

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION DR-335

Effective August 1, 2008

*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 2011**.*

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.

Portobello and Estancia Hardwood Arch Top and Round Top Inswing and Outswing Doors, Non-Impact Resistant, manufactured by

Glass Craft Door Company
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Houston, Texas 77043-2209
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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 Portobello and Estancia doors are hardwood inswing and outswing doors. This evaluation report includes arch top and round top inswing and outswing doors. The wood inswing and outswing doors evaluated in this report are non-impact resistant doors. This product evaluation report is for wood inswing and outswing doors based on the following tested constructions:

General Description:

System	Description	Label Rating
1	Portobello and Estancia Arch Top Hardwood Inswing Double Doors	DP +50/-50 Maximum Size Tested: 6'2" x 8'3"
2	Portobello and Estancia Arch Top Hardwood Outswing Double Doors	DP +35/-30 Maximum Size Tested: 6'2" x 8'3"
3	Portobello and Estancia Round Top Hardwood Inswing Double Doors	DP +50/-45 Maximum Size Tested: 6'2" x 8'3"
4	Portobello and Estancia Round Top Hardwood Outswing Double Doors	DP +50/-45 Maximum Size Tested: 6'2" x 8'3"

Product Dimensions:

System	Overall Size	Leaf Size	Daylight Opening Size
1	74" x 99"	Active: 36" x 96" Passive: 36 ³ / ₄ " x 96"	21 ⁵ / ₈ " x 55 ⁷ / ₈ "
2	74" x 99"	Active: 36" x 96" Passive: 36 ³ / ₄ " x 96"	21 ⁵ / ₈ " x 55 ⁷ / ₈ "
3	74" x 99"	Active: 36" x 96" Passive: 36 ³ / ₄ " x 96"	21 ⁵ / ₈ " x 54 ¹ / ₁₆ "
4	74" x 99"	Active: 36" x 96" Passive: 36 ³ / ₄ " x 96"	21 ⁵ / ₈ " x 54 ¹ / ₁₆ "

Glazing Description:

System	Glass Construction ¹	Glazing Method ²
1	DG-1	GM-1
2	DG-1	GM-1
3	DG-1	GM-1
4	DG-1	GM-1

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:

DG-1: The door panel contains a double glazed window unit. The double glazed window unit is comprised of one (1) double strength (¹/₈") fully tempered glass interior lite; a ¹/₄" spacer system with a U-shaped rubber insert; one (1) double strength (¹/₈") fully tempered exterior.

Glazing Method Key:

GM-1: The fully tempered glass is glazed with Tremco "Dynamic" Polyurethane. The divided lite inserts are captured between three vertical and two horizontal mullions that are constructed of solid hardwood. The glass is captured on the interior perimeter of each glass panel with one (1) piece of decorative hardwood molding. Each piece of molding is secured to the hinge and lock stiles with brad nails.

Frame Construction: The frame head and side jambs consist of 4 ⁵/₈" x 1 ¹/₄" hardwood. The frame head and side jambs are kerfed to receive weatherstripping. The frame head is mortised and butted to the side jambs and attached with four (4) screws on each side. The threshold is mortised and butted and attached to the side jambs with three (3) screws per side jamb. The sill, manufactured by Endura, is an aluminum fixed composite filled standard inswing or outswing threshold.

Panel Construction: The "T" astragal is located on the lock stile of the passive panel and is constructed of hardwood. The "T" astragal is secured to lock stile with brad nails. The top rail, intermediate rail, hinge stile, and lock stile are constructed with hardwood pieces glued together with a hardwood laminate adhered to the surface. The bottom rail is constructed of solid pine pieces glued together with a mahogany laminate. The rails are secured to the stiles with wood dowels and glue. The door panel is constructed of solid hardwood held into the stiles and rails with cope and stick construction.

Hardware:

- Penrond hinges (Systems 1 and 2): Four (4) required; Four (4) No. 8 x 1" screws secure to the fixed stile. Two (2) No. 8 x 3" screws and two (2) No. 8 x 1" screws secure the hinges to the frame jamb.

