



Product Evaluation

CWSF44 | 1015

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-44

Effective Date: October 1, 2015

Re-evaluation Date: October 2019

Product Name: ForceFront Hurricane E34000 Aluminum Storefront System, Impact Resistant

Manufacturer: Tubelite, Inc.
3056 Walker Ridge Drive NW
Walker, MI 49544
(800) 866-2227

General Description:

The ForceFront Hurricane E34000 is an aluminum frame storefront system used for commercial installations. This evaluation report includes the following storefront assemblies:

- Wet Glazed, Heavy Duty Mullion
- Dry Glazed, Heavy Duty Mullion
- Wet Glazed, Standard Duty Mullion

Doors: Doors referenced in this product evaluation report and in the approved drawings are Tubelite, Inc. door products. The Tubelite, Inc. doors used with these assemblies must be listed in separate TDI product evaluation reports.

Product Identification: A Tubelite, Inc. label will be affixed to the storefront assembly.

Products Installed in Accordance with Drawing Tubelite ForceFront Hurricane Impact E34000 Storefront: The label includes the manufacturer's name (Tubelite, Inc.); the product name (ForceFront Hurricane Series Storefront E/T34000); that the design pressure and maximum size are per the drawing Tubelite ForceFront Hurricane Impact E34000 Storefront; and that the product complies with ASTM E 330, ASTM E 1886, ASTM E 1996, Zone 4, Missile Level D.

Limitations:**Design Drawings:**

Storefront assemblies must comply and be installed in accordance with the following design drawing:

Drawing "Tubelite ForceFront Hurricane Impact E34000 Storefront," Sheets 1 thru 28 of 28, dated November 15, 2013, latest release August 5, 2014, signed and sealed by Joseph A. Reed, P.E on September 10, 2015. This evaluation report refers to the stated drawings as the approved drawings.

Fabrication and Assembly: Tubelite, Inc. aluminum storefront systems are fabricated in the factory. The aluminum storefront 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 allowable design pressure rating for the storefront system is specified on the design drawing. The maximum allowable design pressure rating is +70 / -70 psf. Refer to approved drawing for specific design pressure requirements.
- If the storefront 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 storefront system in this evaluation report.

Impact Resistance:

- The storefront system satisfies the TDI's criteria for protection from windborne debris in both the **Inland I** and **Seaward** zones. The assemblies passed the large missile impact criteria (Missile Level D) specified in ASTM E 1996. Install these assemblies at any height on the structure that does not exceed the assembly's design pressure rating. These assemblies do not require protection with an impact protective system when installed in areas that require windborne debris protection.

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 the ForceFront Storm 34000 Series Storefront Hurricane Impact Installation Instructions and the approved drawings specified in this evaluation report. Detailed installation instructions are available from Tubelite, Inc.

Installation:

Wall Framing Construction: The aluminum storefront system must be mounted to steel wall framing construction as specified in the approved drawings.

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: Keep the manufacturer's installation instructions and the approved drawings available at the job site during installation. Use corrosion resistant fasteners as specified in the IRC, the IBC, and the Texas Revisions.