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DIVISION: 07—THERMAL AND MOISTURE PROTECTION
Section: 07460—Siding

REPORT HOLDER:

OWENS CORNING
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EVALUATION SUBJECT:

OWENS CORNING VINYL WALL SIDINGS

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2003 *International Building Code*® (IBC)
- 2003 *International Residential Code*® (IRC)
- 1997 *Uniform Building Code*™ (UBC)
- BOCA® *National Building Code/1999* (BNBC)
- 1999 *Standard Building Code*® (SBC)

Properties evaluated:

- Exterior veneer
- Wind load resistance

2.0 USES

Owens Corning vinyl sidings are used as exterior veneer and as closure material on the underside of exterior roof eaves (soffits).

3.0 DESCRIPTION

Owens Corning vinyl sidings are extruded from polyvinylchloride (PVC) resins and conform to the requirements of ASTM D 3679. The panels are formed with an upper edge having nail slots and a lower edge that hooks into the upper edge of the lower course. Refer to Table 1 of this report for the panels' thicknesses, lengths and profiles. Accessory materials such as corners, starter strips, J-channels and trim are manufactured of the same materials as the panels.

4.0 INSTALLATION

4.1 General:

Installation of the siding, including panels, corners, soffits, starter strips, trim and other accessory items, shall 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 shall govern. A copy of

the manufacturer's published installation instructions shall be on the jobsite at all times during installation.

Solid sheathing and a water-resistive barrier shall be provided behind the siding, as required by the applicable code.

The allowable wind loads are as noted in the prescriptive requirements of the applicable code. See Section 4.2 for applications in excess of the prescriptive requirements or where the applicable code does not provide prescriptive requirements.

4.2 Wind Resistance:

The design wind pressure shall be determined in accordance with Chapter 16 of the IBC, UBC, BNBC, or SBC, as applicable, or Section R301.2.1.1 of the IRC, and shall not exceed the values in Table 2 of this report. Wind resistance of the soffit panels is outside the scope of this report.

Where values in Table 2 are used, the siding shall be installed over solid sheathing attached to framing spaced a maximum of 16 inches (406 mm) on center and covered with a weather-resistive barrier as required by the applicable code.

Flashings in accordance with the applicable code shall be installed at all openings and penetrations, and at terminations of the sidings and soffit, to maintain the weather tightness of the assembly. The fasteners shall be 1½-inch-long (38 mm) corrosion-resistant nails with ⅜-inch-diameter (9.5 mm) heads and ⅛-inch-diameter (3.2 mm) smooth shanks. The fasteners are installed to the framing through the center of the nailing slots, a maximum of 16 inches (406 mm) on center. The fasteners shall penetrate at least 1 inch (25.4 mm) into wood studs. In areas utilizing the UBC, fastener spacing for attaching the siding shall comply with UBC Section 1404.2.

A minimum of 1/32 inch (0.8 mm) is required between the fastener head and the face of the vinyl nailing flange, to allow movement of the panels due to expansion and contraction. A gap of 1/4 inch (6.4 mm) is required at all openings and stops, for expansion and contraction. Joints between panels shall be overlapped a minimum of 1/2 inch (12.7 mm). Accessory materials shall be installed in accordance with the manufacturer's published installation instructions.

5.0 CONDITIONS OF USE

The Owens Corning Vinyl 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** The siding is limited to installations on buildings of Type V-B (IBC), Type 5B (BNBC), Type VI (SBC) and TypeV-N (UBC) construction, and construction permitted by the IRC.
- 5.2** The exterior walls shall be braced or sheathed to resist racking loads with approved materials in accordance with the applicable code.

5.3 The siding shall be installed only on exterior walls with solid sheathing capable of supporting the imposed loads, including, but not limited to, transverse wind loads. The sheathing shall be covered with a water-resistive barrier, as required by the applicable code.

6.0 EVIDENCE SUBMITTED

- 6.1** Manufacturer's installation instructions, dated 1999 (editorially revised February 2005).
- 6.2** Data in accordance with the ICC-ES Evaluation Guideline for Vinyl Siding (EG37), dated October 2003.

6.3 A quality control manual.

7.0 IDENTIFICATION

The Owens Corning vinyl wall sidings described in this report are identified by a stamp bearing the Owens Corning name and the product type, the statement "Conforms to ASTM specification D 3679," the statement "Conforms to UBC Standard 14-2" and the evaluation report number (ESR-1020).

