

Product Evaluation

GDR10 | 0521

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-10

Effective Date: May 1, 2021

Re-evaluation Date: May 2025

Product Name: Mid-America Doors: Regal, Celebrity, and Vantage Models, Steel Sectional Doors, Non-Impact Resistant

Manufacturer: Mid-America Door Company
101 W. Hartford
Ponca City, OK 74601
(800) 364-3667

General Description:

Mid-America Doors are sectional overhead doors constructed from galvanized steel with a baked-on polyester finish. Doors are embossed with a wood grain finish. The Regal Model is constructed from 25-gauge steel and may be insulated with 1" thick expanded polystyrene insulation. The Celebrity Model is constructed from 24-gauge steel and may be insulated with 1" thick expanded polystyrene insulation. The Vantage Model utilizes 26-gauge steel on both the exterior as well as the interior which is pressure bonded to a contoured expanded polystyrene core. Doors may use a combination of U-Bars (for horizontal reinforcing) and 3" rectangular I-beams or rectangular tubes (for vertical reinforcement). Design drawing numbers, design pressures, maximum door dimensions, and maximum glazing dimensions are shown in Tables 1.1 and 1.2 for non-impact rated assemblies.

Hardware:

The garage door hardware and reinforcement must comply with the design drawings as listed in Tables 2.1 and 2.2.

- **U-Bar Stiffeners:** Horizontal U-shaped sections are attached with two (2) 1/4" – 20 x 3/4" self-drilling screws per stile (or backer plate). The placement and installation of the U-Bar stiffeners are shown on the design drawings.
 - 2-1/4" deep, 22-gauge (0.028"), galvanized steel (33 ksi tensile strength)
 - 3" deep, 20-gauge (0.036"), galvanized steel (50 ksi tensile strength)
- **Wind Load Post:** Wind load posts must be provided for the door configurations as listed in Tables 2.1 and 2.2. The posts must comply with design drawing specifications.
- **End and Intermediate Hinges:** Hinges must comply with the specifications and secured as noted in the referenced drawings.
- **Locks:** A lock must be attached to either side of the door. Either cam and bar locks, or a remote-control locking opener may be substituted.
- **Stiles:** End and intermediate stiles comply with the specifications and secured as noted in the referenced drawings.
- **Tracks:** Vertical and horizontal tracks are made from 16-gauge (0.058") or 18-gauge (0.045"), 2-1/8" wide, galvanized steel, as shown in the referenced drawings.
- **Track Brackets:** 12-gauge track brackets are required on each side of the door. Refer to the referenced drawings for the required number and locations of track brackets.
- **Rollers:** Refer to the referenced drawings for the required type and number of rollers.
 - Short-stem (4-1/2" length axle), 2" diameter, 10-ball steel rollers (Mid-America Part No. 20804)
 - Long-Stem (7-1/4" length axle), 2" diameter, 10-ball steel rollers (Mid-America Part No. 20806)

Product Identification:

A permanent label must be affixed to the garage door. The label includes the manufacturer's name (Mid-America Door); the product name (Regal, Celebrity, Vantage); the design drawing number; the allowable design pressure rating, and the test standard (ANSI/DASMA 108). The installer must verify that the doors are properly labeled.

Limitations:

- The maximum height of each door section must not exceed 21".
- The doors must have a maximum width of 18 feet. Refer to Tables 1.1 and 1.2 for the maximum garage door dimensions.
- The doors must have a maximum height of 14 feet. Refer to the tables in this evaluation report for allowable door heights for specific doors.
- The listed doors must not be installed in buildings where the on-site design pressures exceed the maximum allowable design pressures listed in Tables 1.1 and 1.2.
- **Glazing (Optional):** Glass is minimum single strength (nominal 3/32" thick) annealed glass in extruded polyvinyl chloride frames. The frames are sealed around the perimeter with one or two rows of polyurethane bead with the glazing captured between the two plastic frames and secured with screws. The clear opening dimensions of the glass and the attachment of the glass frames to the door panels is specified on the design drawings.

Impact Protection:

The doors have not been tested for windborne debris resistance. Doors that contain glazing may not be installed in areas where windborne debris protection is required door unless they are protected with an impact protective system.

Installation:

Design Drawings: The doors must be installed as specified on the design drawings. The design drawings must be provided with the door. Each page of the design drawings is sealed by John Scates, P.E. The first page is digitally signed and dated April 13, 2021. The following information, as a minimum, is provided on the design drawings:

- Drawing Number
- Model/Series
- Design Pressures Rating
- Maximum Width and Maximum Height
- Maximum Section Height

In addition to providing the design drawings, the following document must be provided with the door:

- Jamb Plate Fastener Schedule; Drawing Number RCWL-0001; dated February 25, 2004; Rev 6 dated December 11, 2017; signed and sealed by John Scates, P.E. on October 12, 2020.

