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Product Approval Menu > Product or Application Search > Application List > Application Detail

Application Type Code Version **Application Status** FL21835-R9

Revision 2023 Approved FL 218351

Comments Archived

Product Manufacturer Address/Phone/Email

E.S. Windows, Inc. 10653 NE Quaybridge Ct. Miami, FL 33138 (305) 624-7775 achamorro@eswllc.com

Authorized Signature

Jalal Faroog

veronica@afceng.com

Technical Representative Address/Phone/Email

Samir Sabagh 3550 NW 49th St. Miami, FL 33142 (305) 638-5151

ssabagh@energiasolarsa.com

Quality Assurance Representative Address/Phone/Email

Category Subcategory

Exterior Doors

Swinging Exterior Door Assemblies

Compliance Method

Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer

Evaluation Report - Hardcopy Received

Florida Engineer or Architect Name who developed

the Evaluation Report

Florida License

Quality Assurance Entity

Quality Assurance Contract Expiration Date

Validated By

Jalal Faroog

PE-81223

Keystone Certifications, Inc.

07/16/2025 Abel Carrasco, PE

Validation Checklist - Hardcopy Received

Certificate of Independence

FL21835 R9 COI SS - Certificate of Independence.pdf

Referenced Standard and Year (of Standard)

Standard Year TAS 201 1994 **TAS 202** 1994 **TAS 203** 1994

Equivalence of Product Standards Certified By

Sections from the Code

Product Approval Method

Method 1 Option D

Date Submitted08/02/2023Date Validated08/07/2023Date Pending FBC Approval08/09/2023Date Approved10/17/2023

Summary of Products

FL#	Model, Number or Name	Description							
21835.1	Series ES-46T Thermal Aluminum Outswing Entrance Door	Small missile impact resistant thermal aluminum outswing entrance door.							
Approved for u Impact Resista Design Pressur		Installation Instructions FL21835 R9 II SS - ES-46T OS Door (SMI) - DWG W17-08 2023.pdf Verified By: Jalal Farooq PE # 81223 Created by Independent Third Party: Yes Evaluation Reports FL21835 R9 AE SS - ES-46T OS Door (SMI) - PAE 2023.pd Created by Independent Third Party: Yes							
21835.2	Series ES-46T Thermal Aluminum Outswing Entrance Door	Large missile impact resistant thermal aluminum outswing entrance door.							
Approved for u Impact Resista Design Pressur	re: +100/-120 ched drawing W17-07 for installation details	Installation Instructions FL21835 R9 II SS - ES-46T OS Door (LMI) - DWG W1 2023.pdf Verified By: Jalal Farooq PE # 81223 Created by Independent Third Party: Yes Evaluation Reports FL21835 R9 AE SS - ES-46T OS Door (LMI) - PAE 202 Created by Independent Third Party: Yes							





Contact Us :: 2601 Blair Stone Road, Tallahassee FL 32399 Phone: 850-487-1824

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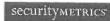
Under Florida law, email addresses are public records. If you do not want your e-mail address released in response to a public-records request, do not send electronic mail to this entity. Instead, contact the office by phone or by traditional mail. If you have any questions, please contact 850.487.1395. *pursuant to Section 455.275(1), Florida Statutes, effective October 1, 2012, licensees licensed under Chapter 455, F.S. must provide the Department with an email address if they have one. The emails provided may be used for official communication with the licensee, However email addresses are public record. If you do not wish to supply a personal address, please provide the Department with an email address which can be made available to the public. To determine if you are a licensee under Chapter 455, F.S., please click here.

