TEST REPORT

REPORT NUMBER

ISSUE DATE
2018/6/4

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15

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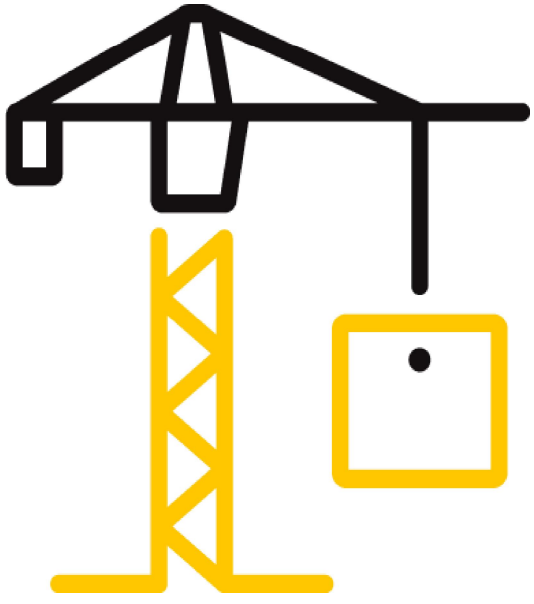

Intertek Testing Services Ltd., Shanghai
Plant 5, No. 6958 Daye Road, Fengxian District, Shanghai, China
Tel: 021-61136116 Fax: 021-61189921
Website: www.intertek.com

Test Report

Issue Date: 2018/6/4 Intertek Report No. 180518009HF-BP-1

Applicant:
Applicant Address:

Attn: Vivi
SUBJECT: Performance testing
Aluminum window

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 (Amdt 2-2017)

SAMPLE ID	MODEL	SPECIFICATION
S180518009SHF.001	Awning+fix (SP100T)	1500 mm (W) x 3130 mm (H)

SAMPLE RECEIEVED: 2018/5/17
TESTED FROM: 2018/5/22 TO 2018/5/23

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Total Quality. Assured.

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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	CHAIN WINDER AWNING+Fix
2	Model	SPA100T-AWNING
3	Dimension of Window Frame	1500mmx3010mm (WxH)
4	Dimension of Window Sash	Operable sash 1: 631 mmx1539mm (WxH) x2 Fixed sash 1: 675 mm x 1440 mm (WxH) x2
5	Profile (Aluminum or other)	Model: 6063-T5 Manufacturer: Guangya Aluminium
6	Frame Corner Construction Details: Joinery type	Mechanically assembled: Glued & Aluminum corner.
7	Reinforcement	None
8	Glazing	Dimension: Operable: 499 mm(W) x 1407 mm(H) x2 Fixed: 577 mm(W) x 1355 mm(H) x2 Structure: 24 mm thickness, 6 mm+12 mmAir+6 mm Supplier: shanghai SPY engineering Glass Co.,ltd
9	Hardware	Specify type: Chain winder and hinge Model: DS1177 Supplier: Australia Doric
10	Weather Bar	Model: SPWB Supplier: KINGLONG
11	Thermal Break	Technoform
12	Drainage	Sizes: 30 mmx6 mm quantity: 4 units
13	Gasket (between leaf and frame)	Model: SBW-24226 Material: EPDM Supplier: KINGLONG
14	Sealant of Glass	Model: Neutral Plus Supplier: Dow Corning
15	Installation	The rough opening allowed for a 1/4" shim space.The exterior perimeter of the test specimen was sealed with silicon sealant.

