

Suzhou TRYBA Building Materials Technology Co., Ltd.

TEST REPORT

SCOPE OF WORK

Fixed Window

REPORT NUMBER

250529005SHF-004

TEST DATE(S)

2025-07-24

ORIGINAL ISSUE DATE

2025-08-06

PAGES

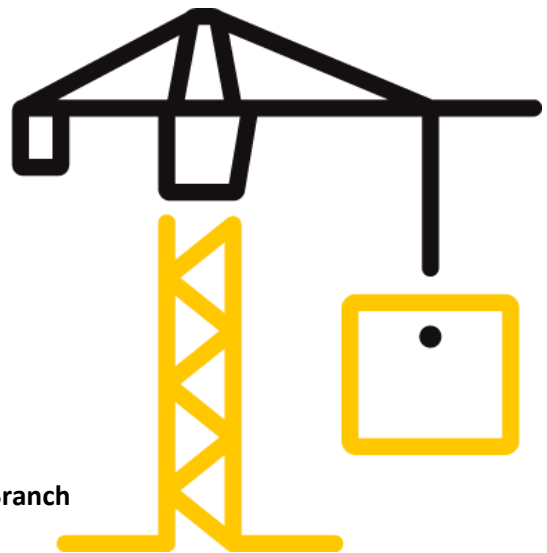
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DOCUMENT CONTROL NUMBER

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Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch



Test Report

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Test Report

Original Issue Date: 2025-08-06 Intertek Report No. 250529005SHF-004

Applicant: Suzhou TRYBA Building Materials Technology Co., Ltd.
Applicant Address: 36th floor, Jinhe International Building, 35 Shishan Road, Huqiu District, Suzhou City
Attn: Alisa
Manufacturer: TRYBA (Shanghai) Windows Co., Ltd.
Manufacturer Address: No.38, Mingye Road, Sheshan Industrial Park, Songjiang District, Shanghai
Product Type: Fixed Window
Product Model: 80
Primary product designator: Class CW - PG40 - Size Tested 1900 × 2200 mm (74.80 × 86.61 in.) - Type FW
Optional secondary designator: Positive Design Pressure = +1920 Pa (40.10 psf)
Negative Design Pressure = -1920 Pa (40.10 psf)
Water penetration resistance test pressure = 720 Pa (15.04 psf)

SUBJECT: Performance testing

Product Information

Product Name	Model	Specification
Fixed Window	80	1900mm(Width) x 2200mm(Height)
Sample ID	Sample Amount	Sample Received Date
S250529005SHF.004	1 Set	2025-07-20
Brand	Sample Description	
TRYBA	The sample was a completely assembled, glazed, fitted in the test apparatus in accordance with documented instructions.	

Test Methods And Standards

Test Standard	ASTM E283/E283M-2019; ASTM E547-00(R2016); ASTM E330/E330M-2014(R2021); ASTM F588-17
Specification Standard	AAMA/WDMA/CSA 101/I.S.2/A440-22 (NAFS 2022 - North American Fenestration Standard / Specification for Windows, Doors and Skylights) Clause 8.3.2, Clause 8.3.3, Clause 8.3.4, Clause 8.3.5; CSA A440S1-25 Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440-22 Clause 5.3 and Clause 5.4
Test Conclusion	The results met AAMA/WDMA/CSA 101/I.S.2/A440-22 and CSA A440S1-25 requirements specified on Fixed Window, and the results were shown in the following page.

Note:

- 1.This report does not involve sampling. The report only reflects conformity of the tested items of the samples provided by the testing applicant. Representativeness and authenticity of the submitted samples are responsibilities of the testing applicant.
2. This test item was conducted in one of our multi-sites address of Plant 3-5, No. 6978 Daye Road, Fengxian District, Shanghai (No. 4-South Plant, No. 161 Litai Road).

Report Authorized



 Name: Gio Liu Name: John Zhang
 Title: Reviewer Title: Project Engineer

Test Report

Original Issue Date: 2025-08-06

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Test Items, Method and Results:

1 Test Samples

Sample was submitted to Intertek directly from the client. Sample was not independently selected for testing. Sample was received at the Evaluation Center on July 20, 2025.

