

FRAMELESS HARDWARE COMPANY LLC THERMAL PERFORMANCE TEST REPORT

SCOPE OF WORK

FHC G50 SERIES BI-FOLD

REPORT NUMBER

R3628.01-116-46 R0

TEST DATE

09/04/24

ISSUE DATE

09/06/24

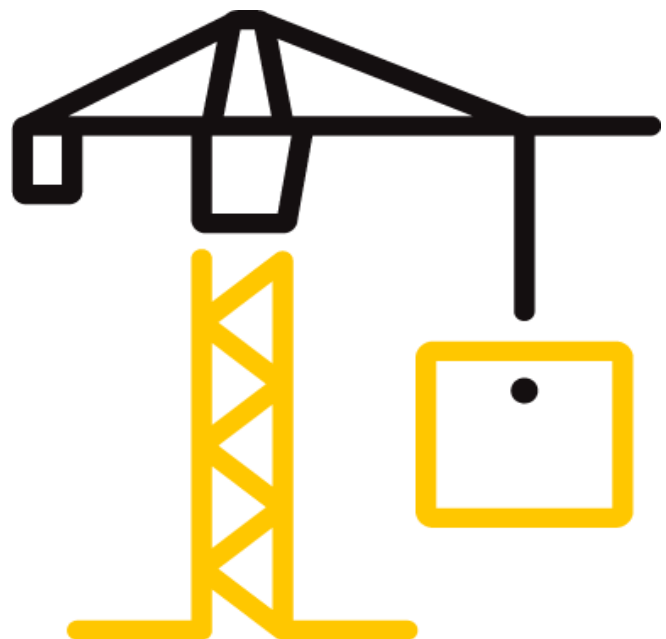
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DOCUMENT CONTROL NUMBER

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TEST REPORT FOR FRAMELESS HARDWARE COMPANY LLC

Report No.: R3628.01-116-46 R0

Date: 09/06/24

REPORT ISSUED TO

FRAMELESS HARDWARE COMPANY LLC

4361 Firestone Blvd.

South Gate, California 90280

SECTION 1

SCOPE

SERIES/MODEL: FHC G50 Series Bi-Fold

TYPE: Swinging Entrance Door (Single)

Architectural Testing, Inc. (an Intertek company) dba Intertek Building & Construction (B&C) was contracted by Frameless Hardware Company LLC to evaluate the thermal performance per NFRC 102-2023. Results obtained are tested values and were secured by using the designated test method. Testing was conducted at Intertek B&C test facility in York, Pennsylvania.

Intertek B&C will service this report for the entire test record retention period. The test record retention period ends five years after the test date. Test records, such as detailed drawings, datasheets, or other pertinent project documentation, will be retained for the entire test record retention period. Representative samples of the test specimen will be retained by Intertek B&C for a minimum of two and a half years from the submittal date to the Inspection Agency and no more than five years from the test date.

For INTERTEK B&C:

COMPLETED BY	Ryan P. Moser
TITLE	Technician Team Lead, IIRC
SIGNATURE	
DATE	09/06/24

RPM:pan

REVIEWED BY	Shon W. Einsig
TITLE	Project Lead, IIRC
SIGNATURE	
DATE	09/06/24

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TEST REPORT FOR FRAMELESS HARDWARE COMPANY LLC

Report No.: R3628.01-116-46 R0

Date: 09/06/24

SECTION 2

SUMMARY OF TEST RESULTS

Standardized U-factor (Ust): 0.39 Btu/hr·ft²·F (CTS Method)

SECTION 3

TEST SPECIMEN SUMMARY

SERIES/MODEL	FHC G50 Series Bi-Fold
TYPE	Swinging Entrance Door (Single)
OVERALL SIZE	38" x 82" (965 mm x 2083 mm) (Model Size)
NFRC STANDARD SIZE	37.8" x 82.3" (960 mm wide x 2090 mm high)
TEST SAMPLE SUBMITTED BY	Client
TEST SAMPLE SUBMITTED FOR	Validation for Initial Certification (Production Line Unit) & Plant Qualification

SECTION 4

TEST METHOD

The specimens were evaluated in accordance with the following:

NFRC 102-2023, Procedure for Measuring the Steady-State Thermal Transmittance of Fenestration Systems

SECTION 5

MATERIAL SOURCE/INSTALLATION

The test specimen was provided by the client.

The test sample was installed in a vertical orientation, the exterior of the specimen was exposed to the cold side.

SECTION 6

LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Shon W. Einsig	Intertek B&C
Ryan P. Moser	Intertek B&C

TEST REPORT FOR FRAMELESS HARDWARE COMPANY LLC

Report No.: R3628.01-116-46 R0

Date: 09/06/24

SECTION 7

TEST SAMPLE DESCRIPTION

FRAME

MATERIAL	AT (0.29"): Aluminum w/ Polyamide Thermal Breaks		
SIZE	38" x 82" (Model Size)		
DAYLIGHT OPENING	N/A	GLAZING METHOD	N/A
EXTERIOR COLOR	Clear	EXTERIOR FINISH	Anodized
INTERIOR COLOR	Clear	INTERIOR FINISH	Anodized
CORNER JOINERY	Coped / Screws / Sealed		

PANEL

MATERIAL	AT (0.29"): Aluminum w/ Polyamide Thermal Breaks		
SIZE	35" x 78-1/2"		
DAYLIGHT OPENING	31-7/8" x 75-1/2"	GLAZING METHOD	Channel
EXTERIOR COLOR	Clear	EXTERIOR FINISH	Anodized
INTERIOR COLOR	Clear	INTERIOR FINISH	Anodized
CORNER JOINERY	Mitered / Keys / Sealed		

GLAZING INFORMATION

LAYER 1	1/4"	Guardian SunGuard SNX 62/27 (e=0.020*, #2)	
GAP 1	0.63"	ZF-S: Silicone Foam Spacer	90% Argon*
LAYER 2	1/4"	Guardian SunGuard IS 20 (e=0.198*, #3)	
GAS FILL METHOD	Single-Probe Method*		

**Stated per the client/manufacture and can affect the validity of results*

N/A Non-Applicable

TEST REPORT FOR FRAMELESS HARDWARE COMPANY LLC

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Date: 09/06/24

SECTION 7 (CONTINUED)

TEST SAMPLE DESCRIPTION (CONTINUED)

WEATHERSTRIPPING

DESCRIPTION	QUANTITY	LOCATION
Flexible hollow bulb gasket	1 Row	Frame perimeter
Dual-fin gasket	1 Row	Sill
Single-fin gasket	1 Row	Panel perimeter
Glazing gasket	1 Row	Exterior glazing perimeter
Glazing gasket	1 Row	Interior glazing perimeter

HARDWARE

DESCRIPTION	QUANTITY	LOCATION
Drop-pin lock	1	Lock stile
Drop-pin hinge	3	Hinge jamb/stile

