

A Perfect Solution in Every Drop!

Certificate of Authorization: 29578

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## **Product Evaluation Report**

of

The Folding Sliding Door Company FSD Works HD82-70 MM Folding Infolding Door System

for

### **Florida Product Approval**

### FL# FL16291

## Report No. 6332

#### **Current Florida Building Code**

Method: Category: Sub – Category:

1 – D (Engineering Evaluation) Exterior Doors Swinging Exterior Door Assemblies

Product: Material: Product Dimensions: HD82-70 MM Folding Infolding Door System Aluminum 6063-T5 223.75" x 96.0625" (Tested Size)

#### **Prepared for:**

The Folding Sliding Door Company FSD Works Hopbine Avenue, West Bowling Bradford, West Yorkshire, BD5 8ER, UK

### Prepared by:

Hermes F. Norero, P.E. Florida Professional Engineer # 73778 Date: 07/03/2019

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| Manufacturer:         |                | The Folding Sliding Door Company FSD Works   |  |  |
|-----------------------|----------------|--|--|--|
| Product Category:     |                | Exterior Doors   |  |  |
| Product Sub-Category: |                | Swinging Exterior Door Assemblies  |  |  |
| Compliance Method:    |                | State Product Approval Method (1)(d)   |  |  |
| Product Name:         |                | HD82-70 MM Folding Infolding Door System<br>223.75" x 96.0625" (Tested Size)<br>(Impact)   |  |  |
| Scope:                | Sliding Door   | duct Evaluation Report issued by Hermes F. Norero, P.E. (FL <b>#</b> 73778) for <b>The Folding</b><br>• <b>Company FSD Works</b> based on <u>Method 1d</u> of the State of Florida Product Approval,<br>artment of Business and Professional Regulation - Florida Building Commission. |  |  |
|                       | manufacturi    | F. Norero, P.E. does not have nor will acquire financial interest in the company<br>cturing or distributing the product or in any other entity involved in the approval process of<br>luct named herein.   |  |  |
|                       | This product   | uct has been evaluated for use in locations adhering to the Florida Building Code.   |  |  |
|                       |                | stallation Instructions <b>FSD001</b> , signed and sealed by Hermes F. Norero, P.E. (FL # 73778) for c use parameters.   |  |  |
| Limits of Use:        |                |  |  |  |
|                       |                | product has been evaluated and is in compliance with the Florida Building Code,<br>ding the "High Velocity Hurricane Zone" (HVHZ).   |  |  |
|                       | 2. Prod        | uct anchors shall be as listed and spaced as shown on details. Anchor embedment into<br>trate material shall be beyond wall dressing or stucco.  |  |  |
|                       | 3. Whe<br>Chap | n used in areas requiring wind borne debris protection this product complies with oter 16 of the Florida Building Code and <u>does not require</u> an impact resistant covering.   |  |  |

- This product has been rated for Large & Small Missile Impact protection.
- 4. Site conditions that deviate from the details of drawing **FSD001**, require further engineering analysis by a licensed engineer or registered architect.
- 5. See Installation Instructions **FSD001**, for size and design pressure limitations.

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**Quality Assurance:** The manufacturer has demonstrated compliance of door products in accordance with the Florida Building Code for manufacturing under a quality assurance program audited by an approved quality assurance entity through National Accreditation Management Institute. (FBC Organization # QUA1789) **Performance Standards:** The product described herein has been tested per: TAS 201-94 • TAS 202-94 • TAS 203-94 **Referenced Data:** Product Testing performed by National Certified Testing Laboratory, Inc. 1. (FBC Organization # TST9341) Report #: NCTL-210-3846-1, Report Date: 02/01/2013 Signed and Sealed by Gerard Ferrara P.E. #11985 2. Quality Assurance **National Accreditation Management Institute** (FBC Organization #: QUA1789) 3. Material Certification Miami-Dade RER – Product Control Section NOA SentryGlas Interlayer – Kuraray America (Previously Dupont) 4. **Component Testing – Thermal Break ETC Laboratories** Standard: ASTM D638 Report #: ETC-07-1043-19094.0 Standard: Tensile Test Report #: ETC-07-1043-20048.0 Standard: ASTM D1929 Report #: ETC-08-1043-20974.0 Architectural Testing, Inc. Standard: ASTM D2843 & D635 Report #: 61261.01-106-18 5. **Component Testing – Door Gaskets** Akron Rubber Development Laboratory & LMI Custom Mixing, LLC Standard: ASTM C864

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**Installation:** 1. Approved anchor types and substrates are as follows:

#### **Through Frame Installation:**

- A. For two by (2X) wood buck substrate, use **#12 Wood Screw** type installation anchors of sufficient length to achieve a minimum embedment of 3" into the wood substrate.
- B. For concrete or masonry substrate where one by (1X), non-structural, wood bucking is employed OR where wood bucking is not employed, use 3/16" diameter ITW Tapcon or Elco Ultracons type concrete screw anchors of sufficient length to achieve minimum embedment of 1 <sup>3</sup>/<sub>4</sub>" into concrete or masonry.
- C. Alternatively, for concrete/masonry substrates, anchors may be 7.5 mm (5/16" Nominal) Timco T30 Torx Concrete Screws, of sufficient length to achieve 1 ¾" minimum embedment with a minimum 2 ½" edge distance.
- D. For steel substrate (Min. 18 ga. steel, min. f<sub>y</sub>= 33 ksi), use **#12 TEK Screw** type steel stud anchors of sufficient length to achieve minimum 3 threads penetration beyond steel structure.

Refer to Installation Instructions (**FSD001**) for anchor spacing and more details of the installation requirements.

| DESIGN PRESSURE RATING |                     |   |   |  |  |
|------------------------|---------------------|---|---|--|--|
| GLAZE TYPE             |                     | MISSILE IMPACT RATING   |   |  |  |
| 1&2                    | +25.0 / -70.0 PSF   | WITH WATER INFILTRATION<br>(WATER BARRIER THRESHOLD ABOVE<br>SUBSTRATE) | LARGE AND SMALL MISSILE<br>IMPACT RATED |  |  |
|                        | +70.0 / -70.0 PSF * | WITHOUT WATER INFILTRATION<br>(WATER BARRIER & RECESS THRESHOLDS)*      |   |  |  |

\*WHERE WATER INFILTRATION IS REQUIRED, UNIT SHALL BE INSTALLED AT LOCATIONS PROTECTED BY OVERHANG SUCH THAT THE OVERHANG RATIO (OH) = OH LENGTH/OH HEIGHT GREATER THAN 1.0.

#### Installation Method:

**Design Pressure:** 

Refer to Installation Instructions (**FSD001**) for anchor spacing, methods, locations, and more details of the installation requirements.

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