Code Compliance Research Report
CCRR-0164

Issue Date: 05-25-2017
Renewal Date: 05-26-2018

DIVISION: 07 00 00 THERMAL AND MOISTURE PROTECTION
Section: 07 46 33 Plastic Siding

REPORT HOLDER:
Ply Gem Siding Group
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www.plygem.com

REPORT SUBJECT:
Polypropylene Siding
Mastic Cedar Discovery
Variform Heritage Cedar
Georgia-Pacific Cedar Spectrum
Napco Cedar Select
Cellwood Cedar Dimensions
Durabuilt

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:
- 2015 and 2012 *International Building Code®* (IBC)
- 2015 and 2012 *International Residential Code®* (IRC)

1.2 Polypropylene Siding has been evaluated for the following properties:
- Durability
- Surface Burning
- Weather Resistance
- Wind Load Resistance (Negative Transverse)

1.3 Polypropylene Siding has been evaluated for the following uses:
- Exterior wall cladding attached to an approved structural sheathing

2.0 STATEMENT OF COMPLIANCE

Ply Gem Polypropylene 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.

3.0 DESCRIPTION

3.1 Ply Gem Siding is a rigid polypropylene with solid cross sections.

3.2 Ply Gem Polypropylene Siding has the following manufacturing names *Mastic Cedar Discovery, Variform Heritage Cedar, Georgia-Pacific Cedar Spectrum, Napco Cedar Select, Cellwood Cedar Dimensions,* and *Durabuilt*.

3.3 Ply Gem siding is manufactured using an injection molded process. Finished product has a minimum density of 0.55 g/cm^3.

3.4 Ply Gem polypropylene siding products are supplied with a Double, Triple, Split Shake, or Half Round profile. Thickness range and lengths of product can be found in Table 1.

4.0 PERFORMANCE CHARACTERISTICS

4.1 Flame Spread – Polypropylene Siding has a flame spread index not exceeding 200 when tested in accordance with ASTM E 84.

4.2 Wind Resistance – Design pressures applicable to allowable stress design (ASD) determined in accordance with the applicable code shall not exceed the allowable wind loads specified for the product.

4.2.1 Ply Gem Polypropylene Siding products are not evaluated for resisting positive wind pressure. Siding must be installed over structural wood sheathing designed to resist positive wind design pressures in accordance with the applicable code**.**

4.2.2 Allowable negative wind design pressures are given in Table 1 for all Polypropylene Siding products recognized in this report when installed in accordance with Section 5.

5.0 INSTALLATION

5.1 General:

Ply Gem Polypropylene 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 Except as noted herein, Ply Gem Polypropylene Siding shall be installed in accordance with IBC Section 1405.18 and the manufacturer's instructions.

5.2.2 Molded polypropylene accessories utilized for installation include: Starter strip, J-channel, drip cap and inside/outside corner trim.

5.2.3 The siding shall be installed over an approved structural wood sheathing; plywood complying with DOC PS 1 or Oriented Strand Board (OSB) Exposure 1 sheathing complying with DOC PS 2 and an approved water-resistive barrier in accordance with the applicable code.

5.2.4 Fasteners shall be corrosion-resistant nails with a head diameter 3/8 inch minimum, shank diameter 1/8 inch. Nails are located every 8 inches along the nail hem with every-other nail secured to a wood stud. Length of nails shall be sufficient to provide 1-3/8 inch minimum penetration in wall studs and full penetration through wood sheathing.

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 For codes recognized in this report, design wind pressures shall be determined in accordance with the IBC Chapter 16 and IRC Section R301.2.

6.3 Wind Design pressures shall be determined from nominal wind speeds (V_{asd}) and shall not exceed the allowable wind pressures shown in Table 1.

6.4 Polypropylene siding is limited to exterior use in Type VB construction.

6.5 For IBC applications, polypropylene siding shall not be installed on walls with a fire separation distance of less than 10 feet.

6.6 For 2015 IRC applications, polypropylene siding shall not be installed on walls with a fire separation distance of less than 5 feet and walls closer than 10 feet to any building on another lot.

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

6.8 Only those types of fasteners and fastening methods described in this report have been evaluated for the installation of polypropylene siding; other methods of attachment are outside the scope of this report.

6.9 Ply Gem Polypropylene siding is manufactured in Gaffney, South Carolina by Ply Gem Siding Group under a quality control program with inspections by Intertek Testing Services NA, Inc. (AA-676).

7.0 SUPPORTING EVIDENCE

7.1 Manufacturer's drawings and installation instructions.

7.2 Reports of testing in accordance with ASTM D 7254-07, Standard Specification for Polypropylene (PP) Siding.

7.3 Reports of testing demonstrating compliance with ICC-ES AC366 Acceptance Criteria for Polypropylene Siding, revised April 2011.

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

8.0 IDENTIFICATION

Ply Gem Polypropylene Siding is identified with the manufacturer's name (Ply Gem Siding Group), address and telephone number, the product name (Ply Gem Polypropylene Siding), the statement "Conforms to ASTM Specification

D7254", the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-0164).