DRAINAGE

DRAINAGE METHOD	SIZE	QUANTITY	LOCATION
Weepslot	1.13" x 0.25"	4	Sill

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Date: 09/06/24

SECTION 8

THERMAL TRANSMITTANCE (U-FACTOR): MEASURED TEST DATA

HEAT FLOWS

1. Total Measured Input into Metering Box (Qtotal)	646.19 Btu/hr
2. Surround Panel Heat Flow (Qsp)	29.88 Btu/hr
3. Surround Panel Thickness	6.00 inches
4. Surround Panel Conductance	0.0304 Btu/hr-ft ² -F
5. Metering Box Wall Heat Flow (Qmb)	-0.55 Btu/hr
6. EMF vs Heat Flow Equation (equivalent information)	0.0114*EMF + -0.006
7. Flanking Loss Heat Flow (Qfl)	3.92 Btu/hr
8. Net Specimen Heat Loss (Qs)	612.94 Btu/hr

AREAS

1. Test Specimen Projected Area (As)	21.64 ft ²
2. Test Specimen Projected Frame Area (Af)	4.93 ft ²
3. Test Specimen Projected Glazing Area (Ag)	16.71 ft ²
4. Metering Box Opening Area (Amb)	36.11 ft ²
5. Metering Box Baffle Area (Ab1)	33.94 ft ²
6. Surround Panel Interior Exposed Area (Asp)	14.47 ft ²

TEST CONDITIONS

1. Average Metering Room Air Temperature (th)	69.78 F
2. Average Cold Side Air Temperature (tc)	-0.42 F
3. Average Guard/Environmental Air Temperature	71.24 F
4. Metering Room Average Relative Humidity	13.57 %
5. Metering Room Maximum Relative Humidity	13.81 %
6. Metering Room Minimum Relative Humidity	13.28 %
7. Measured Cold Side Wind Velocity (Perpendicular Flow)	12.66 mph
8. Measured Warm Side Wind Velocity (Parallel Flow)	N/A mph
9. Measured Static Pressure Difference Across Test Specimen	0.00" ± 0.04" H ₂ O

AVERAGE SURFACE TEMPERATURES

1. Metering Room Surround Panel	68.02 F
2. Cold Side Surround Panel	0.22 F

RESULTS

1. Thermal Transmittance of Test Specimen (Us)	0.40 Btu/hr-ft ² -F
2. Standardized Thermal Transmittance of Test Specimen (Ust)	0.39 Btu/hr-ft ² -F

TEST REPORT FOR FRAMELESS HARDWARE COMPANY LLC

Report No.: R3628.01-116-46 R0

Date: 09/06/24

SECTION 9

THERMAL TRANSMITTANCE (U-FACTOR): CALCULATED TEST DATA

CTS METHOD RESULTS

1. Warm Side Surface Emittance of CTS (e1)	0.84
2. Warm Side Area-Weighted Surface Emittance of Specimen Frame (ef1)	0.80
3. Warm Side Area-Weighted Surface Emittance of Specimen Glazing (eg1)	0.84
4. Warm Side Surface Emittance of Surround Panel (esp1)	0.90
5. Warm Side Area-Weighted Surface Emittance in View of the Baffle (es1)	0.86
6. Warm Side Baffle Emittance (eb1)	0.92
7. Cold Side Baffle Emittance (eb2)	N/A
8. Equivalent Warm Side Surface Temperature (t1)	49.31 F
9. Equivalent Cold Side Surface Temperature (t2)	5.26 F
10. Warm Side Baffle Surface Temperature	67.77 F
11. Cold Side Baffle Surface Temperature	N/A F
12. Measured Warm Side Surface Conductance (hh)	1.38 Btu/hr·ft ² ·F
13. Measured Cold Side Surface Conductance (hc)	4.99 Btu/hr·ft ² ·F
14. Test Specimen Thermal Conductance (Cs)	0.64 Btu/hr·ft ² ·F
15. Convection Coefficient (Kc)	0.33 Btu/(hr·ft ² ·F ^{1.25})
16. Radiative Test Specimen Heat Flow (Qr1)	304.31 Btu/hr
17. Conductive Test Specimen Heat Flow (Qc1)	308.63 Btu/hr
18. Radiative Heat Flux of Test Specimen (qr1)	14.06 Btu/hr·ft ² ·F
19. Convective Heat Flux of Test Specimen (qc1)	14.26 Btu/hr·ft ² ·F
20. Standardized Warm Side Surface Conductance (hsth)	1.22 Btu/hr·ft ² ·F
21. Standardized Cold Side Surface Conductance (hstc)	5.28 Btu/hr·ft ² ·F
22. Standardized Thermal Transmittance (Ust)	0.39 Btu/hr·ft ² ·F

SECTION 10

TEST DURATION

1. The environmental systems were started at 14:42 hours, 09/03/24.
2. The test parameters were considered stable for two consecutive four hour test periods from 21:53 hours, 09/03/24 to 05:53 hours, 09/04/24.
3. The thermal performance test results were derived from 01:53 hours, 09/04/24 to 05:53 hours, 09/04/24.

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SECTION 11

GLAZING DEFLECTION

	PANEL
EDGE GAP WIDTH	0.63"
ESTIMATED CENTER GAP WIDTH upon receipt of specimen in laboratory (after stabilization)	0.66"
CENTER GAP WIDTH at laboratory ambient conditions on day of testing	0.66"
CENTER GAP WIDTH at test conditions	0.50"

Glass collapse determined using a digital glass and air space meter

The sample was inspected for the formation of frost or condensation, which may influence the surface temperature measurements. The sample showed no evidence of condensation/frost at the conclusion of the test.

“This test method does not include procedures to determine the heat flow due to either air movement through the specimen or solar radiation effects. As a consequence, the thermal transmittance results obtained do not reflect performances which are expected from field installations due to not accounting for solar radiation, air leakage effects, and the thermal bridge effects that have the potential to occur due to the specific design and construction of the fenestration system opening. The latter can only be determined by in-situ measurements. Therefore, it is important to recognize that the thermal transmittance results obtained from this test method are for ideal laboratory conditions and should only be used for fenestration product comparisons and as input to thermal performance analyses which also include solar, air leakage and thermal bridge effects.”

Required annual calibrations for the Intertek B&C, 'thermal test chamber' (ICN 000001) in York, Pennsylvania were last conducted in May 2024 in accordance with Intertek B&C calibration procedure. A CTS Calibration verification was performed August 2024. A Metering Box Wall Transducer and Surround Panel Flanking Loss Characterization was performed July 2024.

The reported Standardized Thermal Transmittance (Ust) was determined using CTS Method, per Section 9.2(A) of NFRC 102.

TEST REPORT FOR FRAMELESS HARDWARE COMPANY LLC

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Date: 09/06/24

SECTION 12

CTS CALIBRATION DATA

1. CTS Test Date	02/03/24
2. CTS Size	21.53 ft ²
3. CTS Glass/Core Conductance	0.41 Btu/hr·ft ² ·F
4. Warm Side Air Temperature	69.80 F
5. Cold Side Air Temperature	-0.40 F
6. Warm Side Average Surface Temperature	54.29 F
7. Cold Side Average Surface Temperature	3.78 F
8. Convection Coefficient (Kc)	0.33 Btu/(hr·ft ² ·F ^{1.25})
9. Measured Cold Side Surface Conductance (hc)	4.99 Btu/hr·ft ² ·F
10. Measured Thermal Transmittance	0.31 Btu/hr·ft ² ·F

ANSI/NCSL Z540-2-1997 type B uncertainty for this test was 1.56%.

Unless differently required, Intertek reports apply the "Simple Acceptance" rule also called "Shared Risk Approach," of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity.