A full scale sample of Fixed Window (Model: 80) was provided by the manufacturer that was not weathered nor conditioned.

The description of the samples given below has been prepared from information provided by the sponsor of the test. All values quoted are nominal, unless tolerances are given.

Table 1 Product Information

Product Name	Fixed Window
Model	80
Dimension of Window Frame	1900mm(Width) x 2200mm(Height) x 80mm(Thickness)
Dimension of Daylight Opening	1756mm(Width) x 2056mm(Height)
Profile	Model: ES80K-B, ES80S-39; Material: Vinyl Supplier: Anhui Conch Group Co., Ltd.
Frame Corner Construction Details:	45° cut and weld
Joinery type	
Reinforcement	Model: ES80K-B Reinforced lining steel code: Q195 Supplier: Renqiu Dongjie Metal Materials Co., Ltd.
Glazing	Dimension: 1804mm(Width) x 2104mm(Height) Structure: 39mm thickness; 5mm Clear Tempered (Xinyi Glass) + 12mm Lisec aluminum spacer + 5mm Clear Tempered (Xinyi Glass) with XDTN0179-D#4 + 12mm Lisec aluminum spacer + 5mm Clear Tempered (Xinyi Glass) with XD221266-D#2 Supplier: Xinyi Glass Engineering (Dongguan) Co., Ltd.
Hardware	None
Weather-strip	None
Thermal Break	None
Drainage	None
Sealing Strip	Model: PO, PK; Material: EPDM Supplier: Jiangyin Haida Rubber and Plastic Co., Ltd.
Sealant	Model: Antai 173 neutral silicone sealant; Material: Silicone Sealant Supplier: Guangzhou Jitai Chemical Co., Ltd.
Installation	The rough opening allowed for a 50mm shim space. The perimeter of the tested specimen was fixed by screws every 150-200mm and sealed with silicone sealant.

The Sample ID was S250529005SHF.004. The drawings of the representative sample were referenced in Appendix A, the test data was referenced in Appendix B and the photo of the representative sample was referenced in Appendix C.

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Test Items, Method and Results:

2 Test Result

Table 2 Test Result

Test Description	Requirements (Class CW-PG40)	Results	Verdict
2025/7/24			
Air Leakage Resistance Test AAMA/WDMA/CSA 101/I.S.2/A440-22, Clause 8.3.2 ASTM E283/E283M-2019	Maximum air leakage at +75 Pa	1.0 L/s·m ² Air leakage at +75 Pa	0.01 L/s·m ² Pass
	Maximum air leakage at -75 Pa	1.0 L/s·m ² Air leakage at -75 Pa	0.02 L/s·m ²
Water Penetration Resistance Test AAMA/WDMA/CSA 101/I.S.2/A440-22, Clause 8.3.3 ASTM E547-00 (R2016)	Minimum water pressure	290 Pa	Test Pressure
		720 Pa	After water sprayed for four cycles in 24 minutes at 720 Pa, no water penetration was observed.
Uniform Load Deflection Test AAMA/WDMA/CSA 101/I.S.2/A440-22, Clause 8.3.4.2 ASTM E330/E330M-2014 (R2021)	Minimum Design Pressure (DP)	1920 Pa	Design Pressure (DP)
		+1920 Pa	Pass
		1.1 mm	Maximum deflection at Jamb
		15.6 mm	Maximum deflection at Glazing
		10.9 mm	Maximum deflection at Glazing
		0.8 mm	Maximum deflection at Jamb
-1920 Pa	Design Pressure (DP)	Pass	
10.9 mm	Maximum deflection at Glazing	Reported ¹	

Note: 1. The deflection of the glazing is recorded for reference only.

