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Guangdong ACG Windows & Doors & Curtain Wall Co. Ltd

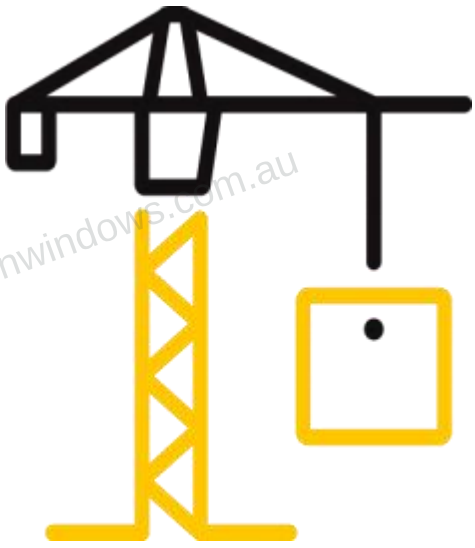
TEST REPORT

SCOPE OF WORK
Window and Door

REPORT NUMBER
220223081GZU-004

ISSUE DATE
2022/4/7

PAGES
17



Intertek Testing Services Shenzhen Ltd. Guangzhou Branch

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Test Report

Issue Date: 2022/4/7 Intertek Report No. 220223081GZU-004

Applicant:	Guangdong ACG Windows & Doors & Curtain Wall Co. Ltd
Applicant Address:	GuTangNorth Road Dawang High tech Industrial Zone, Zhaoqing, Guangdong, China.
Attn:	Xinfang Zhang

Manufacturer:	/
Manufacturer Address:	/
Attn:	/

SUBJECT: Performance testing
< ACG100-100 Sliding Door >

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
AS 2047:2014 Windows and external glazed doors in buildings

SAMPLE ID	MODEL	SPECIFICATION
S220223081GZU.004	ACG100-100 Sliding Door	5400 mm (Width) × 2650 mm (Height) × 118 mm (Thickness)

SAMPLE RECEIVED: 2022/2/23
TESTED FROM: 2022/3/9 TO 2022/3/10

TEST LOCATION: C2 - 1 Building Heping Fair, Yongning Street, Zengcheng District, Guangzhou, China

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Test Items, Method and Results:

1 Test Samples

A full scale of sample 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

1	Product Name	ACG100-100 Sliding Door
2	Model	ACG100-100 Sliding Door
3	Dimension of Door Frame	5400mm (Width) x2650mm (Height) x 118 mm (Thickness)
4	Dimension of Door Sash	Operable Sash: 1350 (Width) x 2550 mm (Height) x 40mm (Thickness) quantity: 2 Fixed Sash: 1350 (Width) x 2550 mm (Height) x 40mm (Thickness) quantity: 2
5	Aluminum Profile	Model: ACG100-100 Manufacturer: Guangdong ACG Windows & Doors & Curtain Wall Co. Ltd
6	Frame Corner Construction Details	Mechanically assembled: Screw: ST4.2*35
7	Reinforcement	None
8	Glazing	Operable Sash: 1275(Width) x 2420 mm (Height), quantity: 2 Fixed Sash: 1275(Width) x 2550 mm (Height) , quantity: 2 Structure: 6 mm+12A+6 mm tempered double glazing Supplier: XIYI
9	Hardware	Model: ZCDG421-1500 & ZTLS1320 & ZMHL4410 Supplier: KINLONG
10	Weather- strip	Model: 6*8, 7*15 Material: wool top Supplier: LiDe
11	Thermal Break	Model: C14.8 Material: PA66+25%F Supplier: Yile
12	Drainage	Sizes: 40mmx 8 mm (Width x Height) quantity: 15
13	Gasket (between sash and frame)	Material: EPDM Supplier: haiDa
14	Sealant of Glass	Model: ss511 Neutral silicone sealant Material: silicone sealant Supplier: baiyun
15	Installation	The rough opening allowed for a 10 mm shim space. The exterior perimeter of the test specimen was sealed with silicone sealant.

