



DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION

Section: 07 46 33—Plastic Siding

REPORT HOLDER:

SAGIPER NORTH AMERICA

EVALUATION SUBJECT:

SAGIWALL – EXTRUDED DUAL-WALL PVC SIDING

1.0 EVALUATION SCOPE

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 (Ignition Resistance)

2.0 USES

SAGIWALL – Extruded Dual-Wall PVC Siding is used as an exterior wall covering on buildings of all construction types under the IBC and on structures constructed in accordance with the IRC.

3.0 DESCRIPTION

The SAGIWALL siding is an extruded polyvinyl chloride (PVC) cladding conforming to the requirements of ASTM D3679. The siding is manufactured with a laminated PVC film applied to the exterior surface and is available in a variety of colors. Siding products include a variety of accessories made from aluminum such as a starter bar, corners, J-mold trim and H-mold trim.

The siding panels are produced in a 6-inch (126 mm) wide channeled profile and a 6-inch (126 mm) wide V-groove profile. The panels are available in standard lengths of 12 feet (3.7 m) and 19 feet (5.8 m) and are produced with a nominal profile depth of 0.67 inches (17 mm).

The panels are formed with an upper edge with nail slots and a lower edge that hooks into the upper edge of the lower course.

4.0 DESIGN AND INSTALLATION

4.1 General:

Installation of the SAGIWALL – Extruded Dual-Wall PVC Siding must be in accordance with the manufacturer’s published installation instructions, the applicable code and this report. In the event of a conflict between the manufacturer’s published installation instructions and this report, this report must govern. A copy of the manufacturer’s published installation instructions must be available at the jobsite at all times during construction.

The siding must be installed on exterior walls covered with a solid sheathing capable of resisting the positive and negative design wind loads. The siding is installed on top of furring to create a drainage space between the back side of the siding panels and the solid sheathing. The sheathing and furring must be fastened to wall framing in accordance with the applicable code, taking into account the transverse wind loads they will be subjected to in use. The sheathing must be covered with an approved water-resistive barrier where required by the code. Flashing in accordance with the applicable code must be installed at all openings, penetrations, and abutments with dissimilar materials, and at terminations of the siding

See the manufacturer’s published installation instructions for additional details regarding installation of the siding panels and specific trim and accessories.

4.2 Fasteners:

Fasteners used in the installation of the SAGIWALL siding panels must be corrosion-resistant #8 screws with a pan head style. Screws shall have a minimum head diameter of 0.31 inches (8 mm) and a length sufficient to achieve a minimum penetration depth of 1 1/4 inches (32 mm) into stud framing. The fasteners must be installed in the center of the siding nail slots at a maximum spacing of 16 inches (406 mm) on center. Fasteners must be installed with a gap between the fastener head and the siding, per the manufacturer’s installation instructions, in order to allow for thermal expansion and contraction.

4.3 Wind Resistance:

When installed in accordance with this section, the SAGIWALL siding panels have an allowable positive and negative design pressure as indicated in Table 1. The design wind pressures must be determined in accordance with the requirements of Chapter 16 of the IBC or R301.2.1 of the IRC, as applicable, and must not exceed the allowable wind pressures given in Table 1 of this report.

The siding panels must be installed on top of 1-inch-thick by 3-inch-wide wood furring strips attached to wood structural panel sheathing over wood stud framing. The wood structural panel sheathing must be minimum 7/16-inch-thick Exposure 1 OSB complying with US DOC PS-2 or minimum 7/16-inch-thick plywood complying with US DOC PS-1. The wood stud framing must have a minimum specific gravity (G) of 0.42.

The wood furring strips and wood stud framing must be spaced at a maximum of 16 inches (406 mm) on center. The SAGIWALL siding panels must be attached with #8 corrosion-resistant screws complying with Section 4.2. The screws shall penetrate through the wood furring strips and wood sheathing and into the wood studs. The screws must be of sufficient length to achieve a minimum penetration depth of 1 1/4 inches (32 mm) into the wood studs.

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

When the exterior wall is sheathed with fire-retardant-treated wood sheathing, the SAGIWALL siding panels can used on the exterior side of the exterior walls on buildings of all construction types. The siding shows no sustained flaming at a maximum tolerable level of incident heat flux of 12.5 kW/m², when tested in accordance with NFPA 268. The minimum fire separation distance required must be determined in accordance with IBC Table 1405.1.1.1.2. The siding must be installed in accordance with the applicable requirements of IBC Section 1405.

5.0 CONDITIONS OF USE

The SAGIWALL – Extruded Dual-Wall PVC Siding described in this report complies with, or is a suitable alternative 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 installation instructions and the applicable code. If there is a conflict between the installation instructions and this report, this report governs.

- 5.2 The SAGIWALL siding must be installed on exterior walls covered by a solid sheathing. The sheathing must be covered with a water-resistive barrier as required by the code.
- 5.3 The substrate and framing to which the SAGIWALL siding is attached must be designed for the imposed loads, including but not limited to positive and negative transverse wind loads. Design of the substrate and framing is outside the scope of this report.
- 5.4 Exterior walls must be braced or sheathed to resist racking loads with approved materials in accordance with the requirements of the applicable code.
- 5.5 The SAGIWALL siding can be used on all types of construction under the 2018 IBC and on 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.
- 5.6 The siding panels are produced in Vagos, Portugal 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 268.

7.0 IDENTIFICATION

- 7.1 Each package of SAGIWALL siding described in this report is identified with the SAGIPER North America name, the product name, and the evaluation report number (ESR-4876).
- 7.2 The report holder’s contact information is the following:

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TABLE 1—SAGIWALL EXTRUDED DUAL-WALL PVC SIDING ALLOWABLE WIND PRESSURES¹

SAGIWALL PANEL PROFILE	MAXIMUM FASTENER/SUPPORT/SPAN SPACING (inches)	FASTENER TYPE ^{2,3,4}	ALLOWABLE WIND PRESSURE (psf)	
			NEGATIVE	POSITIVE
Channeled	16 inches o.c.	#8 corrosion-resistant screws	42	32
V-Groove				

For SI: 1 inch = 25.4 mm; 1 psf = 6.89 kPa

¹Based on installation in accordance with Section 4.3 of this report.

²Fasteners shall comply with Section 4.2 of this report.

³Fasteners shall penetrate through furring strips and sheathing and into the stud.

⁴Fasteners shall be of sufficient length to achieve a minimum penetration depth of 1 1/4 inches (32 mm) into the studs.