

Product Evaluation

DR1145 | 0421

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at 800-248-6032.

Evaluation ID: DR-1145

Effective Date: April 1, 2021

Re-evaluation Date: July 2024

Product Name: Pinnacle Series Aluminum Clad Wood Outswing Hinged Patio Doors, Impact Resistant

Manufacturer: Windsor Windows and Doors
900 South 19th Street
West Des Moines, IA 50265
(515) 223-6660

General Description:

System	Description	Label Rating	Design Pressure Rating
1	Pinnacle Series Clad Wood Outswing Hinged Patio Doors	R-PG50-SHD (75.0625 x 98.5) Missile Level D	+50 / -65 psf
2	Pinnacle Series Clad Wood Outswing Hinged Patio Doors	R-PG50-SHD (75.0625 x 94.875) Missile Level D	+50 / -50 psf

Product Dimensions:

System	Overall Size	Operable Panel Size	Fixed Panel Daylight Opening Size
1	75-1/16" x 98-1/2"	36" x 95-7/8"	26-1/2" x 82-1/8"
2	75-1/16" x 94-7/8"	36" x 92-1/4"	26-1/4" x 78-1/2"

Components and Hardware:

- **Hinges:** four (4) required; secure to the door panel with four (4) No. 10 x 1-1/4" screws, secure to the door jamb with two (2) No. 10 x 3/4" screws and two (2) No. 10 x 2-1/4" screws.
- **Hoppe 5-point wrap around gear locking system:** one required on active panel
- **Latch & Deadbolt Strike Plate:** one (1) required; secured with three (3) No. 6 x 3/4" PH FH SMS
- **Tongue Strike Plates:** two (2) required; each secured with four (4) No. 6 x 3/4" PH FH SMS
- **Shoot bolts:** secondary panel; located at the head and sill
- **Shoot Bolt Strike plates:** one at the head and one at the sill; each secured with seven (7) No. 10 x 2-1/4" SS screws in the field.

Product Identification (Certification Label on Door):

System		
1	Certification agency	WDMA
	Manufacturer's name	Windsor Windows & Doors
	Product name	Pinnacle Series Outswing Patio
	Test standards	AAMA/WDMA/CSA 101/I.S.2/A440-08,11,17 ASTM E1886-13a/E1996-14; Missile Level D
2	Certification agency	WDMA
	Manufacturer's name	Windsor Windows & Doors
	Product name	Pinnacle Series Outswing Patio
	Test standards	AAMA/WDMA/CSA 101/I.S.2/A440-08,11 ASTM E1886-05/E1996-12a; Missile Level D

Impact Resistance:

System	Impact Resistant	Requirement
1-2	Yes	These products satisfy TDI's criteria for protection from windborne debris. Install the assemblies at a height on the structure that does not exceed the design pressure rating for the assemblies.

Installation:**System 1 (One of the Following):**

Fin Install: The wood wall framing members must be minimum Spruce-Pine-Fir dimension lumber. The door assembly is secured to the wall framing through the nailing fin. The nailing fin is secured to the wall framing with No. 8 x 1-1/2" screws. Additional No. 10 x 2-1/2" screws are located at the head and sill on the interior of the frame. Along the sill, locate the screws approximately 4", 24", and 31-1/2" from each corner, totaling six (6) screws. Along the head, locate the screws approximately 4" and 24" from each corner and one (1) at the midspan. Fasteners must be long enough to penetrate a minimum of 1-1/2" into the wall framing members.

Screw Through Frame: The wood wall framing members must be minimum Spruce-Pine-Fir dimension lumber. The door assembly is secured to the wall framing members with No. 8 x 3" screws. Locate the screws approximately 6" from each corner and 12" on center along the head, sill, and side jambs. Fasteners must be long enough to penetrate a minimum of 1-1/2" into the wall framing members.

Clip Install: The wood wall framing members must be minimum Spruce-Pine-Fir dimension lumber. The door assembly is secured to the wall framing using installation clips (1-1/2" x 7-13/16" x 0.036" galvanized steel). Locate the straps approximately 4" from each corner and 8" on center along the perimeter. An additional metal reinforcement plate (3-1/4" x 7-1/2" x 0.105") is required at the head, on the outside of the frame, above the strike plate. Secure the straps with two (2) No. 8 x 1/2" self-tapping screws into the cladding, one (1) No. 8 x 1-1/4" screw through the door frame, and two (2) No. 8 x 1-1/4" screws into the wall framing. Fasteners must be long enough to penetrate a minimum of 1-1/2" into the wall framing.

System 2 (One of the Following):

Fin Install: The wood wall framing members must be minimum Spruce-Pine-Fir dimension lumber. The door assembly is secured to the wall framing through the nailing fin. The nailing fin is secured to the wall framing with 2-1/2" long, 11-gauge, smooth shank roofing nails. Locate the nails approximately 4" from each corner and spaced 8" on center along the head and side jambs. Along the sill, use No. 10 x 3" screws approximately 3" from each corner, 3" on either side of the center, and 3" from the first screw. Fasteners must be long enough to penetrate a minimum of 1-1/2" into the wall framing members.

Clip Install: The wood wall framing members must be minimum Spruce-Pine-Fir dimension lumber. The door assembly is secured to the wall framing with installation clips (1-1/2" x 7-13/16" x 0.036" galvanized steel). Secure the clips to the door frame with two (2) No. 6 x 3/4" screws per side jamb. The clips are centered between the hinges along the side jamb, and at the head, 6" from each corner and spaced 14-3/4" on center. No. 8 x 1-1/2" screws are used at the exterior face of the wall framing and on the interior length of the clip. Along the sill, use No. 10 x 3" screws approximately 3" from each corner, 3" on either side of the center, and 3" from the first screw. Fasteners must be long enough to penetrate a minimum of 1-1/2" into the wall framing members.

Screw Through Frame: The wood wall framing members must be minimum Spruce-Pine-Fir dimension lumber. The door assembly is secured to the wall framing with No. 10 x 2-1/2" wood screws. Along the side jambs, center the screws between the hinges. Along the head, locate the screws approximately 6" from each corner and 14-3/4" on center. Along the sill, use No. 10 x 3" screws approximately 3" from each corner, 3" on either side of the center, and 3" from the first screw. Fasteners must be long enough to penetrate a minimum of 1-1/2" into the wall framing members.

Note: Keep the manufacturer's installation instructions available on the job site during installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.