TL–1195

Foshan DTOP Window and Doors Co., Ltd.

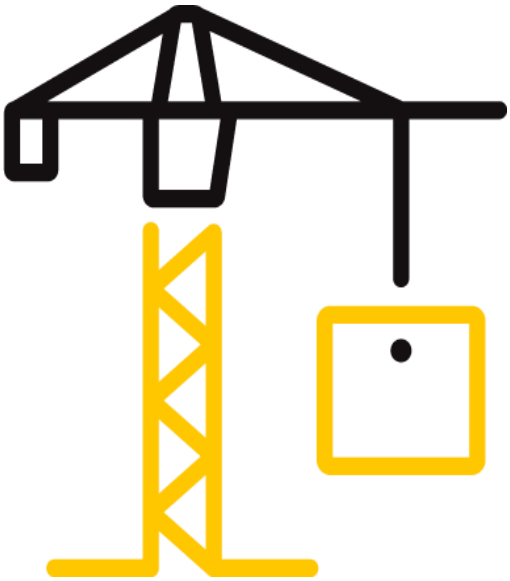
TEST REPORT

SCOPE OF WORK
WINDOWS AND DOORS

REPORT NUMBER
260513172GZC-001

ISSUE DATE
2026/11/17

PAGES
21



Intertek Testing Services Shenzhen Ltd. Guangzhou Branch

DOCUMENT CONTROL NUMBER
TTRF_AAMA 101_c
Effective date: 2026-09-15
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Test Report

Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

Applicant:	Foshan DTOP Window and Doors Co., Ltd.
Address:	Self-Designed No. 2 factory building next to Fumin 3rd Road, Guanyao Hongsha Development Zone, Shishan Town, Nanhai District, Foshan city (residence declaratoin)
Attn:	Info@dtpalumn.com

Manufacturer:	Foshan DTOP Window and Doors Co., Ltd.
Address:	Self-Designed No. 2 factory building next to Fumin 3rd Road, Guanyao Hongsha Development Zone, Shishan Town, Nanhai District, Foshan city (residence declaratoin)
Attn:	Info@dtpalumn.com

Primary designator:	Class CW - PG30: Size Tested 800 mm × 1500 mm (31.50 in. × 59.06 in.) - Type C
Secondary designator:	Positive Design Pressure = +1440 Pa (+30.08 psf) Negative Design Pressure = -1440 Pa (-30.08 psf) Water penetration resistance test pressure = 220 Pa (4.59 psf)

SUBJECT: Performance testing
< Casement window >

Dear Sir,

This test report represents the results of our evaluation of the above referenced product(s) to the requirements contained in the following standards:

TEST METHODS AND STANDARDS
AAMA/WDMA/CSA 101/I.S.2/A440-22 (NAFS 2022 - North American Fenestration Standard / Specification for Windows, Doors and Skylights) CSA A440S1-25 (Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440-22)

SAMPLE ID	MODEL	SPECIFICATION
S260513172GZU.001	75 series	800 mm (Width) × 1500 mm (Height) × 75.3 mm (Thickness)

SAMPLE RECEIVED: 2026/6/4
TESTED FROM: 2026/6/8 TO 2026/6/11

TEST LOCATION: Warehouse (C2)-1, No. 100, Taixin Road, Ningxi Street, Zengcheng District, Guangzhou, Guangdong, China

****

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Test Report

Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

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 Jane 4, 2026.
A full scale sample of Casement Window (Model:75 series) 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	Casement window
Model	75 series
Dimension of Window Frame	800 mm (Width) x 1500 mm (Height) x 75.3 mm (Thickness)
Dimension of Window Sash	752 mm (Width) x 1452 mm (Height) x 84.2 mm (Thickness)
Aluminum Profile	Model: JH-M7501, JH-M7513, JH-M7515 Code: 6063-T5 Manufacturer: Foshan Chenjie Aluminum Co., Ltd.
Frame Corner Construction Details	45 ° mitre-cut, assembly with corners keys and glued.
Reinforcement	Not Applicable
Glazing	Dimension: 615 mm (Width) x1315 mm (Height) Structure:37.52 mm thick, 8 mm + 12 mm Argon + 8 mm + 1.52PVB +8 mm Lowe Tempered Insulating Glass Supplier: Guangdong Honghua Glass Technology Co., Ltd
Hardware	Lock Model: LFZS20-L25 Firction stay Model: HC400A-14 Handle Model: LFZS20-L25 Supplier: Guangdong KINLONG Hardware Products Co., Ltd.
Weather-strip	Not Applicable
Thermal Break	Model: HK-35.3, HKU-35.3, HKB-35.3 Material: PA66GF25 Supplier: Foshan Forest Wind Plastic Technology Co., Ltd
Drainage	Not Applicable

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Test Report

Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

Table 1 Product Information(Cont.)

