

## Product Evaluation

CWSF76 | 0522

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:** CWSF-76

**Effective Date:** May 1, 2022

**Re-evaluation Date:** May 2026

**Product Name:** 1630 SS IR Aluminum Curtain Wall System, Impact Resistant

**Manufacturer:** Kawneer Company, Inc.  
Technology Park / Atlanta  
555 Guthridge Court  
Norcross, GA 30096-3503  
(770) 734-1560

### General Description:

This evaluation report is for the 1630 SS IR aluminum curtain wall system. The system is used for commercial installations. This evaluation report includes the following curtain wall systems:

- Dry Glazed Wall Systems
- Wet Glazed Wall Systems

**Doors:** Kawneer doors used with these assemblies must be listed in separate TDI product evaluation reports.

**Product Identification:** A Kawneer label will be affixed to the window wall assembly. The label includes the following information:

**1630 SS IR Curtain Wall System (7-13/16"), Zone 3, Level D Impact Resistant:** The label includes the manufacturer's name (Kawneer); the product name (1630 SS IR Curtain Wall System (7-13/16")); that the design pressures (+/-70 psf); the assembly size are per TDI drawing KAW018; the test standards (ASTM E 330, ASTM E 1886, ASTM E 1996); and the Missile Level (Large Missile Impact Rated-Zone 3, Level D).

**1630 SS IR Curtain Wall System (7-13/16"), Zone 4, Level D Impact Resistant:** The label includes the manufacturer's name (Kawneer); the product name (1630 SS IR Curtain Wall System (7-13/16")); that the design pressures and the assembly size are per TDI drawing KAW019; the test standards (ASTM E 330, ASTM E 1886, ASTM E 1996, TAS 201, TAS 202, TAS 203); and the Missile Level (Large Missile Impact Rated-Zone 4, Level D).

**Compliance:** The curtain wall assemblies passed test criteria equivalent to ASTM E 330-14, ASTM E 1996-13a, and ASTM E 1996-14a.

**Limitations:**

**Design Drawings:** Curtain wall assemblies must comply and be installed in accordance with one of the following design drawings:

- Drawing No. KAW018; "Series 1630 SS Curtain Wall System (Impact);" Sheets 1 thru 14; dated February 11, 2021; signed and sealed by Hermes F. Norero, P.E on February 7, 2022. This evaluation report refers to the stated drawings as the approved drawings.
- Drawing No. KAW019; "Series 1630 SS Curtain Wall System (Impact);" Sheets 1 thru 31; dated February 11, 2021; signed and sealed by Hermes F. Norero, P.E on February 14, 2022. This evaluation report refers to the stated drawings as the approved drawings.

**Fabrication and Assembly:** The Kawneer 1630 SS IR Aluminum Curtain Wall Systems are fabricated in the factory. The aluminum curtain wall systems are assembled and glazed at the jobsite. The approved drawings referenced in this evaluation report indicate the options for the glazing construction.

**Design Pressure (DP):**

**1630 SS IR Curtain Wall System (7-13/16"), Zone 3 Level D Impact Resistant:** Refer to the approved drawing for specific design pressure requirements.

**1630 SS IR Curtain Wall System (7-13/16"), Zone 4, Level D Impact Resistant:** Refer to the approved drawing for specific design pressure requirements.

If the curtain wall system is used with doors, then the design pressure rating of the complete assembly will be the lesser of the allowable design pressure rating for the doors and the curtain wall system in this evaluation report.

**Impact Resistance:**

The curtain wall system satisfies TDI's criteria for protection from windborne debris. These assemblies passed the equivalent of Missile Level D specified in ASTM E1996-14a. Install the assembly at any height on the structure that does not exceed the assembly's design pressure rating. For essential facilities, the assembly may not be installed below a height of 30 feet in Wind Zone 3 and may be installed at all heights in Wind Zone 2 as defined in ASTM E 1996-14a.

**Acceptance of Other Assemblies:**

- The approved drawings specify the limitations on overall width.
- Assemblies must not exceed the heights shown on the approved drawings.
- Doors used with these assemblies must be listed in separate TDI product evaluation reports.

**Installation Instructions:**

**General:** Prepare and install the assembly in accordance with Kawneer's installation instructions and the approved drawings specified in this evaluation report. Detailed installation instructions are available from Kawneer.

**Installation:**

**Wall Framing Construction:** The aluminum curtain wall systems may be mounted to several types of wall framing construction. The types of wall framing construction allowed include:

- concrete (minimum compressive strength of 3,000 psi)
- steel (minimum 1/8" thick,  $F_y=36$  ksi)
- metal stud (minimum 16 gauge, 50 ksi)
- wood (minimum specific gravity,  $SG=0.42$ )
- aluminum (minimum 1/8" thick, 6063-T5)

Refer to the appropriate design drawing for specific wall construction requirements.

**Fastener Requirements:**

- Refer to the approved drawings for the anchor layout and notes.
- Refer to the approved drawings for the minimum embedment depths for the fasteners and the minimum edge distances (minimum distance fastener must be from the edge of the substrate material) for the fasteners.

**Installation Instructions:** General installation instructions are specified in document 176970, titled "1630 SS IR Curtain Wall Installation Instructions", dated December 21, 2016, published by Kawneer.

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