter of 0.18 inches and a minimum length of 1-5/8 inches,	16"	30
7/16" OSB	2x4 Furring Strip	Galvanized roofing nails with a head diameter of 0.375 inch, shank diameter of 0.120 inches and, a minimum length of 1-3/4 inches	16"	21

¹Wood framing (studs and furring) shall be SPF or better (specific gravity, G=0.42)

²All specified fastening is attachment to framing (studs or furring)



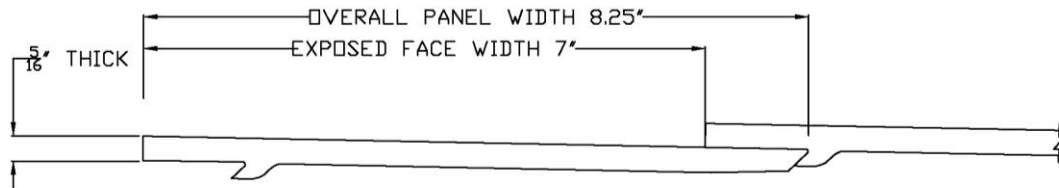


FIGURE 1 – ICON™ SIDING

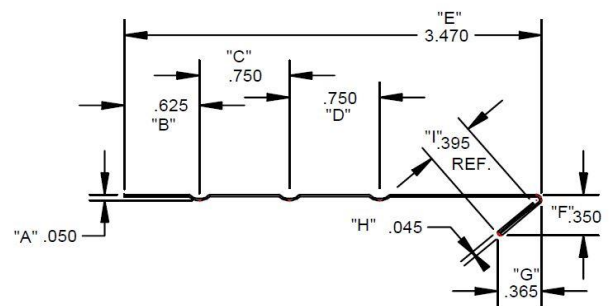
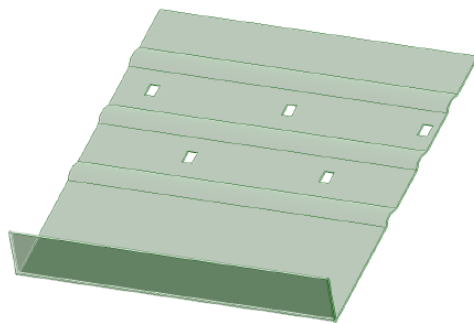


FIGURE 2 – ICON™ STARTER STRIP