Product Approval Accepts:









NOTE: GLASS CAPACITIES ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS). ALUMINUM OUTSWING ENTRANCE DOOR SILICONE DOWSIL 983-DOWSIL 795 11/16" MIN. TYP. GLASS BITE EXTERIOR 1-3/16" OVERALL INSUL. LAM. GLASS (1 X 4 GLASS TYPE 'G2i' 1/2" AIR SPACE 3/16" HEAT STREN'D. GLASS By 'kuraray America, Inc.' .060" Interlayer Trosifol PVB 3/16" HEAT STREN'D. GLASS GRADE. DOWSIL 795 SILICONE (E) N21 (1) B

GE 2000

THESE DOORS ARE RATED FOR SMALL MISSILE IMPACT. F.B.C. APPROVED IMPACT RESISTANT SHUTTERS REQUIRED FOR INSTALLATIONS UP TO 30 FT. OF GRADE. SHUTTERS NOT REQD. FOR INSTALLATIONS ABOVE 30 FT. OF

ES-46T THERMAL

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH EDITION)/2023 (8TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HYHZ).

IBY OR 2BY WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE DESIGNED AND INSTALLED ADECIMIELY TO TRANSFER APPLIED PRODUCT LOADS TO THE BUILDING STRUCTURE.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY. ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e., LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR CONDITIONS NOT SHOWN IN THIS DRAWNING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL. MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2020/2023 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE. LABELING TO COMPLY WITH SECTION 1709.9.2. DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

DOORS APPROVED FOR INSTALLATIONS WHERE RESISTANCE IS REQUIRED. WATER INFILTRATION

GLASS D.L.O. FORMULAE: D.L.O. WIDTH = FRAME WIDTH D.L.O. HEIGHT = FRAME HEIGH

WIDTH = FRAME WIDTH - 9.750" HEIGHT = FRAME HEIGHT - 9.375"

'HELIMA' LOW PROFILE ALUMINUM SPACER 1/2" AIR SPACE CONSISTING OF: SPACER:

DOWSIL 791 PERIMETER SEALANT: SILICONE AROUND THE PERIMETER OF THE GLASS. BY LINGERMANN GMBH

0

 (\Box)

108" MAX. FRAME HEIGTH 105 11/16" MAX. LEAF HEIGHT 4" MAX. HEAD/SILL CORNERS 98 5/8" MAX. D.L. OPG. TYPICAL ELEVATION (00) SILEAN 1-3 10" MAX. JAMBS

MAXIMUM DESIGN LOAD RATING = + GLASS TYPE 'G2i' (FOR SIZES SHOWN ABOVE OR SMALLER) AS PERMITTED BY FBC

100.0 120.0

PSE

DOOR HEIGHT AND WIDTH SIZE MUST COMPLY EGRESS REQUIREMENTS PER FBC AS APPLICABLE.

Sealed: 8/1/2023

C- SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED DAWNERS OF RECORD (E.O.R.) DAWNERS OF RECORD (E.O.R.) FOR THE PRODECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE PAPER OF RECORD, ACTING AS A DELECATED ENGINEER OF THE PLED. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW. THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS. CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT BEVARE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT. OF STATE OF E

#21835 revisions: no date by C 04.16.19 01-02-17 TARIQ

ES-46T THERMAL ALUM FRENCH DOOR (S.M.I.)

E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL. (305) 638-5151

AL-FAROOQ CORPORATION **ENGINEERS & PRODUCT DEVELOPMENT**

9360 SUNSET DRIVE, SUITE 220 MIAMI, FLORIDA 33173 (C.A.N. 3538) TEL. (305) 264-8100 FAX. (305) 262-6978

a C

1/4" TEMP. GLASS

drawing scale: 1/2"=1'-0" dr. by: ₽.

sheet 1 of 6

W17-08

description
ALT. LEAF STILE ADDED
UPDATED TO 2020 FBC
LAM. GLASS OPTION ADDED. D 10.12.20 E 02.09.21 F 07.31.23 UPDATED TO 2023 FBC

