

Code Compliance Research Report CCRR-0237

Issue Date: 03-16-2017 Revision Date: 03-19-2022 Renewal Date: 03-31-2023

DIVISION: 06 - Woods, Plastics, and Composites

Section: 06 65 00 - Plastic Trim

REPORT HOLDER:

Westlake Royal Building Products 2801 Post Oak Road Houston, TX 77056 800-521-8486

REPORT SUBJECT:

Kleer PVC Trim Boards

1.0 SCOPE OF EVALUATION

- **1.1** This Research Report addresses compliance with the following Codes:
- 2021, 2018, 2015 International Building Code® (IBC)
- 2021, 2018, 2015 International Residential Code® (IRC)

NOTE: This report references 2021 Code sections with [2018, 2015] Code sections shown in brackets where they differ.

- **1.2** *Kleer PVC Trim Boards* has been evaluated for the following properties (see Table 1):
- Durability
- Surface Burning
- Termite Resistance
- Corrosion Resistance
- Weather Resistance
- Structural Transverse Wind Loads
- **1.3** *Kleer PVC Trim Boards* has been evaluated for the following uses:
- Rigid cellular PVC solid cross sections intended for use in exterior applications as fascia, rakes, soffits, frieze, or corners in both residential and commercial buildings of Type VB construction.

2.0 STATEMENT OF COMPLIANCE

Kleer PVC Trim Boards 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** *Kleer PVC Trim Boards* are manufactured with expanded poly-vinyl chloride (cellular PVC) using an extrusion process. Finished products exhibit a small cell microstructure and are produced with a minimum density of 500 kg/m³.
- **3.2** *Kleer products* recognized in this report are supplied in the following profiles. See Table 1 for allowable dimensional combinations.
 - **3.2.1** *Kleer PVC Trim Boards* are available with either a smooth or woodgrain textured surface in nominal widths of 2 ,3, 4, 5, 6, 8, 10, 12, and 16 inches, thicknesses of 1/2, 5/8, 3/4, and 15/16 inches; and lengths of 8, 12, 16, 18 and 20 feet. See Table 1.
 - **3.2.2** *Kleer* Sheets are available in widths up to 48 inches and lengths between 8 feet and 20 feet. See Table 2.

4.0 PERFORMANCE CHARACTERISTICS

- **4.1** Materials used have flame spread index not exceeding 200 when tested in accordance with ASTM E84.
- **4.2** Materials used are deemed equivalent to preservative treated or naturally durable wood for resistance to weathering effects and attack from Formosan termites.
- **4.3** Materials used are not affected by corrosion due to contact with preservative-treated wood.







- **4.4** Soffit assemblies consisting of 1/2-inch x 11-1/4 inch boards installed on framing spaced 16 inches on center have a maximum allowable design load of:
- 77 psf when attached to SPF (G=0.42) framing with (3) 6D
 x 2-inch ring-shank, #034 stainless steel siding nails.
- 123 psf when attached to SYP (G=0.55) framing with (3) #10-12 x 2-inch coated steel trim screw.
- Attachment to framing with lesser specific gravity (G) may result in lower allowable loads.

5.0 INSTALLATION

5.1 General: *Kleer PVC Trim Boards* 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** Fasteners shall be stainless steel or hot-dipped galvanized steel and designed for wood trim and siding. Fasteners shall have blunt points and full round heads. Fasteners must be long enough to penetrate the wood substrate to a minimum of 1.5 inches.
- **5.2.2** Except as noted in section 4.4 of this report, the trim board and sheets shall be installed over solid backing material, including approved exterior sheathing or exterior wall coverings. *Kleer PVC Trim Boards* shall be installed over an approved structural sub-fascia.

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** *Kleer PVC Trim Boards* shall be used only as non load-bearing exterior trim on buildings of combustible construction.
- **6.3** Kleer PVC Trim Boards are limited to use on nonfireresistance rated walls in buildings of IBC Type V-B

- construction and all construction types permitted under the IRC.
- **6.4** When fasteners are installed in pressure-treated wood (preservative or fire-retardant), the appropriate adjustment factors based on the pressure-treated wood manufacturer's recommendations or appropriate code provisions shall be applied to reduce the capacity of the fastener.
- **6.5** Fasteners shall have the have an appropriate corrosion protection for exterior use and the substrate in which it is installed.
- **6.6** Kleer PVC Trim Boards shall be installed over solid backing material, either approved exterior sheathing or approved exterior wall coverings.
- **6.7** *Kleer PVC Trim Boards* shall be limited to the exterior trim and soffits recognized in this report.
- **6.8** Compatibility of the supporting construction materials with all fasteners, components, and other hardware is subject to approval by the code official.
- **6.9** Only those types of fasteners and fastening methods described in this report have been evaluated for the installation of *Kleer PVC* trim boards and sheets. Other attachment methods are not within the scope of this report.
- **6.10**All products are manufactured by Westlake Royal Building Products in accordance with the manufacturer's approved quality control system with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

- **7.1** Manufacturer's drawing and installation instructions.
- **7.2** Reports of testing demonstrating compliance with ICC-ES AC227 Acceptance criteria for Rigid Cellular PVC Nonload-Bearing Exterior Trim revised June 2017.
- **7.3** Documentation of an Intertek approved quality control system for the manufacturing of products recognized in this report.







8.0 IDENTIFICATION

Kleer PVC Trim Boards is/are identified with the manufacturer's name (Westlake Royal Building Products), address and telephone number, the product name Kleer PVC Trim Boards), the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-0237).



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

This Code Compliance Research Report ("Report") is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Report. Only the Client is authorized to permit copying or distribution of this Report and then only in its entirety, and the Client shall not use the Report in a misleading manner. Client further agrees and understands that reliance upon the Report is limited to the representations made therein. The Report is not an endorsement or recommendation for use of the subject and/or product described herein. This Report is not the Intertek Listing Report covering the subject product and utilized for Intertek Certification and this Report does not represent authorization for the use of any Intertek certification marks. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.







TABLE 1 – AVAILABLE DIMENSIONAL COMBINATIONS FOR TRIM BOARD

Actual Thickness (inches)	Lengths (ft.)	Nominal Width (Actual Width) (inches)							
1/2	8 , 12, 16 , 18								
5/8	8, 12 , 16 , 18	3	4	5	6	8	10	12	16
3/4	8,12,16,18	(2-1/2)	(3-1/2)	(4-1/2)	(5-1/2)	(7-1/4)	(9-1/4)	(11-1/4)	(15-1/4)
15/16*	8,12,16,18,20								

^{*}Also known as the 5/4 board

TABLE 2 – AVAILABLE DIMENSIONAL COMBINATIONS FOR SHEET STOCK

Actual Thickness (inches)	Length (ft.)	Actual Width (inches)			
1/4	8	-			
3/8	8, 10				
1/2	8, 10, 12, 16, 18	40			
5/8	8, 10, 12 , 16, 18	48			
3/4	8, 12, 16, 18]			
15/16*	8, 12, 16, 18, 20				

^{*}Also known as the 5/4 board