Gasket (Between sash and frame)	Model: FH201, FH202 Material: EPDM Supplier: Aobi Shidai (Foshan) Technology Co., Ltd.
Sealant of Glass	Model: 563 Neutral silicone sealant Material: silicone sealant Supplier: Chengdu Guibao Science and Technology Co.,LTD.
Installation	The rough opening allowed for a 10 mm shim space. The exterior perimeter of the test specimen was sealed with silicone sealant.

The sample ID number was S260513172GZU.001. 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 Report

Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

Test Items, Method and Results：

2 Test Result

Table 2 Test Result

Test Description	Requirements (Class CW-PG30)		Results		Verdict
Operating Force Test	Maximum Force to Initial Movement	60 N	Force to Initial Movement	44 N	Pass
	Maximum Force to Maintain Movement	60 N	Force to Maintain Movement	33 N	
Air Leakage Resistance Test	Maximum air leakage at +75 Pa	1.0 L/s·m^2	Air leakage at +75 Pa	0.04 L/s·m^2	Pass
	Maximum air leakage at -75 Pa	1.0 L/s·m^2	Air leakage at -75 Pa	0.04 L/s·m^2	
Water Penetration Resistance Test	Minimum water pressure	220 Pa	Test Pressure	220 Pa	Pass
			No water penetration occurred when tested at 220 Pa by the method of cyclic static air pressure difference.		
Uniform Load Deflection Test	Design Pressure (DP)	1440 Pa	Test Pressure	1440 Pa	Pass
			Maximum deflection at handle side stile	0.3 mm	
			Maximum deflection at bottom rail	0.2 mm	
			Maximum deflection at hinge side stile	0.8 mm	

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Test Report

Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

Table 2 Test Result

Test Description	Requirements (Class CW-PG30)		Results		Verdict
Uniform Load Structural Test	Structural Test Pressure (STP)	2160 Pa	Test Pressure	2160 Pa	Pass
			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.		
			Maximum permanent deflection at handle side stile	0.1 mm	
			Maximum permanent deflection at bottom rail	<0.1 mm	
			Maximum permanent deflection at hinge side stile	0.1 mm	
Casement hardware load test	The test specimen shall be opened to its fullest extent or 90 degrees, whichever is less. A concentrated load of 300Pa is applied in the opening direction. The applied load vector shall be pass within 13 mm of the geometric center of the sash.		Load to the sash	300 Pa	Pass
			The sash still properly operated through its entire range and fully close. No failure of screws, window components or hardware, or permanent deformation of any component in a manner that interferes with proper operation.		
Forced-entry Resistance Test	Minimum Grade 10		Test Class	Grade 10	Pass
			After test, there was no opening which allows for entrance through the tested specimen. The sash remained locked and closed. Lock and hinges were not disengaged.		