Note: Keep the manufacturer's installation instructions and the appropriate design drawings available on the job site during installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.

Table 1.1
Regal and Celebrity Models
Allowable Door Dimensions,
Glazing Options and Design Pressure Rating
Non-Impact Resistant

Drawing Number	Maximum Door Width	Maximum Door Height	Glass Option	Design Pressure (psf)
RC-FWL3-0907 R2	9'-0"	14'	Yes	+16.1 / -18.2
RC-FWL3-1607 R2	16'-0"	14'	Yes	+15.5 / -17.2
RC-FWL4-0907 R2	9'-0"	14'	Yes	+19.1 / -22.0
RC-FWL4-1607 R2	16'-0"	14'	Yes	+17.7 / -19.7
RC-FWL5-0907 R2	9'-0"	14'	Yes	+22.9 / -26.3
RC-FWL5-1607 R2	16'-0"	14'	Yes	+20.4 / -22.7
RC-FWL6-1607 R2	16'-0"	14'	Yes	+23.3 / -26.0
RC-FWL7-0907 R2	9'-0"	14'	Yes	+27.6 / -31.2
RC-FWL7-1607 R2	16'-0"	14'	Yes	+26.4 / -29.4
RC-FWL8-0907 R2	9'-0"	14'	Yes	+31.2 / -35.8
RC-FWL8-1607 R3	16'-0"	7'	Not allowed	+30.0 / -33.5

Table 1.2
Vantage Model
Allowable Door Dimensions,
Glazing Options and Design Pressure Rating
Non-Impact Resistant

Drawing Number	Maximum Door Width	Maximum Door Height	Glass Option	Design Pressure (psf)
VAN-FWL4-1607 R2	16'-0"	14'	Yes	+17.7 / -19.7
VAN-FWL5-0907 R2	9'-0"	14'	Yes	+21.4 / -24.1
VAN-FWL5-1607 R2	16'-0"	14'	Yes	+20.5 / -22.8
VAN-FWL6-0907 R2	9'-0"	14'	Yes	+24.3 / -27.5
VAN-FWL6-1607 R2	16'-0"	14'	Yes	+23.3 / -26.0
VAN-FWL7-0907 R2	9'-0"	14'	Yes	+27.6 / -31.2
VAN-FWL7-1607 R2	16'-0"	14'	Yes	+26.4 / -29.4
VAN-FWL8-0907 R2	9'-0"	14'	Yes	+30.8 / -34.8
VAN-FWL8-1607 R2	16'-0"	14'	Not allowed	+30.0 / -33.5

Table 2.1
Regal and Celebrity Models Reinforcement

Drawing Number	Standard Height	Sections	Center Stiles	Reinforcing Struts
RC-FWL3-0907 R2	6'-6" thru 7'-0"	4	1	(4) 2.25" 22 Gauge 33 KSI U-Bars.
	7'-6" thru 8'-0"	5	1	(5) 2.25" 22 Gauge 33 KSI U-Bars.
RC-FWL3-1607 R2	6'-6" thru 7'-0"	4	5	(3) 3" 20 Ga. 50 KSI U-Bars and (1) 2.25" 22 Ga. 33 KSI
	7'-6" thru 8'-0"	5	5	(4) 3" 20 Ga. 50 KSI U-Bars and (1) 2.25" 22 Ga. 33 KSI
RC-FWL4-0907 R2	6'-6" thru 7'-0"	4	1	(5) 2.25" 22 Ga. 33 KSI U-Bars.
	7'-6" thru 8'-0"	5	1	(6) 2.25" 22 Ga. 33 KSI U-Bars.
RC-FWL4-1607 R2	6'-6" thru 7'-0"	4	5	(4) 3" 20 Ga. 50 KSI U-Bars and (1) 2.25" 22 Ga. 33 KSI
	7'-6" thru 8'-0"	5	5	(5) 3" 20 Ga. 50 KSI U-Bars and (1) 2.25" 22 Ga. 33 KSI
RC-FWL5-0907 R2	6'-6" thru 7'-0"	4	1	(2) 3" 20 Ga. 50 KSI U-Bars and (2) 2.25" 22 Ga. 33 KSI
	7'-6" thru 8'-0"	5	1	(3) 3" 20 Ga. 50 KSI U-Bars and (2) 2.25" 22 Ga. 33 KSI
RC-FWL5-1607 R2	6'-6" thru 7'-0"	4	5	(5) 3" 20 Ga. 50 KSI U-Bars and (1) 2.25" 22 Ga. 33 KSI
	7'-6" thru 8'-0"	5	5	(7) 3" 20 Ga. 50 KSI U-Bars and (1) 2.25" 22 Ga. 33 KSI
RC-FWL6-1607 R2	6'-6" thru 7'-0"	4	5	(5) 3" 20 Ga. 50 KSI U-Bars and (2) 2.25" 22 Ga. 33 KSI
	7'-6" thru 8'-0"	5	5	(7) 3" 20 Ga. 50 KSI U-Bars and (2) 2.25" 22 Ga. 33 KSI
RC-FWL7-0907 R2	6'-6" thru 7'-0"	4	3	(5) 2.25" 22 Ga. 33 KSI U-Bars.
	7'-6" thru 8'-0"	5	3	(6) 2.25" 22 Ga. 33 KSI U-Bars.
RC-FWL7-1607 R2	6'-6" thru 7'-0"	4	5	(8) 3" 20 Ga. 50 KSI U-Bars
	7'-6" thru 8'-0"	5	5	(10) 3" 20 Ga. 50 KSI U-Bars
RC-FWL8-0907 R2	6'-6" thru 7'-0"	4	3	(6) 3" 20 Ga. 50 KSI U-Bars.
	7'-6" thru 8'-0"	5	3	(8) 3" 20 Ga. 50 KSI U-Bars.
RC-FWL8-1607 R3	7'-0"	4	5	(8) 3" 20 Ga. 50 KSI U-Bars, (2) 2.25" 22 Ga. 33 KSI