"Ratings included in this report are for submittal to an NFRC licensed IA for certification purposes and are not meant to be used for labeling purposes. Only those options identified on a valid Certificate of Authorization (CA) are to be used for labeling purposes."

The direction of heat transfer was from the interior (warm side) to the exterior (cold side) of the specimen. The ratings were rounded in accordance to NFRC 601, NFRC Unit and Measurement Policy. The data acquisition frequency is 5 minutes.

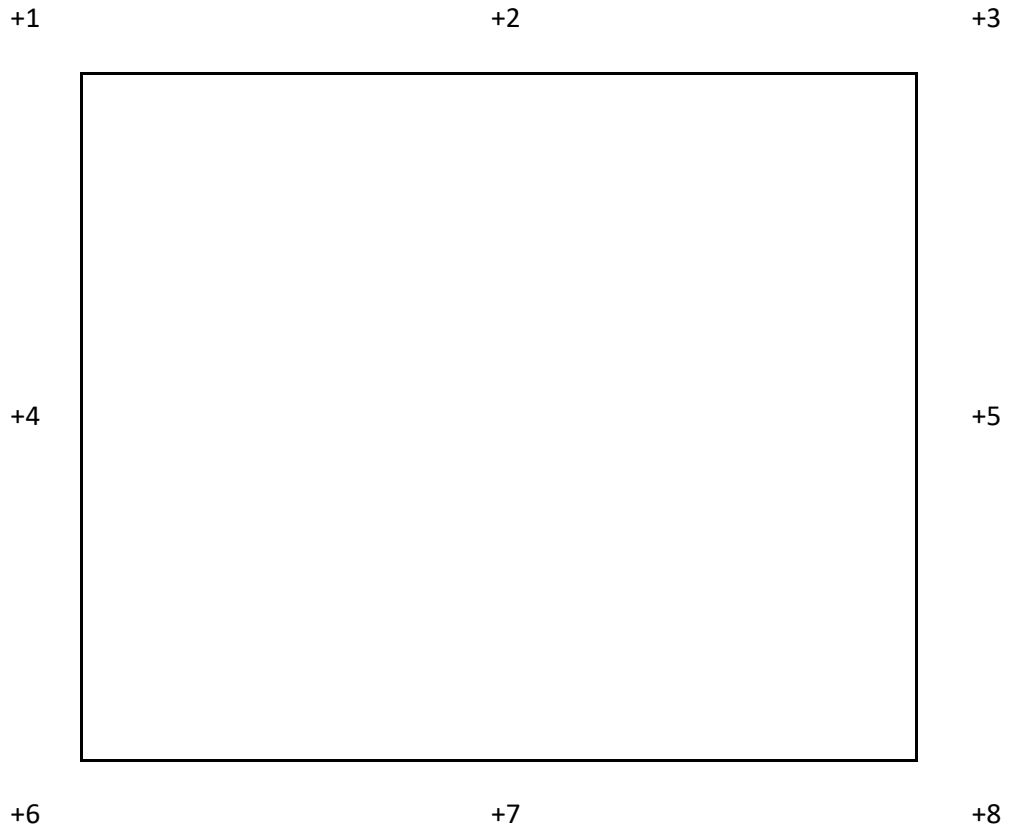
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Date: 09/06/24

SECTION 13

SURROUND PANEL WIRING DIAGRAM



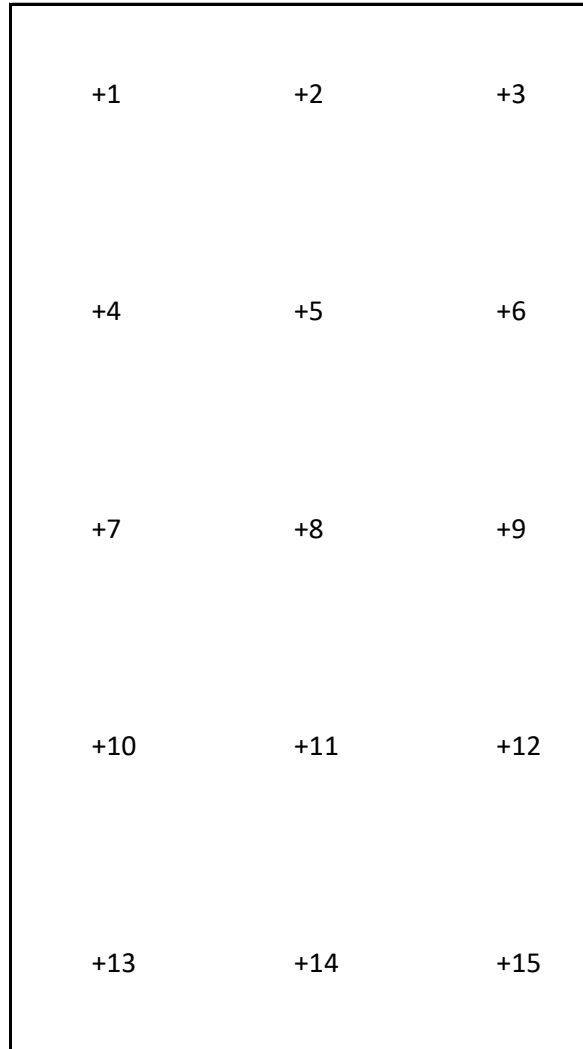
TEST REPORT FOR FRAMELESS HARDWARE COMPANY LLC

Report No.: R3628.01-116-46 R0

Date: 09/06/24

SECTION 14

BAFFLE WIRING DIAGRAM



TEST REPORT FOR FRAMELESS HARDWARE COMPANY LLC

Report No.: R3628.01-116-46 R0

Date: 09/06/24

SECTION 15

SUBMITTAL FORM AND DRAWINGS

The test specimen drawings which follow have been reviewed by Intertek B&C and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.

NFRC PRODUCT CERTIFICATION PROGRAM

Submission Form for Test Samples



For use by Manufacturers, Lineal Suppliers and Fabricators

1. Information on Production of the Test Sample (complete **ALL** fields):

Manufacturer: FHC Frameless Hardware Company Date of sample manufacture: 7/17/2024

Plant Address where manufactured: 2323 Firestone Blvd

City: South Gate State: CA Zip Code: 90280

Name of IA: Associated Laboratories Inc Phone: 888-295-4531 Fax: 323-336-8307

2. Product Information (complete **APPLICABLE** fields):

Existing Product Line ID (CPD) No.: _____ Product/Operator Type (Table 4-3 of NFRC 100): Side-Hinged Exterior Door

Series/Model: FHC G50 Bi-Fold

3. Test sample is being submitted for (select **ONE**):

- a. Validation for Initial Certification (prototype only) no plant qualification
- b. Validation for Initial Certification or Recertification (production line unit) & plant qualification
- c. Plant Qualification Only (production line unit)
- d. Test Only Alternative (production line unit) & plant qualification

