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DIVISION: 06 00 00 – WOOD, PLASTICS AND COMPOSITES
Section: 06 50 00 – Structural Plastics

REPORT HOLDER:
Modern Mill, Inc.
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601-869-5050
www.modern-mill.com

REPORT SUBJECT:
ACRE Shiplap Siding

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2024, 2021, 2018 *International Building Code*® (IBC)
- 2024, 2021, 2018 *International Residential Code*® (IRC)
- 2023 *Florida Building Code* (excluding High-Velocity-Hurricane Zones) (see Section 9)

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

1.2 ACRE Shiplap Siding has been evaluated for the following properties (see Table 1):

- Decay and termite resistance
- Fire-Resistance
- Physical properties
- Surface burning characteristics
- Wind resistance

1.3 ACRE Shiplap Siding has been evaluated for the following uses (see Table 1):

- Exterior cladding on buildings permitted to be of Type V (A and B) construction and on dwellings constructed in accordance with the IRC

2.0 STATEMENT OF COMPLIANCE

ACRE Shiplap 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

ACRE Shiplap Siding boards are comprised of rice hulls, cellular PVC, and other processing aids. The boards are supplied in three profiles: 1/4-inch Gap, V-Groove, and Nicklegap. The boards are nominally 1-inch in thickness, have nominal 6-, 8- and 10-inch widths, and are produced in lengths up to 20 ft. See Figure 1 for illustrations of the profiles.

4.0 PERFORMANCE CHARACTERISTICS

4.1 The siding boards have an allowable wind resistance when installed as described in Table 2.

4.2 The siding boards have a flame spread index not greater than 200 when tested in accordance with ASTM E84.

4.3 The materials used in production of the siding boards are deemed equivalent to preservative treated or naturally durable wood for resistance to weathering effects, attack from termites, and fungus decay.

4.4 Structural performance has been demonstrated for a temperature range from -20°F to 125°F for live loads.

4.5 ACRE Shiplap Siding installed on the exterior of fire-resistance rated walls does not reduce the fire-resistance rating of the wall assembly established in accordance with IBC Section 703.2.



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5.0 INSTALLATION

5.1 General: The ACRE Shiplap 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.

The siding boards may be installed in either a horizontal or vertical orientation as described in Table 2. For horizontal orientation, the boards are attached through the sheathing to minimum nominal 2 x 4 SPF wood studs spaced a minimum of 16 inches on-center horizontally. For vertical orientation the boards are attached to minimum 1-1/2-in. deep furring strips spaced a maximum of 12 inches on-center vertically.

Fasteners must be minimum 0.099-in. x 2-1/2-in. ring shank nails. Attachment to other substrates must be justified by calculations submitted to the building official demonstrating equivalent withdrawal and pullover capacities. Only those types of fasteners and fastening methods described in this report have been evaluated for the installation of the ACRE Shiplap Siding; other methods of attachment are outside the scope of this report.

The boards must be installed with a gap as prescribed in the manufacturer's instructions, taking into account the ambient temperature at the time of installation.

The siding must be installed over a code-complying sheathing or substrate capable of withstanding the positive and negative design wind loads. The substrate design must be performed by a registered design professional and is outside the scope of this report.

A water resistive barrier must be installed behind the siding in accordance with IBC Section 1404.2 and IRC Section R703.1.

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 ACRE Shiplap Siding may be installed on the exterior of fire resistance rated walls.

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

6.4 The ACRE Shiplap 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 in accordance with the ICC-ES Acceptance Criteria for Wood-plastic Composite Products Used as Exterior Siding (AC524), approved June 2021.

7.2 Intertek Listing Report "Modern Mill, Inc. – ACRE Shiplap Siding", on the [Intertek Directory of Building Products](#).

8.0 IDENTIFICATION

The ACRE Shiplap Siding is identified with the manufacturer's name (Modern Mill, Inc.), the product name, the Intertek Mark as shown below, the Intertek Control Number and the Code Compliance Research Report number (CCRR-0546).



9.0 FLORIDA BUILDING CODE

The ACRE Shiplap Siding, described in Sections 2.0 through 7.0 of this Research Report, complies with the *Florida Building Code – Building and Florida Building Code – Residential*, for the editions indicated in Section 1.1 of this Report, subject to the following conditions:

- Use of the siding for compliance with the High-Velocity Hurricane Zone provisions of the FBC 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.