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Table 2 Test Result (Continued)

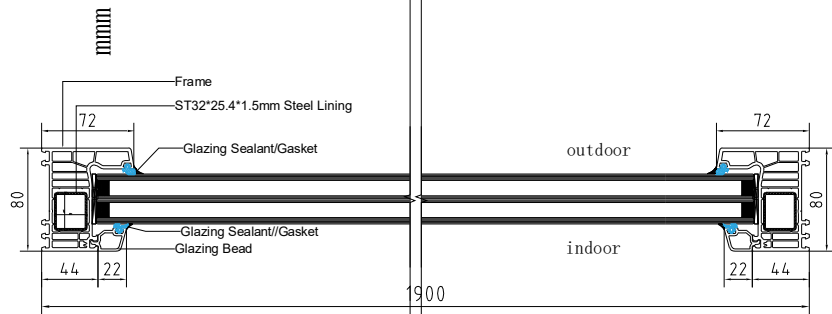
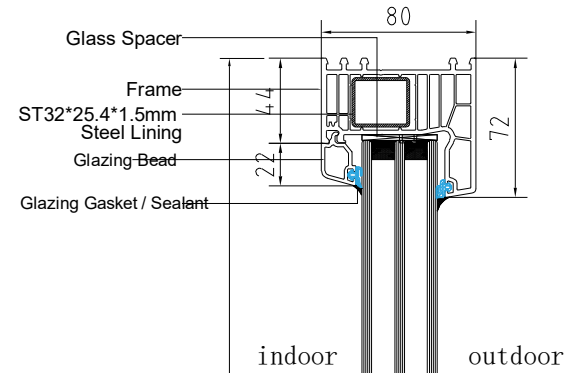
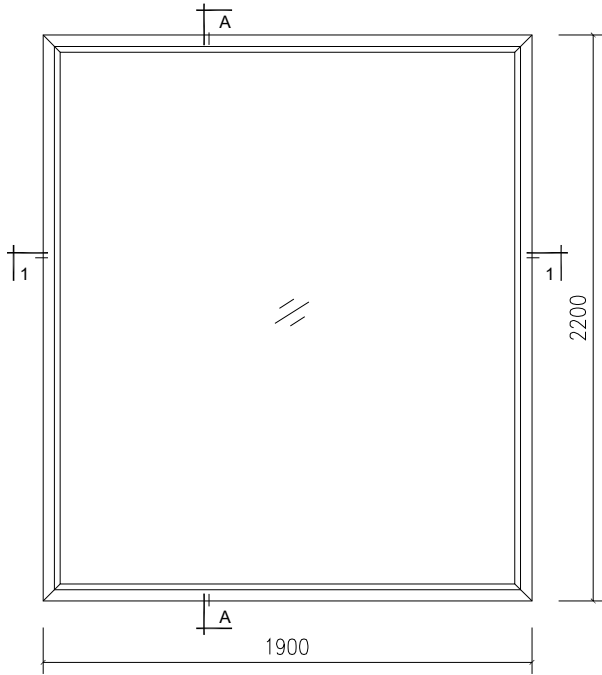
Test Description	Requirements (Class CW-PG40)	Results	Verdict	
2025/7/24				
Uniform Load Structural Test AAMA/WDMA/CSA 101/I.S.2/A440-22, Clause 8.3.4.3 ASTM E330/E330M-2014(R2021)	Minimum Structural Pressure (STP)	2880 Pa	Structural Pressure (STP) +2880 Pa	Pass
			No significant breakage or damage after ultimate strength was released.	
			Maximum permanent deformation at Jamb 0.2 mm	
			Maximum permanent deformation at Glazing 0.3 mm	
			Structural Pressure (STP) -2880 Pa	
			No significant breakage or damage after ultimate strength was released.	
			Maximum permanent deformation at Jamb 0.2 mm	
			Maximum permanent deformation at Glazing 0.4 mm	
Forced-entry Resistance Test AAMA/WDMA/CSA 101/I.S.2/A440-22, Clause 8.3.5 ASTM F588-17	Minimum Grade 10	Test Class	Grade 10	Pass
		During the test and upon removal of loads, all locking devices were remained engaged and could not entry.		

