

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION

Effective Date: May 1, 2014

GDR-63

*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 **May 2018**.*

*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.*

**Models 426, 724, 730, 735, 750, and 755 Residential Sectional Garage Doors, Impact Resistant,** manufactured by:

**Windsor Door LLC**  
**5800 Scott Hamilton Drive**  
**Little Rock, Arkansas 72209**  
**Telephone: (501) 562-1872**

will be accepted for use in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with this product evaluation and the approved drawing listed in this evaluation report.

## PRODUCT DESCRIPTION

These doors are impact resistant, residential garage doors which are constructed from galvanized, pre-painted steel sections of either 19  $\frac{1}{4}$ " or 21" height and embossed with wood grain texture and other special designs. Models 426, 724, 730, 735, 750 and 755 are pan-style garage doors. Specific pan-style doors are available with and without insulation. All doors are reinforced horizontally with roll-formed galvanized steel struts (u-bars). This report includes individual, impact resistant garage doors based on the following tested series:

- **Model 426:** pan-style, residential garage doors with optional insulation
  - 25 gauge steel exterior skin
  - 2" thick door sections
  - Optional 1  $\frac{3}{8}$ " polystyrene foam insulation (laid in place)
  - Ruff-Tex® wood-like finish on the outside steel skin
  - Manufactured with an embossed horizontal rib panel design
- **Model 724:** pan-style, residential garage doors with optional insulation
  - 25 gauge steel exterior skin
  - 2" thick door sections
  - Optional 1  $\frac{3}{8}$ " polystyrene foam insulation (laid in place)
  - Ruff-Tex® wood-like finish on the outside steel skin
  - Manufactured with an embossed "ranch style" or raised-panel surface design

- Model 730: pan-style, residential garage doors with optional insulation
  - 25 gage steel exterior skin
  - 2" thick door sections
  - Optional 1  $\frac{3}{8}$ " polystyrene foam insulation (laid in place)
  - Ruff-Tex® wood-like finish on the outside steel skin
  - Manufactured with an embossed "ranch-style" or raised-panel surface design
- Model 735: pan-style, insulated, residential garage doors with vinyl back liner
  - 25 gage steel exterior skin
  - 2" thick door sections
  - Built-in,  $\frac{1}{2}$ " thick CFC-FREE polystyrene insulation with white poly-coated vinyl back liner
  - Ruff-Tex® wood-like finish on the outside steel skin
  - Manufactured with an embossed "ranch-style" or standard raised-panel surface design
- Model 750: pan-style, residential garage doors with optional insulation
  - 24 gauge steel exterior skin
  - 2" thick door sections
  - Optional 1  $\frac{3}{8}$ " polystyrene foam insulation (laid in place)
  - Ruff-Tex® wood-like finish on the outside steel skin
  - Manufactured with an embossed "ranch style" or raised-panel surface design
- Model 755: pan-style, residential garage doors with optional insulation
  - 24 gauge steel exterior skin
  - 2" thick door sections
  - Optional 1  $\frac{3}{8}$ " polystyrene foam insulation (laid in place)
  - Ruff-Tex® wood-like finish on the outside steel skin
  - Manufactured with an embossed raised panel "steel carriage" surface design

**The following applies to all doors:**

**Hardware:**

- U-Bar Stiffeners: Horizontal reinforcing U-shaped sections 3 inches deep, 18 gauge galvanized steel (33 ksi minimum tensile strength) attached with two  $\frac{1}{4}$ " x  $\frac{3}{4}$ " hex-head, self-drilling screws per stile.
- End Hinges: 14 gauge galvanized steel hinges secured with six  $\frac{1}{4}$ " x  $\frac{1}{2}$ " sheet metal screws. A seventh screw is shared with an overlapping strut.
- Intermediate Hinges: 18 gauge galvanized steel hinges secured with four  $\frac{1}{4}$ " x  $\frac{1}{2}$ " sheet metal screws. A fifth screw is shared with an overlapping strut.
- Locks: residential slide locks or electrical operator.
- Stiles (center): 20 gauge galvanized steel.
- Stiles (end): 20 gauge galvanized steel with 13 gauge cap over the stiles.
- Tracks: Vertical tracks are made from 13 gauge, 2-inch wide, galvanized steel.