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Test Items, Method and Results：

2 Test Result

Table 2 Test Results

Test Description	Test Result		
Serviceability Design Wind Pressure AS/NZS 4420.1-2016 section 3	±	1600	Pa
Deflection / Span Ratio Framing member 1	Stile	1/842	
Deflection / Span Ratio Framing member 2	Rail at handle side	1/300	
Deflection / Span Ratio Framing member 3	Mullion	1/1059	
Operating Force AS/NZS 4420.1-2016 section 4	Initial Movement	13	N
	Maintain Movement	4	N
Air Infiltration at ±75 Pa AS/NZS 4420.1-2016 section 5	at +75Pa	0.47	$L/s \cdot m^2$
Overall area: 4.70 m^2	at -75Pa	0.54	$L/s \cdot m^2$
Air Infiltration at ±75 Pa AS/NZS 4420.1-2016 section 5	at +75Pa	1.10	$L/s \cdot m^2$
Operable area: 1.94 m^2	at -75Pa	1.26	$L/s \cdot m^2$
Water Penetration AS/NZS 4420.1-2016 section 6	No water penetration at	200	Pa or less
	Description: After sprayed for 10 minutes at 300 Pa, the water penetration started at the rotary operator.		
Ultimate Strength Test Pressure AS/NZS 4420.1-2016 section 7	+	3000	Pa with no collaspe
	-	3000	Pa with no collaspe
	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 = 1600 Pa, rating N6

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)	Deflection (mm)			Actual Deflection	Deflection /Span Ratio
Item	Span Length		1	2	3		
Stile	1515	+P/4 = 400	0.3	0.9	1.1	0.4	1:3788
		+2P/4 = 800	0.6	1.7	2.1	0.8	1:1894
		+3P/4 = 1200	1.1	2.8	3.4	1.2	1:1263
		+4P/4 = 1600	1.5	3.8	4.7	1.6	1:947
		0	0.2	0.3	0.2	0.1	1:15150
Stile	1515	-P/4 = -400	0.4	1.0	1.2	0.4	1:3788
		-2P/4 = -800	0.7	2.1	2.5	0.9	1:1683
		-3P/4 = -1200	1.3	3.4	4.0	1.4	1:1082
		-4P/4 = -1600	2.0	4.8	5.6	1.8	1:842
		0	0.2	0.3	0.3	0.1	1:15150

Table 4 Test Data of Deflection Test

Member (mm)		Test Pressure (Pa)	Deflection (mm)			Actual Deflection	Deflection /Span Ratio
Item	Span Length		3	4	5		
Rail at handle side	600	+P/4 = 400	1.1	0.7	0.2	0.5	1:1200
		+2P/4 = 800	2.1	1.3	0.3	0.9	1:667
		+3P/4 = 1200	3.4	2.0	0.5	1.5	1:400
		+4P/4 = 1600	4.7	2.8	0.7	2.0	1:300
		0	0.2	0.1	0.1	0.1	1:6000
Rail at handle side	600	-P/4 = -400	1.2	0.7	0.2	0.5	1:1200
		-2P/4 = -800	2.5	1.5	0.5	1.0	1:600
		-3P/4 = -1200	4.0	2.5	1.2	1.4	1:429
		-4P/4 = -1600	5.6	3.8	2.3	1.7	1:353
		0	0.2	0.2	0.2	<0.1	<1:6000

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Table 5 Test Data of Deflection Test

Member (mm)		Test Pressure (Pa)	Deflection (mm)			Actual Deflection	Deflection /Span Ratio
Item	Span Length		6	7	8		
Mullion	2965	+P/4 = 400	0.5	1.0	0.3	0.6	1:4942
		+2P/4 = 800	0.7	1.8	0.6	1.2	1:2471
		+3P/4 = 1200	1.0	2.9	0.9	2.0	1:1483
		+4P/4 = 1600	1.3	4.0	1.2	2.8	1:1059
		0	0.5	1.1	0.3	0.7	1:4236
Mullion	2965	-P/4 = -400	0.2	0.4	0.1	0.3	1:9883
		-2P/4 = -800	0.5	1.5	0.4	1.1	1:2695
		-3P/4 = -1200	1.0	2.6	0.8	1.7	1:1744
		-4P/4 = -1600	1.5	3.9	1.1	2.6	1:1140
		0	0.3	0.4	0.2	0.2	1:14825