FAX. (305) 638-5158

COMP-ANL W17-08ES

SURFACE APPLIED FALSE MUNTINS – MAY BE USED

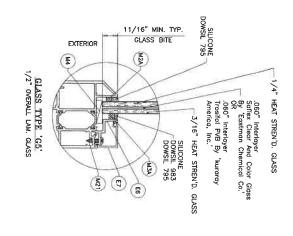
31. 5/16" MAX

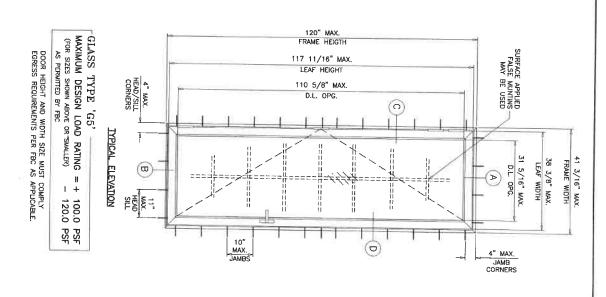
D.L. OPG.

MAX. JAMB CORNERS 41 3/16" MAX

38 3/8" MAX FRAME WIDTH

LEAF WIDTH







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eet 1	1 ow in	scale: 1/2"=1'-0"	no	date	by	description				
<u>.</u>	ا م	dr. by: TARIQ								
	o	chk. by:		_	_					

ES-46T THERMAL ALUM FRENCH DOOR (S.M.I.)

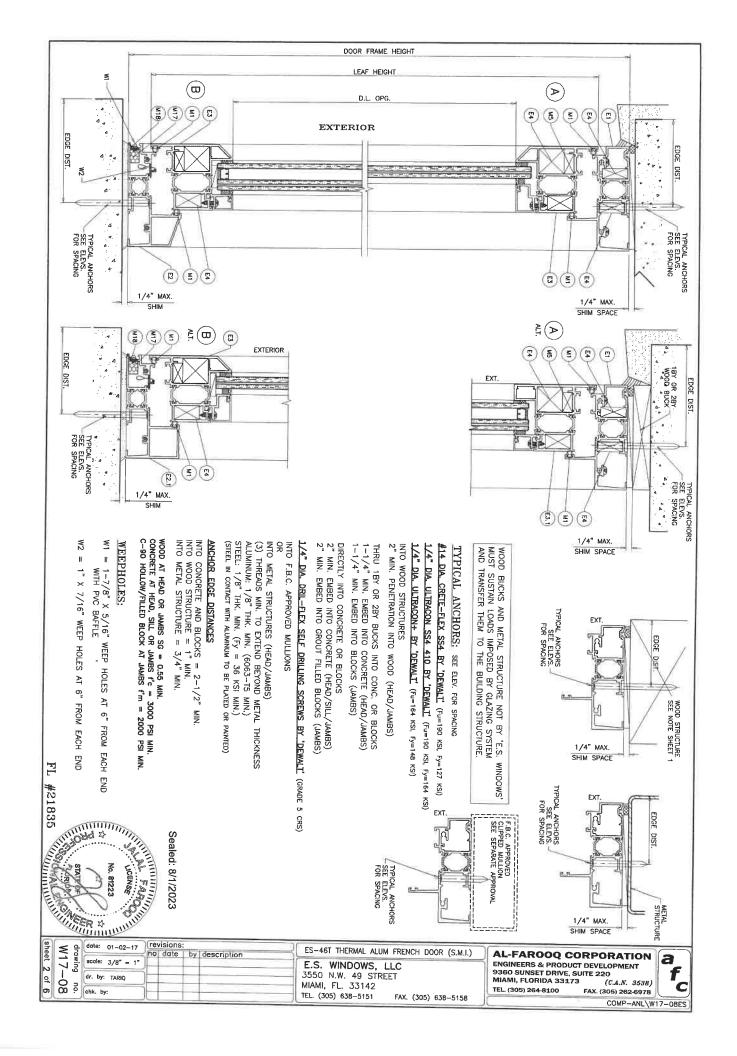
E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL. (305) 638-5151 FAX. (305) 638-5158

