

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION GDR-46

Effective Date: July 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 **July 2017**.*

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 shall not exceed the allowable wind loads shown in 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.

Series 4400, 4500 and 6500, Commercial Steel Sectional Garage Doors, Non-impact Resistant, as manufactured by:

**doorLink Manufacturing, Inc.
1501 Taney Avenue
North Kansas City, MO 64116
(816) 474-3900**

will be accepted for use in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with this product evaluation. Installation instructions and the appropriate shop drawings for the particular model, signed and sealed by Joseph H. Dixon, Jr., P.E. and as shown in Table 1, shall be provided and available on the job site during installation.

PRODUCT DESCRIPTION

General: doorLink steel garage doors are sectional overhead doors constructed from cold-formed galvanized steel with a primer and polyester finish. Series 4400 and 4500 have open-back sections, and Series 6500 doors consist of a front and back section filled with expanded insulation. The garage door description, dimensions, drawing number, allowable design pressure rating and reinforcement are shown in Table 1 for non-impact rated assemblies.

Product Identification: A label will be affixed to the garage door. The label shall include the manufacturer's name, series and model number, and the allowable design pressure rating.

LIMITATIONS

The garage doors panels are constructed of galvanized steel: Series 4400 0.022" pan thickness; Series 4500 0.019" pan thickness and Series 6500 front pan 0.019" thick and back pan 0.014" thick.

The garage doors listed in this product evaluation report including some doors with glazed panels.

The maximum section height of each door section shall not exceed 24".

The doors shall have a minimum height of 7'-0" and a maximum height of 24'-0".

The garage doors utilize horizontal reinforcement. The type, placement, and installation of the horizontal reinforcement is shown on the design drawings.

Series 4400, 4500 and 6500 Non-Impact Resistant Doors:

Design drawings: Specified in Table 1

Allowable dimensions: Specified in Table 1

Glazing: Specified in Table 1.

Design pressure and height limitations: Table 1

Impact protection: These doors have not been tested for windborne debris resistance. Doors that contain glazing may not be installed in the Inland I zone unless the door is protected with an impact protective system. All doors that are installed in the Seaward zone will need to be protected with an impact protective system.

Table 1 – Non-Impact Rated Assemblies

Model Series	Door Width (Max.)	Door Height (Max.)	Drawing Number	Design Pressure (psf)	Horizontal Reinforcing	Glazing Permitted
4500, 4400	9'-2"	24'-0"	CO9A-130, Revision A Dated 7-24-07	+24.5, -33	20 ga. 3" x 1 7/8" 33 ksi hat strut	Yes
4500, 4400	9'-2"	24'-0"	CO9A-150, Revision A Dated 7-24-07	+33, -37	20 ga. 3" x 1 7/8" 33 ksi hat strut	Yes
4500, 4400	10'-2"	24'-0"	CO10A-130, Revision A Dated 7-24-07	+25, -28.5	20 ga. 3" x 1 7/8" 33 ksi hat strut	Yes
4500, 4400	10'-2"	24'-0"	CO10A-150, Revision A Dated 7-20-07	+33, -37	20 ga. 3" x 1 7/8" 33 ksi hat strut	Yes
4500, 4400	12'-2"	24'-0"	CO12A-120, Revision A Dated 7-20-07	±23	20 ga. 3" x 1 7/8" 50 ksi hat strut	Yes
4500, 4400	12'-2"	24'-0"	CO12A-140, Revision A Dated 7-19-07	+28, -31	20 ga. 3" x 1 7/8" 80 ksi hat strut	Yes
4500, 4400	12'-2"	24'-0"	CO12A-150, Revision A Dated 7-19-07	+33, -36	20 ga. 3" x 1 7/8" 80 ksi hat strut	Yes
4500, 4400	14'-2"	24'-0"	CO14A-120, Revision A Dated 9-5-12	+20.6, -26.5	20 ga. 3" x 1 7/8" 33 ksi hat strut	Yes
4500, 4400	14'-2"	24'-0"	CO14A-130, Revision A Dated 9-5-12	+24.3, -26.5	20 ga. 3" x 1 7/8" 80 ksi hat strut	Yes
4500, 4400	16'-2"	24'-0"	CO16A-110, Revision A Dated 9-5-12	+18.7, -20.4	20 ga. 3" x 1 7/8" 80 ksi hat strut	Yes
4500, 4400	16'-2"	24'-0"	CO16A-150, Revision A Dated 7-25-07	+31.5, -35.5	16 ga. 4" x 2 1/2" 50 ksi C channel	Yes
4500, 4400	18'-2"	24'-0"	CO18A-130, Revision A Dated 9-5-12	+24.9, -28.4	16 ga. 4" x 2 1/2" 50 ksi C channel	Yes
4500, 4400	20'-2"	24'-0"	CO20A-120, Revision A Dated 9-5-12	+20.2, -22.8	16 ga. 4" x 2 1/2" 50 ksi C channel	Yes

Table 1 – Non-Impact Rated Assemblies (continued)

