

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION DR-436

Effective October 1, 2010

*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 shall be subject to reevaluation **January 2014**.*

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.

Gladiator Finishield, 25 gauge Steel, Impact Resistant Opaque Single Door Systems, Inswing and Outswing, manufactured by

JELD-WEN Windows and Doors
3737 Lakeport Blvd.
Klamath Falls, OR 97601
(541) 882-3451, ext. 2900

will be acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

The Gladiator steel doors evaluated in this report are impact resistant. This product evaluation report is for steel doors based on the following tested construction:

General Description:

System	Description	Label Rating
1	Single Door Inswing System	MST 3'-2" x 6'-10" DP: ±50 psf
2	Single Door Out-wing System	MST 3'-2" x 6'-9" DP: ±50 psf

Maximum Overall Size:

System 1: 37 ½" x 81 ¾"

System 2: 37 ½" x 80 ¾"

Component Dimensions:

System	Door Panel Sizes	Daylight Opening Glass Size
1 and 2	35 ¾" x 79"	NA

Glazing: None

Frame Construction: The head and jambs consist of finger-jointed pine. The in-swing frame employs an aluminum adjustable threshold by Endura, while the outswing frame employs an aluminum bump threshold by AFCO, which is kerfed to receive compression weather stripping. Both head-jambs are attached to the side jambs with four (4) 16 gauge staples at each end. Both thresholds are attached to the side jambs with three (3) 16 gauge staples at each end. Locking door knob and deadbolt are centered 35" and 40 ½" from bottom of door leaf and engage metal strike plates on the jamb. A metal security plate is attached behind the jamb over the deadbolt bore.

Door Panel Construction: Panels are constructed from two face sheets of 25 gauge galvanized steel. The face sheets are bent 90 degrees over the stiles and top rail. The stiles and top rail are laminated veneer lumber (LVL). The bottom rail consists of roll-formed, galvanized 26 gauge steel. Each corner is fastened with one (1) nail. The core consists of 1.0 to 1.25 lb/ft³ density expanded polystyrene (EPS). The face sheets are glued to the core and substrate.

Identification: A certification program label (NAMI) will be affixed to the assembly. The certification program label includes the manufacturer's name (**Jeld-Wen**); product name; performance characteristics; the approved inspection agency (NAMI); and that the product was tested, at least, in accordance with ASTM E330, ASTM E331, ASTM E1886, and ASTM E1996.

LIMITATIONS

Design pressures (DP):

System	Maximum Overall Width	Maximum Overall Height	Design Pressure (psf)
1	37 ½	81 ¾	±50
2	37 ½	80 ¾	±50

Impact Resistance: These door panels satisfy the Texas Department of Insurance's criteria for protection from windborne debris in the **Inland I** and the **Seaward zones**. The door assemblies passed Missile Level D specified in ASTM E 1996-04. The door assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded. These door assemblies will not need to be protected with an impact protective system.

Acceptance of Smaller Assemblies: Door assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.

INSTALLATION INSTRUCTIONS

General: Door assemblies shall be prepared and installed in accordance with the manufacturer's recommended installation instructions. Detailed installation instructions and drawings are available from the manufacturer.

Installation: Door assemblies shall be fastened to minimum Southern Yellow Pine lumber wall framing in accordance with this product evaluation report. The door assembly shall be secured to the wall framing as follows:

Frame: (18) total fasteners

Jamb: Six (6) each jamb, No. 10 PFH wood screw located 5 inches from each corner and 4 equally spaced $12\frac{1}{2}$ inches on center.

Head: Three (3), No. 10 PFH wood screw in head jamb located 3 inches from each corner and one spaced on center.

Sill: Three (3), No. 10 PFH wood screw in threshold located 3 inches from each corner and one spaced on center.

If the frame is attached to concrete rather than wood framing members, a $\frac{3}{16}$ " diameter flat head Tapcon concrete anchor may be substituted for the No. 10 screws noted above. The wood screws must have a minimum embedment of $1\frac{1}{2}$ inches into structural wood framing members, and Tapcon anchors must have a minimum embedment of $1\frac{1}{4}$ inches into the masonry.

Note: The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.