TABLE 1 – PROPERTIES EVALUATED

PROPERTY	2024 IBC SECTION	2024 IRC SECTION	2023 FBC - Building	2023 FBC – Residential
Physical properties	104.2.3	R104.2.2	104.11	R101.2.1
Fire Resistance	703.2	n/a	703.2	n/a
Wind resistance	1609	R301.2.1	1609	R301.2.1
Surface burning characteristics	2612.3	R507.2.2.2	2612.3	R507.2.2
Decay and termite resistance	2612.4	R507.2.2.3	2612.4	R507.2.3
Exterior covering	1402	R703	1403	R703

Section numbers in earlier editions of the Codes may differ

TABLE 2 – ALLOWABLE DESIGN WIND PRESSURE

Siding	Orientation	Wall Framing – Max. Spacing (in.)	Allowable Design Wind Pressure (psf)
1 X 6	Horizontal	16	95
	Vertical	12	56
1 X 8	Horizontal	16	74
	Vertical	12	45
1 x 10	Horizontal	16	53
	Vertical	12	35

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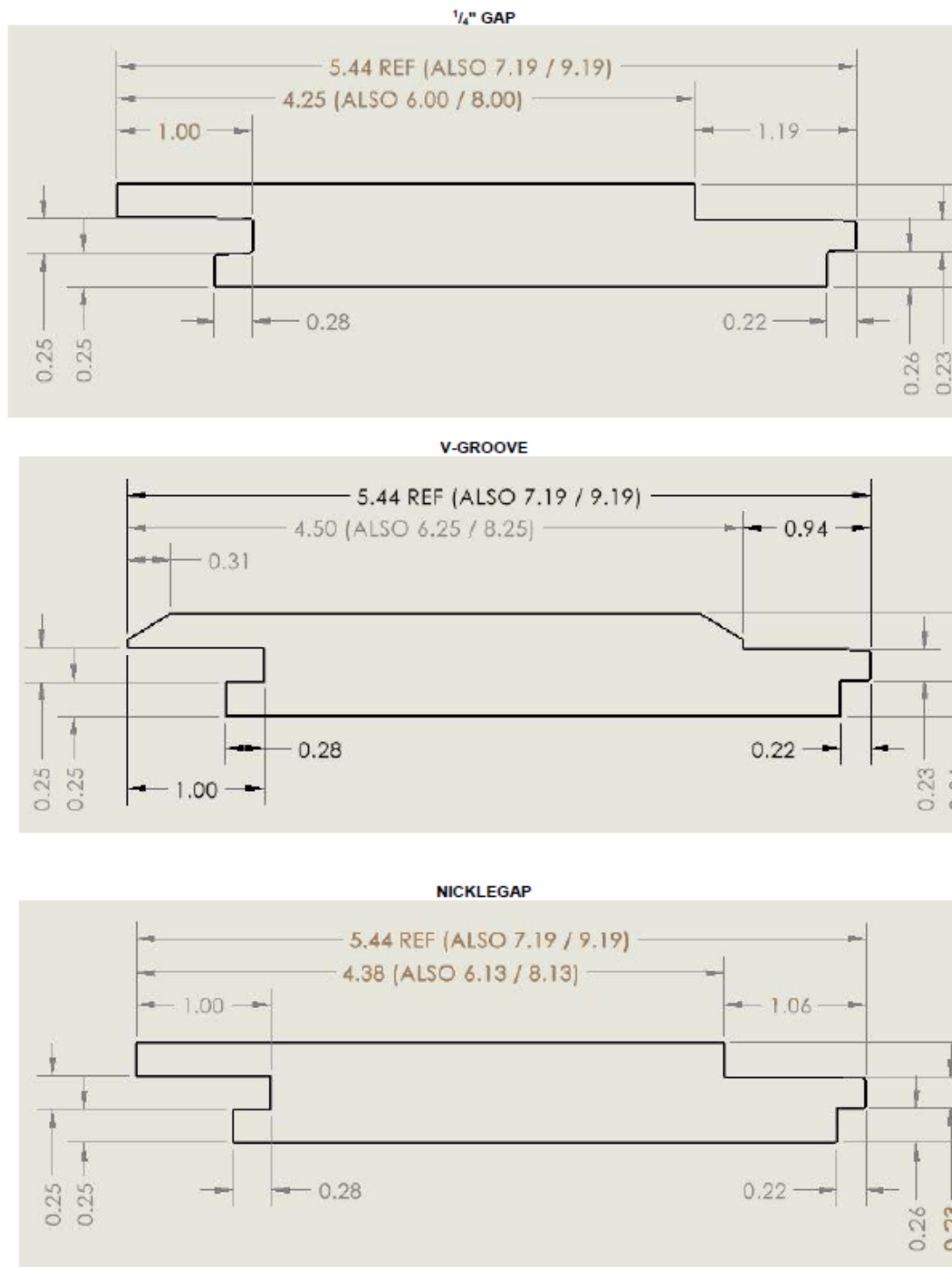


Figure 1 – Siding Profiles