Guangdong Chuanggao Home Technology Co., Ltd

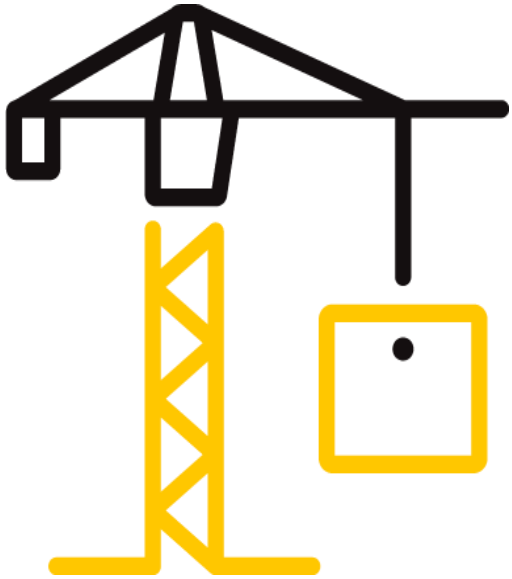
TEST REPORT

SCOPE OF WORK
WINDOWS AND DOORS

REPORT NUMBER
260121109GZC-001

ISSUE DATE
2026/4/21

PAGES
22



Intertek Testing Services Shenzhen Ltd. Guangzhou Branch

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Test Report

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Applicant:	Guangdong Chuanggao Home Technology Co., Ltd
Address:	Shinan Third Ring West Road, Shishan Town, Nanhai District, Foshan City, Guangdong Province
Attn:	wen@chuanggaomc.com

Manufacturer:	Guangdong Chuanggao Home Technology Co., Ltd
Address:	Shinan Third Ring West Road, Shishan Town, Nanhai District, Foshan City, Guangdong Province
Attn:	wen@chuanggaomc.com

Primary designator:	Class CW - PG100: Size Tested 800mm × 1511mm (31.50in. × 59.49in.) - Type C Class CW - PG100: Size Tested 1500mm × 1511mm (59.06n. × 59.49in.) - Type FW
Secondary designator:	Positive Design Pressure = +4800 Pa (+100.25 psf) Negative Design Pressure = -4800 Pa (-100.25 psf) Water penetration resistance test pressure = 720 Pa (15.04 psf)

SUBJECT: Performance testing
< Casement window with Fixed window assembly >

Dear Sir,
This test report for 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/A440-17 (NAFS 2017 - North American Fenestration Standard / Specification for Windows, Doors and Skylights)

SAMPLE ID	MODEL	SPECIFICATION
S260121109GZU.001	CG-AAW-007	2300 mm(Width) × 1511 mm (Height) × 154.5 mm (Thickness)

SAMPLE RECEIVED: 2026/3/11
TESTED FROM: 2026/3/18 TO 2026/3/21

TEST LOCATION: C2-1, Heping Xu, Yongning Street, Zengcheng District, Guangzhou, China.

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Test Report

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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 March 11, 2026.
A full scale sample of Casement window with Fixed window assembly (Model: CG-AAW-007) 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 with Fixed window assembly
Model	CG-AAW-007
Dimension of Window Frame	2300 mm (Width) x1511 mm (Height) x 154.5mm (Thickness)
Dimension of Window Sash	Operable Sash: 751 mm (Width) x 1451 mm (Height) x 79 mm (Thickness)
Aluminum Profile	Model: PC127-01, PC127-05, PC113-04, P19, P18, CG-170-18 Code: 6063-T5 Manufacturer: Foshan Jimao Aluminum Co., Ltd.
Frame Corner Construction Details	45° Mitre-cut, assembly with corner keys and glued
Reinforcement	Strengthen the mullion Material:Galavanized steel pipe Model: 40× 60×2.0mm Supplier: Foshan Yifeng Meterials Co., LTD
Glazing	Dimension: Operable Sash: 630 mm (Width) x1330mm (Height) Structure:48 mm thick, 6 mm +15 mm Argon +6 mm+15 mm Argon +6 mm Tempered triple insulating glass Dimension: Fixed: 1423 mm (Width) x1430mm (Height) Structure:50 mm thick, 8 mm +15 mm Argon +6 mm+15 mm Argon +6 mm Tempered triple insulating glass Supplier: Guangdong Honghua Glass Technology Co., Ltd.
Hardware	Latch lock Model: PH349.00.068RWA2 Transmission Box Model: AGC38.30.066WA5 Lock point Model: ALR23.00.031WA4 Lock Seat Model: ALP13.00.031WA4 Supplier: Shenzhen good Bo window control technology Co., LTD

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Test Report

Issue Date: 2026/4/21 Intertek Report No. : 260121109GZC-001

Table 1 Product Information(Cont.)