A.2 Sample Drawings

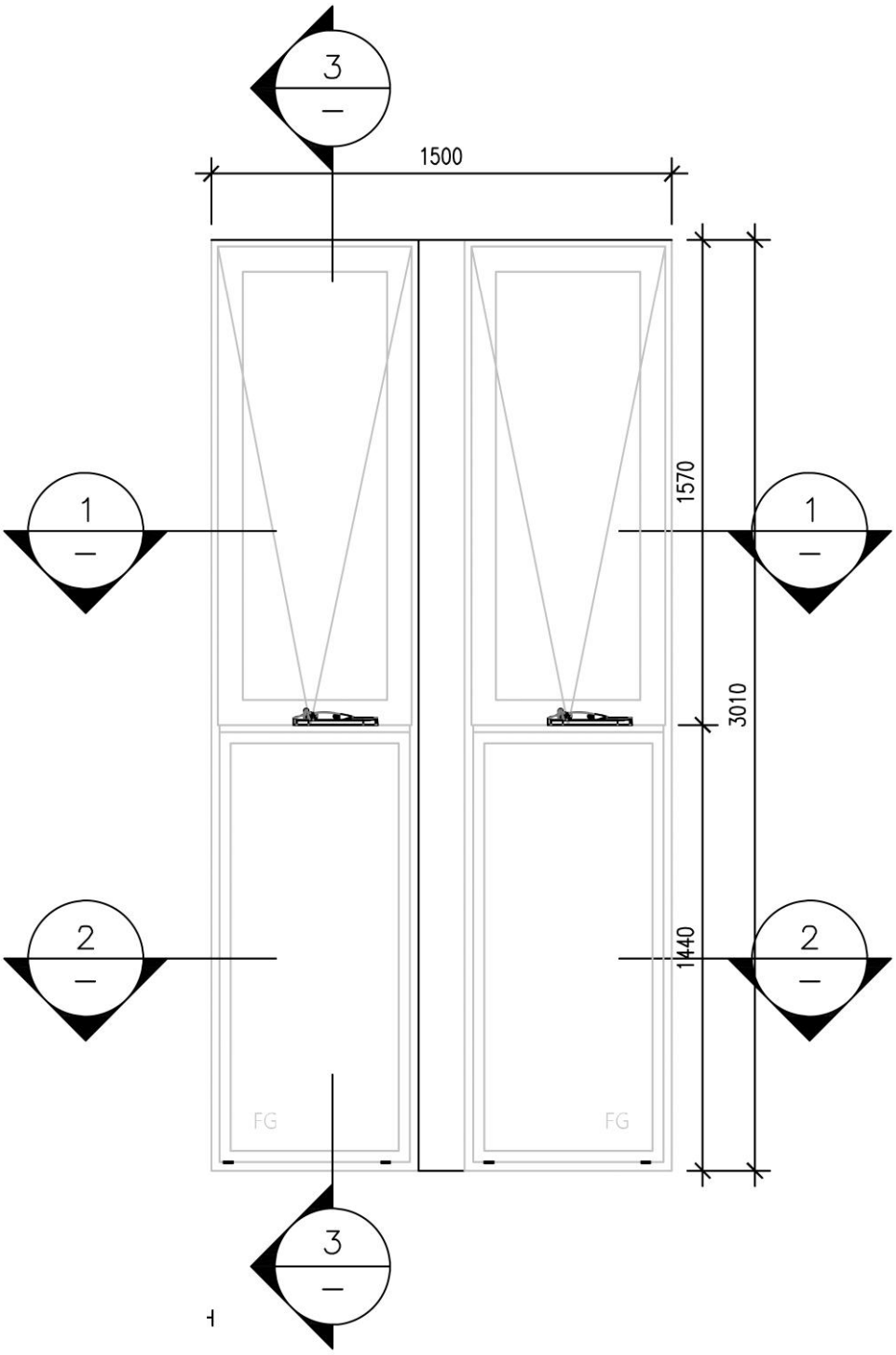

Fig.1 Drawing of Representative Sample

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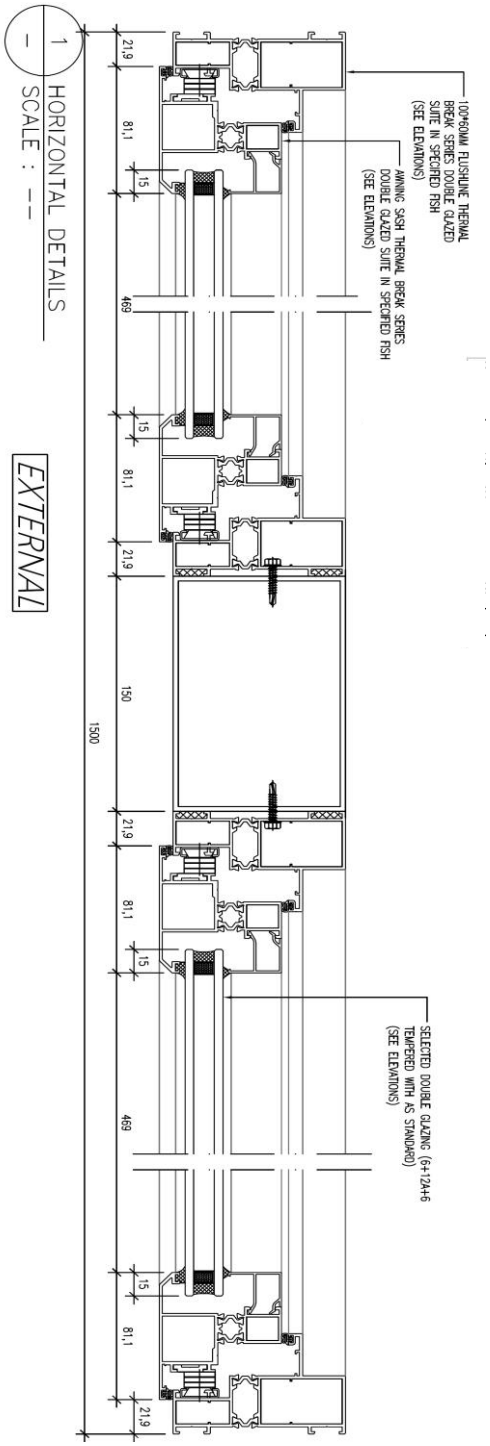