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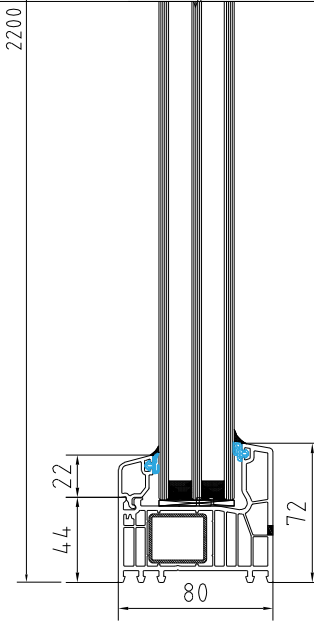
Intertek Report No. 250529005SHF-004

Appendix A: Sample Drawings



1-1 Horizontal section
1:5

2200



A-A Vertical profile
1:5

Customer confirmation signature:

Project name
Customers:

Drawing Yong Sun

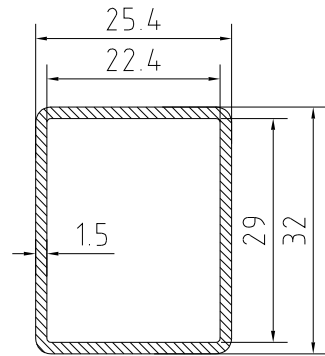
Design Yong Sun

Check


Picture name
Profile cross-section layout

The picture number DYTMD1-1

Date of drawing 2025-06-01



Steel Lining
Part Number:
ES80K-B


 Report #: 250529005SHF-002
 Date: 08/05/25
 Verified by: *[Signature]*

Customer confirmation signature:

Project name
Customer:

Drawing Yong Sun

Design Yong Sun

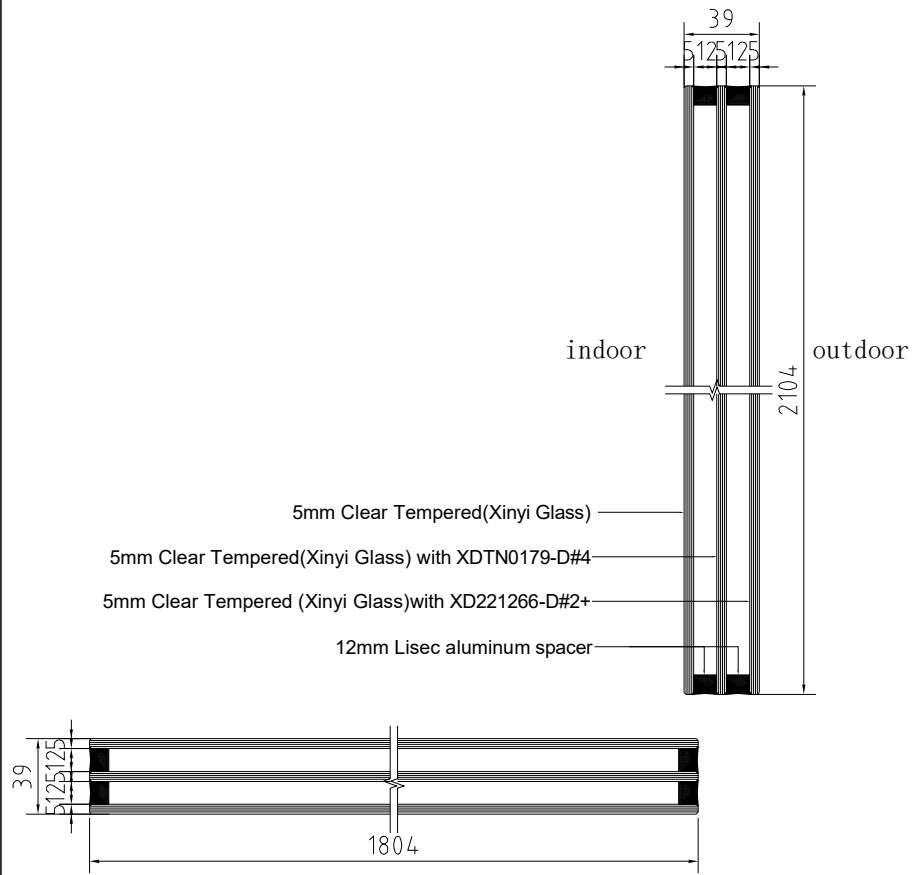
Check

Picture name

Profile lining steel drawings

The picture number DYTMD1-3

Date of drawing 2025-06-01



- 5mm Clear Tempered(Xinyi Glass)
- 5mm Clear Tempered(Xinyi Glass) with XDTN0179-D#4
- 5mm Clear Tempered (Xinyi Glass)with XD221266-D#2+
- 12mm Lisec aluminum spacer

