

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 223.75" x 96.0625" (Tested Size) (Impact)		
Scope:	Sliding Door	duct Evaluation Report issued by Hermes F. Norero, P.E. (FL <b>#</b> 73778) for <b>The Folding</b> • <b>Company FSD Works</b> based on <u>Method 1d</u> of the State of Florida Product Approval, 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 cturing or distributing the product or in any other entity involved in the approval process of 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, ding the "High Velocity Hurricane Zone" (HVHZ).		
	2. Prod	uct anchors shall be as listed and spaced as shown on details. Anchor embedment into trate material shall be beyond wall dressing or stucco.		
	3. Whe 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 (WATER BARRIER THRESHOLD ABOVE SUBSTRATE)	LARGE AND SMALL MISSILE IMPACT RATED		
	+70.0 / -70.0 PSF *	WITHOUT WATER INFILTRATION (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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