Hardware	Angular Drive Model: ACT10.00.021 Back Lock Point Model: ALP15.00.021 Hinge Model: FH19.2216.1T15C38RWA5 Supplier: Shenzhen good Bo window control technology Co., LTD
Weather-strip	Not Applicable
Thermal Break	Model: HKU44, HK39, KH39 Material: PA66GF25 Manufacturer: Fujian Ronghai new material Technology Co., LTD
Drainage	Size: 20 mm x 5 mm Quantity: 2
Gasket	Model: EFK-112-4.2, EFM-166-5.5, ERK084, TGJT007 Material: EPDM Supplier: Taicang Rui Yi plastic manufacturing Co., LTD
Sealant of Glass	Model: SS511B Neutral silicone sealant Material: silicone sealant Supplier: Guangzhou Baiyun Technology Co., LTD
Installation	The rough opening allowed for a 6mm shim space. The perimeter of the tested specimen was fixed by screws every 300mm and sealed with silicone sealant.

The sample ID number was S260121109GZU.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: 2026/4/21 Intertek Report No. : 260121109GZC-001

Test Items, Method and Results：

2 Test Result

Table 2 Test Result

Test Description	Requirements (Class CW-PG100)		Results		Verdict
Operating Force Test (Casement part)	Maximum Force to Initial Movement	155 N	Force to Initial Movement	42 N	Pass
	Maximum Force to Maintain Movement	135 N	Force to Maintain Movement	18 N	
Air Leakage Resistance Test (Casement part)	Maximum air leakage at +75 Pa	0.5 $L/s \cdot m^2$	Air leakage at +75 Pa	0.04 $L/s \cdot m^2$	Pass
	Maximum air leakage at -75 Pa	0.5 $L/s \cdot m^2$	Air leakage at -75 Pa	0.04 $L/s \cdot m^2$	
Air Leakage Resistance Test (Fixed part)	Maximum air leakage at +75 Pa	0.5 $L/s \cdot m^2$	Air leakage at +75 Pa	0.02 $L/s \cdot m^2$	Pass
	Maximum air leakage at -75 Pa	0.5 $L/s \cdot m^2$	Air leakage at -75 Pa	0.02 $L/s \cdot m^2$	
Water Penetration Resistance Test	Minimum water pressure	720 Pa	Test Pressure	720 Pa	Pass
			No water penetration occurred when tested at 720 Pa by the method of cyclic static air pressure difference.		

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Test Report

Issue Date: 2026/4/21 Intertek Report No. : 260121109GZC-001

Table 2 Test Result (Cont.)

Test Description	Requirements (Class CW-PG100)		Results		Verdict
Uniform Load Deflection Test	Design Pressure (DP)	4800 Pa	Test Pressure	4800 Pa	Pass
			Maximum deflection at operable sash handle side stile	2.0 mm	
			Maximum deflection at operable sash bottom rail	0.2 mm	
			Maximum deflection at mullion	1.0 mm	
Uniform Load Structural Test	Structural Test Pressure (STP)	7200 Pa	Test Pressure	7200 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 operable sash handle side stile	0.2 mm	
			Maximum permanent deflection at operable sash bottom rail	0.1 mm	
			Maximum permanent deflection at mullion	0.1 mm	

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Test Report

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Table 2 Test Result (Cont.)

Test Description	Requirements (Class CW-PG100)		Results		Verdict
Sash vertical deflection test (Casement part)	Maximum Sash Vertical Deflection: 2% of sash width	Limited deflection: 15.02 mm	Deflection at 270N	1.02 mm	Pass
			After load removal, the test specimen was properly closed and operated. In addition, there was no glazing breakage.		
Casement hardware load test (Casement part)	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 (Casement part)	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.		
Forced-entry Resistance Test (Fixed part)	Minimum Grade 10		Test Class	Grade 10	Pass
			After test, there was no opening which allows for entrance through the tested specimen.		