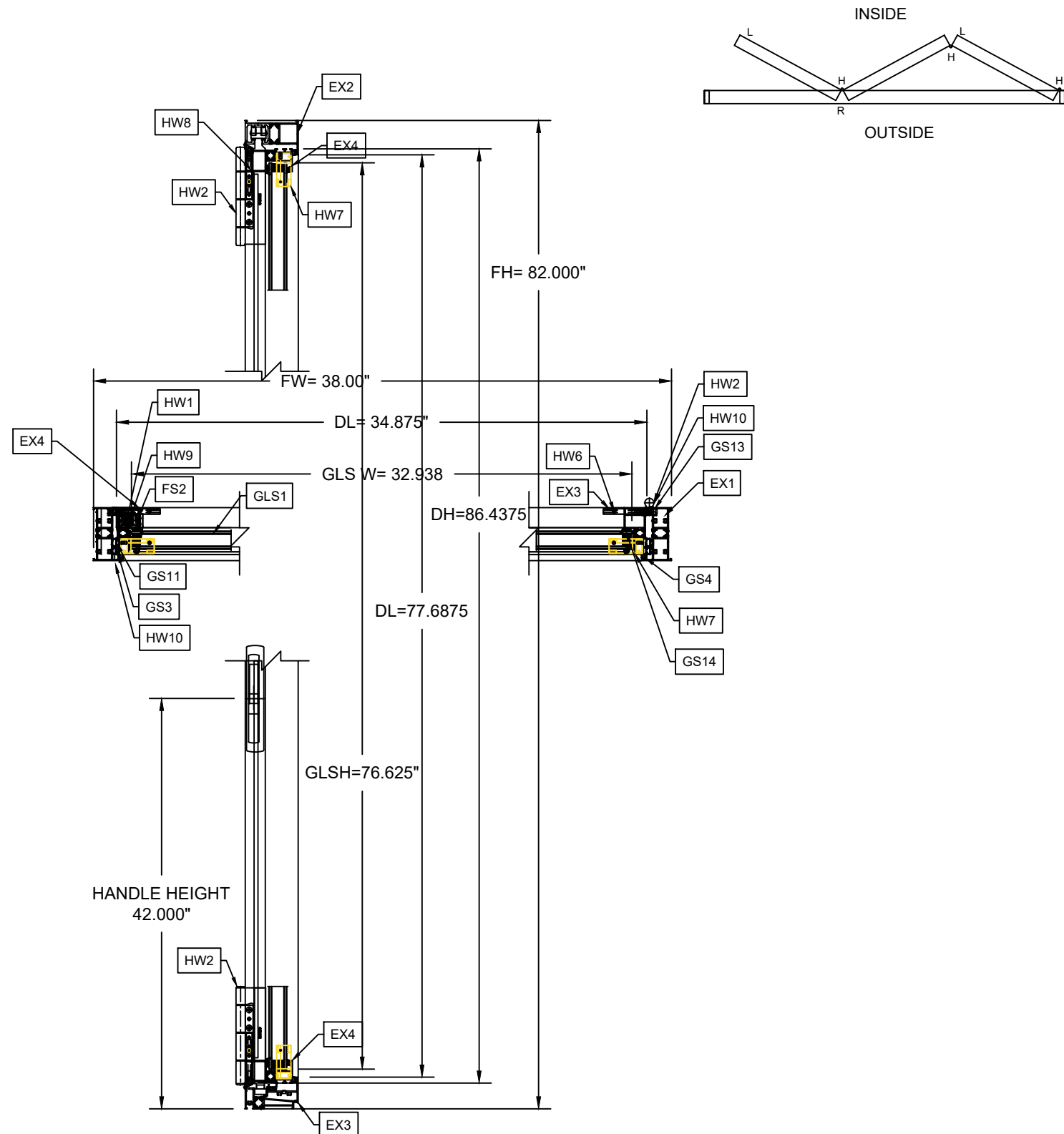
I, Mario Salazar, as the designated agent for FHC do hereby attest that the foregoing information is true to the best of my information, knowledge, and belief. Further, if the unit is identified in Section 3 as a production line unit, I hereby authorize the NFRC-accredited testing laboratory to send a copy of the test report to the IA identified above for plant qualification purposes pursuant to the NFRC Product Certification Program.


Signature: M. Salazar Date: 9/5/2024

For Laboratory Use Only

- 1. Laboratory: Intertek
- 2. Date Sample Received: 7/22/24 Test Report #: E3628
- 3. Date Sample Tested: 9/4/24 By: ELM
- 4. Modifications made: _____

ENGINEER STAMP



 Report #: R3628-116-46
Date: 09/04/2024
Verified by: *Ryan G. Moser*

Job Name: **NAFR - THERMAL**
INTEREX (AT) FIRE BI-FOLD DOOR GSD (INSWING)
REF QUOTE: _____
Phone: N/A
Fax: N/A
Contact: KIRBY MOSER

Customer: _____
Phone: _____
Fax: _____
Contact: _____

REP#	DATE	DRAWN BY	CHECKED BY

Drawn By: MR
Checked By: _____
Date: 5/25/24
Scale: AS NOTED
Project #: JOB #



ENGINEER STAMP

Mtl	Part	Description	Qty	UOM
HW1	BFSBOLT	BI FOLD BSHOOT BOLT (TYPE-B FOR SF63 SYSTEM	3	ST
HW2	BFROLLER_	BI FOLD ROLLER	2	ST
HW3	BFLCATCHER_	BI FOLD DOOR LEAF CATCHER	2	ST
HW4	BFGCASE	BI FOLD GEAR CASE FOR SLIM BI FOLDING SYSTEM CLEAR ANODIZED CLASS I	3	EA
HW5	G50FOAM	FOAM FOR G50 DOORS – MULTI SLOT	12	EA
HW6	BFDOWEL	05X10 DOWEL	80	EA
HW7	BFCORNER105	BI FOLD 105 CORNER CLEAT	20	EA
HW8	BFCORNER283	BI FOLD 283 CORNER CLEAT	20	EA
HW9	BFSROD	SCREW ROD	3	EA
HW10	BFHINGE_	BI FOLD HINGE	3	EA

Job Name: **NAFR - AWS**
 INTERTEK (ATTN: PRE-BI-FOLD DOOR G50 (ANSI))
 REF QUOTE:
 Phone: N/A
 Fax: N/A
 Contact: RYAN MOSER

Customer:
 Phone:
 Fax:
 Contact:

DATE	TIME	BY



Report #: R3628-116-46
 Date: 09/04/2024
 Verified by: *Ryan E. Moser*

Drawn By: MR
 Checked By:
 Date: 5/25/24
 Scale: AS NOTED
 Project #: JOB #
 Sheet No.



