

Product Evaluation

CWSF73 | 1221

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-73

Effective Date: December 1, 2021

Re-evaluation Date: December 2025

Product Name: Clearwall® Aluminum Curtain Wall System, SSI (Silicone Glazed) and SSIT (Tape Glazed), 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 Clearwall® aluminum curtain wall system. The system is used for commercial installations. This evaluation report includes the following curtain wall systems:

- Single Span
- Multi-Span

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 curtain wall assembly. The label includes the following information:

Assemblies with Glazing (Glass Type 1) for Large Missile Impact: The label includes the manufacturer's name (Kawneer); the product name (Clearwall® Curtain Wall System); that the design pressures and assembly size are per TDI drawing CLRWL-IR; the test standards (AAMA 501, ASTM E 330, ASTM E 1886, ASTM E 1996, ASTM E 283, ASTM E 331); and the Missile Level (Large Missile Impact Rated-Zone 3, Level D).

Assemblies with Glazing (Glass Type 2) for Small Missile Impact Only: The label includes the manufacturer's name (Kawneer); the product name (Clearwall® Curtain Wall System); that the design pressures and assembly size are per TDI drawing CLRWL-IR; the test standards (AAMA 501, ASTM E 330, ASTM E 1886, ASTM E 1996, ASTM E 283, ASTM E 331, TAS 201, TAS 202, TAS 203); and the Missile Level (Small Missile Impact Rated-Zone 3, Level A).

Compliance: The curtain wall assemblies passed test criteria equivalent to ASTM E 330-14, ASTM E 1896-13a, and ASTM E 1996-14a.

Limitations:

Design Drawings: Curtain wall assemblies must comply and be installed in accordance with the following design drawing:

Drawing No. CLWRL-IR; "Kawneer Clearwall Curtainwall, System SSI (Silicone Glazed) and SSIT (Tape Glazed), Large and Small Missile Impact Resistant (WindZone 3);" Sheets 1 thru 16; dated October 12, 2020; revised April 13, 2021; signed and sealed by Lucas A. Turner, P.E on October 27, 2021. This evaluation report refers to the stated drawings as the approved drawings.

Fabrication and Assembly: The Kawneer Clearwall® 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):

The maximum design pressure is +/-70 psf. Refer to 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:

Assemblies with Glazing (Glass Type 1) for Large Missile Impact: The curtain wall system satisfies TDI's criteria for protection from windborne debris. These assemblies passed Missile Level D specified in ASTM E 1996-14a. The assemblies may be installed at any height on the

structure that does not exceed the assembly's design pressure rating. The assemblies may not be installed below a height of 30 on essential facilities as defined in ASTM E 1996-14a.

Assemblies with Glazing (Glass Type 2) for Small Missile Impact Only: The curtain wall system satisfies TDI's criteria for protection from windborne debris. These assemblies passed the equivalent of Missile Level A specified in ASTM E 1996-14a. The assemblies must be installed at heights greater than 30 feet above ground level that does not exceed the assembly's design pressure rating. The assembly may not be installed on essential facilities 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 system may be mounted to several types of wall framing construction. The types of wall framing construction allowed include:

- concrete (minimum compressive strength specified in drawings)
- steel (minimum 1/8" thick, $F_y=36$ ksi)
- metal stud (minimum 16 gauge, 45 ksi)
- wood (minimum specific gravity, $SG=0.50$)

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 the "Clearwall® SSI/SSIT Installation Instructions" document 172970, dated July 20, 2020, 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.