

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION

GDR-34

Effective Date: April 1, 2013

Revised: June 1, 2013

*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 **April 2016**.*

*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.*

**Model 5120/9100, 5140/9400, 6100 and 9600 Sectional Steel Garage Doors, Non-impact and Impact Resistant, as manufactured by:**

**Wayne-Dalton Corporation**  
3395 Addison Drive  
Pensacola, Florida 32514  
Telephone: (850) 474-9890

**Wayne-Dalton**  
One Door Drive  
P.O. Box 67  
Mt. Hope, OH 44660  
Telephone: (330) 763-8000

will be accepted for use in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with this product evaluation, the manufacturer's installation instructions, and the design drawings specified in this evaluation report. Installation instructions and the design drawings shall be available on the job site during installation.

## PRODUCT DESCRIPTION

Models 5120/9100, 5140/9400, 6100, and 9600 doors are sectional steel garage doors constructed with insulated foamed in place polyurethane foam. The foam is chemically bonded to an exterior steel skin and an interior poly laminate skin to provide a composite section for added strength of the door. The Model 9600 garage door has an interior galvanized and painted 32 gauge steel skin with an embossed wood grain texture finish. The exterior skin of the garage doors is galvanized and is painted 30 gauge steel. The Models 5120/9100 and 9600 have an exterior steel skin that is embossed with a contemporary wood grain texture finish or a colonial, ranch or vertical raised panel wood grain texture finish. The exterior skin for the Model 5140/9400 doors is embossed with a  $\frac{1}{4}$ " deep recessed panel wood grain texture finish and may be overlaid with decorative trim pieces. The exterior skin for the Model 6100 door is embossed with a contemporary wood grain texture finish has a  $\frac{1}{2}$ " non-structural overlay.

**Product Identification:** The door has a windload label, that is applied during installation, which includes the Series/Model number, the WindLoad Specification Option Code, the design pressure rating, and whether the door is impact rated.

## LIMITATIONS

Doors are noted in the tables as non-impact and impact resistant.

Impact resistant assemblies are not permitted to utilize louvers.

The maximum height of each door section shall not exceed 24 inches. Refer to the design drawings for the maximum allowable door section height.

The doors shall have a maximum width of 18 feet.

The doors shall have a maximum height of 10 feet, unless otherwise specified in Table 1.

The doors are reinforced with 18 gauge and 20 gauge steel U-bars, and in some cases, a vertical wind load post is required to obtain the design pressure rating. The placement and installation of the reinforcement are shown on the design drawings (Windload Specification Option Code).

**Design drawings (Windload Specification Option Code):** Specified in Table 1.

**Allowable dimensions:** Specified in Table 1.

**Design pressures:** Table 1.

**Glazing (non-impact resistant doors):** Glass is single strength (0.090" thick) annealed monolithic. The glass units are screwed into the door sections. The dimensions of the glass shall not exceed 16.75" width by 39" high.

**Glazing (impact resistant doors):** Glazing is  $\frac{1}{4}$ " Makrolon-AR polycarbonate or equal. The glazing units are screwed into the door sections with No. 8 x  $\frac{3}{4}$ " stainless steel screws with stainless steel backed washers. An  $\frac{1}{8}$ " bead of GE Ultraglaze SSG4000 AC structural sealant or equivalent is required around the perimeter of the polycarbonate. The dimensions of the glass shall not exceed 50.08" width by 15.21" high.

**Louvers (non-impact resistant doors):** Minimum 0.040" louvers with a maximum width of 16.94" can be attached to the bottom section in molded frames screwed together with minimum of six (6) No. 8 x 1" screws.

**Impact protection:** Doors that contain non-impact resistant glazing and/or louvers may not be installed in the **Inland I zone** and the **Seaward zone** without protection from an impact protective system. All non-impact resistant doors that are installed in the **Seaward zone** will need to be protected with an impact protective system or have the impact resistant glazing. Impact resistant assemblies pass Missile Level D specified in ASTM E 1996-04.

**Table 1**  
**Windload Specification Option Code, Allowable Door Dimensions,**  
**Glazing Options and Design Pressure Rating**