Test Report

Issue Date: 2026/4/21 Intertek Report No. : 260121109GZC-001

Appendix A: Sample Drawing

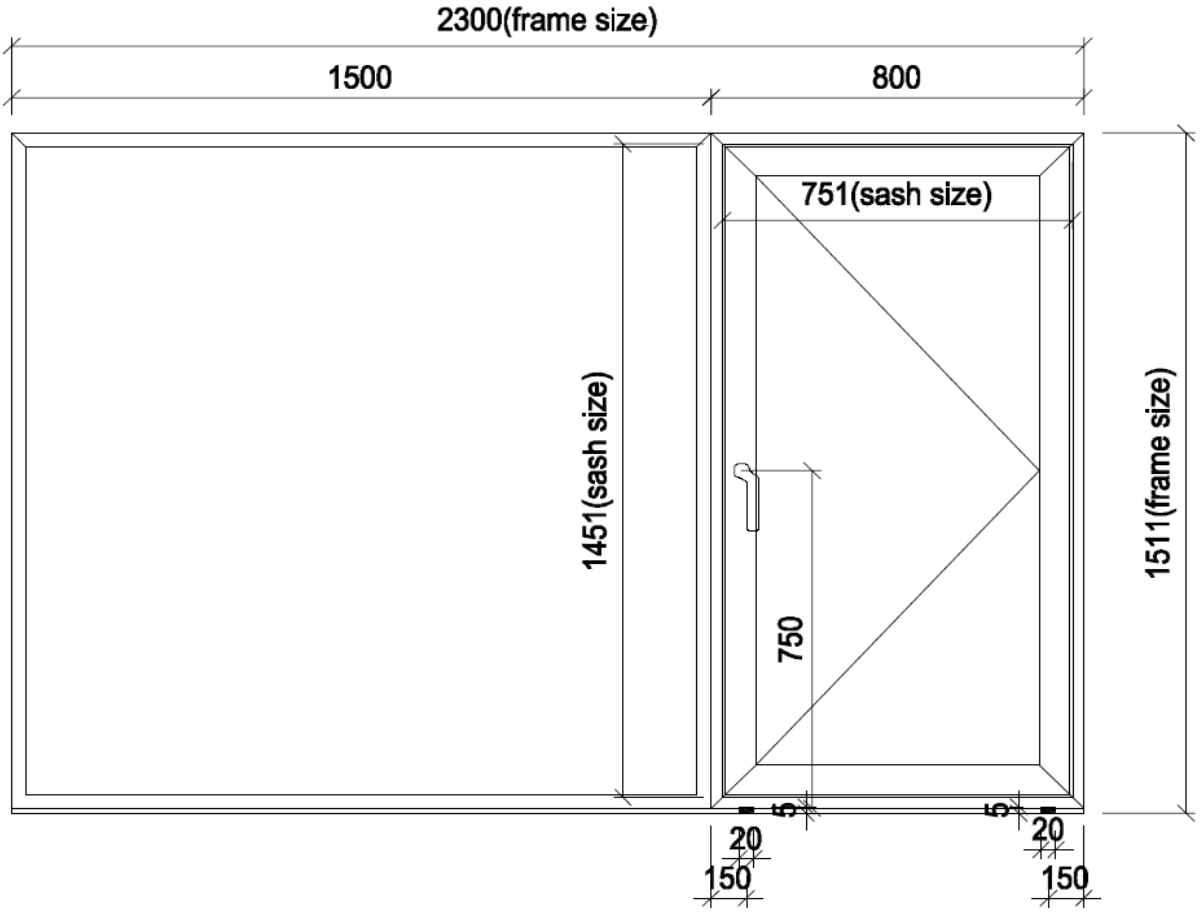

Fig.1 Drawing of Representative Sample (View from indoor)

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Appendix B: Test Data

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

Fixed Window area: 2.27 m^2 (24.43 ft^2)

Table B.1 Test Data of Air Leakage Resistance Test For Fixed Window

	Air Leakage in cfm/ft^2	Air Leakage in $L/s \cdot m^2$
Infiltration rate (75 Pa)	0.004	0.02
Exfiltration rate (75 Pa)	0.004	0.02
Average air leakage rate (75 Pa)	0.004	0.02

The fixed window part of tested specimen met the requirements of Air Leakage Resistance Test as per AAMA/WDMA/CSA 101/I.S.2/A440-17.

Casement Window area: 1.21 m^2 (13.02 ft^2)

Table B.2 Test Data of Air Leakage Resistance Test For Casement Window

	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 casement window part of tested specimen met the requirements of Air Leakage Resistance Test as per AAMA/WDMA/CSA 101/I.S.2/A440-17.

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Test Report

Issue Date: 2026/4/21 Intertek Report No. : 260121109GZC-001

Appendix B: Test Data

B.2 Water resistance test – Test method ASTM E547-2000(R2016)

No water penetration occurred when tested at 720 Pa by the method of cyclic static air pressure difference.

The tested specimen met the requirements of Class CW-PG100 for Water Penetration Resistance Test as per AAMA/WDMA/CSA 101/I.S.2/A440-17.