Test Report

Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

Appendix A: Sample Drawings

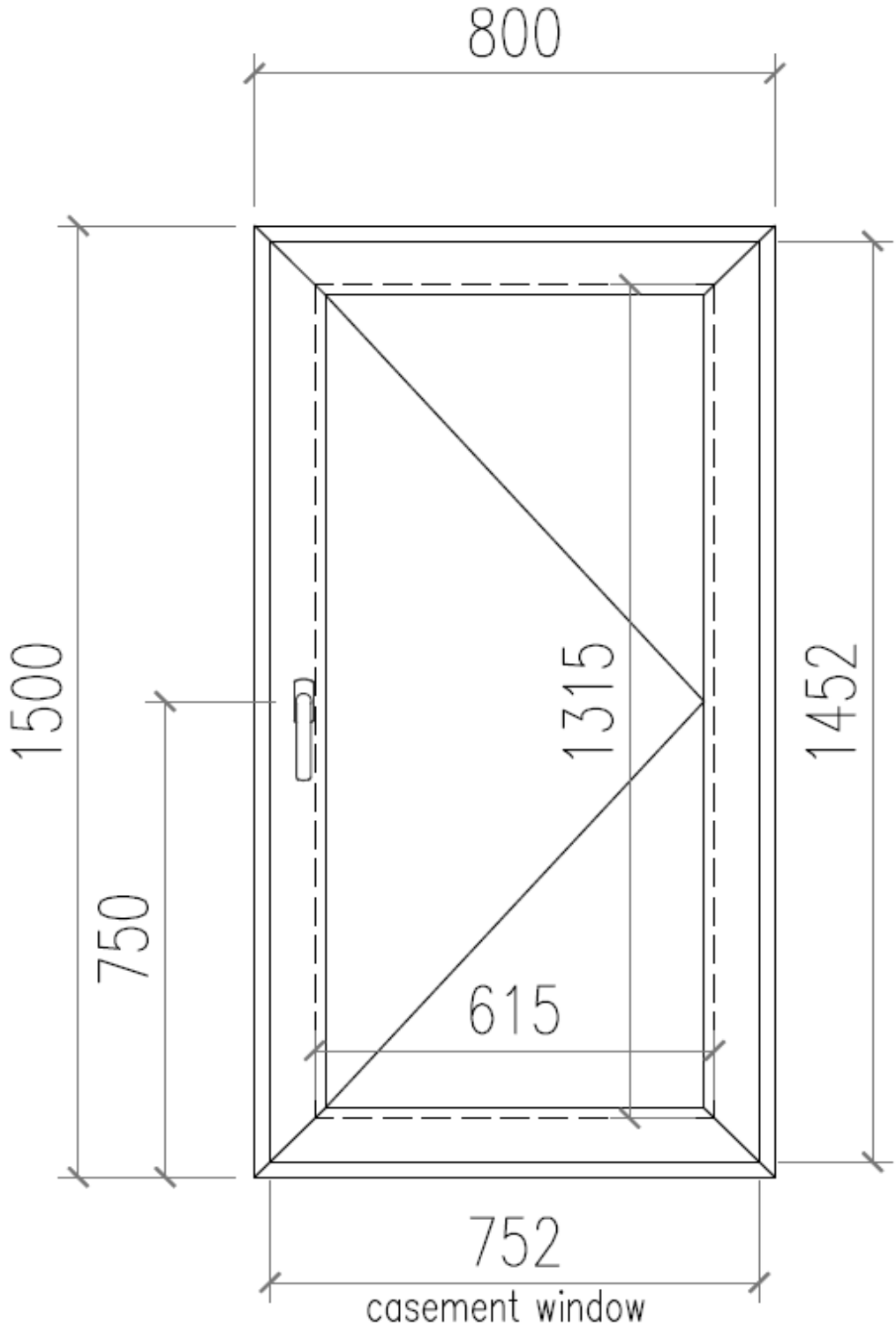


Fig.1 Drawing of Representative Sample

Test Report

Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

Appendix A: Sample Drawings (Cont.)

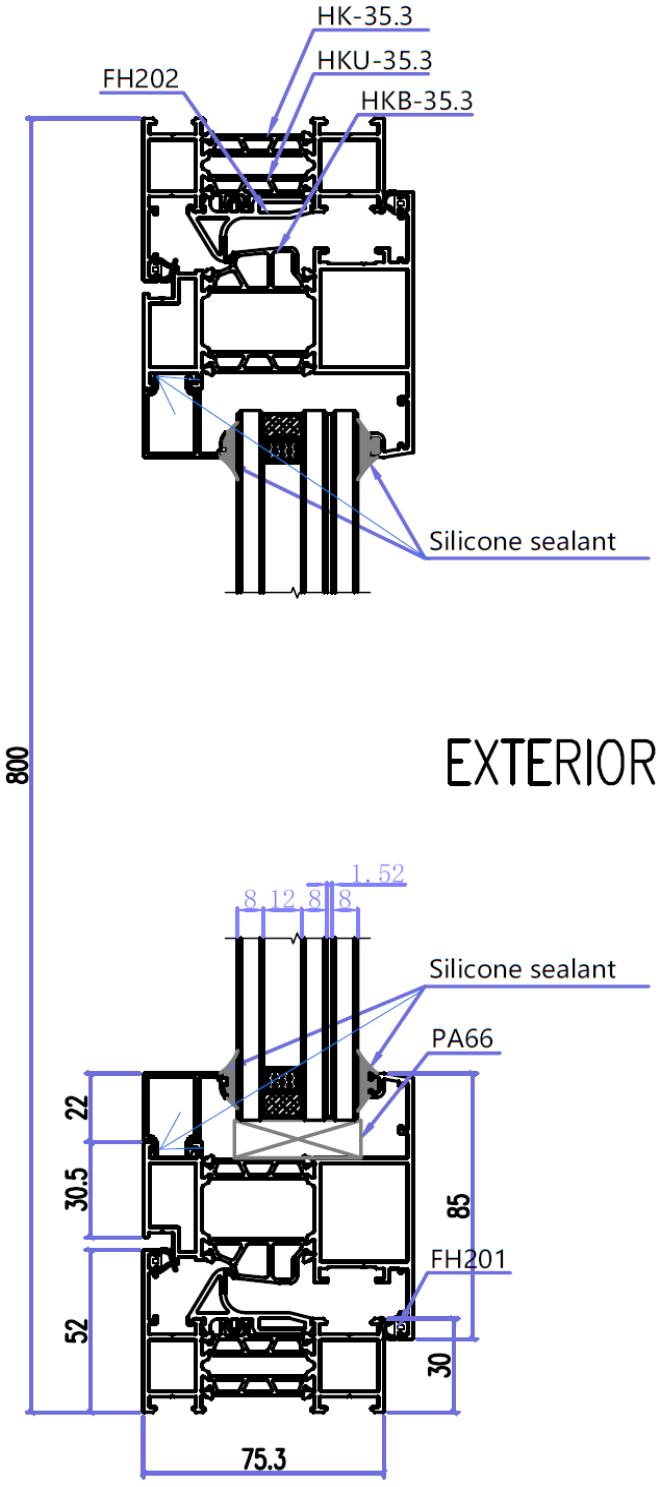


Fig.2 Drawing of Representative Sample

Test Report

Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

Appendix A: Sample Drawings (Cont.)