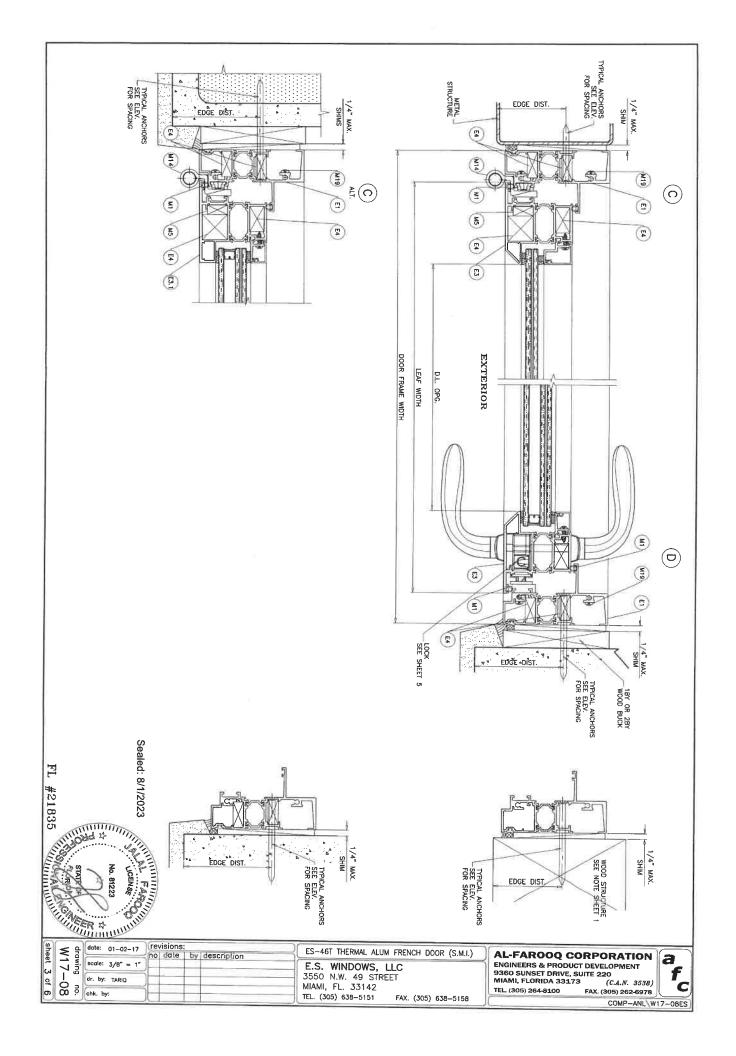
TEL. (305) 264-8100

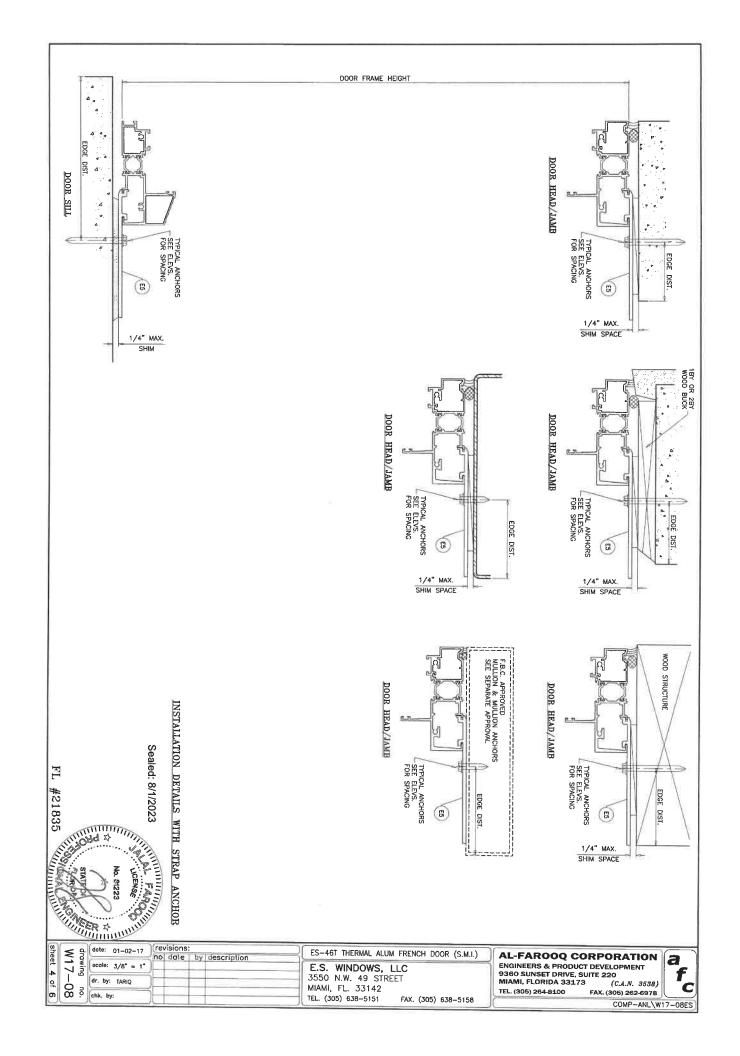
AL-FAROOQ CORPORATION ENGINEERS & PRODUCT DEVELOPMENT 9360 SUNSET DRIVE, SUITE 220 MIAMI, FLORIDA 33173 (C.A.N. 35



