

## Product Evaluation

GDR27 | 1022

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-27

**Effective Date:** October 1, 2022

**Re-evaluation Date:** October 2026

**Product Name:** Series 400, 500, and 3600 Steel, Sectional, Residential Garage Doors, Non-impact Resistant

**Manufacturer:** doorLink Manufacturing, Inc.  
5700 NW 39<sup>th</sup> Street  
Riverside, MO 64150  
(816) 474-3900

### General Description:

The doorLink Series 400, 500, and 3600 steel sectional residential garage doors are constructed from galvanized steel sections textured with wood grain or stucco embossing rolls. The sections are coated with an epoxy primer and a baked-on polyester finish. Windows are optional. All doors are reinforced horizontally with roll-formed galvanized steel sections (U-bars) or strapped C-Channels. This evaluation report includes the following door series:

**500 Series:** Pan-style, residential garage doors with tongue and groove meeting rails made from minimum 25-gauge (0.017" thick), hot-dipped galvanized steel construction with a hemmed inside return rail. The 500 Series includes Models 510, 511, 590, and 591. Models 511 and 591 are insulated with CFC-free expanded polystyrene with a high impact plastic back cover. Models 510 and 590 are non-insulated. The 500 Series is available with or without windows.

**400 Series:** Pan-style residential garage doors with tongue and groove meeting rails made from minimum 24-gauge (0.019" thick), hot-dipped galvanized steel construction with a hemmed inside return rail. The 400 Series includes Models 410, 411, 420, 421, 430, 431, 440, 441, 450, 451, 460, 461, 480, 481, 490, and 491. Models 411, 421, 431, 441, 451, 461, 481, and 491 are insulated with CFC-free expanded polystyrene with a high impact plastic back cover. Models 410, 420, 430, 440, 450, 460, 480, and 490 are non-insulated. The 400 Series is available with or without windows.

**3600 Series:** Insulated sandwich-style, 2" thick, residential garage doors. The 3600 Series includes Models 3610, 3620, 3630, 3640, 3650, 3660, 3680, and 3690. The doors are insulated with expanded polystyrene insulation that is bonded between two sheets of 26-gauge, hot-dipped galvanized steel. The 3600 Series is available with or without windows.

**Product Identification:** A wind load label will be affixed to the door. The label includes the manufacturer's name (doorLink Manufacturing, Inc.); series/model number of the door; the allowable design pressure rating; the maximum size; the design drawing number; and the test standards (ANSI/DASMA 108).

**Limitations:**

**Maximum Section Height:** The maximum height of each door section must not exceed 21".

**Maximum Width:** The doors have a maximum width of 20'. Refer to Table 1 and Table 2 and the design drawings for the allowable door width dimensions.

**Maximum Height:** The doors have a maximum height of 14'. Refer to the design drawings for allowable door heights for specific doors.

**Horizontal Reinforcement:** The doors are reinforced with either 20-gauge, 3" steel struts; 4" x 2-1/2", 16-gauge, 50 ksi, C-Channels with 1-1/4" wide, 16-gauge, straps; or 4" x 2-1/2", 16-gauge, 50 ksi, C-Channels, with 1-1/4" wide, 16-gauge, straps. The quantity, placement, and installation of the struts, straps, and C-channels are shown on the design drawings.

**Stiles:** The required number of stiles is specified on the design drawings.

**Design Drawings:** Specified in Table 1 and Table 2.

**Design Pressures:** Specified in Table 1 and Table 2.

**Glazing (Optional):** The design drawings and the tables in this evaluation report indicate if glazing is an option. The allowable glass construction, maximum daylight opening size, and the attachment of the glazing to the door panels is specified on the design drawings.

**Impact Resistance:** The door assemblies specified in Table 1 and Table 2 have not been tested for windborne debris resistance. Doors that contain glazing may not be installed in areas that

require windborne debris protection unless the door is protected with an impact protective system.

**Installation:**

**Design Drawings:** The doors are to be installed as specified on the design drawings. The manufacturer will provide the design drawings with the door. The drawing numbers with revision number and revision date are specified in Table 1 and Table 2. Each page of the drawing is sealed by John E. Scates, P.E. and the first page is digitally signed and dated September 28, 2022, by John E. Scates, P.E.

**Attachment of Doors to Wall Framing:** Attach the door track brackets to wood vertical jambs. The wood vertical jambs must be minimum 2x6 Southern Yellow Pine dimension lumber. The drawings indicate how the track brackets are secured to the vertical jambs.

