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DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION

Section: 07 46 00 – Siding
Section: 07 46 33 – Plastic Siding

REPORT HOLDER:

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REPORT SUBJECT:

AZEK Cellular PVC Cladding

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2018 and 2015 *International Building Code*® (IBC)
- 2018 and 2015 *International Residential Code*® (IRC)
- 2017 *Florida Building Code* (see Section 9) – Excluding High Velocity Hurricane Zone)

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

1.2 AZEK Cellular PVC Cladding has been evaluated for the following properties (see Table 1):

- Physical Properties
- Surface Burning
- Wind Load Resistance

1.3 AZEK Cellular PVC Cladding was evaluated for the following uses (see Table 1):

- Use as an exterior wall cladding on buildings of Type V-B construction (IBC, FBC) and all construction types permitted under the IRC and FBC-Residential.

2.0 STATEMENT OF COMPLIANCE

AZEK Cellular PVC Cladding 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 AZEK Cellular PVC Cladding have a rectangular profile 1" thick and 5.5" wide and are composed of a solid co-extruded cellular polyvinyl chloride (PVC) with a polymer cap and finished with a simulated wood-grain pattern. Harvest and Arbor collections are semi-capped (capped on three sides), and the Vintage collection is fully capped in cross section.

3.1.1 AZEK Harvest® Collection® products are produced in five colors: Autumn Chestnut™, Brownstone, Island Oak™, Kona®, and Slate Gray.

3.1.2 AZEK ARBOR Collection® products are produced in six colors: Acacia®, Brazilian Walnut, Hazelwood, Morado®, Mountain Redwood™, and Silver Oak®.

3.1.3 AZEK Vintage Collection® products are produced in three colors: Cypress, Dark Hickory, and Mahogany.

4.0 PERFORMANCE CHARACTERISTICS

4.1 Windload Resistance – Maximum allowable design pressures are shown in Table 2 for the AZEK Cellular PVC Cladding when installed in accordance with this report.

4.2 AZEK Cellular PVC Cladding has a flame spread index not exceeding 200 when tested in accordance with ASTM E 84.

5.0 INSTALLATION

5.1 General:

AZEK Cellular PVC Cladding 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 AZEK Cellular PVC Cladding shall be installed with fastening as described in Table 2.

5.2.2 AZEK Cellular PVC Cladding shall be attached to treated Southern Yellow Pine ($G = 0.55$, or greater), minimum 2" x 4" nominal wood battens secured to the wall framing over an approved structural wood sheathing complying with Section 2303.1.5 of the IBC and FBC-B.

5.2.3 Sheathing must be covered by an approved water-resistant barrier complying with Section 1403.2 [1404.2] of the IBC and FBC-B, and Section R703.1.1 of the IRC and FBC-R, and provide a means for draining water that enters the assembly to the exterior.

5.2.4 Protection against condensation shall be provided in accordance with Section 1405.3 [1405.3] of the IBC and FBC-B.

5.2.5 Flashing shall be installed in accordance with Section 1404 [1405] of the IBC and FBC-B, and Section R703.4 of the IRC and FBC-R.

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 Wind design pressures determined from nominal design wind speeds (V_{asd}) in accordance with Section 1609.3.1 of the IBC and FBC-B shall not exceed the maximum allowable design pressure given in Table 2 for AZEK Cellular PVC Cladding.

6.3 AZEK Cellular PVC Cladding is limited to the exterior use on buildings of combustible nonfire-resistance-rated construction: IBC and FBC-B Type V-B construction and all construction types permitted under the IRC and FBC-R.

6.4 The compatibility of all fasteners with supporting structure, including chemically treated wood, is not within the scope of this report and 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 the AZEK Cellular PVC Cladding. Other methods of attachment are outside the scope of this report.

6.6 The wood battens and wood batten attachment to the building structure is outside the scope of this report.

6.7 AZEK Cellular PVC Cladding recognized in this report are manufactured in accordance with the manufacturer's approved quality control system with inspections by Intertek. See Table 3 approved manufacturing locations.

6.8 AZEK Cellular PVC Cladding is manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

7.1 Reports of testing demonstrating equivalent impact and windload resistance requirements for plastic siding in accordance with ASTM D7254-15 [-07], Standard Specification for polypropylene (PP) siding, and ASTM D3679-13 [-11], 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.