Fig.2 Drawing of Representative Sample

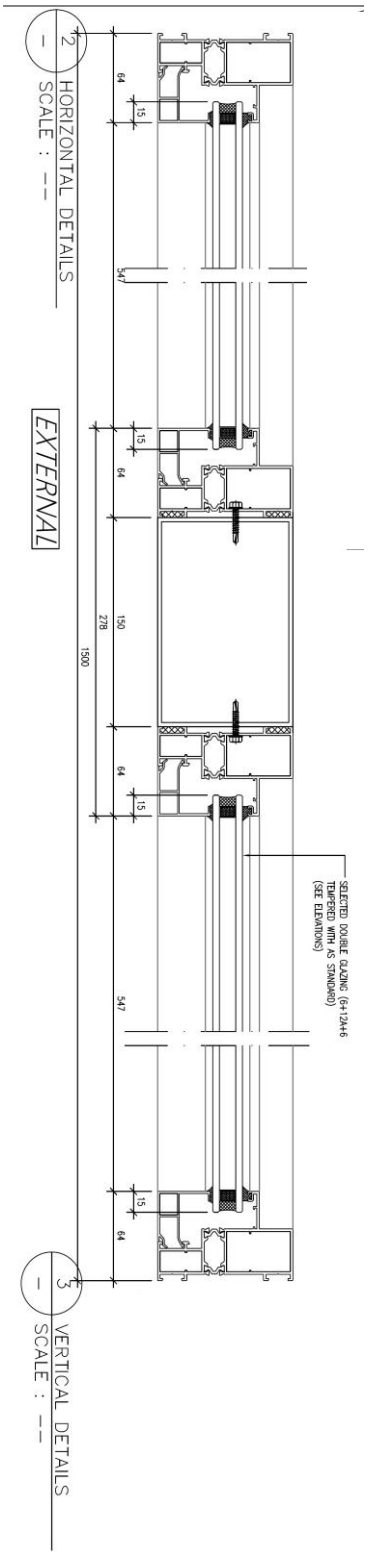

Fig.3 Drawing of Representative Sample

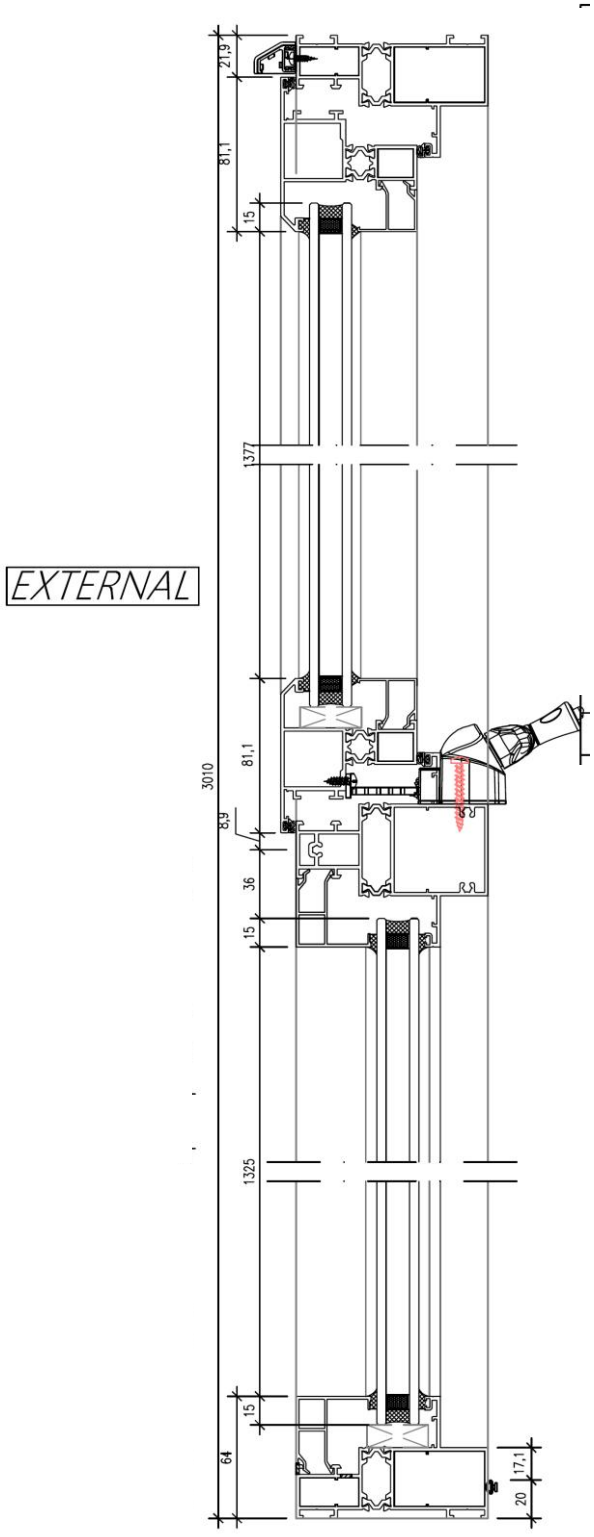