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Test Items, Method and Results:

2 Test Result

Table 2 Test Results

Test Description	Test Result				Rating	Verdict
Deflection / Span Ratio AS/NZS 4420. 1-2016 section 3	Serviceability Design Wind Pressure		± 600 Pa		N3 (General)	Pass
	Structural member #1: ***Fixed sash stile***		1/2117			
	Structural member #2: ***Interlocking stile***		1/251			
	Structural member #3: ***Stile at handle side***		1/977			
Operating Force AS/NZS 4420. 1-2016 section 4	Left sliding sash	Initial Movement Requirement: < 180N	Open	172N	/	Pass
			Close	135N		
		Maintain Movement Requirement: < 110N	Open	106N		
			Close	89N		
	Right sliding sash	Initial Movement Requirement: < 180N	Open	164N		
			Close	133N		
		Maintain Movement Requirement: < 110N	Open	105N		
			Close	88N		
Air Infiltration at ±75 Pa AS/NZS 4420. 1-2016 section 5	Overall area: 14.31 m^2	at +75Pa:	1.24	$L/s \cdot m^2$	High	Pass
		at -75Pa:	1.45	$L/s \cdot m^2$		
Water Penetration AS/NZS 4420. 1-2016 section 6	No water penetration at:		200 Pa		N4 (Non-exposed) N3 (Exposed)	Pass
	Description: Water kept splashing into interior from the joint of the aluminum profile and door sash at sliding sash side when spraying at 300 Pa.					

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Table 2 Test Results (Cont.)

Test Description	Test Result			Rating	Verdict
Ultimate Strength Test AS/NZS 4420. 1-2016 section 7	±	2000	Pa with no collapse	N4 (General)	Pass
	Description: No significant breakage, permanent deformation or operational malfunction after ultimate strength was released.				

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Appendix A: Test Data and Sample Drawings:

A.1 Deflection Test – Test method AS/NZS 4420.1-2016

Test Pressure (Serviceability design wind pressure), P=600 Pa, rating N3 (General).

Note : No structural members in a completely assembled and glazed window shall deflect by an amount greater than the following, when tested at the serviceability design wind pressure:

(a) Span/250 for windows and sliding doors

(b) Span/100 for doors other than sliding

Table 3 Test Data of Deflection Test

Member (mm)		Test Pressure (Pa)	Displacement(mm)			Actual Deflection	Deflection/ Span Ratio
Item	Span Length		1	2	3		
Fixed sash stile	2540	+P/4=150	0.1	0.2	0.1	0.1	/
		+2P/4=300	0.1	0.5	0.1	0.4	/
		+3P/4=450	0.1	0.9	0.1	0.8	/
		+4P/4=600	0.4	1.4	0.1	1.2	1:2117
		0	0.1	0.1	0.3	0.1	/
Fixed sash stile	2540	-P/4=-150	0.2	0.2	0.1	0.1	/
		-2P/4=-300	0.1	0.5	0.1	0.4	/
		-3P/4=-450	0.1	1.0	0.1	0.9	/
		-4P/4=-600	0.3	1.2	0.1	1.0	1:2540
		0	0.0	0.0	0.0	<0.1	/

Table 4 Test Data of Deflection Test

Member (mm)		Test Pressure (Pa)	Displacement(mm)			Actual Deflection	Deflection/ Span Ratio
Item	Span Length		4	5	6		
Interlocking stile	2540	+P/4=150	0.3	2.2	0.1	2.0	/
		+2P/4=300	1.0	5.0	0.3	4.4	/
		+3P/4=450	1.7	8.4	0.7	7.2	/
		+4P/4=600	2.4	11.9	1.3	10.1	1:251
		0	0.6	0.2	0.0	0.3	/
Interlocking stile	2540	-P/4=-150	0.4	2.0	0.0	1.8	/
		-2P/4=-300	1.3	4.6	0.2	3.9	/
		-3P/4=-450	1.9	7.3	0.4	6.2	/
		-4P/4=-600	2.5	10.3	0.6	8.8	1:289
		0	0.0	0.1	0.0	0.1	/

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A.1 Deflection Test – Test method AS/NZS 4420.1-2016 (Cont.)