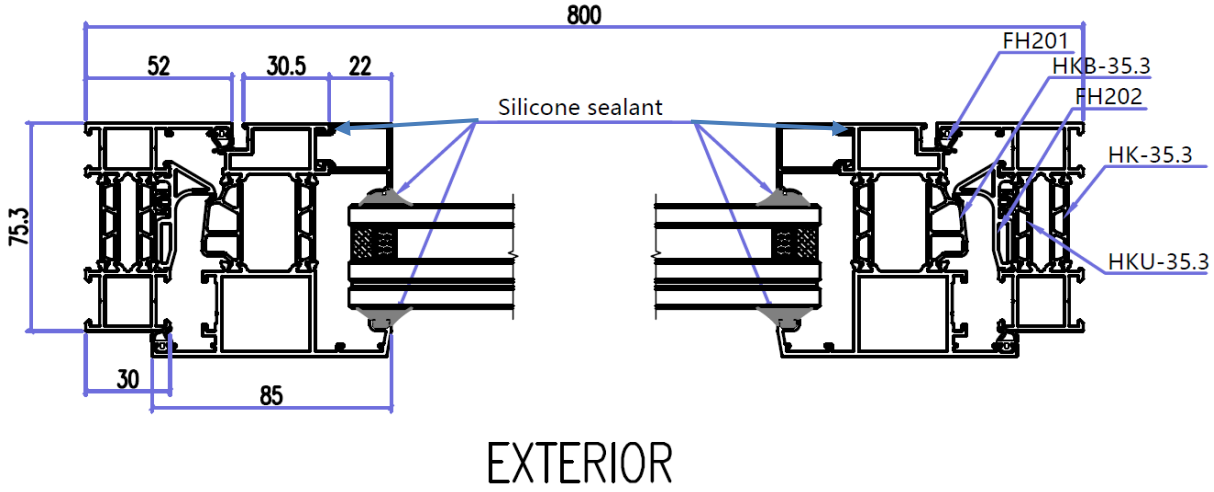


Fig.3 Drawing of Representative Sample

Test Report

Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

Appendix A: Sample Drawings (Cont.)

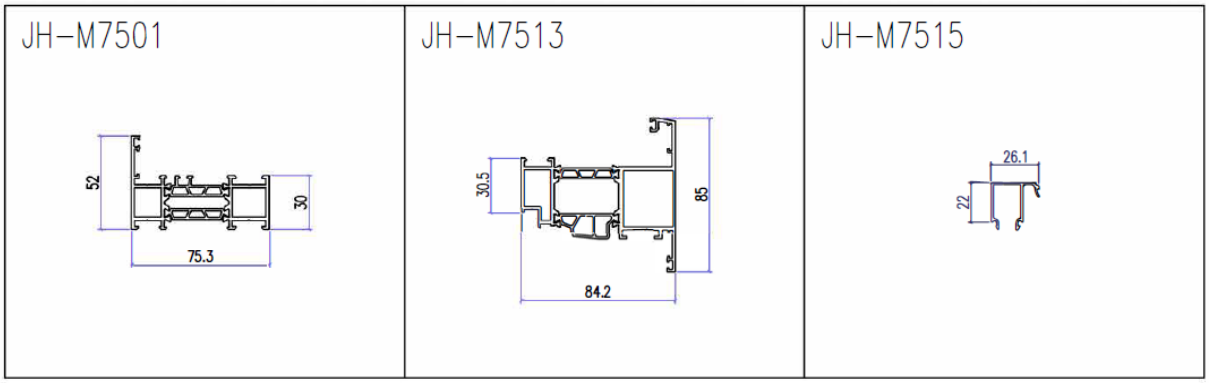


Fig.4 Drawing of Profile

Test Report

Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

Appendix A: Sample Drawings (Cont.)

