

Product Evaluation

GDR155 | 0423

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-155

Effective Date: April 1, 2023

Re-evaluation Date: April 2027

Product Name: Clopay Commercial and Residential 904 Aluminum Sectional Garage Doors, and Clopay Commercial and Residential 904U Intellicore™ Insulated Aluminum Sectional Garage Doors, Impact Resistant and Non-impact Resistant.

Manufacturer: Clopay Corporation
8585 Duke Blvd.
Mason, OH 45040
(513) 770-4800

Marketed Under: Clopay
IDEAL

Sold as: IDEAL Door Company

Acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with this evaluation. Installation instructions and the appropriate design drawings for the particular model, as shown in Table 1 through 4, must be provided and available on the job site during installation.

Product Description:

The garage doors specified in this evaluation are full vision sectional overhead doors constructed from aluminum extrusions that are painted, powder coated, or anodized. All extrusions have a minimum thickness of 0.062". Insulated sectional garage doors will have foam filled frames and doors with insulated glass will have aluminum panels in the bottom section as standard. All sections will be 2-1/8" thick with maximum section heights of 24".

Product Identification:

The garage door will have a wind load label affixed. The label includes the manufacturer's name (Clopay); the manufacturing product code; the drawing number; the allowable design pressure rating; and the test standards (ANSI/DASMA 108 or TAS 202); and the TDI product evaluation report number (GDR-155).

To minimize inventory, the same section construction configuration is used across several different wind load levels for the same door model and size. The section remains the same because the differences in the struts, track, and hardware allow for the same section to be upgradeable for different wind load levels. The label will list all approved variations that the section can be used to construct, and each design drawing will list the equivalent sections.

Limitations:

This evaluation report references design drawings, allowable dimensions, and design pressures for both non-impact and impact resistant sectional garage doors.

The maximum height of each door section must not exceed 24". Refer to the design drawings for the allowable section height for a particular door.

The doors have a maximum allowable width of 24'-2". Refer to Table 1 and Table 4 for the allowable widths.

The doors have a maximum allowable height of 16' for residential doors and 20' for commercial doors.

The design pressure rating for a particular model door is specified in Tables 1 and Table 4.

Glazing: The glazing construction options and the maximum daylight opening dimensions are specified on the design drawings. The glazing is secured in place with snap-in glazing beads as a minimum. Impact resistant glazing is further secured with fasteners, as detailed on the design drawings.

Louvers: Not permitted.

Impact Resistance:

The door assemblies specified in Table 4 have been tested for impact resistance. The doors passed a Missile Level equivalent to Missile Level D in ASTM E 1996-14a. It is not necessary to provide an impact protective system. Impact resistant doors may have impact resistant glazing as detailed on the design drawings.

The door assemblies specified in Tables 1 - 3 have not been tested for windborne debris resistance. Doors specified in Tables 1 - 3 that contain glazing and are installed in areas where windborne debris protection is required may not be installed unless the entire door is protected with an impact protective system.

Installation Instructions

Design Drawings: Install doors as specified on the design drawings. The design drawings must be provided with the door. Each page of the design drawings is sealed, dated, and signed by Mark W. Westerfield, PE. The drawing date and the seal date are specified in Table 1 - 4.

Attachment of Doors to Wall Framing: Attach door track brackets either directly to the wall framing or to minimum 2x6 Southern Yellow Pine wood jambs that are secured to the wall framing with fasteners. The allowable methods of attachment and illustrations of the allowable methods of attachment are specified on each design drawing.

- **Direct Attachment of Door Track Brackets to Wall Framing:** The wall framing shall be minimum Southern Yellow Pine dimension lumber. Secure track bracket to wall framing with lag screws as specified on the design drawings. Refer to the design drawings for the proper location of the lag screws into the wall framing.
- **Attachment of Door Components to Wood-Framed Walls Using a Wood Jamb:** Attach brackets for the vertical tracks directly to wood jambs with the fasteners specified on the design drawings. Attaching wood jambs to wood-framed walls shall be as specified in the Jamb Fastener Analysis Connecting Jamb to Existing Structure, document CBPC-JFA-0001-REV04, signed and sealed on July 28, 2021 by Mark Westerfield, P.E.
- **Attachment of Door Components to Concrete/Masonry Block Walls Using a Wood Jamb:** Attach brackets for the vertical tracks directly to wood jambs with the fasteners specified on the design drawings. The attachment of the wood jambs to the concrete/masonry block walls shall be as specified in the Jamb Fastener Analysis Connecting Jamb to Existing Structure, document CBPC-JFA-0001-REV04, signed and sealed on July 28, 2021 by Mark Westerfield, P.E.