Fig.4 Drawing of Representative Sample

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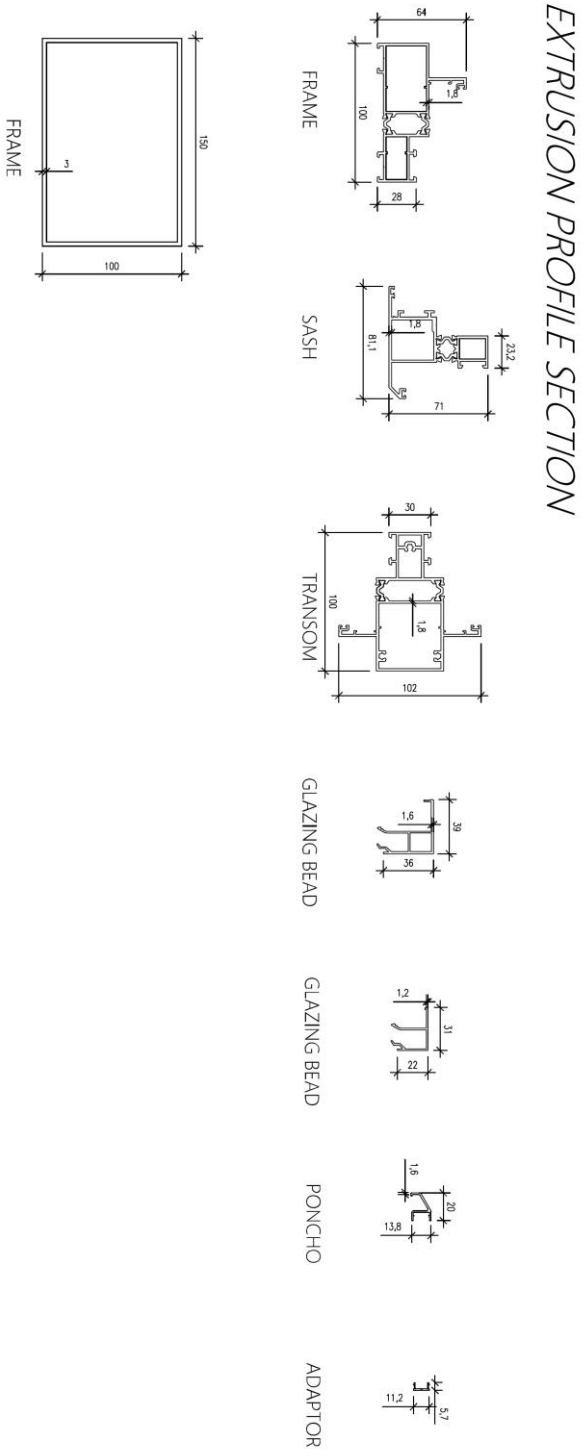