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Test Report

Issue Date: 2026/4/21 Intertek Report No. : 260121109GZC-001

B.3 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 (mm)
Item	Span Length		1	2	3	
Operable sash handle side stile	1420	+P = +4800	2.6	3.9	2.5	1.4
		0	0.0	0.0	0.0	<0.1
		-P = -4800	1.0	3.0	1.1	2.0
		0	0.2	0.2	0.2	<0.1
Member (mm)		Test Pressure (Pa)	Displacement (mm)			Deflection (mm)
Item	Span Length		3	4	5	
Operable sash bottom rail	690	+P = +4800	2.5	2.0	1.1	0.2
		0	0.0	0.0	0.1	0.1
		-P = -4800	1.1	1.4	1.6	0.1
		0	0.2	0.3	0.3	0.1
Member (mm)		Test Pressure (Pa)	Displacement (mm)			Deflection (mm)
Item	Span Length		6	7	8	
Mullion	1470	+P = +4800	0.3	1.5	0.8	1.0
		0	0.1	0.0	0.0	0.1
		-P = -4800	0.9	1.5	0.8	0.7
		0	0.1	0.1	0.1	<0.1

Table B.4 Test Data of Uniform Load Deflection Test for Operable sash handle side stile

Test Pressure	Positive		Negative	
	Deflection	Perm. Set	Deflection	Perm. Set
Measurements (mm)	1.4	<0.1	2.0	<0.1
Deflection limit at design pressure, L1/175=8.11 mm				

Table B.5 Test Data of Uniform Load Deflection Test for Operable sash bottom rail

Test Pressure	Positive		Negative	
	Deflection	Perm. Set	Deflection	Perm. Set
Measurements (mm)	0.2	0.1	0.1	0.1
Deflection limit at design pressure, L2/175=3.94 mm				

Table B.6 Test Data of Uniform Load Deflection Test for Mullion

Test Pressure	Positive		Negative	
	Deflection	Perm. Set	Deflection	Perm. Set
Measurements (mm)	1.0	0.1	0.7	<0.1
Deflection limit at design pressure, L3/175=8.4 mm				

Test Report

Issue Date: 2026/4/21 Intertek Report No. : 260121109GZC-001

B.3 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-PG100 for Uniform Load Deflection Test as per AAMA/WDMA/CSA 101/I.S.2/A440-17.

Test Report

Issue Date: 2026/4/21 Intertek Report No. : 260121109GZC-001

Appendix B: Test Data

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

Design Pressure, P = 4800 Pa ; Structural Pressure, P = 7200 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	
Operable sash handle side stile	1420	+P = +7200	—	—	—	—
		0	0.2	0.3	0.1	0.2
		-P = -7200	—	—	—	—
		0	0.3	0.3	0.3	<0.1
Member (mm)		Test Pressure (Pa)	Permanent deformation (mm)			Net permanent deformation (mm)
Item	Span Length		3	4	5	
Operable sash bottom rail	690	+P = +7200	—	—	—	—
		0	0.1	0.2	0.2	0.1
		-P = -7200	—	—	—	—
		0	0.3	0.6	0.8	0.1
Member (mm)		Test Pressure (Pa)	Permanent deformation (mm)			Net permanent deformation (mm)
Item	Span Length		6	7	8	
Mullion	1470	+P = +7200	—	—	—	—
		0	0.2	0.2	0.1	0.1
		-P = -7200	—	—	—	—
		0	0.3	0.2	0.1	<0.1

Table B.8 Test Data of Uniform Load Structural Test for Operable sash handle side stile

Test Pressure	Perm. Set	
	Positive	Negative
Measurements (mm)	0.2	<0.1
Permanent deflection limit, L1*0.3%=4.26 mm		

Table B.9 Test Data of Uniform Load Structural Test for Operable sash bottom rail

Test Pressure	Perm. Set	
	Positive	Negative
Measurements (mm)	0.1	0.1
Permanent deflection limit, L2*0.3%=2.07 mm		

Test Report

Issue Date: 2026/4/21 Intertek Report No. : 260121109GZC-001

Table B.10 Test Data of Uniform Load Structural Test for Mullion

Test Pressure	Perm. Set	
	Positive	Negative
Measurements (mm)	0.1	<0.1
Permanent deflection limit, L3*0.3%=4.41 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-PG100 for Uniform Load Structural Test as per AAMA/WDMA/CSA 101/I.S.2/A440-17.

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Test Report

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Appendix C: Sample Received Photo

Fig.9 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	2026/4/21	Original Report Issue	/	/

End of Test Report