

# **W. W. Schaefer Engineering & Consulting, P.A. (CA #6809)**

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Palm Beach Gardens, FL 33418  
Phone (561)744-3424

## **ENGINEER'S EVALUATION REPORT #WWS-394**

### **Prepared for:**

Tischler Und Sohn (USA), Ltd.  
6 Suburban Ave.  
Stamford, CT 06901  
Phone: 203-674-0600

### **Prepared by:**

Warren W. Schaefer, P.E.  
Florida Professional Engineer #44135

**Manufacturer:** Tischler Und Sohn (USA) Ltd.

**Product Category:** Windows

**Evaluation Method:** 1-D (Engineer's evaluation)

**Product model & name:** Single & Double Hung Weight & Chain Balance System Impact Wood Window

### **Documents that must accompany this report:**

1. W. W. Schaefer Engineering & Consulting drawing No. 1828

### **Window size & configuration restrictions and assembly requirements:**

See drawing No. 1828.

### **Maximum allowable design pressure:**

+/-70 psf

### **Installation requirements:**

See drawing No. 1828

### **Code compliance:**

Code section(s) considered with this evaluation:

FBC Chapters 17 & 24

### **Wood Coatings:**

All wood members shall be of an approved durable species or be treated in an approved method with an approved preservative per applicable codes and standards

### **Glass:**

All glass meets the current ASTM E1300 standard.

Mullions:

Mullion conditions stated in this approval have been tested in accordance with TAS-201, 202 & 203 and meet the requirements of FBC.

Test Standards applicable to the testing of these windows:

TAS-201, 202 & 203

Test Laboratory: Architectural Testing, Inc. (Currently known as Intertek)

Test report numbers: C2621.01-109-18

Note: All HVHZ test reports have been signed & sealed by a Florida PE.

Compliance statement:

This product & its installations have been evaluated as required by the applicable Florida product approval rule and the Florida Building Code (FBC) and are found to be in compliance with each the rule, the Florida Building Code & all code required standards referenced here-in.

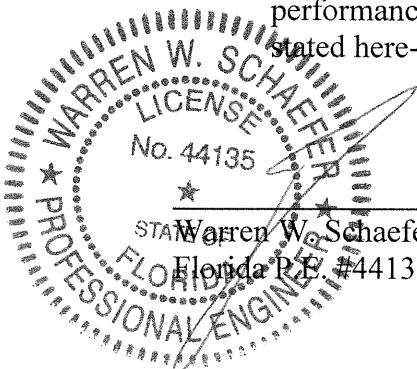
**General report notes & system limitations:**

1. All size, configuration & installation conditions shown in this report and the referenced drawing No. 1828 are based off the referenced test reports and/or engineering analysis in accordance with the Florida Building Code.
2. Windows shall be constructed in accordance with the descriptions in this report, and the manufacturer's state approved quality assurance entity specifications.
3. This product is approved for use in & outside of the High Velocity Hurricane Zones (HVHZ).
4. Job required design wind pressure shall be calculated in accordance with the Florida Building Code Chapter 16 and ASCE 7 Minimum Design Loads for Buildings and Other Structures (0.85 directionality factor may apply per the current ASCE 7 standard).
5. These windows are both small & large missile impact rated for use in wind zone 4 & missile level "D" locations and need not be shuttered.
6. Any change to this product's components and/or assembly without the knowledge & consent of W. W. Schaefer Engineering & Consulting, P.A. and Warren W. Schaefer, P.E. shall void this evaluation/certification and thus the products Florida approval.

**Quality Assurance Entity:** Keystone Certifications, Inc.

**Disclaimers:**

1. The parts, components, assembly & performance of this product, and liability there-of are the sole responsibility of the manufacturer and their quality assurance and shall be as tested unless stated otherwise in this evaluation report or the uploaded approval drawing No. 1828. Neither W. W. Schaefer Engineering & Consulting, P.A. nor Warren W. Schaefer, P.E. claim any responsibility for said parts, components, assembly or performance and shall be deemed responsible only for the evaluation of the product as stated here-in.



DEC 06 2021

Warren W. Schaefer, P.E.  
Florida P.E. #44135