Landing solid glass

intertek
Total Quality. Assured.

Report #: 250529005SHF-002
Date: 08/05/25
Verified by: [Signature]

Customer confirmation signature:	
Project name Customers:	
Drawing	Yong Sun
Design	Yong Sun
Check	
Picture name Glass cross-section diagram	
The picture number	DYTM01-4
Date of drawing	2025-06-01

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Appendix B: Test Data

B.1 Air Leakage Resistance Test – Test method ASTM E283/E283M-2019

Overall area: 4.18 m²

Table B.1 Test Data of Air Leakage Resistance Test

Infiltration rate (75 Pa)	0.01 L/s·m ²	0.01 cfm/ft ²
Exfiltration rate (75 Pa)	0.02 L/s·m ²	0.01 cfm/ft ²
Requirements (75 Pa): Maximum allowable leakage for Class CW Windows	1.0 L/s·m ²	0.2 cfm/ft ²

The tested specimen met the requirements for Class CW Windows for Air Leakage Resistance Test as per AAMA/WDMA/CSA 101/I.S.2/A440-22.

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Appendix B: Test Data

B.2 Water resistance test – Test method ASTM E547-00(R2016)

No water penetration occurred when the pressure was 720 Pa (15.04 psf).

After water sprayed for four cycles in 24 minutes at 720 Pa, no water penetration was observed.

Test result: $P_{\max} = 720$ Pa (15.04 psf).

The tested specimen met the requirements for Class CW-PG40 for Water Penetration Resistance Test as per AAMA/WDMA/CSA 101/I.S.2/A440-22.

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Appendix B: Test Data

B.3 Uniform Load Deflection Test – Test method ASTM E330/E330M-2014(R2021), Procedure A

Span length, L = 2080 mm Set Points (1-3)

Span length, L = 1720 mm Set Points (4-6)

Test Pressure (DP), P = 1920 Pa (40.10 psf)

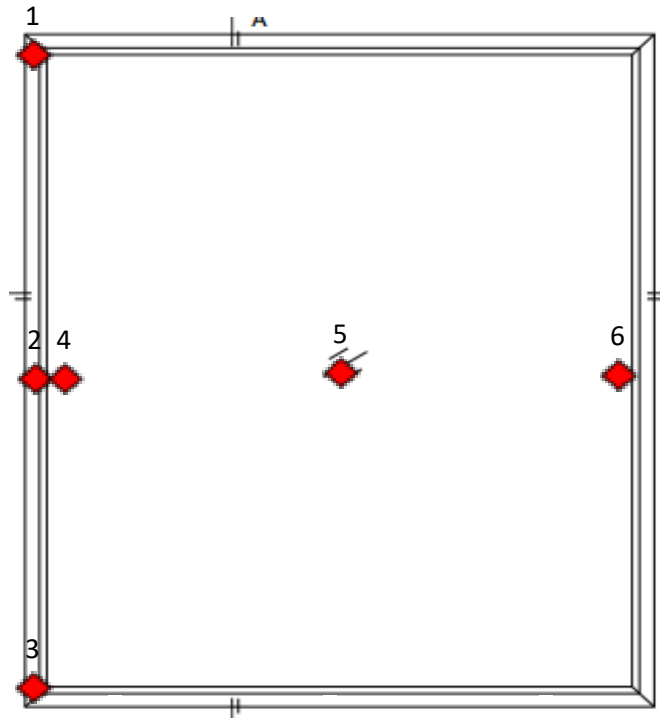


Fig.5 Locations of Displacement Measuring Devices

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Table B.2 Test Data of Uniform Load Deflection Test