ENGINEER STAMP

Mtl	Part	Desc	Qty	UOM
GS1	DC795BL	795 BLACK SILICONE BLDG. SEALANT BY DOW CORNING	1	EA
GS2	BFSFBLOCK	BI FOLD SIDE FRAME SEAL BLOCK	2	EA
GS3	BFSASH	BI FOLD SASH SEALING GASKET	50	FT
GS4	BFFFRAMESEAL1NG	BI FOLD FRAME SEALING GASKET	44	FT
GS5	BFRSASH	BI FOLD R SASH SEALING GASKET ANGLE R	6	EA
GS6	BFLSASH	BI FOLD L SASH SEALING GASKET ANGLE L	6	EA
GS7	BFBFSEAL	BTM FRAME GASKET SEAL	2	EA
GS8	NSB562	1/8 X 1/2 X 2 NEOPRENE SETTING BLOCK GRADE 80	50	EA
GS9	BFRSEAL1NG	BI FOLD SEALING GASKET ANGLE R	2	EA
GS10	BFBTSEAL1NG	BI FOLD BOTTOM TRACK SEALING GASKET	20	FT
GS11	BFSSEAL1NG	BI FOLD SASH SEALING GASKET	54	FT
GS12	S150C	FHC S150 SERIES ACETIC CURE SILICONE SEALANT- CLEAR	1	EA
GS13	BFOVERLAP	BI FOLD OVERLAP GASKET	1	EA
GS14	R1G38B	3/8 ROLL IN WEDGE GASKET FOR 3/8 GLASS	54	FT
GS15	BFGCOVER	BI FOLD C GROOVE COVER	1	EA
GS16	BFWRSASH	FIXED SASH WATER RETAINING GASKET FOR EXTERIOR DOOR	1	EA

Job Name: NAFR - AWS
 INTERTEK (ATTN: PRE-BUILT DOOR G50 (INSUL))
 REF QUOTE:
 Phone: N/A
 Fax: N/A
 Contact: KERRY MOSER

Customer:
 Phone:
 Fax:
 Contact:

DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME

Drawn By: MR
 Checked By:
 Date: 5/25/24
 Scale: AS NOTED
 Project #: JOB #

Sheet No.
 1. 01



Report #: R3628-116-46
 Date: 09/04/2024
 Verified by: *Ryan E. Moser*



ENGINEER STAMP

Lab. Name: NAFR - AWS
INTERTEK CTD PRE-BI-FOLD DOOR CO. (US/INA)
REF QUOTE: Phone: N/A Fax: N/A
Contact: KERRY MOSER

Customer:

Drawn By:

Date:

Drawn By: MR

Checked By:

Date: 5/25/24

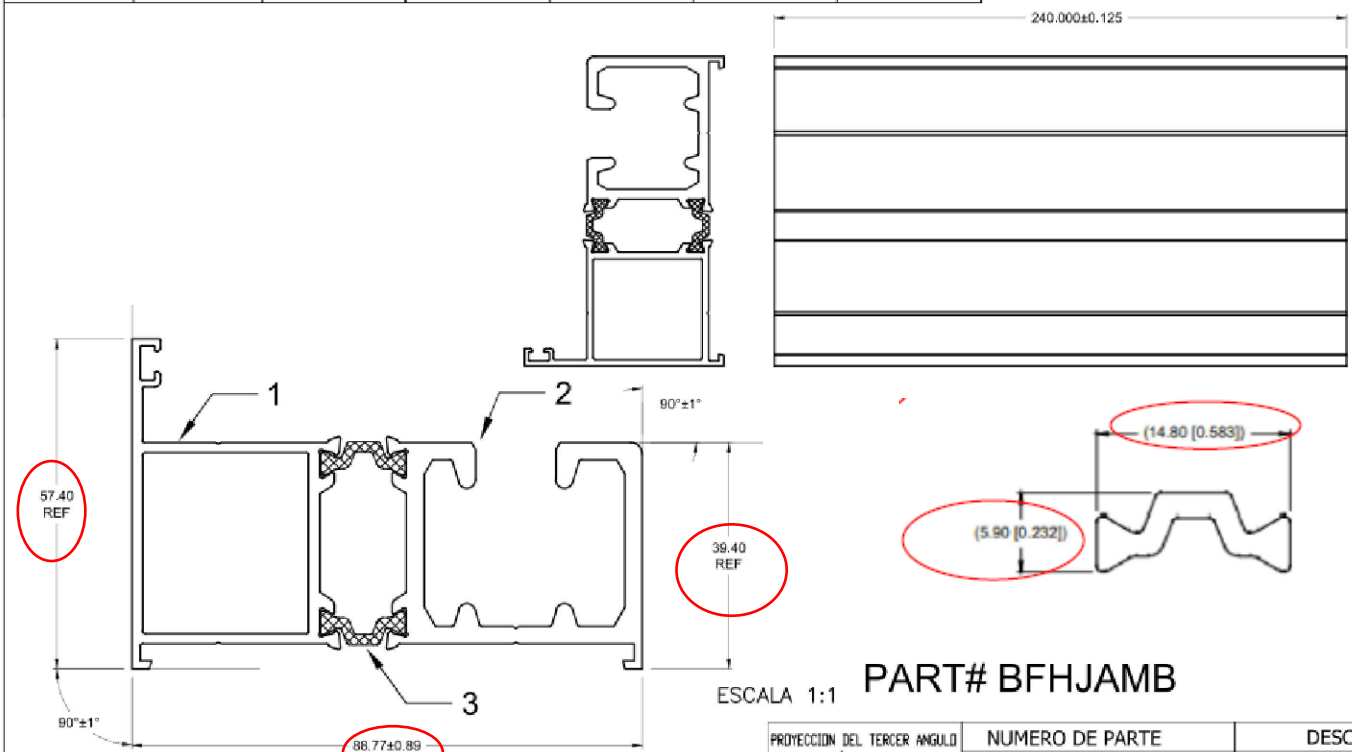
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Project #: JOB #

Sheet No. 1.02

# Articulo	Descripcion	Dado/Almacen	# Parte	Cantidad	Especificacion	Peso Lb/Ft
1	N/A	110955	G501011	1	Aluminio 6063 T5	0.630
2	N/A	110956	G501012	1	Aluminio 6063 T5	0.894
3	14.8MM OFFSET STRIP	1009997	953241	2	Thermal	N/A

6578-03



PART# BFHJAMB

ESCALA 1:1

PROYECCION DEL TERCER ANGULO	NUMERO DE PARTE	DESCRIPCION
	G501010	Top frame
PROPIEDAD Y CONFIDENCIALIDAD		DIBUJO PARA ENSAMBLE
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DIBUJO S/E	CLIENTE: HOPO	# DADO: 110955/110956
DIMENSION IN		

REV	DESCRIPCION	ELABORO	FECHA	ECO/PROYECTO
1	DIBUJO ORIGINAL	Gomez B.	13/Dic/2021	6578
2	SE AGREGA TOLERANCIA DE ENSAMBLE	Gomez B.	15/Dic/2021	6578
3	SE AGREGA TOLERANCIA DE ANGULARIDAD	Gomez B.	17/Dic/2021	6578
4				
5				
6				
7				

FORM-ING-46


Rev. 01

P/N: BFHJAMB_ (EX2)