9.0 OTHER CODES

This section is not applicable.

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 https://bpdirectory.intertek.com is recommended to ascertain the current version and status of this report.

TABLE 1 - WIND RESISTANCE – MAXIMUM ALLOWABLE NEGATIVE DESIGN PRESSURE (PSF)

Product Name	Product Code	Product Style	Thickness (inch)	Length (inches)	Design Pressure (psf)
Mastic Cedar Discovery	CD70P	Double 7	0.080	67-3/4	139
	CD70P2				
Cellwood Cedar Dimensions	CEDAR7	Double 7	0.090	54-5/8	102
Georgia-Pacific Cedar Spectrum	55602				
Napco Cedar Select	36417				
Durabuilt (650 Series)	36515				
Mastic Cedar Discovery	CD50P2	Triple Five	0.100	66	93
Mastic Cedar Discovery	CD65HR	Half-Round	0.100	51-1/2	37
Napco Cedar Select	36418				
Durabuilt (660 Series)	36516				
Cellwood Cedar Dimensions	DCHR65				
Georgia-Pacific Cedar Spectrum	55902				
Napco Cedar Select	36469	Hand Split	0.120	54-1/8	65
Durabuilt (670 Series)	36514				
Georgia-Pacific Cedar Spectrum	56002				
Variform Heritage Cedar	560				
Mastic Cedar Discovery	CD95HS	Hand Split	0.120	67-3/4	74

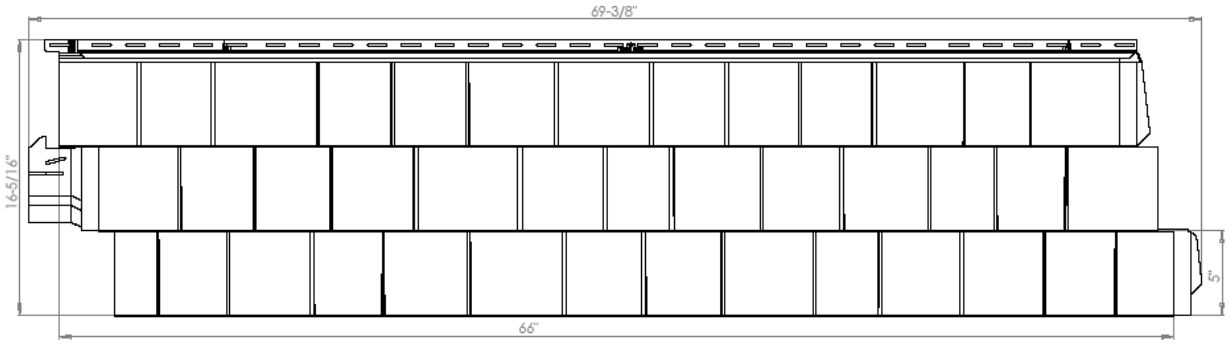

FIGURE 1 – TRIPLE FIVE (CD50P2)
Polypropylene Siding Profile

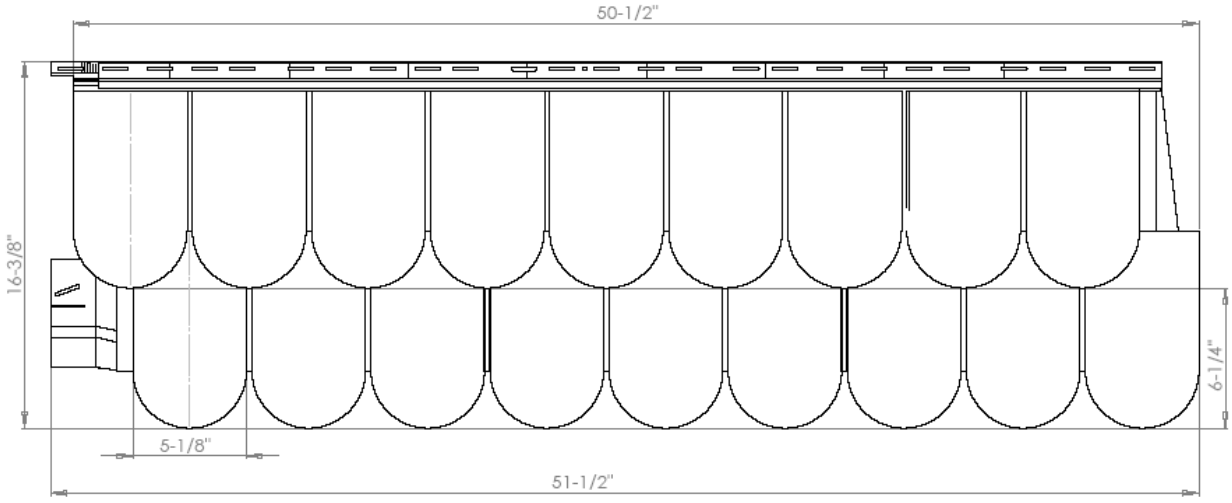

FIGURE 2 – HALF-ROUND (CD65HR, 36418, DCHR65, 55902 & 36516)