Attachment of the vertical wood jambs to the structure is outside the scope of this evaluation report. The required size, type, and spacing of the fasteners required to secure the wood jambs to the structure will need to be design by an engineer.

**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**  
**Series 400 and 500**

<b>Door Width</b>	<b>Model Numbers</b>	<b>Glass Option</b>	<b>Design Pressures (psf)</b>	<b>Drawing Number</b>
9'-0"	400, 500	Yes	+26.9 / -30.5	RO9A_26.9_30.5 Rev 01 7-11-22
9'-0"	400, 500	No	+30.0 / -31.0	RO9A_30.0_31.0 Rev 01 7-11-22
9'-0"	400, 500	No	+35.2 / -35.2	RO9A_35.2_35.2 Rev 01 7-11-22
10'-0"	400, 500	No	+28.5 / -28.5	RO10A_28.5_28.5 Rev 00 7-11-22
12'-0"	410, 411, 430, 431, 450, 451, 510, 511	No	+34.3 / -32.7	RO12A_34.3_32.7 Rev 00 7-11-22
16'-0"	410, 411, 430, 431, 450, 451, 510, 511	Yes	+22.0 / -24.5	RO16A_22.0_24.5 Rev 01 7-11-22
16'-0"	410, 411, 430, 431, 450, 451, 510, 511	Yes	+22.0 / -24.5	RO16B_22.0_24.5 Rev 01 7-11-22
16'-0"	410, 411, 430, 431, 450, 451, 510, 511	Yes	+25.7 / -24.5	RO16A_25.7_24.5 Rev 01 7-11-22
16'-0"	410, 411, 430, 431, 450, 451	Yes	+25.7 / -28.7	RO16A_25.7_28.7 Rev 01 7-11-22
16'-0"	410, 411, 430, 431, 450, 451, 510, 511	Yes	+25.8 / -28.9	RO16A_25.8_28.9 Rev 01 7-11-22
16'-0"	410, 411, 430, 431, 450, 451, 510, 511	No	+30.0 / -30.0	RO16A_30.0_30.0 Rev 01 7-11-22
16'-0"	410, 411, 430, 431, 450, 451, 510, 511	No	+35.0 / -38.8	RO16A_35.0_38.8 Rev 01 7-11-22
18'-0"	410, 411, 430, 431, 450, 451, 510, 511	Yes	+22.0 / -24.5	RO18A_22.0_24.5 Rev 01 7-11-22
18'-0"	410, 411, 430, 431, 450, 451	Yes	+25.7 / -28.7	RO18A_25.7_28.7 Rev 01 7-11-22
18'-0"	410, 411, 430, 431, 450, 451, 510, 511	Yes	+25.7 / -28.7	RO18B_25.7_28.7 Rev 01 7-11-22
18'-0"	410, 411, 430, 431, 450, 451, 510, 511	No	+35.0 / -35.0	RO18A_35.0_35.0 Rev 01 7-11-22
20'-0"	410, 411, 430, 431, 450, 451	No	+28.4 / -28.4	RO20A_28.4_28.4 Rev 00 7-11-22

**Table 2**  
**Series 3600**

<b>Door Width</b>	<b>Model Numbers</b>	<b>Glass Option</b>	<b>Design Pressures (psf)</b>	<b>Drawing Number</b>
9'-0"	3600	Yes	+26.9 / -30.5	RS9A_26.9_30.5 Rev 01 7-11-22
10'-0"	3600	No	+35.2 / -39.2	RS10A_35.2_39.2 Rev 00 7-11-22
12'-0"	3600	No	+29.3 / -32.7	RS12A_29.3_32.7 Rev 00 7-11-22
16'-0"	3600	Yes	+22.0 / -24.5	RS16A_22.0_24.5 Rev 01 7-11-22
16'-0"	3600	Yes	+25.7 / -28.7	RS16A_25.7_28.7 Rev 01 7-11-22
16'-0"	3600	No	+28.9 / -32.3	RS16A_28.9_32.3 Rev 00 7-11-22
18'-0"	3600	Yes	+22.0 / -24.5	RS18A_22.0_24.5 Rev 01 7-11-22
18'-0"	3600	Yes	+25.7 / -28.7	RS18A_25.7_28.7 Rev 01 7-11-22
20'-0"	3600	Yes	+20.8 / -23.2	RS20A_20.8_23.2 Rev 01 7-11-22