ICC-ES Evaluation Report

ESR-1083

Reissued March 1, 2010

This report is subject to re-examination in two years.

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

REPORT HOLDER:

CRANE PLASTICS SIDING, LLC, dba
EXTERIOR PORTFOLIO BY CRANE
1441 UNIVERSAL ROAD
COLUMBUS, OHIO 43207
(614) 443-4891
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EVALUATION SUBJECT:

CRANE VINYL SIDINGS

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2009 *International Building Code*® (IBC)
- 2009 *International Residential Code*® (IRC)
- BOCA® *National Building Code*/1999 (BNBC)
- 1999 *Standard Building Code*© (SBC)
- 1997 *Uniform Building Code*™ (UBC)

Properties evaluated:

- Exterior veneer
- Wind resistance

2.0 USES

Crane vinyl sidings are used as exterior wall coverings and as a closure material on the underside of exposed eaves (soffits).

3.0 DESCRIPTION

Crane vinyl sidings are horizontal and vertical sidings and soffits, extruded from a solid rigid polyvinyl chloride (PVC) compound, that conform to the requirements of ASTM D 3679. These exterior cladding products are produced in a variety of profiles, lengths, and thicknesses. Refer to Table 1 for product codes, descriptions, and dimensions. The siding panels have an upper hooking lock, a butt lock and a slotted nailing flange. Accessory products such as corners, starter strips, J-channels and trim pieces and other accessory items are manufactured of the same materials as the siding.

4.0 INSTALLATION

4.1 General:

Installation of Crane vinyl sidings, soffits and accessory materials such as corners, starter strips, and trim must be in accordance with ASTM D 4756, the manufacturer's published installation instructions, the applicable code and this report. The manufacturer's published installation instructions must be available at the jobsite at all times during installation.

The siding must be installed over solid sheathing with an approved water-resistive barrier as required by the applicable code. Flashing in accordance with the applicable code must be installed at all openings, penetrations, abutments with dissimilar materials, and at terminations of the sidings and soffit, to maintain the weather tightness of the assembly.

Wood furring strips or wood stud framing must have a minimum specific gravity of 0.42 and must be of sufficient strength to resist the imposed loads required by the applicable code.

Fasteners for attaching the siding to framing must be corrosion-resistant nails with minimum $^{3}/_{8}$-inch-diameter (9.5 mm) heads and $^{1}/_{8}$-inch-diameter (3.2 mm) shanks. The length of the nails shall be $2^{1}/_{2}$ inches (64 mm) for profiles with exposures of 12 inches (305 mm) or greater, and $1^{1}/_{2}$ inches (38 mm) for all other profiles listed in Table 1.

Nails must be installed into framing members at 16 inches (406 mm) on center in the center of the nail slots that are preformed in the siding. The nails must be driven perpendicular to the substrate and such that a minimum $^{1}/_{32}$-inch (0.8 mm) clearance is left between the back of the nail head and the face of the siding, so as not to restrict movement due to expansion and contraction.

A minimum $^{1}/_{4}$-inch-wide (6.4 mm) gap must be provided at all openings and terminations, for expansion and contraction. When exterior cladding components are to be installed in temperatures below 40°F (4.4°C), a minimum $^{3}/_{8}$-inch-wide (9.5 mm) gap must be provided. Joints between panels must be overlapped a minimum of 1 inch (25.4 mm).

4.2 Wind Resistance:

The design wind pressure must be determined in accordance with the requirements of Chapter 16 of the IBC, UBC, BNBC, and SBC, or Section R301.2.1.1 of the IRC, as applicable, and must not exceed the values shown

in Table 2. Wind resistance of soffit panels is outside the scope of this report except where specifically listed in Table 2 and where installation is as siding.

5.0 CONDITIONS OF USE

The Crane vinyl sidings described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 Installation complies 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 must govern.

5.2 Installation is limited to buildings of Type V-B (IBC), Type V-N (UBC), Type 5B (BNBC), and Type VI (SBC) construction, and buildings constructed in accordance with the IRC.

5.3 Siding must be installed only on exterior walls covered by solid sheathing and a water-resistive barrier.

5.4 The exterior walls must be braced or sheathed to resist racking loads with approved materials in accordance with the requirements of the applicable code.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Vinyl Siding (AC37), dated June 2009.

7.0 IDENTIFICATION

Each carton of the Crane vinyl siding described in this report is identified at a minimum with the manufacturer's name (Crane Plastics Siding, LLC, dba Exterior Portfolio By Crane), the product code, the statement "Conforms to ASTM specification D 3679", the statement "Conforms to UBC Standard 14-2", and the evaluation report number ESR-1083).