<b>Model Number</b>	<b>Drawing Part No. &amp; Windload Specification Option Code</b>	<b>Maximum Door Width</b>	<b>Maximum Door Height</b>	<b>Glass</b>	<b>Vertical Windload Post</b>	<b>Impact Resistant Option</b>	<b>Design Pressure (psf)</b>
5120/6100/9100	318958 Rev: P7 shts. 1-2 of 2, 9/2/10 0228	9'-0"	8'-9"	Yes	No	Yes	+26.9, -30.8
5120/6100/9100	319022 Rev: P5 shts. 1-2 of 2, 9/2/10 0234	9'-0"	8'-9"	Yes	No	Yes	+43.2, -49.6
5120/6100/9100	318960 Rev: P9 shts. 1-2 of 2, 9/2/10 0230	16'-0"	8'-9"	Yes	No	Yes	+25.9, -28.8
5120/6100/9100	318996 Rev: P5 shts. 1-2 of 2, 9/2/10 0231	16'-0"	8'-9"	No	No	Yes	+30.0, -33.50
5120/6100/9100	319023 Rev: P6 shts. 1-2 of 2, 9/2/10 0235	16'-0"	8'-0"	Yes	Yes	Yes	+39.2, -43.7
5120/9100	319000 Rev: P5 shts. 1-2 of 2, 9/2/10 0233	18'-0"	8'-9"	Yes	No	No	+18.5, -20.7
5120/9100	319024 Rev: P6 shts. 1-2 of 2, 9/2/10 0236	18'-0"	8'-0"	Yes	Yes	Yes	+30.0, -33.5
5120/9100	319025 Rev: P6 shts. 1-2 of 2, 9/2/10 0237	18'-0"	8'-0"	Yes	Yes	Yes	+39.2, -43.7
5120/5140/ 6100/9100/ 9400/ 9600	319026 Rev: P4 shts. 1-2 of 2, 9/2/10 0600	9'-0"	10'-0"	Yes	No	No	+26.9, -30.8
5120/5140/ 6100/9100/ 9400/9600	319027 Rev: P4 shts. 1-2 of 2, 9/2/10 0601	9'-0"	10'-0"	Yes	No	Yes	+41.0, -46.3
5120/5140/ 6100/9100/ 9400/9600	319029 Rev: P5 shts. 1-2 of 2, 9/2/10 0603	16'-0"	10'-0"	Yes	No	No	+23.0, -25.0
5120/5140/ 6100/9100/ 9400/9600	319030 Rev: P4 shts. 1-2 of 2, 9/2/10 0604	16'-0"	8'-0"	Yes	Yes	Yes	+39.2, -43.7
5120/5140/ 6100/9100/ 9400/9600	319032 Rev: P6 shts. 1-2 of 2, 9/2/10 0606	18'-0"	8'-0"	Yes	Yes	No	+30.0, -33.5
5120/5140/ 6100/9100/ 9400/9600	319035 Rev: P5 shts. 1-2 of 2, 9/2/10 0609	18'-0"	8'-0"	No	Yes	Yes	+39.2, -43.7
5140/9400/ 9600	319033 Rev: P5 shts. 1-2 of 2, 9/2/10 0607	16'-0"	8'-0"	Yes	No	No	+25.9, -28.8
5140/6100/ 9400/9600	319034 Rev: P4 shts. 1-2 of 2, 9/2/10 0608	18'-0"	8'-0"	Yes	No	No	+18.5, -20.7

## INSTALLATION INSTRUCTIONS

**Design Drawings (Windload Specification Option Code):** The doors shall be installed as specified on the design drawings. The design drawings shall be provided with the door. Each page of the design drawings shall be signed and dated September 2, 2010 by John E. Scates, P.E. The following information, as a minimum, shall be provided within a box located on each page of the design drawings:

- Drawing Part Number
- Wind Load Specification Option Code
- Model Number
- Design Pressures Rating
- Maximum Width and Maximum Height

**Windload Post Installation Instructions:** For those doors that require the installation of windload posts, the design drawings will specify the location of the posts and specific installation instructions. It is required that the document "WindLoad Post Models 5120/5140/6100/9100/9400/9600 Installation Instructions," part No. 319040 P1, copyright 2006, published by Wayne-Dalton Corp., be provided with the door to provide complete installation instructions.

### **Attachment of Doors to Wall (Use One of the Following Methods):**

**Attachment of Door Components to Wood-Framed Walls Using a Wood Jamb:** Brackets for the vertical tracks and for the flag angles of the door shall be attached directly to wood jambs with the fasteners specified on the design drawings. The wood jambs and the attachment of the wood jambs to the wood-framed walls shall be as specified in the Jamb Connection Supplement, Drawing Number 324620, Rev P12, signed and sealed on April 11, 2013, by John E. Scates, P.E.

**Attachment of Door Components to Concrete/Masonry Block Walls Using a Wood Jamb:** Brackets for the vertical tracks and for the flag angles of the door shall be attached directly to wood jambs with the fasteners specified on the design drawings. The wood jambs shall and the attachment of the wood jambs to the concrete/masonry block wall shall be as specified in the Jamb Connection Supplement, Drawing Number 324620, Rev P12, signed and sealed on April 11, 2013, by John E. Scates, P.E.

**Attachment of Door Components Using Direct Mount Method:** Brackets for the vertical tracks and for the flag angles of the door may be attached directly to the door jamb framing in accordance with the Jamb Connection Supplement, Drawing Number 324620, Rev P12, signed and sealed on April 11, 2013, by John E. Scates, P.E.

**Note:** The manufacturer's installation instructions, the appropriate Windload Specification Option Code design drawing, and the Jamb Connection Supplement shall be available on the jobsite during installation. If the door requires windload posts, then the WindLoad Post 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.