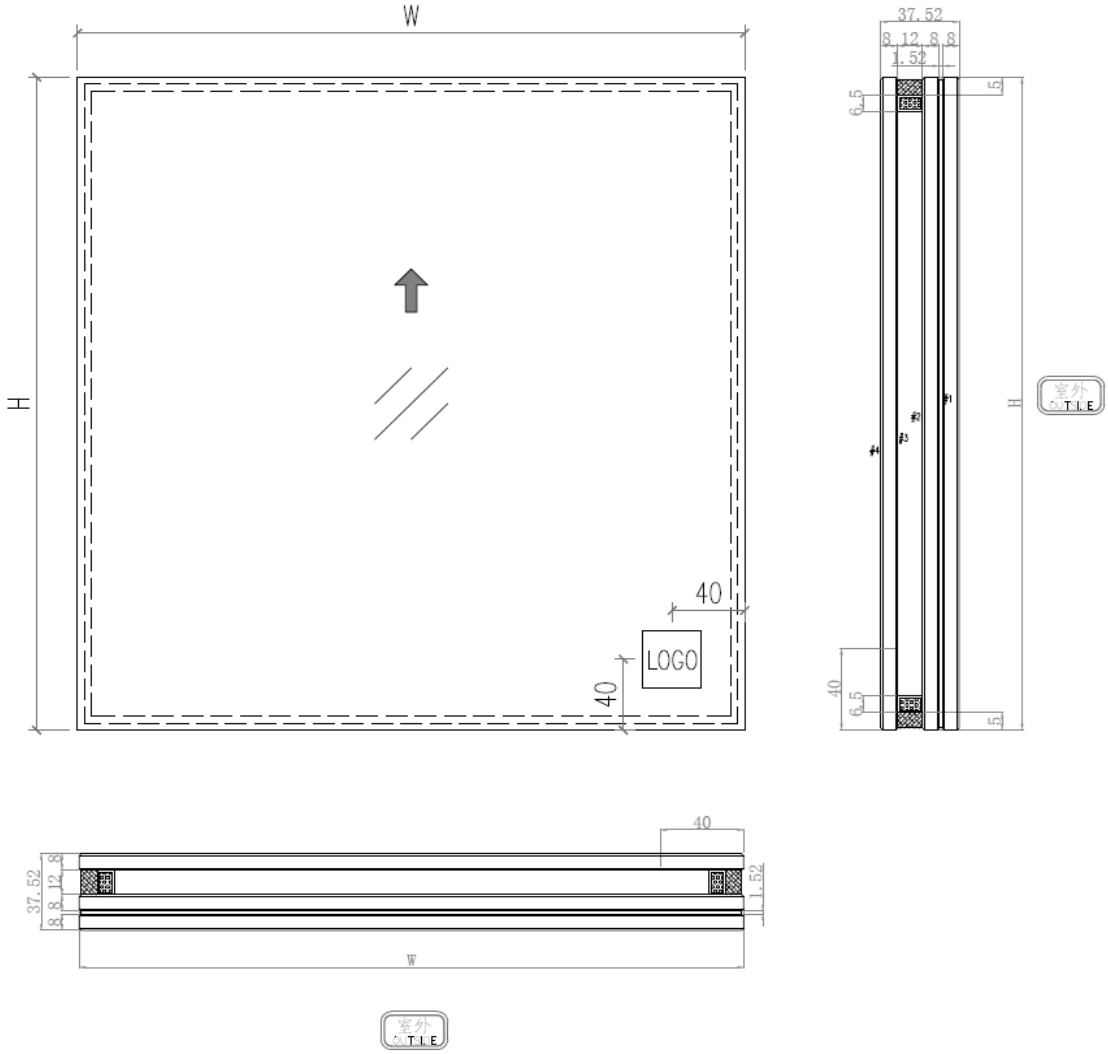
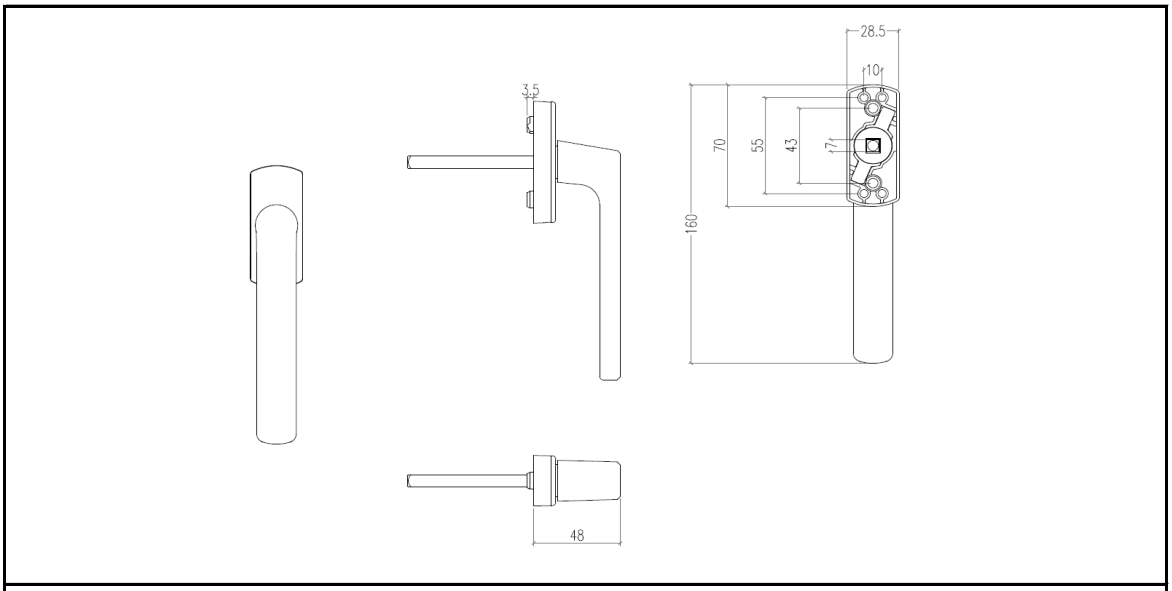