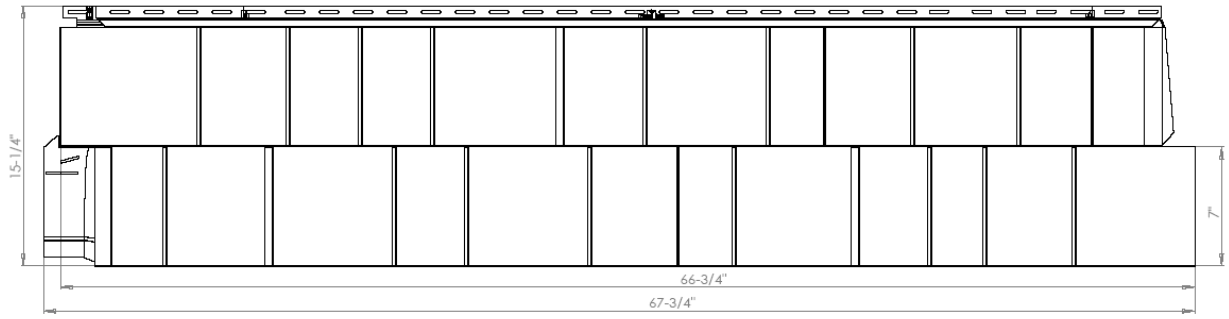

FIGURE 3 – DOUBLE 7 (CD70P & CD70P2)
Polypropylene Siding Profile

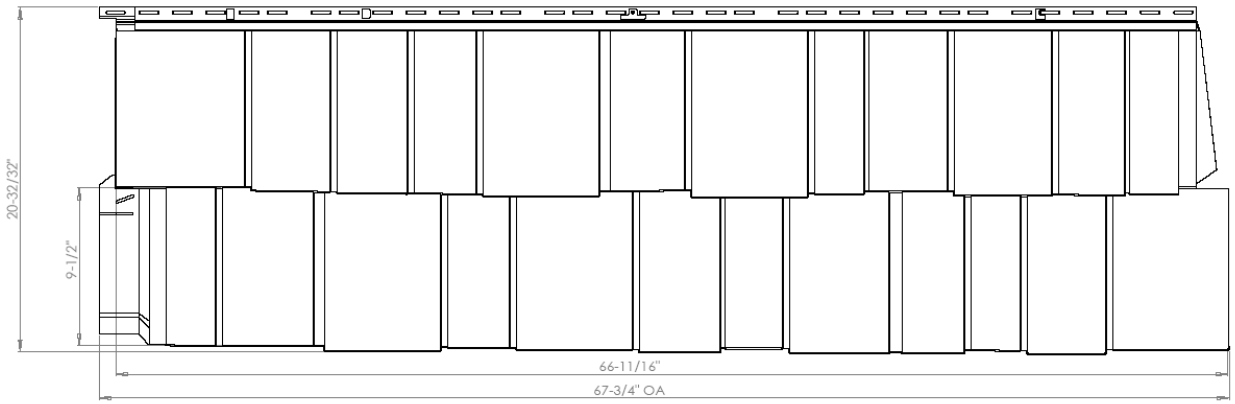

FIGURE 4 – HAND SPLIT (CD95HS)
Polypropylene Siding Profile

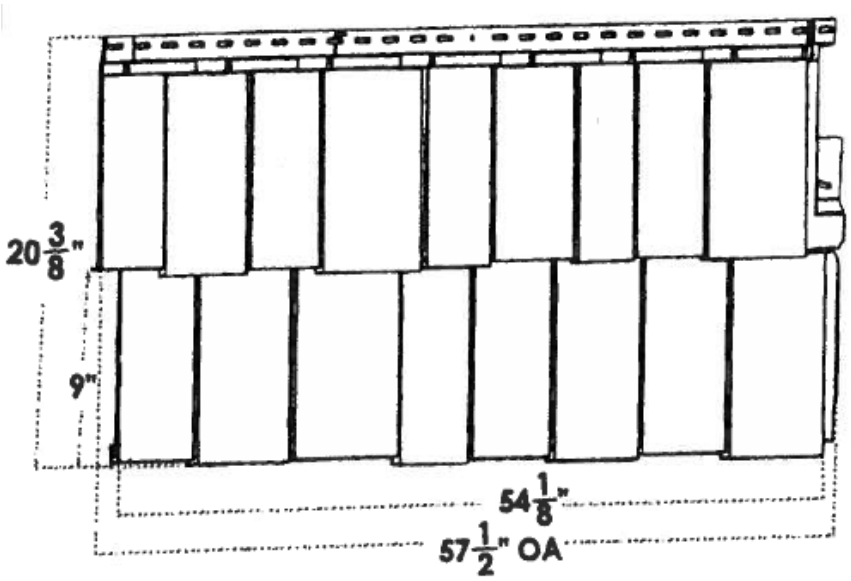

FIGURE 5 – HAND SPLIT (36469, 56002, 560 & 36514)
Polypropylene Siding Profile