Table 1
Non-Impact Rated Assemblies | Clopay and IDEAL W4 Doors

Mfg Product Code	Clopay Model #s	Ideal Model #s	Max Door Width	Max Door Height	Drawing Number	Design Pressure (psf)	Glass Option
C-AL2-1F499	"Full Vision - Resi" AX, AXU	N/A	12'-2"	16'-0"	105334-TDI Rev. 00 4/7/22 Sealed: 4/21/22	+25; -25	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	12'-2"	20'-0"	105334-TDI Rev. 00 4/7/22 Sealed: 4/21/22	+25; -25	Yes
C-AL2-1F499	"Full Vision - Resi" AX, AXU	N/A	16'-2"	16'-0"	105581-TDI Rev. 01 4/7/22 Sealed: 4/21/22	+25; -25	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	16'-2"	20'-0"	105581-TDI Rev. 01 4/7/22 Sealed: 4/21/22	+25; -25	Yes
C-AL2-1F499	"Full Vision - Resi" AX, AXU	N/A	18'-2"	16'-0"	105619-TDI Rev. 00 4/7/22 Sealed: 4/21/22	+25; -25	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	18'-2"	20'-0"	105619-TDI Rev. 00 4/7/22 Sealed: 4/21/22	+25; -25	Yes
C-AL2-1F499	"Full Vision - Resi" AX, AXU	N/A	20'-2"	16'-0"	105633-TDI Rev. 00 4/7/22 Sealed: 4/21/22	+25; -25	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	20'-2"	20'-0"	105633-TDI Rev. 00 4/7/22 Sealed: 4/21/22	+25; -25	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	24'-2"	20'-0"	105620-TDI Rev. 00 4/7/22 Sealed: 4/21/22	+25; -25	Yes
C-AL2-1F499	"Full Vision - Resi" AX, AXU	N/A	20'-2"	16'-0"	105886-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+25; -25	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	24'-2"	20'-0"	105886-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+25; -25	Yes

Table 2
Non-Impact Rated Assemblies | Clopay and IDEAL W5 Doors

Mfg Product Code	Clopay Model #s	Ideal Model #s	Max Door Width	Max Door Height	Drawing Number	Design Pressure (psf)	Glass Option
C-AL2-1F499	"Full Vision - Resi" AX, AXU	N/A	10'-2"	16'-0"	105621-TDI Rev. 00 4/7/22 Sealed: 4/21/22	+30; -30	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	10'-2"	20'-0"	105621-TDI Rev. 00 4/7/22 Sealed: 4/21/22	+30; -30	Yes
C-AL2-1F499	"Full Vision - Resi" AX, AXU	N/A	12'-2"	16'-0"	105622-TDI Rev. 00 4/7/22 Sealed: 4/21/22	+32; -32	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	12'-2"	20'-0"	105622-TDI Rev. 00 4/7/22 Sealed: 4/21/22	+32; -32	Yes
C-AL2-1F499	"Full Vision - Resi" AX, AXU	N/A	16'-2"	16'-0"	105525-TDI Rev. 00 4/7/22 Sealed: 4/21/22	+32; -32	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	16'-2"	20'-0"	105525-TDI Rev. 00 4/7/22 Sealed: 4/21/22	+32; -32	Yes
C-AL2-1F499	"Full Vision - Resi" AX, AXU	N/A	20'-2"	16'-0"	105623-TDI Rev. 00 4/7/22 Sealed: 4/21/22	+30; -30	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	20'-2"	20'-0"	105623-TDI Rev. 00 4/7/22 Sealed: 4/21/22	+30; -30	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	22'-2"	20'-0"	105624-TDI Rev. 00 4/7/22 Sealed: 4/21/22	+30; -30	Yes
C-AL2-1F499	"Full Vision - Resi" AX, AXU	N/A	20'-2"	16'-0"	105887-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+30; -30	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	22'-2"	20'-0"	105887-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+30; -30	Yes

Table 3
Non-Impact Rated Assemblies | Clopay and IDEAL W6 Doors

Mfg Product Code	Clopay Model #s	Ideal Model #s	Max Door Width	Max Door Height	Drawing Number	Design Pressure (psf)	Glass Option
C-AL2-1F499	"Full Vision - Resi" AX, AXU	N/A	9'-2"	16'-0"	105824-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+40; -44	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	9'-2"	20'-0"	105824-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+40; -44	Yes
C-AL2-1F499	"Full Vision - Resi" AX, AXU	N/A	12'-2"	16'-0"	105825-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+40; -44	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	12'-2"	20'-0"	105825-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+40; -44	Yes
C-AL2-1F499	"Full Vision - Resi" AX, AXU	N/A	16'-2"	16'-0"	105826-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+40; -42	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	16'-2"	20'-0"	105826-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+40; -42	Yes
C-AL2-1F499	"Full Vision - Resi" AX, AXU	N/A	18'-2"	16'-0"	105827-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+36; -40	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	18'-2"	20'-0"	105827-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+36; -40	Yes
C-AL2-1F499	"Full Vision - Resi" AX, AXU	N/A	20'-2"	16'-0"	105882-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+36; -40	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	20'-2"	20'-0"	105882-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+36; -40	Yes

Table 4
Impact Rated Assemblies | Clopay and IDEAL W8 Doors

Mfg Product Code	Clopay Model #s	Ideal Model #s	Max Door Width	Max Door Height	Drawing Number	Design Pressure (psf)	Glass Option
C-AL2-1F499	"Full Vision - Resi" AX, AXU	N/A	9'-2"	16'-0"	105611-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+52; -58	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	9'-2"	20'-0"	105611-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+52; -58	Yes
C-AL2-1F499	"Full Vision - Resi" AX, AXU	N/A	12'-2"	16'-0"	105608-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+52; -58	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	12'-2"	20'-0"	105608-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+52; -58	Yes
C-AL2-1F499	"Full Vision - Resi" AX, AXU	N/A	16'-2"	16'-0"	105609-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+46; -52	Yes
C-AL2-1F499	"Full Vision - Comm" 904, 904U	C4AL, C4ALU	16'-2"	20'-0"	105609-TDI Rev. 00 10/10/22 Sealed: 10/12/22	+46; -52	Yes

Note: Keep the manufacturer's installation instructions, the design drawings, and the Jamb Fastener Analysis Connecting Jamb to Existing Structure document available on the job site during installation. Use corrosion resistant as specified in the IRC and the IBC.