(C.A.N. 3538)







M22 1673	M21 #8 X 5/8"	M19 #12 X 1-3/4"	M18 WA2L	M17 WPSA-NI	M14 A11990003 SIL	M5 0337	M4 80-356	M3A V2200	M3	M2A V2200	M2 -	M1 ES-P251-G05	E7A ES-46T-003	E7 ES-45T-025	E6A ES-46T-002	E6 ES-45T-024	E5 ES-45T-019	E4 ES-45T-011	E3.1 ES-45T-051	E3 ES-45T-503	E2.1 ES-45T-004	E2 ES-45T-502	E1 ES-45T-501	TAKE #
AS REQD.	AS REQD.	4" AS REQD.	2	2	SE G	AS REQD.	2/ LITE	AS REQD.	AS REQD.	AS REQD.	AS REQD.	5 AS REQD.	3 4/ LEAF	5 4/ LEAF	2 4/ LEAF	4 4/ LEAF	AS REQD.	1 AS REQD.	4	3 4	1	2 1	3	wow.
20 MM OFFSET	GLASS STOP FASTENERS, AT 12" O.C.	FRAME ASSEMBLY FASTENERS	WEEP HOLE COVER	WEEP PAD (3/4" X 3/4" X 2" LONG)	KLEMMBAND G HINGES	CORNER JOINT	SETTING BLOCKS AT 1/4 POINTS (DOOR)	SINGLE FACE TAPE (1/4" X 1/4")	SINGLE FACE TAPE (3/16" X 3/8")	SINGLE FACE TAPE (3/16" X 1/4")	SINGLE FACE TAPE (1/8" X 1/4")	VENT GASKET	GLASS STOP COVER (LAM. GLASS)	GLASS STOP COVER (INSUL. LAM. GLASS)	GLASS STOP (LAM. GLASS)	GLASS STOP (INSUL. LAM. GLASS)	STRAP ANCHOR CLIP	CORNER KEY	ALT. LEAF STILE	LEAF STILE	ALT. FRAME SILL	FRAME SILL	DOOR FRAME HEAD/JAMB	DESCRIPTION
POLYAMIDE	डा/डा	ST/ST	RIGID PVC	RETICULATED FOAM	ALUMINUM	DIE CAST ALUMINUM	EPDM	POLYURETHANE	POLYURETHANE	POLYURETHANE	POLYURETHANE	EPDM	6063-T6	6063-16	6063-T6	6063-T6	6063-16	6063-16	6063-16	6063-76	6063-16	6063-T6	6063-16	MATERIAL
1	PH SMS	PH SMS	1	30PPI FOAM, AT WEEP HOLES	•	9	DUROMETER 80±5 SHORE A	NORTON	-	NORTON	Γ	DUROMETER 70±5 SHORE A	-	ı	F	1	1	1	1	1	1	1	1	MANY./SUPPLIER/REMARKS