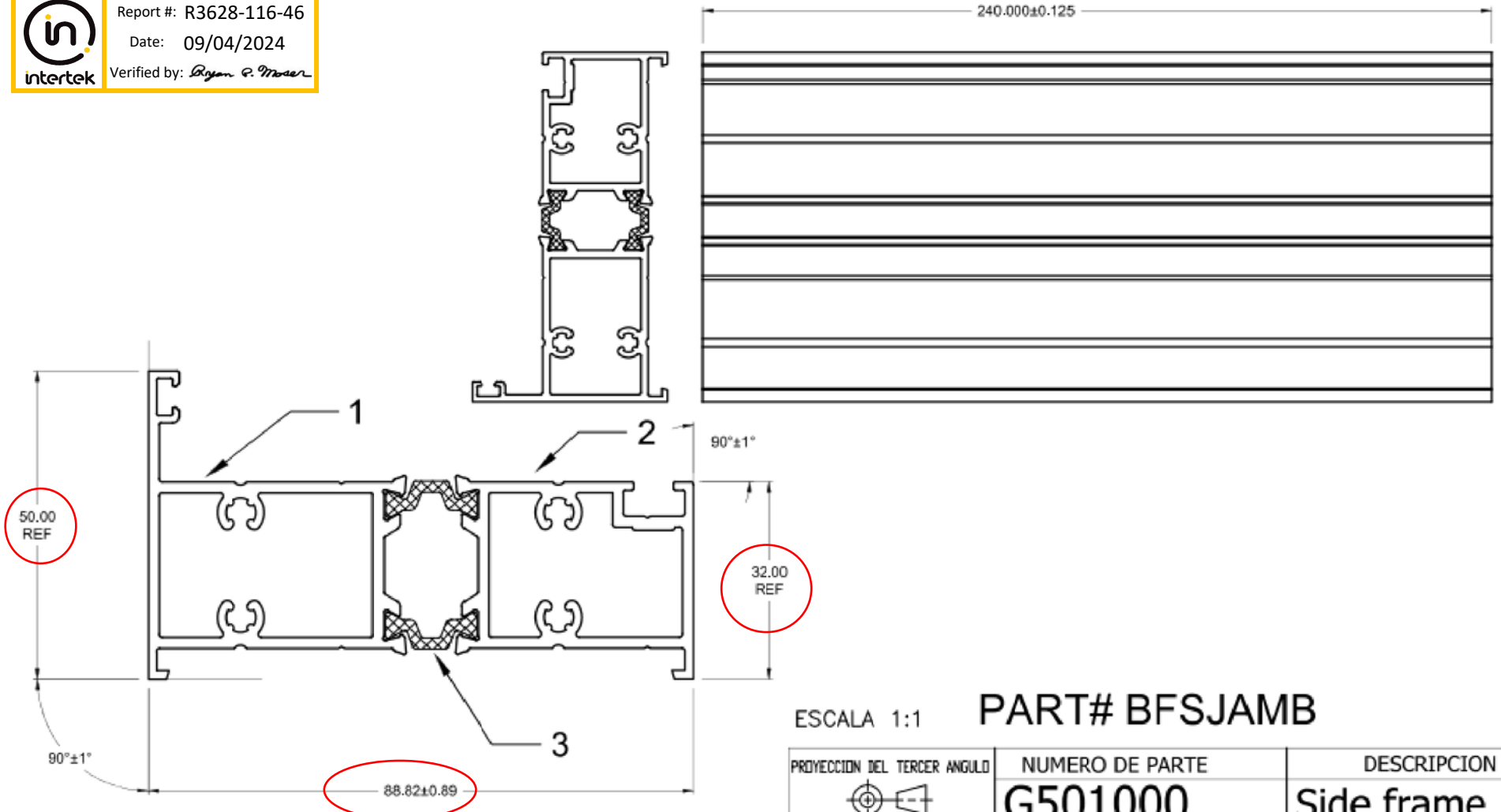
Report #: R3628-116-46
Date: 09/04/2024
Verified by: *Ryan P. Moser*

# Artículo	Descripcion	Dado/Almacen	# Parte	Cantidad	Especificacion	Peso Lb/Ft
1	N/A	110959	G501001	1	Aluminio 6063 T5	0.646
2	N/A	110960	G501002	1	Aluminio 6063 T5	0.580
3	14.8MM OFFSET STRIP	1009997	953241	2	Thermal	N/A

6578-07



Report #: R3628-116-46
Date: 09/04/2024
Verified by: *Ryan P. Moser*



ESCALA 1:1 PART# BFSJAMB

PROYECCION DEL TERCER ANGULO	NUMERO DE PARTE	DESCRIPCION
	G501000	Side frame

REVISIONES

REV	DESCRIPCION	ELABORO	FECHA	ECO/PROYECTO
1	DIBUJO ORIGINAL	Gomez B.	13/Dic/2021	6578
2	SE AGREGA TOLERANCIA DE ENSAMBLE	Gomez B.	15/Dic/2021	6578
3	SE AGREGA TOLERANCIA DE DE ANGULARIDAD	Gomez B.	17/Dic/2021	6578
4				
5				
6				
7				

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DIBUJO PARA ENSAMBLE

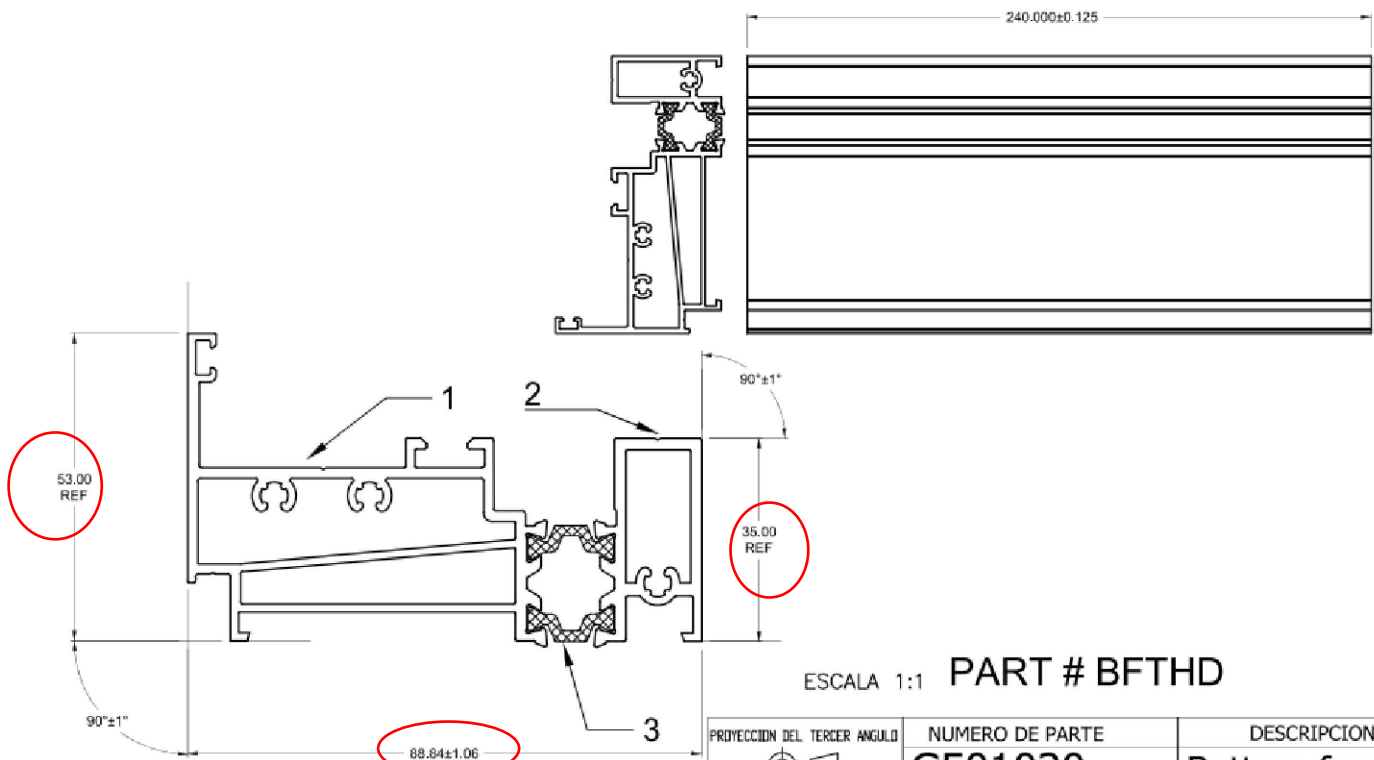


DIBUJO S/E	
DIMENSION	
IN	

CLIENTE: HOPO
DADO: 110959/110960

# Artículo	Descripcion	Dado/Almacen	# Parte	Cantidad	Especificacion	Peso Lb/Ft
1	N/A	110957	G501021	1	Aluminio 6063 T5	0.940
2	N/A	110958	G501022	1	Aluminio 6063 T5	0.396
3	14.8MM OFFSET STRIP	1009997	953241	2	Thermal	N/A

