

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION DR-360

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 **June 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 Single Outswing French Glass Doors, Non-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 Single Outswing French Glass Doors are extruded aluminum clad wood single outswing French glass doors. The aluminum clad wood single outswing 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 Outswing French Glass Doors	HGD-C60 (40 x 96)	099-H-639.00
2	Aluminum Clad Outswing French Glass Doors	SHD-C50 (40 x 102)	099-H-700.01
3	Aluminum Clad Outswing French Glass Doors	HGD-C60 (40 x 119)	099-H-653.00 099-H-653.02
4	Aluminum Clad Outswing French Glass Doors	SHD-LC60 (39 x 95)	099-H-664.02 099-H-664.03
5	Aluminum Clad Outswing French Glass Doors	SHD-LC60 (39 x 95)	099-H-664.00 099-H-664.01
6	Aluminum Clad Outswing French Glass Doors	SHD-CC60 (40 x 96)	099-H-662.00 099-H-662.01

Product Dimensions:

System	Overall Frame Size	Daylight Opening Size	Panel Size
1	40" x 95 $\frac{5}{16}$ "	28 $\frac{13}{16}$ " x 80 $\frac{1}{2}$ "	38 $\frac{3}{16}$ " x 93 $\frac{3}{16}$ "
2	40" x 101 $\frac{5}{16}$ "	28 $\frac{13}{16}$ " x 86 $\frac{1}{2}$ "	38 $\frac{3}{16}$ " x 99 $\frac{3}{16}$ "
3	40" x 119"	28 $\frac{13}{16}$ " x 104 $\frac{1}{2}$ "	38 $\frac{3}{16}$ " x 117 $\frac{3}{16}$ "
4	38 $\frac{1}{2}$ " x 95 $\frac{5}{16}$ "	21 $\frac{5}{16}$ " x 50 $\frac{27}{32}$ "	36 $\frac{3}{4}$ " x 93 $\frac{3}{16}$ "
5	38 $\frac{1}{2}$ " x 95 $\frac{5}{16}$ "	21 $\frac{5}{16}$ " x 50 $\frac{27}{32}$ "	36 $\frac{3}{4}$ " x 93 $\frac{3}{16}$ "
6	40" x 95 $\frac{5}{16}$ "	28 $\frac{13}{16}$ " x 80 $\frac{1}{2}$ "	38 $\frac{3}{16}$ " x 93 $\frac{3}{16}$ "

Glazing Description:

System	Glass Construction ¹	Glazing Method ²
1	IG-1	GM-1 or GM-2
2	IG-2	GM-1 or GM-2
3	IG-1	GM-1 or GM-2
4	IG-2	GM-1 or GM-2
5	IG-2	GM-3
6	IG-2	GM-3

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:

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.

GM-3: The insulating glass unit is set from the interior against glazing shims with a backbedding of silicone and butyl tape. Neoprene glazing stops are used at the glazing pocket perimeter spaced 12-19 inches on center. Neoprene glazing stops secure the insulating glass units in place from the interior located approximately 9 inches from each end and 17-33 inches on center. The wood glazing stops with adhesive foam tape are secured to the frame with brads spaced 2 inches from each corner and 6 to 8 inches on center.

Frame Construction (Systems 1-3): The wood frame is sealed with silicone and fastened with three (3) No. 8 x 1 3/4" screws per corner. The sill is a polyethylene/wood fiber composite material with an oak threshold. The sill is secured to the jambs with three (3) No. 8 x 1 3/4" screws per corner.

Aluminum Cladding: Aluminum extrusions are slip-fit over the wood frame members and the composite sill.

Frame Construction (Systems 4 and 5): The wood frame is sealed with silicone and fastened with three (3) No. 8 x 1 3/4" screws per corner at the head and one (1) at each sill corner. The sill corners also utilized two (2) No. 7 x 1 1/4" screws. The sill is a polyethylene/wood fiber composite material that is square-cut and silicone sealed to the extruded aluminum sill and secured with No. 8 x 7/8" screws spaced 2 inches from each end and approximately 10 1/2 inches on center. The interior sill trim is secured to the interior face with wire brads spaced approximately 12 inches on center.

Aluminum Cladding: Aluminum extrusions are slip-fit or snap-fit over the wood frame members at the head and side jambs and secured with corner keys.

Panel Construction (Systems 1-3): The wood frame members consisted of laminated veneer lumber. The frame corners are butt joint construction glued and used two 3/4" x 4" wood dowels per corner and secured with two 2 1/2" wire brads per end dowel.

Aluminum Cladding: The extruded aluminum cladding at the exterior is slip-fit over the wood frame members with the corners square cut, coped, sealed with silicone, and snap-fit to the wood sash members. The cladding at the sill was square cut, sealed with butyl tape and secured with a corner key.

Panel Construction (Systems 4 and 5): The wood frame members consisted of laminated veneer lumber. The frame corners are butt joint construction glued and used two 3/4" x 4" wood dowels per corner and secured with two 2 1/2" wire brads per end dowel.

Aluminum Cladding: The extruded aluminum cladding at the exterior is slip-fit over the wood frame members with the corners square cut, coped, sealed with silicone, and snap-fit to the wood sash members. The top rail had an extruded aluminum panel cap that is press-fit and secured with one No. 6 x 1" screw at each end.

Hardware:

System 1:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Hinges	4	11" and 36" from top and bottom of panels secured to wall framing 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 wall framing 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>
Hinges	4	12" from bottom of sill and 24" on center secured to wall framing 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 wall framing with No. 8 x 2 1/8" screws (2 each in upper and lower, 3 in the center)

System 3:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
4" Metal butt hinge	4	Active and passive panels 8", 40 1/2", 73" and 105 1/2" from top rail secured to wall framing 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	5	Door jamb opposite locks secured to the wall framing with No. 8 x 2 1/8" screws (2 each in non-deadbolt plates, 3 in the deadbolt plate)

Hardware Systems 4, 5, and 6:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
4" Metal butt hinge	4	Active and passive panels 10", 34 1/2", 59" and 83" from top rail secured to wall framing 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	14 3/4", 59 1/4", and 79 1/2" from top rail
Handle with deadbolt	1	Active panel 36" from bottom rail
Strike plates	3	Door jamb opposite locks secured to the wall framing 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) 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: ANSI/AAMA/WDMA 101/I.S.2-97.

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

Systems 3, 4, 5 and 6: 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	95 $\frac{5}{16}$	±60
2	40	101 $\frac{5}{16}$	±50
3	40	119 $\frac{5}{16}$	±60
4	40	95 $\frac{5}{16}$	±60
5	40	95 $\frac{5}{16}$	±60
6	40	95 $\frac{5}{16}$	±60

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: 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 No. 8 x 2 $\frac{1}{8}$ " screws (two screws each at non-deadbolt strike plates, three in the deadbolt strike plate). In addition, the door is secured to the wall framing with two (2) No. 12 x 2 $\frac{1}{2}$ " screws in each hinge. The hinge is attached to the door panel with 4 No. 12 x 1 $\frac{1}{2}$ " screws in each hinge. The fasteners shall be long enough to penetrate a minimum of 1 $\frac{1}{2}$ " 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.