Fig.5 Drawing of Glazing

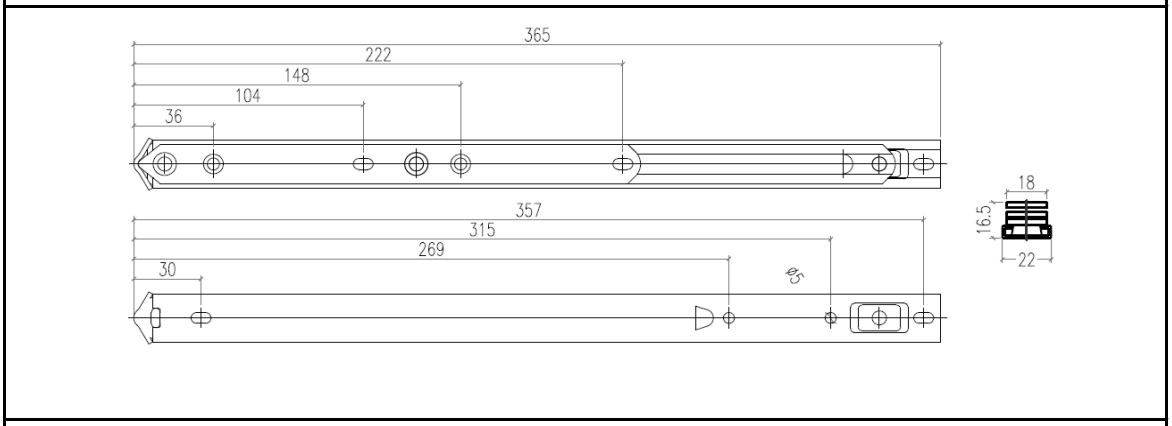
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Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

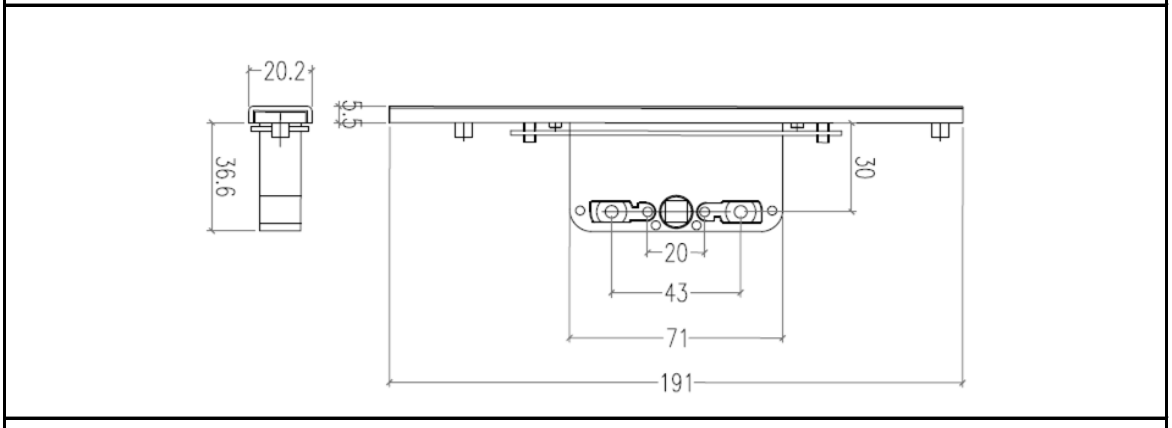
Appendix A: Sample Drawings (Cont.)