Member (mm)		Test Pressure (Pa)	Deflection (mm)			Maximum Deflection(mm)
Item	Span Length		1	2	3	
Jamb	2080	+P = 1920	0.2	1.2	0.1	1.1
		0	<0.1	0.1	<0.1	0.1
		-P = -1920	0.2	0.9	0.1	0.8
		0	<0.1	0.1	<0.1	0.1
Member (mm)		Test Pressure (Pa)	Deflection (mm)			Maximum Deflection(mm)
Item	Span Length		4	5	6	
Glazing	1720	+P = 1920	2.7	18.9	3.9	15.6
		0	0.1	0.3	0.1	0.2
		-P = -1920	2.2	13.5	3.1	10.9
		0	0.2	0.6	0.2	0.4

Table B.3 Test Data of Uniform Load Deflection Test for Jamb

Test Pressure	Deflection Measurements, mm (in.)			
	Positive		Negative	
	Maximum Deflection		Maximum Deflection	
1920 Pa (40.10 psf)	1.1	(0.04)	0.8	(0.03)
Span length, L =	2080 mm	(81.89 in.)	Deflection Limit L/175 =	11.9 mm (0.47 in.)

Table B.4 Test Data of Uniform Load Deflection Test for Glazing

Test Pressure	Deflection Measurements, mm (in.)			
	Positive		Negative	
	Maximum Deflection		Maximum Deflection	
1920 Pa (40.10 psf)	15.6	(0.61)	10.9	(0.43)
Span length, L =	1720 mm	(67.72 in.)	No Deflection Limit.	

The tested specimen met the requirements for Class CW-PG40 for Uniform Load deflection Test at Design Pressure as per AAMA/WDMA/CSA 101/I.S.2/A440-22.

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Appendix B: Test Data

B.4 Uniform Load Structural Test – Test method ASTM E330/E330M-2014(R2021), Procedure A

Design Pressure, P = 1920 Pa (40.10 psf)

Structural Pressure, P = 2880 Pa (60.15 psf)

Table B.5 Test Data of Uniform Load Structural Test

Member (mm)		Test Pressure (Pa)	Permanent deformation(mm)			Maximum permanent deformation(mm)
Item	Span Length		1	2	3	
Jamb	2080	+P = 2880	–	–	–	–
		0	<0.1	0.2	0.1	0.2
		-P = -2880	–	–	–	–
		0	<0.1	0.2	<0.1	0.2
Permanent Deformation limit, L x 0.3% = 6.2 mm						
Member (mm)		Test Pressure (Pa)	Permanent deformation(mm)			Maximum permanent deformation(mm)
Item	Span Length		4	5	6	
Glazing	1720	+P = 2880	–	–	–	–
		0	0.2	0.6	0.4	0.3
		-P = -2880	–	–	–	–
		0	0.3	0.7	0.3	0.4
No Permanent Deformation limit.						

Table B.6 Test Data of Uniform Load Structural Test For Jamb

Test Pressure	Deflection Measurements, mm (in.)			
	Positive		Negative	
	Perm. Set		Perm. Set	
2880 Pa (60.15 psf)	0.2	(0.01)	0.2	(0.01)

Table B.7 Test Data of Uniform Load Structural Test For Glazing

Test Pressure	Deflection Measurements, mm (in.)			
	Positive		Negative	
	Perm. Set		Perm. Set	
2880 Pa (60.15 psf)	0.3	(0.01)	0.4	(0.02)

After the test loads were released, there was no failure or permanent deformation of any part of the window system that would cause the test specimen to be inoperable. There was no permanent deformation which was in excess of 0.3% of its span.

The tested specimen met the requirements for Class CW-PG40 for Uniform Load Structure Test at Structural Pressure as per AAMA/WDMA/CSA 101/I.S.2/A440-22.

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Appendix C: Sample Received Photo



Revision:

NO.	Date	Changes
250529005SHF-004	2025-08-06	First issue

... FENGXIAN ...