Table 2.2
Vantage Model Reinforcement

Drawing Number	Standard Height	Sections	Reinforcing Struts
VAN-FW4-1607 R2	6'-6" thru 7'-0"	4	(3) 3" 20 Ga. 50 KSI U-Bars and (1) 2.25" 22 Ga. 33 KSI
	7'-6" thru 8'-0"	5	(4) 3" 20 Ga. 50 KSI U-Bars and (1) 2.25" 22 Ga. 33 KSI
VAN-FW5-0907 R2	6'-6" thru 7'-0"	4	(2) 2.25" 22 Gauge 33 KSI U-Bars.
	7'-6" thru 8'-0"	5	(3) 2.25" 22 Gauge 33 KSI U-Bars.
VAN-FW5-1607 R2	6'-6" thru 7'-0"	4	(4) 3" 20 Ga. 50 KSI U-Bars and (2) 2.25" 22 Ga. 33 KSI
	7'-6" thru 8'-0"	5	(5) 3" 20 Ga. 50 KSI U-Bars and (2) 2.25" 22 Ga. 33 KSI
VAN-FW6-0907 R2	6'-6" thru 7'-0"	4	(3) 2.25" 22 Gauge 33 KSI U-Bars.
	7'-6" thru 8'-0"	5	(4) 2.25" 22 Gauge 33 KSI U-Bars.
VAN-FW6-1607 R2	6'-6" thru 7'-0"	4	(5) 3" 20 Ga. 50 KSI U-Bars and (1) 2.25" 22 Ga. 33 KSI
	7'-6" thru 8'-0"	5	(7) 3" 20 Ga. 50 KSI U-Bars and (1) 2.25" 22 Ga. 33 KSI
VAN-FW7-0907 R2	6'-6" thru 7'-0"	4	(4) 2.25" 22 Gauge 33 KSI U-Bars.
	7'-6" thru 8'-0"	5	(5) 2.25" 22 Gauge 33 KSI U-Bars.
VAN-FW7-1607 R2	6'-6" thru 7'-0"	4	(6) 3" 20 Ga. 50 KSI U-Bars and (1) 2.25" 22 Ga. 33 KSI
	7'-6" thru 8'-0"	5	(8) 3" 20 Ga. 50 KSI U-Bars and (1) 2.25" 22 Ga. 33 KSI
VAN-FW8-0907 R2	6'-6" thru 7'-0"	4	(5) 2.25" 22 Gauge 33 KSI U-Bars.
	7'-6" thru 8'-0"	5	(6) 2.25" 22 Gauge 33 KSI U-Bars.
VAN-FW8-1607 R2	6'-6" thru 7'-0"	4	(7) 3" 20 Ga. 50 KSI U-Bars and (1) 2.25" 22 Ga. 33 KSI
	7'-6" thru 8'-0"	5	(9) 3" 20 Ga. 50 KSI U-Bars and (1) 2.25" 22 Ga. 33 KSI