Fig.5 Drawing of Representative Sample

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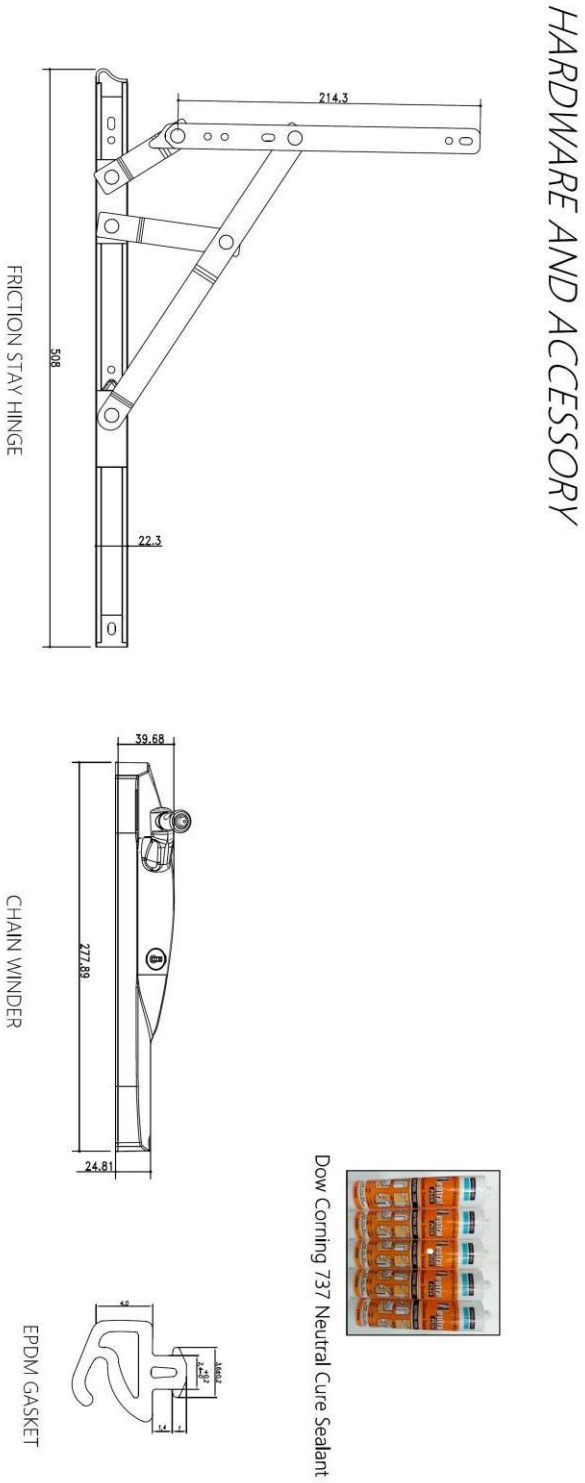