TABLE 1—SIDING DESCRIPTIONS

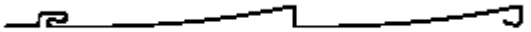
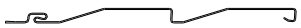
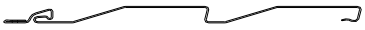
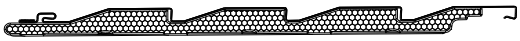
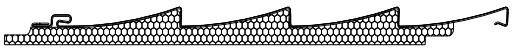
PRODUCT CODE	PANEL CONFIGURATION	EXPOSURE (inches)	PRODUCT LENGTH (ft-in)	NOMINAL THICKNESS (in)	PROFILE
D4	Horizontal Double 4-inch	8	12-6	0.040	
D4DL	Horizontal Double 4-inch Dutch Lap	8	12-6	0.040	
BP4RL	Horizontal Double 4-inch	8	12-6	0.040	
D4CEDAR	Horizontal Double 4-inch	8	12-6	0.042	
D5CEDAR	Horizontal Double 5-inch	10	12-0	0.042	
D4STD	Horizontal Double 4-inch	8	12-6	0.044	
D4PPTM16	Horizontal Double 4-inch	8	16-8	0.046	
D4PPTM	Horizontal Double 4-inch	8	12-6	0.046	
D4WRL	Horizontal Double 4-inch Dutch Lap	8	12-6	0.040	
D4DCG	Horizontal Double 4-inch Dutch Lap	8	12-6	0.042	
D5DCG	Horizontal Double 5-inch Dutch Lap	10	12	0.042	
D45DLSTD	Horizontal Double 4.5-inch Dutch Lap	9	12-1	0.044	
D45PPTM16	Horizontal Double 4.5-inch Dutch Lap	9	16-6	0.046	
D45PPTM	Horizontal Double 4.5-inch Dutch Lap	9	12-1	0.046	
BP5RL	Horizontal Double 5-inch	10	12-0	0.040	
D5STD	Horizontal Double 5-inch	10	12-0	0.044	
DL5BP	Horizontal Double 5-inch Dutch Lap	10	12-0	0.040	
S65B	Horizontal 6.5-inch	6.5	12-4	0.044	

TABLE 1—SIDING DESCRIPTIONS (Continued)

PRODUCT CODE	PANEL CONFIGURATION	EXPOSURE (inches)	PRODUCT LENGTH (ft-in)	NOMINAL THICKNESS (in)	PROFILE
TMD7IP	Horizontal Double 7-inch Molded Foam	14	12-3	0.047	
TMD716I	Horizontal Double 7-inch Wire-Cut Foam	14	16-9	0.047	
D10BBIP	Vertical Double 10-inch Wire-Cut Foam	20	10	0.55	
TMQ45IP	Horizontal Quadruple 4.5-inch Dutch Lap Molded Foam	18	12-1	0.043	
TMT6IP	Horizontal Triple 6-inch Molded Foam	18	12-1	0.047	
TMT616I	Horizontal Triple 6-inch Wire-Cut Foam	18	16-4	0.047	
TMQ4IP	Horizontal Quadruple 4-inch Wire-cut foam	16	12-6	0.043	
BSS6 BSV6	6-inch Soffit	6	12-6	0.038	
T3SRS T3SS	10-inch Soffit	10	12-0	0.043	
T4SS T4CS T4FS	12-inch Soffit	12	12-0	0.040	
D5SA D5FA	10-inch Soffit	10	12-0	0.038	

For **SI:** 1 inch = 25.4 mm, 1 foot = 304.8 mm.

TABLE 2—ALLOWABLE NEGATIVE WIND LOADS

PRODUCT CODE	ALLOWABLE NEGATIVE WIND LOAD (psf)	
	IBC / IRC / BNBC / SBC	UBC
BP4RL	46	21
D4CEDAR	61	27
D4STD	108	49
D4PPTM, D4PPTM16	111	50
D4WRL	93	42
D4DCG	101	46
D45DLSTD	65	29
D45PPTM, D45PPTM16	89	40
BP5RL	62	28
D5STD	77	35
DL5BP	89	40
S65B	65	29
TMD7IP, TMD716I	67	44
TMQ45IP	63	42
TMT6IP	63	42
T4SS/T4CS/T4FS	30	19
D4	46	21
D4DL	93	42
D5CEDAR	62	28
D5DCG	89	40
TMT616I	51	42
D10BBIP	42	34
TMQ4IP	46	38

For **SI**: 1 psf = 47.88 kPa.