

Product Evaluation

CWSF77 | 0722

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-77

Effective Date: July 1, 2022

Re-evaluation Date: July 2026

Product Name: Series HD500-T Hurricane Resistant Thermal Aluminum Storefront System, Impact Resistant

Manufacturer: Atlas Architectural Metals, Inc.
11940 Brittmoore Park Drive
Houston, TX 77041
(713) 869-9551

General Description:

This evaluation report is for the Series HD500-T Hurricane Resistant Thermal Aluminum Storefront System. The system is used for commercial storefront installations. This evaluation report includes the following storefront systems:

- Wet Glaze Thermal Storefront Systems
- Wet Glaze Non-Thermal Storefront System

Doors: Atlas Architectural Metals, Inc. doors used with these assemblies must be listed in separate TDI product evaluation reports.

Product Identification: An Atlas Architectural Metals, Inc. label will be affixed to the storefront assembly. The label includes the manufacturer's name (Atlas Architectural Metals, Inc.); the product name (HD500-T Hurricane Resistant Storefront); that the allowable design pressures & dimensions per DWG No. HD500T-22; the test standards (ASTM E 330-14, ASTM E 1886-19, ASTM E 1996-17); and the Missile Level (Missile Level D).

Compliance: The storefront assembly passed test criteria equivalent to ASTM E 1996-14a.

Limitations:

Design Drawings: The storefront assemblies must comply with and be installed in accordance with Drawing No. HD500T-22; "Series HD500-T Hurricane Resistant Thermal Storefront System;" Sheets 1 thru 8; dated June 7, 2022; signed and sealed by Robert C. Hale, P.E on June 8, 2022. This evaluation report refers to the stated drawings as the approved drawings.

Fabrication and Assembly: The Series HD500-T Hurricane Resistant Thermal Aluminum Storefront System is fabricated in the factory. The storefront system is 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 storefront system has a maximum design pressure rating of +/-60 psf. Refer to the 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 is impact resistant. These assemblies passed the equivalent of Missile Level D specified in ASTM E 1996-14a. 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 drawing specifies the limitations on overall width.
- Assemblies must not exceed the heights shown on the approved drawing.
- 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 Atlas Architectural Metals, Inc. installation instructions and the approved drawings specified in this evaluation report. Detailed installation instructions are available from Atlas Architectural Metals, Inc.

Installation:

Wall Framing Construction: The storefront system 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, Fy=36 ksi)
- light gauge steel (minimum 16 gauge, 50 ksi)
- wood (minimum specific gravity, SG=0.50)
- aluminum (minimum 1/8" thick, 6063-T6)

Refer to the approved drawing for specific wall construction requirements.

Fastener Requirements:

- Refer to the approved drawing for the anchor layout and notes.
- Refer to the approved drawing 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 Atlas Architectural Metals, Inc. document titled "2-1/2" x 5" HD500T Hurricane Impact Storefront Installation & Wet Glazing Manual," dated 2022.

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