Fig.6 Drawing of Representative Sample

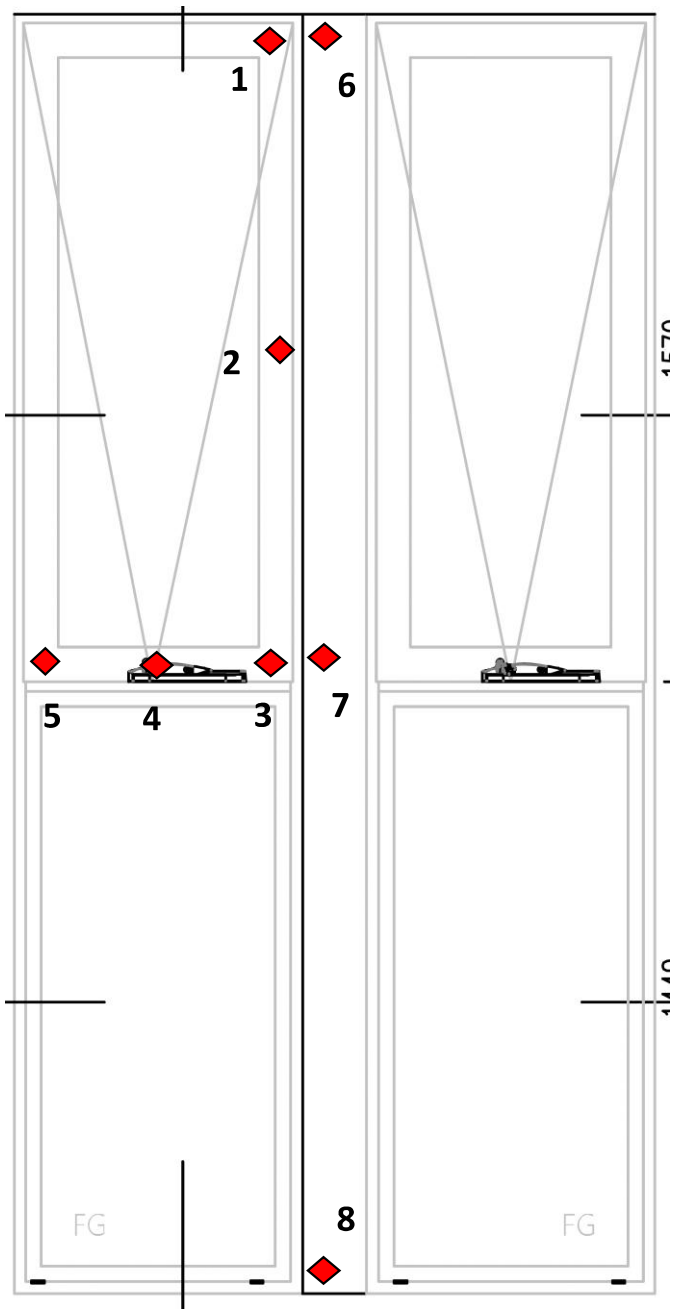
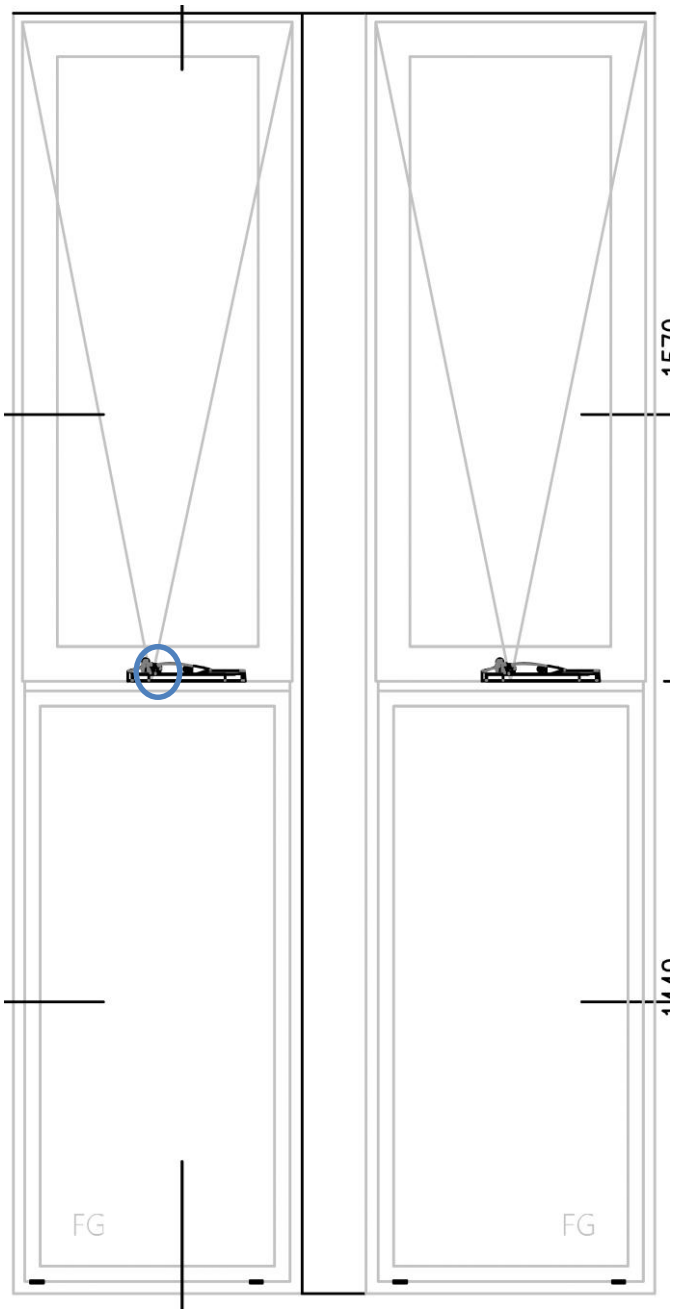