TABLE 1—PANEL THICKNESSES, LENGTHS AND DESCRIPTIONS

| THICKNESS | PROFILE | BRAND | NOMINAL BRAND LENGTH |
|------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| 0.040 in. (1.02 mm) | Double 4 | Summit Manor, Easy Street, Oakview Manor, Walnut Manor, Classic, Solid Vinyl Siding | 12 ft. 6 in. (3.81 m) |
| | | Nantucket, Accord Standard | 12 ft. 3 ⁵ / ₈ in. (3.75 m) |
| | Double 4 Dutchlap | Nantucket, Accord Standard | 12 ft. 3 ⁵ / ₈ in. (3.75 m) |
| | Double 4.5 | Easy Street, Essentials, Classic, Summit Manor, Oak View Manor, Walnut Manor, Solid Vinyl Siding | 12 ft. 1 in. (3.68 m) |
| | | Nantucket | 12 ft. 11 ¹ / ₈ in. (3.94 m) |
| | Double 4.5 Dutchlap | Easy Street, Essentials, Classic, Summit Manor, Oak View Manor, Walnut Manor, Solid Vinyl Siding | 12 ft. 1 in. (3.68 m) |
| | Nantucket, Accord Standard | 12 ft. 11 ¹ / ₈ in. (3.94 m) | |
| | Triple 3 | Essentials Narrow Plank, Shenandoah, Renovations, Triple 3 Vinyl Siding | 12 ft. 1 in. (3.68 m) |
| 0.041 in. (1.04 mm) | Double 4 | UVS | 12 ft. 3 ⁵ / ₈ in. (3.75 m) |
| 0.042 in. (1.07 mm) | Double 4 | Essentials Plus, Proform, Woodsman Select, Oak View Estates, Renovations Basic, Chesapeake Select, Walnut Estate, Town Hall Woodgrain, Cedar Grain Vinyl Siding | 12 ft. 6 in. (3.81 m) |
| | Double 4 Dutchlap | Proform, Woodsman Select, Oak View Estates, Essentials Plus, Chesapeake Select, Walnut Estate, Town Hall Woodgrain, Cedar Grain Vinyl Siding | 12 ft. 6 in. (3.81 m) |
| | Double 4.5 | Proside 20 | 20 ft. (6.10 m) |
| | | Proside, Accord Premium | 12 ft. 11 ¹ / ₈ in. (3.94 m) |
| | Double 4.5 Dutchlap | Proside 20 | 20 ft. (6.10 m) |
| | | Proside, Accord Premium | 12 ft. 11 ¹ / ₈ in. (3.94 m) |
| | Double 5 | Essentials Plus, Proform, Woodsman Select, Oak View Estates, Chesapeake Select, Walnut Estate, Town Hall Woodgrain, Cedar Grain Vinyl Siding | 12 ft. (3.66 m) |
| | Double 5 Dutchlap | Woodsman Select, Essentials Plus, Oak View Estates, Renovations Basic, Proform, Chesapeake Select, Townhall Woodgrain, Cedar Grain Vinyl Siding | 12 ft. (3.7 m) |
| Triple 3 | Triple 3, Accord Premium T3 | 12 ft. 11 ¹ / ₈ in. (3.94 m) | |
| Triple 3 | Narrow Plank | 12 ft. 6 in. (3.81 m) | |
| 0.043 in. (1.09 mm) | Double 5 Vertical | Shurlock | 12 ft. (3.66 m) |

(Continued)

TABLE 1—PANEL THICKNESSES, LENGTHS AND DESCRIPTIONS (Continued)