Model Series	Door Width (Max.)	Door Height (Max.)	Drawing Number	Design Pressure (psf)	Horizontal Reinforcing	Glazing Permitted
6500	9'-2"	24'-0"	CS9A-150, Revision A Dated 7-24-07	+33, -37	20 ga. 3" x 1 7/8" 33 ksi hat strut	Yes
6500	10'-2"	24'-0"	CS10A-140, Revision A Dated 7-20-07	+28, -32	20 ga. 3" x 1 7/8" 33 ksi hat strut	Yes
6500	10'-2"	24'-0"	CS10A-150, Revision A Dated 7-20-07	+33, -37	20 ga. 3" x 1 7/8" 50 ksi hat strut	Yes
6500	12'-2"	24'-0"	CS12A-140, Revision A Dated 7-20-07	+28, -31	20 ga. 3" x 1 7/8" 50 ksi hat strut	Yes
6500	12'-2"	24'-0"	CS12A-150, Revision A Dated 7-20-07	+33, -36	20 ga. 3" x 1 7/8" 50 ksi hat strut	Yes
6500	14'-2"	24'-0"	CS14A-120, Revision A Dated 9-5-12	+20.6, -22.9	20 ga. 3" x 1 7/8" 50 ksi hat strut	Yes
6500	14'-2"	24'-0"	CS14A-130, Revision A Dated 9-5-12	+24.3, -26.5	20 ga. 3" x 1 7/8" 50 ksi hat strut	Yes
6500	16'-2"	24'-0"	CS16A-110, Revision A Dated 9-5-12	+18.7, -20.4	20 ga. 3" x 1 7/8" 50 ksi hat strut	Yes
6500	16'-2"	24'-0"	CS16A-140, Revision A Dated 7-25-07	+27, -30	20 ga. 3" x 1 7/8" 80 ksi hat strut	Yes
6500	18'-2"	24'-0"	CS18A-120, Revision A Dated 9-5-12	+21.4, -23.8	20 ga. 3" x 1 7/8" 80 ksi hat strut	Yes

INSTALLATION INSTRUCTIONS

The garage doors shall be installed according to the appropriate drawing specified for the particular model and design pressure shown in Table 1. The garage doors shown in the Table 1 can be attached directly to steel, concrete or masonry, or the doors can be fastened to an exterior Southern Yellow Pine 2" X 6" face jamb or Spruce-Pine-Fir 2" x 6" face jamb that is anchored to concrete, masonry or wood framing.

Design Drawings: The design drawings shall be provided with the door during the installation and inspection process.

Attachment of Doors to Wall:

Vertical track brackets shall be attached directly to steel, concrete, or masonry block wall or to a 2x6 face jamb wood framing member with the fasteners specified on the design drawings. The face jamb shall be attached to the structure using the type and number of fasteners shown in Table 2 below.

Table 2
Maximum 2 x 6 Jamb Fastener Spacing (inches)

Drawing Number	Fastener A	Fastener B	Fastener C	Fastener D	Fastener E
CO9A-130	16	24	24	24	24
CO9A-150	12	22	24	24	24
CO10A-130	14	24	24	24	24
CO10A-150	11	20	24	24	24
CO12A-120	13	24	24	24	24
CO12A-140	10	19	23	24	24
CO12A-150	9	16	20	24	23
CO14A-120	12	23	24	24	24
CO14A-130	10	19	23	24	24
CO16A-110	12	22	24	24	24
CO16A-150	7	13	15	24	18
CO18A-130	8	15	18	24	21
CO20A-120	9	16	19	24	22
CS9A-150	12	22	24	24	24
CS10A-140	12	23	24	24	24
CS10A-150	11	20	24	24	24
CS12A-140	10	19	23	24	24
CS12A-150	9	16	20	24	23
CS14A-120	12	23	24	24	24
CS14A-130	10	19	23	24	24
CS16A-110	12	22	24	24	24
CS16A-140	8	15	18	24	21
CS18A-120	9	17	20	24	23

Fastener A: $\frac{1}{4}$ " x 3" long Tapcon self tapping concrete anchor (min. $1\frac{1}{2}$ " embedment) into grout filled masonry block.

Fastener B: $\frac{1}{4}$ " x 3" long Tapcon self tapping concrete anchor (min. $1\frac{1}{2}$ " embedment) into minimum 2000 psi concrete.

Fastener C: $\frac{3}{8}$ " x 3" long Simpson Strong-Tie sleeve anchor (min. $1\frac{1}{2}$ " embedment) into minimum 2000 psi concrete with Southern Yellow Pine wood framing members ($G \geq 0.55$) or better Jamb ($F_{C \perp} = 565$ psi).

Fastener D: $\frac{3}{8}$ " x 3" long lag screw with $1\frac{1}{8}$ " diameter washer (min. $1\frac{1}{2}$ " embedment) into minimum Southern Yellow Pine wood framing members ($G \geq 0.55$) or better Jamb ($F_{C \perp} = 565$ psi).

Fastener E: $\frac{3}{8}$ " x 3" long lag screw with $1\frac{1}{8}$ " diameter washer (min. $1\frac{1}{2}$ " embedment) into minimum Southern Yellow Pine wood framing members ($G \geq 0.42$) or better Jamb ($F_{C \perp} = 425$ psi)

Note: The manufacturer's installation instructions and garage door 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.