6578-05



ESCALA 1:1 PART # BFTHD

PROYECCION DEL TERCER ANGULO	NUMERO DE PARTE	DESCRIPCION
	G501020	Bottom frame
PROPIEDAD Y CONFIDENCIALIDAD		DIBUJO PARA ENSAMBLE
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DIBUJO S/E	CLIENTE: HOPO	# DADO: 110957/110958
DIMENSION IN		

REVISIONES				
REV	DESCRIPCION	ELABORO	FECHA	ECO/PROYECTO
1	DIBUJO ORIGINAL	Gomez B.	13/Dic/2021	6578
2	SE AGREGA TOLERANCIA DE ENSAMBLE	Gomez B.	15/Dic/2021	6578
3	SE AGREGA TOLERANCIA DE DE ANGULARIDAD	Gomez B.	17/Dic/2021	6578
4				
5				
6				
7				

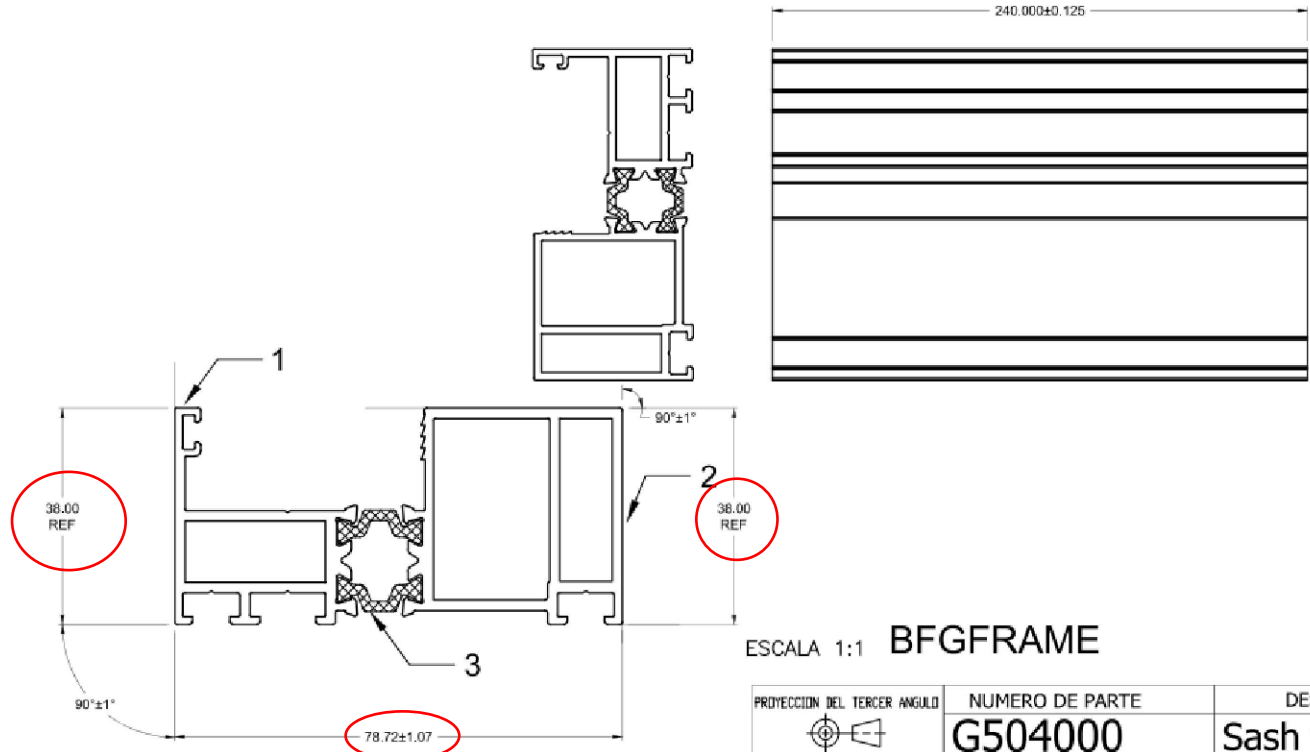
FORM-ING-46

Rev. 01

P/N: BFLTHD_ (EX3)

# Articulo	Descripcion	Dado/Almacen	# Parte	Cantidad	Especificacion	Peso Lb/Ft
1	N/A	110953	G504001	1	Aluminio 6063 T5	0.458
2	N/A	110954	G504002	1	Aluminio 6063 T5	0.630
3	14.8MM OFFSET STRIP	1009997	953241	2	Thermal	N/A

6578-01



ESCALA 1:1 BFGFRAME

REVISIONES				
REV	DESCRIPCION	ELABORO	FECHA	ECO/PROYECTO
1	DIBUJO ORIGINAL	Gomez B.	13/Dic/2021	6578
2	SE AGREGA TOLERANCIA DE ENSAMBLE	Gomez B.	15/Dic/2021	6578
3	SE AGREGA TOLERANCIA DE DE ANGULARIDAD	Gomez B.	17/Dic/2021	6578
4				
5				
6				
7				

PROYECCION DEL TERCER ANGULO 	NUMERO DE PARTE G504000	DESCRIPCION Sash frame
PROPIEDAD Y CONFIDENCIALIDAD La información contenida en este dibujo es propiedad absoluta de <ALUMINIO DE BAJA CALIFORNIA> cualquier reproducción en forma parcial o total de este documento, sin la autorización por escrito de <ALUMINIO DE BAJA CALIFORNIA> esta prohibida.		DIBUJO PARA ENSAMBLE
DIBUJO S/E DIMENSION IN		CLIENTE: HOPO # DADO: 110953/110954

FORM-ING-46

Rev. 01

P/N: BFGFRAME_(EX4)



ENGINEER STAMP

Job Name: NAFR - AWS
 INTEREK CDD FILE: BI-FOLD DOOR USD (CUSTOM)
 REF QUOTE: Phone: N/A Fax: N/A
 Contact: KERRY MOSER

Customer: Drawn By: Date: Drawn By: Checked By: Date: 5/25/24 Scale: AS NOTED Project #: JOB # Sheet No. 1.04

