

# 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-359

Effective April 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 July 2012.*

*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 Single Inswing French Glass Doors, Non-impact Resistant,** manufactured by:

**Eagle Window and Door**  
2045 Kerper Blvd  
Dubuque, IA 52001  
563-556-2270  
[www.eaglewindow.com](http://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 Inswing French Glass Doors are extruded aluminum clad wood inswing French glass doors. The aluminum clad wood inswing French glass doors evaluated in this report are individual, non-impact resistant doors based on the following tested constructions.

### General Description:

System	Description	Label Rating	Hallmark Certification
1	Aluminum Clad Inswing French Glass Doors	SHD-C45 (40 x 102)	099-H-626.08 099-H-626.09 099-H-626.10
2	Aluminum Clad Inswing French Glass Doors	HGD-C40 (40 x 120)	099-H-654.01 099-H-654.03

### Product Dimensions:

System	Overall Frame Size	Active Panel Size	Daylight Opening Size
1	40" x 102"	38 $\frac{3}{16}$ " x 99 $\frac{3}{16}$ "	28 $\frac{13}{16}$ " x 86 $\frac{1}{2}$ "
2	40" x 120"	38 $\frac{3}{16}$ " x 117 $\frac{3}{16}$ "	28 $\frac{13}{16}$ " x 104 $\frac{1}{2}$ "

**Glazing Description:**

System	Glass Construction <sup>1</sup>	Glazing Method <sup>2</sup>
1	IG-2	GM-1 or GM-2
2	IG-1	GM-1 or GM-2

Note: <sup>1</sup> See the "Glass Construction Key" for the glazing construction.

<sup>2</sup> See the "Glazing Method Key" for the glazing method description.

**Glass Construction Key:**

IG-1: The door contains sealed insulating glass units. The sealed insulating glass unit is comprised of two sheets of nominal ( $\frac{5}{32}$ " ) clear tempered glass 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.

IG-2: The door contains sealed insulating glass units. The sealed insulating glass unit is comprised of two sheets of double-strength ( $\frac{1}{8}$ " ) clear tempered glass separated by an aluminum 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 insulating glass unit is set from the interior against butyl glazing tape and silicone. Wood glazing stops with a single sided adhesive foam tape is 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 with glazing shims against hot melt silicone. Wood glazing stops with adhesive foam tape secure the insulating glass units in place from the interior. The wood glazing stops are secured to the frame with brads spaced 1 inch from each corner and 6 to 8 inches on center.

**Frame Construction (System 1):** The frame sill is coped, butted, and secured to the jamb utilizing two (2) No. 8 x 1" screws per corner. The jamb is coped, butted, and secured to the head with two (2) No. 8 x 1  $\frac{3}{4}$ " screws per corner.

**Aluminum Cladding:** The exterior cladding is secured with one No. 8 x 1" screw per corner at the sill. At the head and jambs, the cladding is secured with two (2) No. 8 x  $\frac{1}{16}$ " screws and one No. 6 x 1  $\frac{1}{4}$ " screw, through a plastic corner key per corner.

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

**Aluminum Cladding:** Extruded aluminum is square-cut, sealed with silicone or butyl tape, and secured to the wood with a corner key.

**Frame Construction (System 2):** The frame is made of laminated veneer lumber on the head and jambs which is rabbet jointed construction, butted, sealed with silicone. The sill corners are secured with two (2) No. 8 x 2  $\frac{1}{2}$ " screws per corner. The head corners are secured with two (2) No. 8 x 1  $\frac{3}{4}$ " screws. The sill is comprised of a two-part, press-fit aluminum extrusions with a poured and debridged thermo barrier at the sill. The interior sill trim is slide-fit into the extruded aluminum sill.

**Aluminum Cladding:** The aluminum cladding corners are mitered at the head and square-cut at the sill, sealed with silicone, and secured by a corner key. The aluminum cladding is slip-fit over the frame members. The cladding at the head is secured with two (2) No. 8 x  $\frac{1}{16}$ " screws and one (1) No. 6 x  $\frac{3}{4}$ " screw. The sill to jamb cladding utilized one (1) No. 6 x 1" screw.

**Panel Construction (System 2):** The panel members are composed of laminated veneer lumber with a veneer wrap. The corners are square-cut, glued and doweled and secure with a brad.

**Aluminum Cladding:** Extruded aluminum is square-cut, sealed with silicone, and press-fit to the wood panel members. The astragal cover and the cladding are secured with two (2) rows of No. 8 x 2" screws spaced approximately 24 inches on center.

**Hardware:**

**System 1:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
4" Metal butt hinge	4	12" from bottom of sill and 24" on center secured to jambs with 2 - No. 12 x 2 1/2" screws/hinge and 2 - No. 10-24 x 5/8" screws/hinge and secured to the panel with 4 - No. 12 x 1 1/2" screws/hinge
3-point locking mechanism	1	Active panel 12" from edge of panel and deadbolt at 36" from bottom
Strike plates	3	Door jamb opposite locks secured to the jamb with No. 8 x 2 1/8" screws (2 each in upper and lower, 3 in the center)

**System 2:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
4" Metal butt hinge	4	8", 40 1/2", 73" and 105 1/2" from top rail secured to jambs with 2 - No. 12 x 2 1/2" screws/hinge and 2 - No. 10-24 x 5/8" screws/hinge and secured to the panel with 4 - No. 12 x 1 1/2" screws/hinge
4-point locking system	1	Active panel
Handle with deadbolt	1	Active panel 36" from bottom rail
Strike plates	3	Door jamb opposite locks secured to the jamb with No. 8 x 2 1/8" screws (2 each in upper and lower, 3 in the center)

**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:

**System 1:** AAMA/WDMA/CSA I.S.2/A440-05 and ANSI/AAMA/WDMA 101/ A440-08.

**System 2:** AAMA/WDMA/CSA I.S.2/A440-05 and ANSI/AAMA/WDMA 101/I.S.2-97.

**LIMITATIONS**

**Design pressures (DP):**

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressure (psf)
1	40	102	±45
2	40	120	±40

**Impact Resistance:** These door assemblies do not satisfy the Texas Department of Insurance's criteria for protection from windborne debris. These door assemblies will need to be protected with an impact protective system when installed in areas where windborne debris protection is required.

**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.

### INSTALLATION INSTRUCTIONS

**General:** The door assembly shall be prepared and installed in accordance with the manufacturers recommended installation instructions. Detailed installation instructions and drawings are available from the manufacturer.

**Installation:**

**System 1:** The wall framing shall be minimum Southern Yellow Pine dimension lumber. The door is installed with the frame side jamb secured to the wall framing at the strike plates with seven (7) No. 8 x 2 ½" screws through the strike plates (two each in upper and lower, three in the deadbolt). In addition, the door is secured to the wall framing with two (2) No. 12 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.

**System 2:** The wall framing shall be minimum Spruce-Pine-Fir dimension lumber. The door is installed with seven (7) No. 8 x 2 ⅞" screws through the strike plates located on the door jamb. In addition, the door is secured to the wall framing with two (2) No. 12 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 nail flange is secured along the head and side jambs with minimum 12 gauge galvanized roofing nails spaced approximately 7 inches on center. 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.