LOCK SINGLE DOOR:

ACTIVE LEAF:

SURFACE MOUNT 9 POINT LOCK SYSTEM
KEY OPERATED ON EXTERIOR AND THUMB TURN ON
INTERIOR
LEVER TYPE HANDLE AT 38" FROM BOTTOM ACTIVATES
SHOOT BOLTS ENGACING AT HEAD AND SILL
AND (7) BOLTS ENGACING AT JAMB/INACTIVE STILE
FASTENED WITH
(2) #B x 3/4" FH SMS
(1) 12-28 x 2" FH MACHINE SCREWS
(2) 8-36 x 1/2" FH MACHINE SCREWS

JAMB FACING LOCK:

- (1) SURFACE MOUNT METALLIC KEEPERS AT 5", 10", 24", 43", 68" AND 73" FROM BOTTOM FASTENED WITH FASTENED WITH (1) 10-32 × 5/16" FH MACHINE SCREWS

SURFACE MOUNT METALLIC PIVOT HINGES
(3) HINGES FOR DOORS UPTO 108" HEIGHT
(4) HINGES FOR DOORS ABOVE 108" HEIGHT
BOTTOM HINGE AT 8" FROM BOTTOM
TOP HINGES AT 8" AND 16" FROM TOP
ADDL. HINGE FOR DOORS ABOVE 108" HEIGHT AT MIDSPAN
FASTENED TO FRAME AND LEAF WITH
(2) 1/4—28 X 1/2" FH MACHINE SCREWS
AND (1) METALLIC BACKING PLATE.
BACKING PLATE FASTENED WITH
(2) 1/4—28 X 3/8" SOCKET SET SCREWS ALL FRAME JOINTS AND SEAMS SEALED WITH SCHNEE-MOREHEAD SM5504 ACRYL-R SEAM SEALER. SEALANTS:

(1) SURFACE MOUNT METALLIC KEEPERS AT 738" FROM BOTTOM FASTERIED WITH FASTERIED WITH 531 #8 × 3/4" FH SMS HINGES:



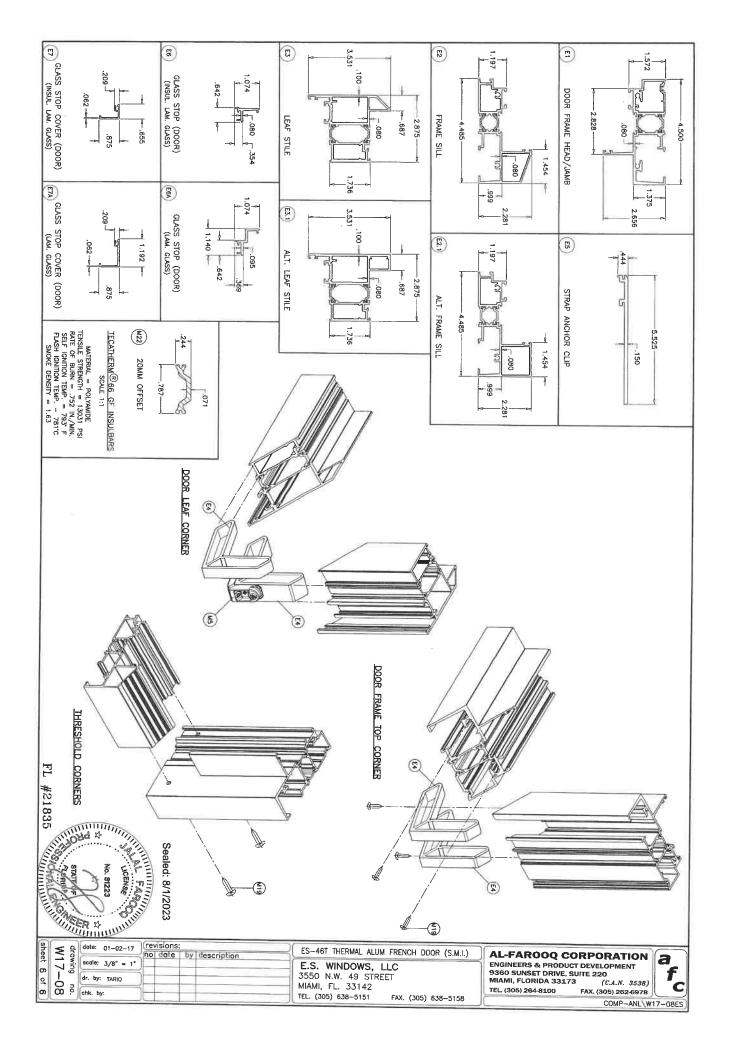
Sealed: 8/1/2023

#21835 No. 81223 sheet 5 of 6 drawing no. W17-08 drawing

revisions: no date by description date: 01-02-17 ES-46T THERMAL ALUM FRENCH DOOR (S.M.I.) scale: 3/8" = 1" E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 dr. by: TARIQ chk. by: TEL. (305) 638-5151 FAX. (305) 638-5158

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538) (C.A.N. 3538) FAX. (305) 262-6978 TEL. (305) 264-8100

a C COMP-ANL\W17-08ES





AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

PRODUCT APPROVAL EVALUATION RULE CHAPTER #61G20-3 • METHOD 1 OPTION D

FL 21835

Date: 07/31/2023

Detailed Product Description:

Manufacturer: E.S. WINDOWS, LLC.

Manufacturer Address: 3550 N.W. 49 STREET – MIAMI, FL. 33142

Model Name: SERIES ES-46T THERMAL ALUMINUM OUTSWING ENTRANCE DOOR

Maximum Load: +100 PSF, -120 PSF (Small Missile Impact)

Installation Drawings # W17-08

This product complies with the High Velocity Hurricane Zone (HVHZ) testing requirements.

For maximum sizes, combination of span vs loads and anchor type refer to installation drawings.

Comparative analysis used ___ Yes X No

Mandatory Tests (Tested in accordance with AAMA 101/I.S.2/NAFS/TAS-202)

DESCRIPTION TEST LOCATION TEST REPORT TEST

TEST	DESCRIPTION	TEST LOCATION	TEST REPORT DATE	TEST REPORT #	Test Sealed by
ASTM E283	Air Infiltration Leakage	Fenestration Testing Lab, Inc	08/04/2015 02/05/2021	FTL-8179 FTL-12233	Idalmis Ortega, P.E.
ASTM E331 OR ASTM 547 & TAS 202	Water Penetration	Fenestration Testing Lab, Inc	08/04/2015 02/05/2021	FTL-8179 FTL-12233	Idalmis Ortega, P.E.
ASTM E330 & TAS 202	Uniform Static Air Press.	Fenestration Testing Lab, Inc	08/04/2015 02/05/2021	FTL-8179 FTL-12233	Idalmis Ortega, P.E.
AAMA 1304	Forced Entry Test	Fenestration Testing Lab, Inc	08/04/2015 02/05/2021	FTL-8179 FTL-12233	Idalmis Ortega, P.E.

Supplemental Tests (Tested in accordance with TAS-201 and TAS-203)

TEST	DESCRIPTION	TEST LOCATION	TEST REPORT DATE	TEST REPORT #	Test Sealed by
FBC 1626.3 (TAS 201 & 203)	Small Missile Impact & Cyclic	Fenestration Testing Lab, Inc	08/04/2015 02/05/2021	FTL-8179 FTL-12233	Idalmis Ortega, P.E.

Under the limitations of the attached installation drawings, to the best of my knowledge and ability, the above product conforms to the requirements of the 2023 Florida Building Code.

Evaluation Report Engineer:

Sealed: 8/1/2023

Jalal Farooq
Al-Farooq Corporation

PE # 81223 EB # 3538

9360 Sunset Drive STE 220 | Miami, FL 33173 | T: 305.264.8100 | F: 305.262.6978 | www.afceng.com | alfaroog@afceng.com