

# TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104  
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**PRODUCT EVALUATION**  
 DR-594

Effective Date: February 1, 2013  
 Reevaluation Date: **November 2014**

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 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 8100 Aluminum 90 Degree and 135 Degree Sliding Glass Doors, Reinforced, Large Missile Impact Rated, Impact Resistant**, manufactured by

**WinDoor Incorporated**  
 7500 Amsterdam Drive  
 Orlando, Florida 32832  
 Telephone: (407) 481-8400  
 www.windoorinc.com

**General Description:**

System	Description	Label Rating	Design Pressure Rating (psf)
1	Series 8100 2 Track 90 Degree Aluminum Reinforced SGD; XXXXXXP	SD-C70 335 x 144; Missile Level D	± 70
2	Series 8100 2 Track 135 Degree Aluminum Reinforced SGD; XXXXXXP	SD-C70 333 x 144; Missile Level D	± 70
3	Series 8100 4 Track 135 Degree Aluminum Reinforced SGD; XXXXXXP	SD-C70 333 x 144; Missile Level D	± 70
4	Series 8100 2 Track 90 Degree Aluminum Reinforced SGD; XXXXXXP	SD-C80 419 x 120; Missile Level D	± 80
5	Series 8100 4 Track 90 Degree Aluminum Reinforced SGD; XXXXXXP	SD-C80 419 x 120; Missile Level D	± 80
6	Series 8100 2 Track 135 Degree Aluminum Reinforced SGD; XXXXXXP	SD-C70 417 x 120; Missile Level D	± 70
7	Series 8100 4 Track 135 Degree Aluminum Reinforced SGD; XXXXXXP	SD-C70 417 x 120; Missile Level D	± 70

**Component Dimensions:**

System	Overall Door Size	Maximum Panel Size	Maximum Panel Daylight Opening Size
1	334 <sup>13</sup> / <sub>16</sub> " x 144"	51 <sup>3</sup> / <sub>4</sub> " x 142 <sup>1</sup> / <sub>16</sub> "	40 <sup>1</sup> / <sub>4</sub> " x 132 <sup>5</sup> / <sub>8</sub> "
2-3	332 <sup>15</sup> / <sub>16</sub> " x 144"	51 <sup>3</sup> / <sub>4</sub> " x 142 <sup>1</sup> / <sub>16</sub> "	40 <sup>1</sup> / <sub>4</sub> " x 132 <sup>5</sup> / <sub>8</sub> "
4-5	418 <sup>13</sup> / <sub>16</sub> " x 120"	63 <sup>3</sup> / <sub>4</sub> " x 118 <sup>1</sup> / <sub>16</sub> "	52 <sup>1</sup> / <sub>4</sub> " x 109 <sup>3</sup> / <sub>16</sub> "
6-7	416 <sup>13</sup> / <sub>16</sub> " x 120"	63 <sup>3</sup> / <sub>4</sub> " x 118 <sup>1</sup> / <sub>16</sub> "	52 <sup>1</sup> / <sub>4</sub> " x 109 <sup>3</sup> / <sub>16</sub> "

**Product Identification:** Two certification program labels (Keystone) will be affixed to the sliding glass door. The certification program labels include the manufacturer's CAR number; product name; performance characteristics; and the approved inspection agency (Keystone). One label includes the following applicable standard: AAMA/WDMA/CSA 101/I.S.2/A440-05. The second label includes the following applicable standards: ASTM E 1886-05 and ASTM E 1996-05.

Each certification label contains a Certification Authorization Report (CAR) number located on the top right side of the label and a model name for the sliding glass door. The following CAR numbers and model names are located on each label:

**Label Identification:**

System	Model	Certification Authorization Report (CAR) number	
		Label with AAMA/WDMA/CSA 101/I.S.2/A440-05	Label with ASTM E 1886-05 / ASTM E 1996-05 Missile Level D
1	8100 2 Track 90 Deg Al Reinf Imp SGD	167-465	167-264
2	8100 2 Track 135 Deg Al Reinf Imp SGD	167-467	167-266
3	8100 4 Track 135 Deg Al Reinf Imp SGD	167-471	167-270
4	8100 2 Track 90 Deg Al Reinf Imp SGD	167-464	167-263
5	8100 4 Track 90 Deg Al Reinf Imp SGD	167-488	167-267
6	8100 2 Track 135 Deg Al Reinf Imp SGD	167-265	167-466
7	8100 4 Track 135 Deg Al Reinf Imp SGD	167-269	167-470

**Impact Resistance:**

Impact Resistant	Requirement
Yes	These products satisfy the Texas Department of Insurance's criteria for protection from windborne debris in the <b>Inland I</b> and <b>Seaward zone</b> . The assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded.

**Installation:**

**Design Drawings:** The doors shall be installed in accordance with Drawing No. 08-01173, titled "8100 Series Reinforced Aluminum SGD Corner and Bypass (4'0x12'0 & 5'0x10'0 Panels) - LMI," sheets 1 through 17 of 17, dated February 24, 2011, signed and sealed by Luis R. Lomas., P.E on August 8, 2012. The stated drawings will be referred to as the approved drawings in this evaluation report.

**Wall Framing Construction:** The doors may be mounted to several types of wall framing construction. The types of wall framing construction allowed include:

- Concrete (minimum compressive strength: 3,192 psi)
- Hollow concrete block; ASTM C-90, Grade N, Type 1 (or greater)
- Wood dimension lumber (minimum Spruce-Pine-Fir)
- Wood backed (minimum Spruce-Pine-Fir) steel (20 gauge, minimum 0.039")

**Installation:**

- Refer to Sheets 7 of 17 and 8 of 17 of the approved drawings for the anchor layout and notes.
- Refer to Sheets 10 of 17 through and 13 of 17 of the approved drawings for installation details.
- The approved drawings indicate the minimum embedment depths for the fasteners and the minimum edge distances (minimum distance fastener must be from the edge of the substrate material) for the fasteners.

**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.