	Report #: R3628-116-46
	Date: 09/04/2024
	Verified by: <i>Bryan P. Moser</i>

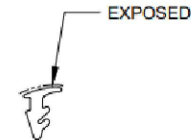
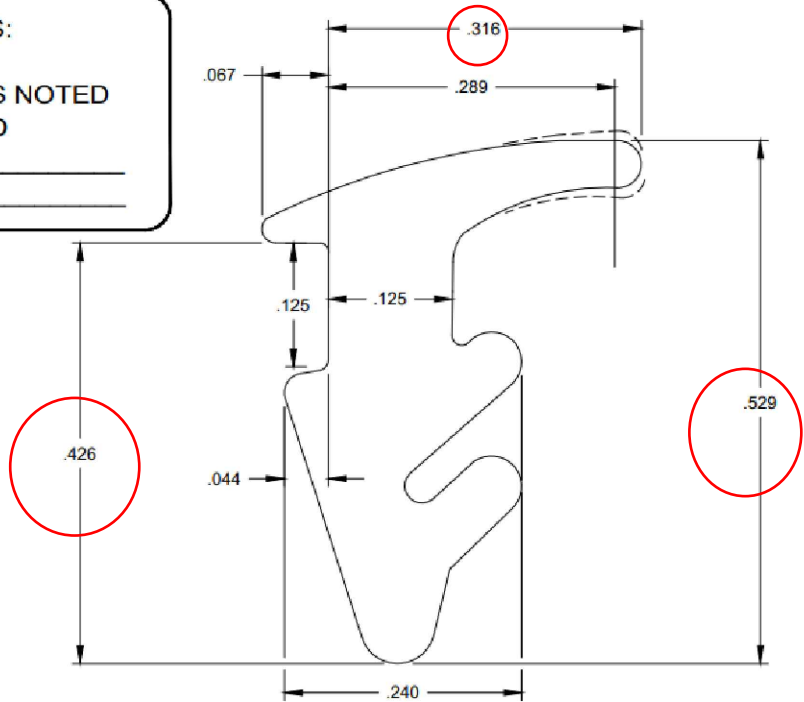
DO NOT COPY

THIS DRAWING IS:

- APPROVED
- APPROVED AS NOTED
- DISAPPROVED

DATE _____
 BY _____

F
 FULL SCALE



A	5-05-20	REDUCED LEG LENGTH PER CUSTOMER	JDW
No.	Date	Description	By
1451 Jacobson Ave Phone: 800-321-6357 Ashland, Ohio 44805 U.S.A. Fax: 419-289-6645			
Customer:		Customer Part No.	
FHC			
Project:			Rev No.
Drawn by: JDW		Scale: 10X	Date: 10/24/2019
Compound: EPDM		Designed F.C. *.250	Drawing No.
Diameter: 70 ±.5		Area: .0833	TR-26013E

Print date: 5/5/2020 12:10:56 PM

The design of the gasket shown herein is the product of Tremco Incorporated. No reproduction or use of this design is authorized without the consent of Tremco Incorporated.

P/N: R1638B (GS14)

Job Name:	NATR - AWS
INTERIOR GUD THE BI-FOLD DOOR GUD (CUSTOM)	
REF QUOTE:	
Phone:	N/A
Fax:	N/A
Contact:	KERRY MOSER
Customer:	
Drawn By:	
Date:	
Drawn By:	MR
Checked By:	
Date:	5/25/24
Scale:	AS NOTED
Project #:	JOB #
Sheet No.	

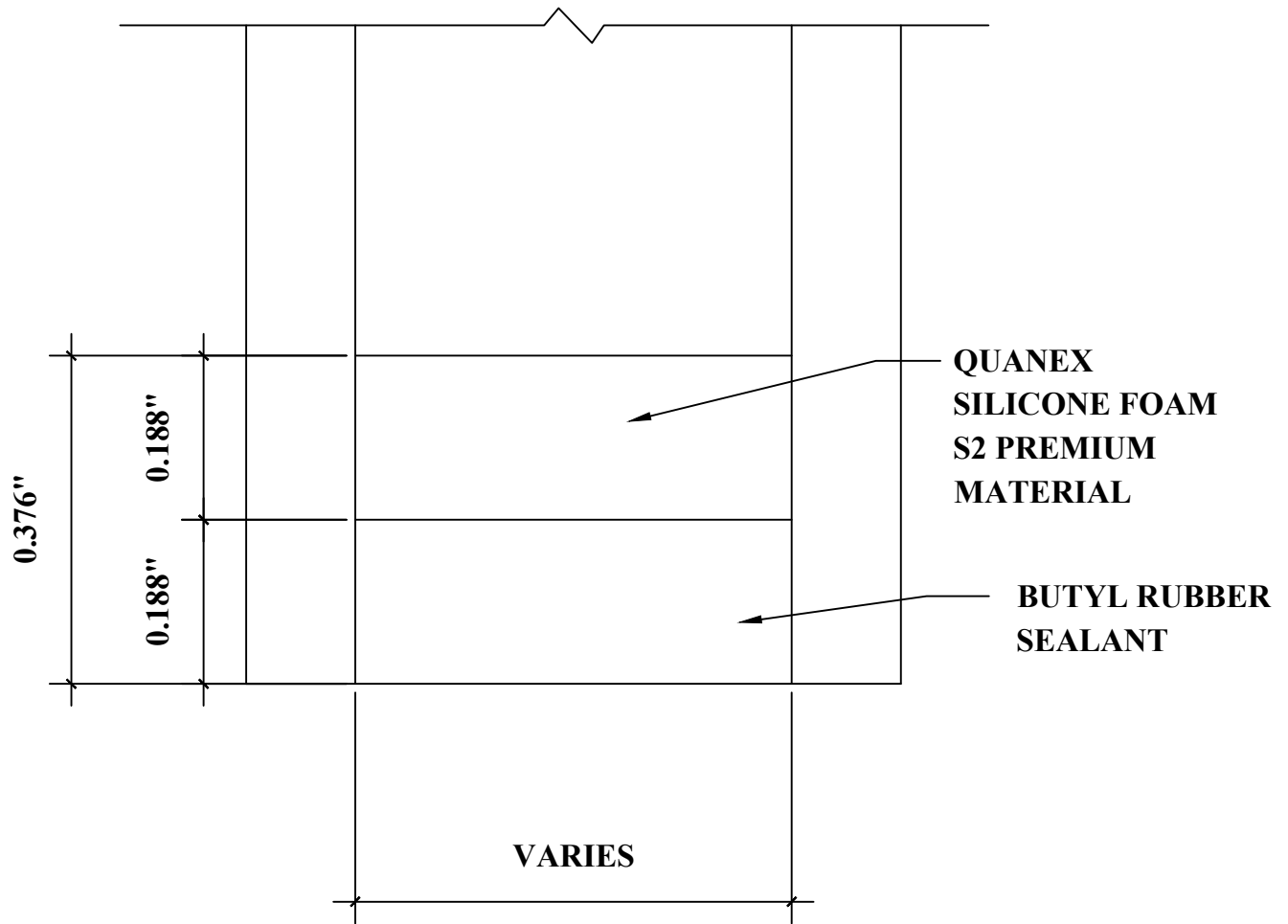
Report #: R3628-116-46
 Date: 09/04/2024
 Verified by: *Kerry Moser*



Report #: R3628-116-46

Date: 09/04/2024

Verified by: *Ryan P. Moser*



DETAIL FOR THERMAL MODELING OF
QUANEX SUPER SPACER PREMIUM (ZF-S)

TEST REPORT FOR FRAMELESS HARDWARE COMPANY LLC

Report No.: R3628.01-116-46 R0

Date: 09/06/24

SECTION 16

REVISION LOG

REVISION #	DATE	PAGES	REVISION
.01 R0	09/06/24	N/A	Original Report Issue