

TEXAS DEPARTMENT OF INSURANCE

Engineering Services / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104
Phone No. (512) 322-2212 Fax No. (512) 463-6693

PRODUCT EVALUATION DR-366

Effective June 1, 2009

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 **October 2009**.

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.

Series 05 Aluminum Clad Wood Ascent Outswing French Glass Doors, Impact Resistant
manufactured by

Eagle Window and Door
2045 Kerper Blvd
Dubuque, IA 52001
563-556-2270
www.eaglewindow.com

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 Aluminum Clad Wood Outswing French Glass Doors are extruded aluminum clad wood outswing French glass doors. The aluminum clad wood outswing French glass doors evaluated in this report are individual, impact resistant doors based on the following tested constructions.

General Description:

System	Description	Label Rating	Hallmark Certification
1	Aluminum Clad Outswing French Glass Doors	HGD-LC60 (36 x 96)	099-H-658.02
2	Aluminum Clad Outswing French Double Glass Doors	HGD-LC65 (72 x 95)	099-H-658.00 099-H-658.01

Product Dimensions:

System	Overall Frame Size	Active and Passive Panel Sizes	Daylight Opening Size/Panel
1	36 1/2" x 95 1/4"	34 1/16" x 93 3/16"	25 1/4" x 80 3/8"
2	72" x 95 3/16"	34 1/16" x 93 3/16"	25 3/16" x 80 1/2"

Glazing Description:

System	Glass Construction ¹	Glazing Method ²
1	SG-1	GM-1
2	IG-1	GM-2

Note: ¹ See the "Glass Construction Key" for the glazing construction.

² See the "Glazing Method Key" for the glazing method description.

Glass Construction Key:

SG-1 The window contains a laminated glass unit. The laminated glass unit is comprised of two $\frac{5}{32}$ " annealed glass lites with a 0.090" SGP interlayer. The glass thickness and type used in the insulating glass unit of the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

IG-1: The door contains sealed insulating glass units. The sealed insulating glass unit is comprised of a sheet of nominal $\frac{5}{32}$ " clear tempered glass and a laminated glass unit, comprised of two double strength ($\frac{1}{8}$ ") annealed sheets with a 0.090" SGP interlayer, separated by a stainless steel spacer system. The glass thickness used in the insulating glass unit of the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

Glazing Method Key:

GM-1: The laminated glass unit is set from the interior against silicone sealant. Wood glazing stops with single sided adhesive foam are used on the interior. The wood glazing stops are secured to the frame with brads spaced 1 inch from each corner and 6-8 inches on center.

GM-2: The insulating glass unit is set from the interior against butyl tape. Wood glazing stops with single sided adhesive foam are used on the interior. The wood glazing stops are secured to the frame with brads spaced 1 inch from each corner and 6-8 inches on center.

Frame Construction (Systems 1 and 2): The frame sill consists of a polyethylene/wood fiber composite material with an oak threshold. The jambs and head jamb are laminated veneer lumber. The sill is coped, butted, sealed with silicone and secured to the jamb using three No. 8 x $1\frac{3}{4}$ " screws per corner. The wood jambs are sealed with silicone and secured with No. 8 x $1\frac{3}{4}$ " screws per corner.

Aluminum Cladding: The exterior cladding is slip-fit over the wood side and head jambs. At the head the aluminum frame joints are mitered, sealed with silicone, and secured with a plastic corner key.

Panel Construction (System 1): The wood stiles and rails are joined by two hardwood dowels secured with glue and a brad.

Aluminum Cladding: Extruded aluminum is mitered at the corners, sealed with silicone and secured with a corner key and one No. 7 x $\frac{7}{8}$ " screw.

Panel Construction (System 2): The wood stiles and rails are joined by two hardwood dowels secured with glue and a brad.

Aluminum Cladding: Extruded aluminum is mitered at the corners, sealed with silicone and secured with a corner key and one No. 7 x $\frac{7}{8}$ " screw. The astragal assembly is sealed with silicone and fastened to the inactive panel with six No. 7 x $1\frac{1}{4}$ " screws and six No. 8 x 2" screws.

Hardware (all systems):

- 4" Metal butt hinges; Four (4) per panel; Secured with two (2) No. 12 x 2 1/2" and two (2) No. 10-24 x 5/8" screws/hinge. The hinges are secured to each panel with four (4) No. 12 x 1 1/2" screws per hinge.
- 3-point locking mechanism with deadbolt; One (1) required; Located on the primary door panel.
- Locking mechanism strike plates; Three (3) required; Secured to passive panel with No. 8 x 2 1/8" screws (2 each in upper and lower, 3 in the center).
- Handle with deadbolt; One (1) required; Located on the active panel.

Hardware (System 2 only):

- Shoot bolt with lever; One (1) required; Located on the passive panel.
- Shoot bolt strike plates; Two (2) required; Secured with (2) No. 8 x 2 1/8" screws per plate.
- Passive panel door handle set; One (1) required; Located on the passive door panel.

Product Identification:

A certification program label (WDMA Hallmark Certified) will be affixed to the door. The certification program label includes the manufacturer's name, product name; performance characteristics; the approved inspection agency (WDMA); and the applicable standards:

Systems 1 and 2: ANSI/AAMA/NWWDA 101/I.S.2-97 and ASTM E-1886-02; and ASTM E-1996-02

LIMITATIONS

Design pressures (DP):

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressure (psf)
1	36 1/2	95 1/4	+60/-75
2	72	96	±65

Impact Resistance: These window assemblies satisfy the Texas Department of Insurance's criteria for protection from windborne debris in both the **Inland II zone**, and the **Seaward zone**. The window assemblies passed Missile Level D. specified in ASTM E 1996-02 and ASTM 1886-02. The window assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded. These window assemblies will not need to be protected with an impact protective system.

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

Tested Higher Negative Design Pressure: The WDMA label indicates that the product was tested to a higher negative pressure. The higher negative design pressure is specified in the table above and on the WDMA label.

INSTALLATION INSTRUCTIONS

General: The door assembly 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:

System 1: The wall framing shall be minimum Douglas Fir-Larch dimension lumber. The door is secured to the wall framing with two (2) No. 10 x 2 ½" screws in each hinge. The hinge is attached to the door panel with four (4) No. 12 x 1 ½" screws in each hinge. The frame is secured to the wall framing at the head and side jambs with minimum No. 8 x 3" screws. The fasteners are spaced approximately 6 inches from each corner and approximately 21 inches on center. The fasteners shall be long enough to penetrate a minimum of 1 ½" into the wall framing.

System 2: The wall framing shall be minimum Southern Yellow Pine dimension lumber. The door is installed with No. 8 x 2 ⅝" screws through the strike plate at the midspan on the head jamb and the sill. In addition, the door is secured to the wall framing with two (2) No. 10 x 2 ½" screws in each hinge. The hinge is attached to the door panel with four (4) No. 12 x 1 ½" screws in each hinge. The fasteners shall be long enough to penetrate a minimum of 1 ½" into the wall framing.

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.