Fig.7 Locations of Displacement Measuring Devices



○ : Water penetration position

Fig.8 Location of Water Penetration

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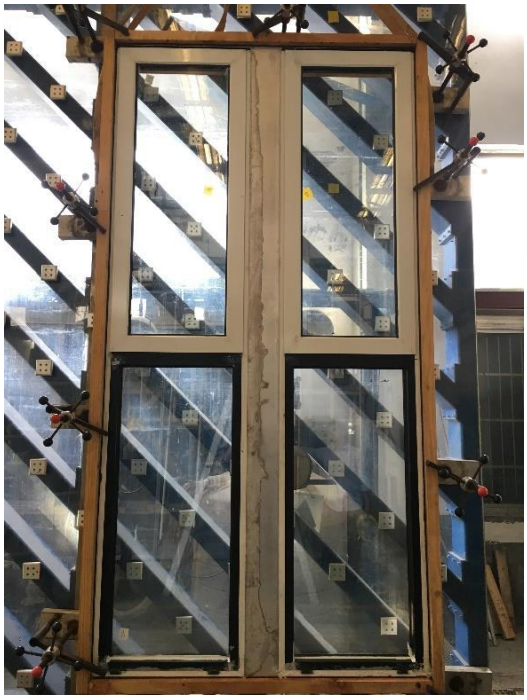
APPENDIX: SAMPLE RECEIVED PHOTO



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.

Name: Weber Wang Name: Zac Zhang

Title: Reviewer Title: Project Engineer

Revision:

NO.	DATE	CHANGES	AUTHOR	REVIEWER
180518009HF-BP-1	2018/6/4	First issue	Zac Zhang	Weber Wang