Table 5 Test Data of Deflection Test

Member (mm)		Test Pressure (Pa)	Displacement(mm)			Actual Deflection	Deflection/ Span Ratio
Item	Span Length		7	8	9		
Stile at handle side	2540	+P/4=150	0.8	1.3	0.6	0.6	/
		+2P/4=300	1.8	2.7	1.2	1.2	/
		+3P/4=450	3.0	4.4	2.2	1.8	/
		+4P/4=600	4.0	6.2	3.3	2.6	1:977
		0	0.1	0.1	0.6	0.3	/
Stile at handle side	2540	-P/4=-150	1.7	1.8	0.6	0.7	/
		-2P/4=-300	3.9	4.2	1.9	1.3	/
		-3P/4=-450	5.6	6.4	3.1	2.1	/
		-4P/4=-600	6.7	7.6	3.5	2.5	1:1016
		0	0.0	0.0	0.0	<0.1	/

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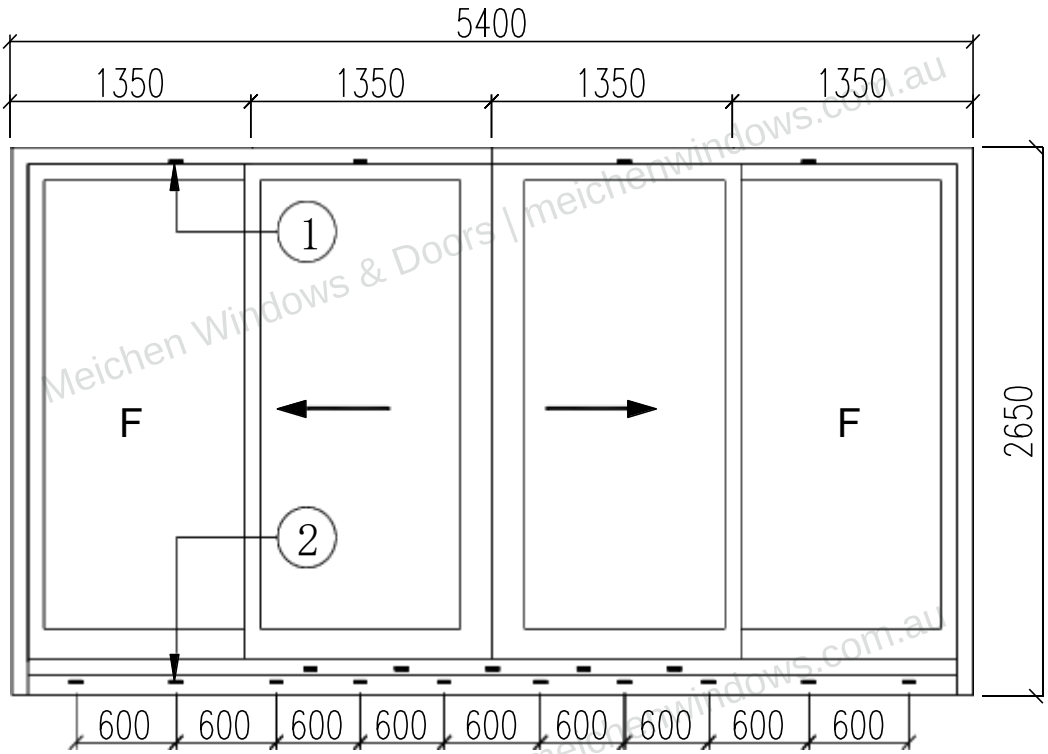
A. 2 Sample Drawings



① pressure- relief vent ② drainage location

Fig. 1 Drawing of Representative Sample (View from the interior)

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APPENDIX : SAMPLE RECEIVED PHOTO

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 Ziqing Chen

Name: Oliver Zhu
Title: Reviewer

Name: Ziqing Chen
Title: Project Engineer

Revision:

Report No.	Date	Revision Reason	Revision Summary	Author	Reviewer
220223081GZU-004	2022/4/7	/	First issue	Ziqing Chen	Oliver Zhu

End of Test Report

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