7.2 Reports of testing in accordance 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.

7.3 Reports of evaluation and engineering analysis for allowable fastener capacities in accordance with NDS-2015, National Design Specification (NDS) for Wood Construction.

7.4 Reports of testing in accordance with ASTM E84-16 [-2013a], Test Method for Surface Burning Characteristics of Building Materials.

7.5 Data in accordance with the ICC-ES AC227, Acceptance Criteria for Rigid Cellular PVC Nonload-Bearing Exterior Trim,





revised November 2017 for: Artificial Weathering, Flame Spread, Freeze-Thaw, Water Absorption, Windload Resistance, Density, and Deflection Temperature.

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

8.0 IDENTIFICATION

AZEK Cellular PVC Cladding is identified with the following information:

- Manufacturer’s name (CPG International LLC d/b/a The AZEK® Company LLC.)
- Manufacture’s address and telephone number
- The product name (AZEK Cellular PVC Cladding)
- The following statements: “Intertek CCRR-0266” and “See CCRR at <https://whdirectory.intertek.com> for uses and performance levels.”
- The Intertek Mark as shown in the example below
- The Code Compliance Research Report number (CCRR-0266).



9.0 FLORIDA BUILDING CODE

9.1 Scope of Evaluation:

AZEK Cellular PVC Cladding was evaluated for compliance with the 2017 Florida Building Code – Building, Florida Building Code – Residential and Florida Building Code – Energy Conservation.

9.1 Conclusion:

AZEK Cellular PVC Cladding, described in Sections 2.0 through 7.0 of this Research Report, comply with the 2017 Florida Building Code – Building, Florida Building Code – Residential and Florida Building Code – Energy, subject to the following conditions:

- Use of AZEK Cellular PVC Cladding 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 quality assurance entity approved by the Florida Building Commission.

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	2018 IBC	2018 IRC	2015 IBC	2015 IRC	2017 FBC - Building	2017 FBC - Residential
Physical Properties	1403.9 1403.12	R703.11 R703.14	1404.9 1404.12	R703.11 R703.14	1404.9 1404.12	R703.11 R703.14
Surface Burning	1403.12	R703.14	1404.12	R703.14	1404.12	R703.14
Wind Load Resistance	1404.14	R703.1.2	1405.14	R703.1.2	1405.14	R703.14

TABLE 2 – AZEK CELLULAR PVC CLADDING ALLOWABLE DESIGN PRESSURES

Battens			Fastener Description	Allowable Design Pressure ⁽²⁾
Material ⁽¹⁾	Thickness ⁽¹⁾	Spacing		
Southern Pine (Specific Gravity, 0.55)	1.5"	16" o.c.	Two #10 x 2" long <i>OMG FastenMaster® Cortex</i> trim board carbon steel fastener into each stud, and three <i>Cortex</i> fasteners at the end of each plank	223 psf
			Two #8 x 2.5" stainless steel trim-head screw (9 TPI, 0.130" shank dia., 0.258" head dia.) into each stud	395 psf

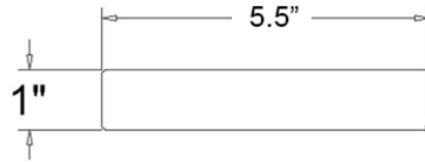
⁽¹⁾ Installation on battens with a lesser thickness or lesser specific gravity may result in a lower allowable design pressure.

⁽²⁾ 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-B.

TABLE 3 – MANUFACTURING LOCATIONS

Products	Manufacturing Location
<i>AZEK ARBOR Collection®</i>	Moosic, Pennsylvania
<i>AZEK Harvest® Collection®</i>	Wilmington, Ohio
<i>AZEK Vintage Collection®</i>	Wilmington, Ohio





1 x 5 ½ Solid Board

FIGURE 1 – AZEK HARVEST® COLLECTION®, ARBOR COLLECTION®, AND VINTAGE COLLECTION®



#8 x 2.5" stainless steel trim head screw



#10 x 2" OMG FastenMaster™ Cortex

FIGURE 2 – FASTENERS