

Product Evaluation

GDR63 | 1220

Engineering Services Program

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.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: GDR-63

Effective Date: December 1, 2020

Re-evaluation Date: December 2024

Product Name: Model 426, 724, 730, 735, 750, and 755 Residential Steel Sectional Garage Doors, Impact Resistant

Manufacturer: Windsor Door
5800 Scott Hamilton Drive
Little Rock, AR
(501) 562-1872

General Description:

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

Model 426

- Pan-style
- 25-gauge steel exterior skin
- 2" thick door sections
- Optional 1-3/8" 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, 730

- Pan-style
- 25-gauge steel exterior skin
- 2" thick door sections
- Optional 1-3/8" 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
- 25-gauge steel exterior skin
- 2" thick door sections
- Built-in 1/2" thick CFC-free polystyrene insulation with white vinyl back liner
- Ruff-Tex wood-like finish on the outside steel skin
- Manufactured with an embossed 'ranch style' or raised panel surface design

Model 750

- Pan-style
- 24-gauge steel exterior skin
- 2" thick door sections
- Optional 1-3/8" 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
- 24-gauge steel exterior skin
- 2" thick door sections
- Optional 1-3/8" 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

U-Bar Stiffeners: Horizontal reinforcing U-shaped sections 3" deep, 18-gauge galvanized steel (33 ksi minimum tensile strength) attached with two (2) 1/4" x 3/4" hex-head, self-drilling screws per stile.

End Hinges: 14-gauge galvanized steel hinges secured with six (6) 1/4" x 1/2" sheet metal screws. A seventh screw is shared with an overlapping strut.

Intermediate Hinges: 18-gauge galvanized steel hinges secured with four (4) 1/4" x 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" wide, galvanized steel.

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 Table 1 for bracket sizes and numbers.

Rollers: 2" diameter rollers (10-ball steel long stem rollers), 5 on each side for 4-section doors, 6 on each side for 5-section 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. A second label will be applied to the door during installation by the installer. This label includes the manufacturer's name, Series/Model number, the design drawing number, the design pressure rating for the door, and the test standards (ANSI/DASMA 108-17, ANSI/DASMA 115-17, Missile Level D).

Limitations:

Maximum Section Height: The maximum height of each door section must not exceed 21". Refer to the design drawings for door section heights for specific doors.

Maximum Width: The doors have a maximum width of 18'-0". Refer to Table 1 and the design drawings for the allowable door width dimensions.

Maximum Height: The doors have a maximum height of 12'-3". Refer to Table 1 and the design drawings for allowable door heights for specific doors.

Design Drawings: Specified in Table 1.

Design Pressures: Specified in Table 1.

Glazing: Glazing is not available in these doors.

Impact Protection: These door assemblies satisfy the Texas Department of Insurance criteria for protection from windborne debris. The door assembly passed an impact standard equivalent to Missile Level D in ASTM E 1996-14a. 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:

General: The 426, 724, 730, 735, 750 and 755 model doors must 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 must be installed in accordance with the following drawing: "Models 730/735/724/750/755/426," drawing 99-B-096, Rev. C, sheets 1 thru 4 of 4, dated June 9, 2010, revised June 1, 2020, signed and sealed by John E. Scates, P.E. on November 10, 2020. The stated drawings will be referred to as approved drawings in this report. A copy of the approved drawings must 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 must 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-061, revised May 12, 2020, signed and sealed by John Scates, P.E. on June 22, 2020.

Note: The manufacturer's installation instructions, the design drawings, and the appropriate drawing for securing the door to the structure, must be available on the job site during installation. All fasteners must be corrosion resistant as specified in the IRC and the IBC.

Table 1
Residential Pan-Style Garage Doors

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"x18-ga bottom (2) 3"x18-ga others	3	+37.8 / -42.9	99-B-096 Rev C (1 of 4) (3 of 4)
9'-0"	12'-3"	21"	(3) 3"x18-ga bottom (2) 3"x18-ga others	3	+37.8 / -42.9	99-B-096 Rev C (1 of 4) (3 of 4)
10'-0"	12'-3"	21"	(3) 3"x18-ga bottom (2) 3"x18-ga others	4	+37.8 / -42.9	99-B-096 Rev C (1 of 4) (3 of 4)
16'-0"	12'-3"	21"	(3) 3"x18-ga bottom (2) 3"x18-ga others	7	+30.8 / -37.66	99-B-096 Rev C (2 of 4) (4 of 4)
18'-0"	12'-3"	21"	(3) 3"x18-ga bottom (2) 3"x18-ga others	7	+30.8 / -37.66	99-B-096 Rev C (2 of 4) (4 of 4)