

# ENGINEER'S PRODUCT EVALUATION REPORT FLORIDA BUILDING CODE COMPLIANCE (HVHZ)

Product Category Product Name Design Pressure Impact Resistance	Exterior Doors Series 4500 Vinyl Tilt-Slide Door +80 psf, -80 psf Large Missile Impact Resistant
Product Manufacturer	Eurostyle Impact Windows and Doors, LLC. 217 NW 4 <sup>th</sup> Ave., Hallandale Beach, FL 33009
Report No.	ESWD4500TSD-Eval Rev No: 2
Report Date	05/07/2013 <b>Rev Date:</b> 03/14/2016
Code Reference	Florida Building Code, Including HVHZ (Current Edition)
Evaluating Engineer	Emma T. Mellinger, P.E.
	Category 5 Engineering Services, Inc.

## SCOPE OF EVALUATION AND STATEMENT OF CODE COMPLIANCE

This Product Evaluation Report is issued in accordance with the requirements of Florida Statutes 61G20-3 for Optional Statewide Product Approval. The above-referenced product has been tested and evaluated as described herein, and found to be **in compliance with the current edition of the Florida Building Code**, **including HVHZ**. The above-referenced product is, for the purpose intended, at least equivalent to that required by the Code.

#### PRODUCT DESCRIPTION

Product is a vinyl tilt-slide door made from rigid PVC with steel reinforcements and thermally welded frame corners. Sash members have weldable corner block inserts. Units are dry-glazed with an EPDM gasket, and have a 1.00" overall thickness double (i.e. insulating) lite consisting of (from interior to exterior): 0.1875" clear tempered glass, a 0.348" airspace created by an aluminum spacer, and a laminated lite consisting of 0.1875" clear annealed glass/0.090" DuPont SGP interlayer/0.1875" clear annealed glass. The moveable panel slides to the interior. Product is shown in detail in the Approval and Installation Drawing "ESWD4500TSD-Install." The fixed portion of the assembly may be either direct-set, or sash-set to match the sliding portion.

#### SUBSTANTIATING DATA

The following documents substantiate the evaluation contained in this report:

- Notice of Product Certification (National Accreditation and Management Institute Certification No. NI011504)
- Test Reports (Architectural Testing, Inc. Report No. C2187.01-301-18, for tests TAS 201, 202, 203).
- Anchor Calculations (technical report "ESWD4500TSD-Anchors," prepared, signed and sealed by Emma T. Mellinger, P.E.)

- Approval and Installation Drawing (drawing "ESWD4500TSD-Install" prepared, signed and sealed by Emma T. Mellinger, P.E.)
- Glass Load Analysis per ASTM E1300 (technical report "ESWD4500TSD-Glass," prepared, signed and sealed by Emma T Mellinger, P.E.)
- Plastics Certification (Current Miami-Dade County NOA for Vinyl Extrusions manufactured by Rehau, LLC; current Miami-Dade County NOA for SGP Glazing Laminate manufactured by E.I. DuPont De Nemours & Co.; and Architectural Testing Inc., laboratory test report no. B1348.01-106-31 showing compliance with ASTM C864 for EPDM glazing gasket)

## **INSTALLATION**

• Product shall be installed in accordance with the Approval and Installation Drawing "ESWD4500TSD-Install" prepared, signed and sealed by Emma T Mellinger, P.E.

## LIMITATIONS AND CONDITIONS OF USE

Use of the above-referenced product shall be in strict accordance with this Evaluation Report and the Approval and Installation Drawing "ESWD4500TSD-Install." For all other conditions, a site specific design shall be prepared by a Florida-registered Professional Engineer.

- Product meets requirements for the High Velocity Hurricane Zone (HVHZ).
- Product shall be glazed in accordance with ASTM E1300.
- Maximum Tested Frame Size: 96" x 96"
- Maximum Glass Size: 43.5" x 90.25" (Direct-Set)
- Maximum Glass Size: 36.5" x 83.5" (Sash-Set)
- Maximum Design Pressures: +80 psf, -80 psf
- Product is rated Large Missile Impact Resistant (HVHZ, Wind Zone 4, Missile Level D).

## ENGINEER'S STATEMENT OF FINANCIAL INDEPENDENCE

This statement certifies that Emma T. Mellinger, P.E. does not have nor will acquire a financial interest in any company manufacturing or distributing the product(s) for which this report is being issued. Emma T. Mellinger, P.E. does not have nor will acquire a financial interest in any other entity involved in the approval process of the referenced product(s).