Handle



Firction stay



Lock

Fig.6 Drawing of Hardware

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Test Report

Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

Appendix B: Test Data

B.1 Operating force test – Test method: Section 8.3.1 of AAMA/WDMA/CSA 101/I.S.2/A440-22

Table B.1 Test Data of Operating Force Test

Force Type		Test Data				Requirement	Verdict
		1	2	3	Average		
To Initial Movement	Open	15 N	16 N	13 N	15N	Max. 60 N	Pass
	Close	46 N	43 N	42 N	44N		
To Maintain Movement	Open	25 N	27 N	29 N	27N	Max. 60 N	
	Close	32 N	35 N	33 N	33N		

The tested specimen met the requirements of Operating Force Test as per AAMA/WDMA/CSA 101/I.S.2/A440-22 and CSA A440S1-25.

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Test Report

Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

Appendix B: Test Data

B.2 Air Leakage Resistance Test – Test method: ASTM E283/E283M-26

Total area: 1.20 m^2 (12.92 ft^2)

Table B.2 Test Data of Air Leakage Resistance Test

	Air Leakage in cfm/ft^2	Air Leakage in $L/s \cdot m^2$
Infiltration rate (75 Pa)	0.008	0.04
Exfiltration rate (75 Pa)	0.008	0.04
Average air leakage rate (75 Pa)	0.008	0.04

The tested specimen met the requirements of Air Leakage Resistance Test as per AAMA/WDMA/CSA 101/I.S.2/A440-22 and CSA A440S1-25.

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Test Report

Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

Appendix B: Test Data

B.3 Water resistance test – Test method ASTM E547-2000(R2016)

No water penetration occurred when tested at 220 Pa by the method of cyclic static air pressure difference.

The tested specimen met the requirements of Class CW-PG30 for Water Penetration Resistance Test as per AAMA/WDMA/CSA 101/I.S.2/A440-22 and CSA A440S1-25.

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Test Report

Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

Appendix B: Test Data

B.4 Uniform Load Deflection Test – Test method ASTM E330/E330M-2014, Procedure A

Span length, L1 = 1410 mm (Point: #1-3 for Handle side stile)
Span length, L2 = 700 mm (Point: #3-5 for Bottom rail)
Span length, L3 = 1410 mm (Point: #5-7 for Hinge side stile)

Test Pressure (DP), P = 1440 Pa

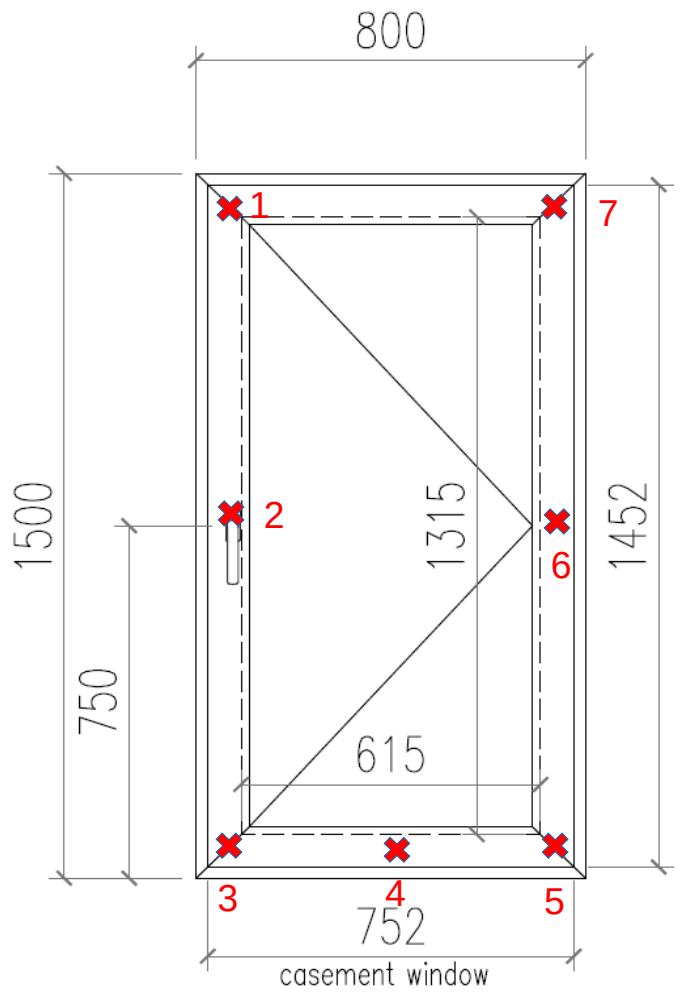


Fig.7 Locations of Displacement Measuring Devices

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Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