Hardware (Continued):

- Penrond hinges (Systems 3 and 4): Three (3) required; Four (4) No. 8 x 1" screws secure to the fixed stile. Two (2) No. 8 x 3" screws and two (2) No. 8 x 1" screws secure the hinges to the frame jamb.
- Schlage door knob and Schlage deadbolt Grade II; One (1) required; Located on the lock stile of the active door, 41 1/2 inches centerline from the bottom of the door panel.
- Latch strikes for the deadbolt; One (1) required; Located 41 1/2 inches centerline from the bottom of the frame latch jamb. Secured with two (2) 7 mm x 3" screws and two (2) 19 mm x 1" screws.
- Handle set; One (1) required; Located 36 inches centerline from the bottom of the door panel.
- Latch strikes for the handle set; One (1) required; Located 36 inches centerline from the bottom of the frame latch jamb. Secured with two (2) 7 mm x 3" screws two (2) 19 mm x 1" screws.
- Steel surface bolts; Four (4) required; One (1) located at the top and bottom of the active and passive door; Thru-bolted to the exterior of the lock and latch stiles of the active and passive door panels with four (4) 10/32 x 1" bolts per surface bolt.
- Strike plates for the surface bolts; Four (4) required; One (1) located at the frame head and frame sill adjacent to the surface bolt locations. Each secured with two (2) No. 8 x 2 1/2" screws.

Product Identification:

System 1: A certification program label (NAMI) will be affixed to the door. The certification program label includes the manufacturer's name (Glass Craft Door Company); product name: **Portebello/Estancia Arch Top Hardwood Glazed Double Door Inswing**; design pressure rating; and approved inspection agency to indicate compliance with the requirements of ASTM E 330-02.

System 2: A certification program label (NAMI) will be affixed to the door. The certification program label includes the manufacturer's name (Glass Craft Door Company); product name: **Portebello/Estancia Arch Top Hardwood Glazed Double Door Outswing**; design pressure rating; and approved inspection agency to indicate compliance with the requirements of ASTM E 330-02.

Systems 3 and 4: A certification program label (NAMI) will be affixed to the door. The certification program label includes the manufacturer's name (Glass Craft Door Company); product name: **Portebello/Estancia Round Top Hardwood Double Door Inswing & Outswing**; design pressure rating; and approved inspection agency to indicate compliance with the requirements of ASTM E 330-02.

LIMITATIONS

Design pressures (DP):

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressure (psf)
1	74	99	+50/-50
2	74	99	+35/-30
3	74	99	+50/-45
4	74	99	+50/-45

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: Door 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:

Systems 1-2: The door shall be fastened to minimum Spruce-Pine-Fir dimension lumber wall framing. The door frame head, sill, and side jambs shall be secured to the wall framing with screws. The fastener size and spacing shall be as follows:

Side Jambs: Minimum No. 8 x 3" screws. Two screws per hinge location. Measured from the frame head, located 9 inches, 12 inches, 31 inches, 34 inches, 53.5 inches, 56.5 inches, 76 inches, and 79 inches.

Frame Head: Minimum No. 10 x 3" screws. Measured from the left side jamb to the right side jamb, 8 inches, 19 inches, 35 inches, 42 inches, 54 inches, and 66 inches.

Frame Sill: Minimum No. 8 screws. Measured from the left side jamb to the right side jamb, 6 inches, 14 inches, 23 inches, 32 inches, 41 inches, 50 inches, 59 inches, and 68 inches.

Systems 3-4: The door shall be fastened to minimum Spruce-Pine-Fir dimension lumber wall framing. The door frame head, sill, and side jambs shall be secured to the wall framing with screws. The fastener size and spacing shall be as follows:

Side Jambs: Minimum No. 8 x 3" screws. Two screws per hinge location. Measured from the frame head, located at 40 inches, 43 inches, 61 inches, 64 inches, 84 inches, 87 inches.

Frame Head: Minimum No. 10 x 3" screws. Measured from the left side jamb to the right side jamb, 12 inches, 26 inches, 35 inches, 41 inches, 51 inches, 55 inches, 63 inches, 70 inches, 76 inches, and 85 inches.

Frame Sill: Minimum No. 8 screws. Measured from the left side jamb to the right side jamb, 6 inches, 14 inches, 23 inches, 32 inches, 41 inches, 50 inches, 59 inches, and 68 inches.

All fasteners shall be long enough to penetrate a minimum of 1 1/2" into the wall and floor framing members. If the sill is secured to concrete, then minimum 3/16" concrete anchors shall be used.

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.