| THICKNESS | PROFILE | BRAND | NOMINAL BRAND LENGTH |
|--------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| 0.044 in. (1.12 mm) | Double 4 | Essentials Premium, Grand Junction, Great Barrier, Sterling, Renovations Select, Supreme Plus, Oak View Premium, Town Hall Premium Plus, Premium Solid Vinyl Siding, Polar Wall Plus, Generations, Deluxe Woodgrain, American Classic, Ridgewood | 12 ft. 6 in. (3.81 m) |
| | | Great Barrier, Grand Junction | 16 ft. 8 in. (5.08 m) |
| | | Polar Wall Plus | 16 ft. 8 in. (5.08 m) |
| | Double 4.5 | Prestige, Accord Premium Plus, Expressions | 12 ft. 11 ¹ / ₈ in. (3.94 m) |
| | | Prestige 16 | 16 ft. (4.88 m) |
| | Double 4.5 Dutchlap | Supreme Plus | 12 ft. 1 in. (3.68 m) |
| | | Prestige, Accord Premium Plus, Expressions | 12 ft. 11 ¹ / ₈ in. (3.94 m) |
| | | Prestige 16 | 16 ft. (4.88 m) |
| | Double 5 | Essentials Premium, Sterling, Nantucket, Deluxe Woodgrain | 12 ft. (3.66 m) |
| | Double 5 Dutchlap | Essentials Premium, Grand Junction, Sterling, Renovations Select, Oak View Premium, Great Barrier, Town Hall Premium Plus, Premium Solid Vinyl Siding, Polar Wall Plus, Generations, Deluxe Woodgrain, American Classic, Ridgewood | 12 ft. (3.66 m) |
| | | Great Barrier, Grand Junction | 16 ft. 8 in. (5.08 m) |
| Prestige, Accord Premium Plus, Expressions | | 12 ft. 11 ¹ / ₂ in. (3.95 m) | |
| Polar Wall Plus | | 16 ft. 8 in. (5.08 m) | |
| Single 6.25 Vertical | Board and Batten | 10 ft. (3.05 m) | |
| Triple 4 Vertical | Norandex Premium | 12 ft. (3.66 m) | |
| 0.045 in. (1.14 mm) | Single 8 | Bevel 8, Accord 8 | 12 ft. 3 ⁵ / ₈ in. (3.75 m) |
| 0.046 in. (1.17 mm) | Double 4.5 | Eminence | 13 ft. 4 in. (4.06 m) |
| | | | 19 ft. (5.8 m) |
| | | | 20 ft (6.1 m) |
| | | Cedar Reflections, Reminiscence, Premium Cedar Grain Vinyl Siding | 12 ft. 1 in. (3.68 m) |
| | Double 4.5 Dutchlap | Cedar Reflections XL, Premium Extended Length Cedar Grain Vinyl Siding | 16 ft. 8 in. (5.08 m) |
| | | Eminence | 13 ft. 4 in. (4.06 m) |
| | | | 19 ft. (5.8 m) |
| | | | 20 ft (6.1 m) |
| Double 4.5 Dutchlap | Cedar Reflections, Reminiscence, Premium Cedar Grain Vinyl Siding | 12 ft. 1 in. (3.68 m) | |
| | Cedar Reflections XL, Premium Extended Length Cedar Grain Vinyl Siding | 16 ft. 8 in. (5.08 m) | |
| Single 6.5 | Essentials Semi-Beaded, Shenandoah, Beaded 6.5 Vinyl Siding | 12 ft. 3 ⁵ / ₈ in. (3.75 m) | |
| Double 5 Vertical | HomeSide | 12 ft. 1 in. (3.66 m) | |
| 0.047 (1.19 mm) | Single 6.25 Vertical | Board and Batten | 10 ft (3.05 m) |
| 0.048 in. (1.22 mm) | Double 4.5 | Reminiscence | 12 ft. 1 in. (3.68 m) |
| | Double 4.5 Dutchlap | Reminiscence | 12 ft. 1 in. (3.68 m) |
| | Double 5 Vertical | Vytec, Essentials, Norandex, Reynolds, Townhall, American Classic, Renovations, Premium Vinyl Soffit | 12 ft. (3.66 m) |
| | Single 6.5 | Cambridge Beaded, Nantucket Beaded, Beaded Premium Vinyl Siding | 12 ft. 4 in. (3.76 m) |
| | Single 8 | Deluxe | 12 ft. 6 in. (3.81 m) |
| 0.050 in. (1.27 mm) | Double 4 | Cross Roads, Sagebrush, Super Premium Vinyl Siding, Town Hall Brushed | 12 ft. 6 in. (3.81 m) |
| | Double 5 Dutchlap | Cross Roads, Sagebrush, Super Premium Vinyl Siding, Town Hall Brushed | 12 ft. (3.66 m) |

TABLE 2—ALLOWABLE NEGATIVE WIND LOADS²

| SIDING ¹ | NOMINAL THICKNESS (in.) | ALLOWABLE NEGATIVE WIND LOAD (psf) | |
|---------------------|----------------------------|------------------------------------|-------|
| | | SBC/IBC/BNBC | UBC |
| Double 5 DL | 0.040 | 57.55 | 35.97 |
| Double 4 | 0.043 | 46.23 | 28.89 |
| Triple 4 | 0.044 | 36.28 | 22.68 |

For **SI**: 1 psf = 0.0479 kPa, 1 foot = 304.8 mm.

¹Nails and fastener spacing for siding attachment are described in Section 4.2 of this report.

²Siding profiles not identified in this table must be attached in accordance with the applicable code.