

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION
WIN-1845

Effective Date: January 1, 2014
Reevaluation Date: **January 2017**

*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.

AA900 IsoWeb Aluminum Outswing Casement Windows, Impact Resistant, manufactured by

Kawneer Company, Inc.
555 Guthridge Court
Norcross, Georgia 30092-3503
Telephone: (770) 840 - 6426

will be acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

This evaluation report is for the AA900 IsoWeb aluminum outswing casement windows.

General Description:

This evaluation report includes the following outswing casement assemblies:

Individual Casement Windows
Multiple Casement Windows

Allowable Dimensions:

- **Individual Window:** 60" maximum frame height; 36" maximum frame width
- **Multiple Windows:** Each window is limited to 60" maximum frame height and 36" maximum frame width. There is no limit on the number of windows that may be combined horizontally.

Product Identification: A Kawneer label will be affixed to the window assembly.

Products Installed in Accordance with Drawing No. 1545T (Large Missile Impact): The label includes the manufacturer's name (Kawneer); the product name (AA900 Aluminum Casement Window); that the design pressure and size are per drawing #1545T; and that the product complies with ASTM E 330, ASTM E 1886, ASTM E 1996, Large Missile Impact, Zone 4-Level D.

Products Installed in Accordance with Drawing No. 1546T (Small Missile Impact): The label includes the manufacturer's name (Kawneer); the product name (AA900 Aluminum Casement Window); that the design pressure and size are per drawing #1546T; and that the product complies with ASTM E 330, ASTM E 1886, ASTM E 1996, Small Missile Impact Zone, Level A.

LIMITATIONS

Design Drawings:

AA900 operable casement windows complying with the requirements for large missile impact shall comply and be installed in accordance with the following drawing:

Drawing No. 1545T, titled "AA900 IsoWeb Out-Swing L.M.I. Casement Window," Sheets 1 thru 6 of 6, dated January 28, 2013, signed and sealed by Warren W. Schaeffer., P.E on March 4, 2013. The stated drawings will be referred to as the approved drawings in this evaluation report.

AA900 operable casement windows complying with the requirements for small missile impact shall comply and be installed in accordance with the following drawing:

Drawing No. 1546T, titled "AA900 IsoWeb Out-Swing S.M.I. Casement Window," Sheets 1 thru 6 of 6, dated January 28, 2013, signed and sealed by Warren W. Schaeffer., P.E on March 4, 2013. The stated drawings will be referred to as the approved drawings in this evaluation report.

Fabrication and Assembly: Kawneer aluminum operable casement windows are fabricated and assembled in the factory. The aluminum operable casement windows are glazed at the jobsite. The approved drawings referenced in this evaluation report indicate the options for the glazing construction.

Design pressure (DP):

- **Large Missile Impact (per Drawing 1545T):** ± 90 psf
- **Small Missile Impact (per Drawing 1546T):** +100 psf / -110 psf

Impact Resistance:

Products Installed in Accordance with Drawing No. 1545T: These assemblies satisfy the Texas Department of Insurance's criteria for protection from windborne debris in both the **Inland I** and **Seaward** zones. These assemblies have passed an impact criteria equivalent to Missile Level D specified in ASTM E 1996-04. These assemblies may be installed at any height on the structure as long as the design pressure rating for the assembly is not exceeded. These assemblies will not need to be protected with an impact protective system when installed in areas where windborne debris protection is required.

Products Installed in Accordance with Drawing No. 1546T: These assemblies satisfy the Texas Department of Insurance's criteria for protection from windborne debris in both the **Inland I** and **Seaward** zones. These assemblies have passed an impact criteria equivalent to Missile Level A specified in ASTM E 1996-04. These assemblies shall be installed at a height of 30 feet or greater on the structure as long as the design pressure rating for the assembly is not exceeded. These assemblies will not need to be protected with an impact protective system when installed in areas where windborne debris protection is required.

Acceptance of Other Assemblies:

- Window assemblies with width and height dimensions equal to or smaller than those specified in this evaluation report are acceptable within the limitations specified.
- There is no limit on the number of windows that may be combined horizontally. The geometry of each window in the assembly shall be as specified in the approved drawings and this evaluation report.

INSTALLATION INSTRUCTIONS

General: The assembly shall be prepared and installed in accordance with the manufacturers recommended installation instructions. Detailed installation instructions and drawings are available in the following document “Assembly & Glazing Instructions AA@900 IsoWeb® Window,” by Kawneer, dated January, 2013.

Installation:

Wall Framing Construction: The aluminum storefront system may be mounted to several types of wall framing construction. The types of wall framing construction allowed include:

- Concrete (minimum compressive strength: 2,500 psi)
- Wood dimension lumber (minimum Southern Yellow Pine)
- Masonry – (ASTM C-90, Grade N, Type 1 or greater)
- Steel studs (minimum 16 gauge, 33 ksi)
- Steel (minimum 1/8” thick, A36 (minimum Fy = 36 ksi))
- Aluminum (minimum 1/8” thick, 6063-T5)

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.

Note: The manufacturer’s installation instructions 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.