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

Table B.3 Test Data of Uniform Load Deflection Test

Member (mm)		Test Pressure (Pa)	Displacement (mm)			Deflection
Item	Span Length		1	2	3	
Handle side stile	1410	+P = +1440	0.8	0.8	0.5	0.2
		0	0.1	0.1	0.1	<0.1
		-P = -1440	0.3	0.5	0.2	0.3
		0	0.1	0.1	0.1	<0.1
Member (mm)		Test Pressure (Pa)	Displacement (mm)			Deflection
Item	Span Length		3	4	5	
Bottom rail	700	+P = +1440	0.5	0.6	0.5	0.1
		0	0.1	0.3	0.4	0.1
		-P = -1440	0.2	0.5	0.4	0.2
		0	0.1	0.2	0.3	<0.1
Member (mm)		Test Pressure (Pa)	Displacement (mm)			Deflection
Item	Span Length		5	6	7	
Hinge side stile	1410	+P = +1440	0.5	0.7	0.3	0.3
		0	0.4	0.3	0.2	0.0
		-P = -1440	0.4	1.4	0.8	0.8
		0	0.3	0.3	0.3	<0.1

Table B.4 Test Data of Uniform Load Deflection Test for Handle side stile

Test Pressure	Positive		Negative	
	Deflection	Perm. Set	Deflection	Perm. Set
Measurements, mm	0.2	<0.1	0.3	<0.1
Deflection limit at design pressure, L1/175=8.06 mm				

Table B.5 Test Data of Uniform Load Deflection Test for Bottom rail

Test Pressure	Positive		Negative	
	Deflection	Perm. Set	Deflection	Perm. Set
Measurements, mm	0.1	0.1	0.2	<0.1
Deflection limit at design pressure, L2/175=4 mm				

Table B.6 Test Data of Uniform Load Deflection Test for Hinge side stile

Test Pressure	Positive		Negative	
	Deflection	Perm. Set	Deflection	Perm. Set
Measurements, mm	0.3	0.0	0.8	<0.1
Deflection limit at design pressure, L3/175=8.06 mm				

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Test Report

Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

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

During each load, no main frame or sash member deflected more than L/175, where L is the length of the unsupported span. And no damage was found, the operation was normal after testing.

The tested specimen met the requirements for Class CW-PG30 for Uniform Load Deflection Test as per AAMA/WDMA/CSA 101/I.S.2/A440-22 and CSA A440S1-25.

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Test Report

Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

Appendix B: Test Data

B.5 Uniform Load Structural Test – Test method ASTM E330/E330M-2014, Procedure A

Design Pressure, P = 1440 Pa ; Structural Pressure, P = 2160 Pa

Table B.7 Test Data of Uniform Load Structural Test

Member (mm)		Test Pressure (Pa)	Permanent deformation(mm)			Net permanent deformation (mm)
Item	Span Length		1	2	3	
Handle side stile	1410	+P = +2160	—	—	—	—
		0	0.2	0.2	0.1	0.1
		-P = -2160	—	—	—	—
		0	0.1	0.1	0.1	<0.1
Member (mm)		Test Pressure (Pa)	Permanent deformation(mm)			Net permanent deformation (mm)
Item	Span Length		3	4	5	
Bottom rail	700	+P = +2160	—	—	—	—
		0	0.1	0.3	0.5	<0.1
		-P = -2160	—	—	—	—
		0	0.1	0.2	0.3	<0.1
Member (mm)		Test Pressure (Pa)	Permanent deformation(mm)			Net permanent deformation (mm)
Item	Span Length		5	6	7	
Hinge side stile	1410	+P = +2160	—	—	—	—
		0	0.5	0.3	0.3	0.1
		-P = -2160	—	—	—	—
		0	0.3	0.2	0.2	0.1

Table B.8 Test Data of Uniform Load Structural Test for Handle side stile

Test Pressure	Perm. Set	
	Positive	Negative
Measurements, mm	0.1	<0.1
Permanent deflection limit, L1*0.3%=4.23 mm		

Table B.9 Test Data of Uniform Load Structural Test for Bottom rail

Test Pressure	Perm. Set	
	Positive	Negative
Measurements, mm	<0.1	<0.1
Permanent deflection limit, L2*0.3%=2.1 mm		

Test Report

Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

Table B.10 Test Data of Uniform Load Structural Test for Hinge side stile

Test Pressure	Perm. Set	
	Positive	Negative
Measurements, mm	0.1	0.1
Permanent deflection limit, L3*0.3%=4.23 mm		

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-PG30 for Uniform Load Structural Test as per AAMA/WDMA/CSA 101/I.S.2/A440-22 and CSA A440S1-25.

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Test Report

Issue Date: 2026/11/17 Intertek Report No. : 260513172GZC-001

Appendix C: Sample Received Photo



Fig.8 Overall view

REPORT AUTHORIZED

When signed with physical or electronic signature, the contents of this report have been prepared and approved per Intertek's quality process in accordance with ISO 17025.

Approved by:	**Prepared by:**
Oliver zhu	Nack He
Name: Oliver Zhu	Name: Nack He
Title: Reviewer	Title: Project Engineer

Revision:

Revision No.	Date	Revision Summary	Author	Reviewer
R0	2026/11/17	Original Report Issue	/	/

End of Test Report