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**Hardware (Continued):**

- Track Brackets: Track brackets are 13 gage galvanized steel. The size and number of brackets required for each rail will vary with the size and pressure rating of the door assembly. Refer to the drawings referenced in Tables 1 for bracket sizes and numbers.
- Rollers: 2-inch diameter rollers (10-ball steel long stem rollers), 5 on each side for 4-section doors, 6 on each side for 5-section doors.

**Glazing:** Glazing is not available in these doors.

**Product Identification:** The doors have a warranty/warning label applied during manufacturing that includes the manufacturer's name and the Series/Model number for the door. The door will also have a second label, applied by the installer that includes the manufacturer's name and the design pressure rating for the door.

### LIMITATIONS

**Impact protection:** These door assemblies satisfy the Texas Department of Insurance criteria for protection from windborne debris in both the **Inland I zone** and the **Seaward zone**. The door assembly passed an impact standard equivalent to Missile Level D in ASTM E 1996-04. The door assembly may be installed on the structure as long as the design pressure rating for the assembly is not exceeded. These door assemblies will not require protection with an impact protective system.

### INSTALLATION INSTRUCTIONS

**General:** The 426, 724, 730, 735, 750 & 755 model doors shall be installed in accordance with the manufacturer's published installation instructions, and approved drawings referenced in this product evaluation report. The information within this report governs if there are any conflicts between the manufacturer's instructions and this evaluation report. Interior reinforcement hardware configurations will vary based on the garage door dimensions and wind pressure requirements. Refer to Table 1 for maximum allowable door dimensions, allowable design pressures, and approved drawings.

**Design Drawings:** The doors shall be installed in accordance with the following drawing: "Models 730/735/724/750/755/426," drawing 99-B-096, sheets 1 thru 4 of 4, dated June 9, 2010, signed and sealed by John E. Scates, P.E. on July 30, 2010. The stated drawings will be referred to as approved drawings in this report. A copy of the approved drawings shall be available at the job site.

Required reinforcement configurations are shown in the following drawings:

- For garage doors having a design pressure up to +37.8 / -42.9 psf, up to 10' wide, refer to sheets 1 and 3 of the approved drawings.
- For garage doors having a design pressure up to +30.8 / -37.66 psf, up to 18' wide, refer to sheets 2 and 4 of the approved drawings.

**Attachment of doors to wall framing:** The door track brackets shall be attached either directly to the wall framing or to minimum 2x6 Spruce-Pine-Fir wood jambs that are secured to the wall framing. The allowable methods of attachment and illustrations of the allowable methods of attachment are specified in the Jamb Attachment Schedule Drawing, drawing number 99-A-090, dated March 5, 2008, signed and sealed by John Scates, P.E. on January 26, 2011.

**Note:** The manufacturer's installation instructions and the appropriate design drawings 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.

**Table 1  
 Residential Pan-Style Garage Doors**

Models 426, 724, 730, 735, 750 & 755 Maximum Width	Maximum Door Height	Maximum Section Height	Horizontal Reinforcement Pieces	Center Stiles per Section	Design Pressures (psf)	Drawing Number (Sheet)
8'-0"	12'-3"	21"	(3) 3"x18ga bottom (2) 3"x18ga others	3	+37.8 / -42.9	99-B-096 (1 of 4) (3 of 4)
9'-0"	12'-3"	21"	(3) 3"x18ga bottom (2) 3"x18ga others	3	+37.8 / -42.9	99-B-096 (1 of 4) (3 of 4)
10'-0"	12'-3"	21"	(3) 3"x18ga bottom (2) 3"x18ga others	4	+37.8 / -42.9	99-B-096 (1 of 4) (3 of 4)
16'-0"	12'-3"	21"	(3) 3"x18ga bottom (2) 3"x18ga others	7	+30.8 / -37.66	99-B-096 (2 of 4) (4 of 4)
18'-0"	12'-3"	21"	(3) 3"x18ga bottom (2) 3"x18ga others	7	+30.8 / -37.66	99-B-096 (2 of 4) (4 of 4)