

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION DR-391

Effective February 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 **July 2013**.*

*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.*

**Weathertight Six Panel Aluminum Clad Wood BiFold Doors, Non-impact Resistant**, manufactured by

**Door Innovations, Inc.**  
**9943 Kemp Drive**  
**Houston, TX 77080**  
**(713) 858-9010**

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 bi-fold door is an aluminum clad wood door. The aluminum clad wood bi-fold doors evaluated in this report are non-impact resistant doors. This product evaluation report is for new bi-fold aluminum clad wood doors based on the following tested construction:

### General Description:

| System | Description                                | Label Rating |
|--------|--|--------------|
| 1      | Bi-Fold Aluminum Clad Wood Doors; (XXXXXX) | ±35 psf      |

### Product Dimensions:

| System | Overall Door Size                        | Individual Leaf Size     | Daylight Opening Size    |
|--------|--|--------------------------|--------------------------|
| 1      | 218 $\frac{3}{4}$ " x 99 $\frac{1}{4}$ " | 36" x 95 $\frac{1}{4}$ " | 26 $\frac{3}{4}$ " x 82" |

### Glazing Description:

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

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

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

**PRODUCT DESCRIPTION (Continued)**

**Glazing Description Key:**

IG-1: Sealed insulating glass units. The sealed insulating glass units are comprised of two lites of  $\frac{5}{32}$ " thick fully tempered glass lites separated by an aluminum box spacer system.

**Glazing Method Key:**

GM-1: The panels are interior glazed against a backbedding material and secured with a  $\frac{3}{8}$ " x  $\frac{5}{8}$ " wood stop moulding using 18 gauge x 1" brad nails located at 1" from the ends and spaced 6" o.c. thereafter.

**Frame Construction:** The frame members are formed from extruded aluminum. The corners are coped, butted and sealed with a foam gasket.

**Panel Construction:** The panel rails and carrier stiles are constructed of laminated finger jointed Pine with a 0.050" thick veneer on the interior and a 0.060" thick roll form aluminum cladding on the exterior. The panel flush bolt stiles consists of Pine veneered timber strand with a 0.050" thick veneer on the interior and a 0.060" thick roll form aluminum cladding on the exterior.

**Reinforcement:** None.

**Hardware:**

Bi-folding hardware by Centor Architectural  
 E3 series Stainless Steel

|   |                  |            |                       |
|---|------------------|------------|-----------------------|
| 2 | Pivot Sets       | E3CPSS     | (1 used on 5L & 5R)   |
| 2 | Wall Pivots      | E3WPSS     | (1 used on 5L & 5R)   |
| 1 | Carrier Sets     | E3CICSS    | (2 used on 5L & 5R)   |
| 1 | End Carrier      | E3RCCSS    | (not used on 5L & 5R) |
| 1 | Offset Hinge Set | E3HHSS     |                       |
| 1 | Hinge Set        | E3HSS      |                       |
| 2 | 200mm Drop Bolts | DBSY200NRX |                       |
| 2 | 600mm Drop Bolts | DBSY600NRX |                       |

Weather Strip

|     |                        |
|-----|------------------------|
| 50' | Schlegel Q-Lon QDS 650 |
| 50' | Schlegel Q-Lon QWS 21  |

Passage Door Hardware

|   |  |
|---|--|
| 1 | G-U Eagle series multi-point lock # 6-29586-11-R-8 |
| 1 | Capri Trim Set by G-U #6-U5192-00-0-01             |

**Product Identification:** A manufacturer's label will be affixed to the assembly. The label includes the manufacturer's name (Door Innovations); product name (Weathertight Exterior Doors); performance characteristics for ASTM E 330; and maximum size of tested unit.

**LIMITATIONS**

**Design pressures (DP):**

| System | Overall Width (in.) | Overall Height (in.) | Design Pressure (psf) |
|--------|---------------------|----------------------|-----------------------|
| 1      | 218 $\frac{3}{4}$   | 99 $\frac{1}{4}$     | ±35                   |

**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:** The door shall be fastened to minimum Spruce-Pine-Fir lumber.

Head: Twenty one (21)  $\frac{5}{16}$ " x 4" long wood screws, five (5) at each end, starting at 4" from each end and spaced 3" o.c. thereafter, the remaining eleven (11) screws are spaced 16" o.c. along the head.

Sill:  $\frac{1}{4}$ " x 2  $\frac{1}{2}$ " long Tapcon screws located a maximum of 9" from each end and spaced 23' o.c. thereafter.

Jamb: No. 10 x 2  $\frac{1}{2}$ " long screws located at 7", 17", 42  $\frac{1}{2}$ ", 69  $\frac{1}{2}$ " and 88  $\frac{1}{2}$ " along each jamb starting from the threshold.

**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.