

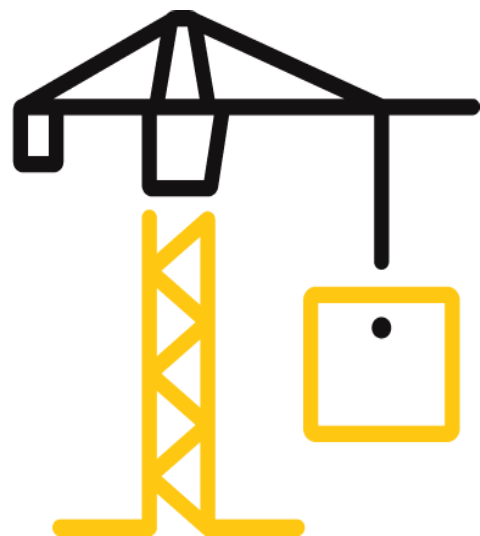
Multi-Pod (NZ) Limited

TEST REPORT

REPORT NUMBER
190910159GZU-002

ISSUE DATE
2019/11/13

PAGES
16



Test Report

Issue Date: 2019/11/13 Intertek Report No. 190910159GZU-002

Applicant: Multi-Pod (NZ) Limited

Applicant Address: 20 Oxford Street, Richmond, Nelson, 7020, New Zealand

Attn: Mr. Tony Frost

Manufacturer: ZhongShan BuildHome Building Materials Co., Ltd

Manufacturer Address: No.29 ShunJing Industrial Rd., BanFu Town ZhongShan GuangDong China 528459

Attn: Jacky Zhong

SUBJECT: Performance testing
<100mm 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 |
|--|
| Refer to NZS 4211: 2008 - Specification for performance of windows (Amdt 1-2014) |

| SAMPLE ID | MODEL | SPECIFICATION |
|----------------|-------------|--|
| S190910159-002 | BHDQ-3-SL-2 | 3650 mm (Width) x2400 mm (Height) x 114.5 mm (Thickness) |

SAMPLE RECEIVED: 2019/9/10
TESTED FROM: 2019/9/18 TO 2019/9/20

Test lab address: Room 4103 & 4203, No. 63, Punan Road, Huangpu District, Guangzhou, Guangdong Province, China

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Test Items, Method and Results:

1 Test Samples

A full scale sample of 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 | 100mm Sliding Door |
| 2 | Model | BHDQ-3-SL-2 |
| 3 | Dimension of Door Frame | 3650 mm (Width) x2400 mm (Height) x 113 mm (Thickness) |
| 4 | Dimension of Sash | Operable Sash: 929mm (Width) x 2286 mm (Height) x 83.5mm (Thickness), quantity: 2 Fixed Sash: 929mm (Width) x 2286 mm (Height) x 83.5mm (Thickness), quantity: 2 |
| 5 | Aluminum Profile | Model:SPEC100 Manufacturer: Guangdong xingfa |
| 6 | Frame Corner Construction Details: Joinery type | Mechanically assembled: Glued & screwed |
| 7 | Reinforcement | Not applicable |
| 8 | Glazing | Dimension: 788(Width) x 2145 mm (Height) quantity: 4 Structure: 5mm+1.14PVB+5mm+12A+6mm tempered double glazing Supplier: Guangdong SunGlass |
| 9 | Hardware | Specify type: Sliding door lock Model: Y2LSGS03 Supplier: KING LONG |
| 10 | Weather-strip | None |
| 11 | Thermal Break | Model : GRJ01 Supplier: Ke Yuan |
| 12 | Drainage | Sizes: 30mmx 8mm (Width x Height) quantity: 14 Sizes: 50mmx 8mm (Width x Height) quantity: 8 |

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| | | |
|----|---------------------------------------|---|
| 13 | Gasket (between leaf and frame) | Model: QL3150 Material: PU SPONGE Model: EP52502D, EP4855A Material: EPDM Supplier: WINGKAY |
| 14 | Sealant of Glass | Model: SS550 Material: silicone sealant Supplier: GuangDong BaiYun |
| 15 | Installation | 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 | | Rating | Verdict | |
|---|---|-----------|---------------------|---------|------|
| Serviceability Design Wind Pressure AS/NZS 4420.1-2016 section 3 | ± 3600 Pa | | / | Pass | |
| Deflection / Span Ratio Framing member 1 | Stile at handle side | 1/237 | | | |
| Deflection / Span Ratio Framing member 2 | Mullion | 1/234 | | | |
| Operating Force AS/NZS 4420.1-2016 section 4 | Initial Movement Requirement: <180N | Open | 88 n | / | Pass |
| | | Close | 73 N | | |
| | Maintain Movement Requirement: <110N | Open | 77 N | | |
| | | Close | 65 N | | |
| Air Infiltration at ±150 Pa Overall area: 8.76 m ² AS/NZS 4420.1-2016 section 5 | at +150Pa | 14.09 L/s | Non air conditioned | Pass | |
| | at -150Pa | 25.14 L/s | | | |
| Water Penetration AS/NZS 4420.1-2016 section 6 | No water penetration at: | 455 Pa | Extra High | Pass | |
| | Description: No water penetration at 455 Pa. | | | | |
| Ultimate Strength Test AS/NZS 4420.1-2016 section 7 | ± 3600 Pa with no collapse | | / | Pass | |
| | Description: No significant breakage, permanent deformation or operational malfunction after ultimate strength was released. | | | | |
| Torsional Strength NZS 4211-2008 section 11 and appendix A | Maximum deflection | / mm | Not Applicable | N/A | |

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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=3600 Pa.

Unless a smaller value of allowable deflection is separately specified for windows that are subject to specific design, in buildings requiring specific design, the maximum deflection due to bending of any structural member, including the outer window frame, measured relative to the end of the member at the serviceability limit state shall not exceed span/200 of the span.

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 at handle side | 2060 | +P/4=900 | 6.5 | 5.2 | 2.0 | 2.3 | / |
| | | +2P/4=1800 | 8.9 | 8.4 | 2.9 | 3.0 | / |
| | | +3P/4=2700 | 11.1 | 11.7 | 4.0 | 4.2 | / |
| | | +4P/4=3600 | 13.2 | 14.7 | 5.0 | 5.6 | 1:368 |
| | | 0 | 0.8 | 0.6 | 0.5 | 0.2 | / |
| Stile at handle side | 2060 | -P/4=-900 | 8.1 | 7.5 | 2.7 | 2.7 | / |
| | | -2P/4=-1800 | 12.6 | 12.6 | 4.7 | 4.0 | / |
| | | -3P/4=-2700 | 17.7 | 18.2 | 6.8 | 6.0 | / |
| | | -4P/4=-3600 | 24.4 | 25.5 | 9.2 | 8.7 | 1:237 |
| | | 0 | 0.7 | 0.6 | 0.6 | 0.1 | / |

Table 4 Test Data of Deflection Test

| Member (mm) | | Test Pressure (Pa) | Deflection(mm) | | | Actual Deflection | Deflection/Span Ratio |
|-------------|-------------|--------------------|----------------|------|-----|-------------------|-----------------------|
| Item | Span Length | | 4 | 5 | 6 | | |
| Mullion | 2060 | +P/4=900 | 5.3 | 4.3 | 1.2 | 2.1 | / |
| | | +2P/4=1800 | 7.8 | 7.3 | 2.0 | 2.9 | / |
| | | +3P/4=2700 | 9.8 | 10.0 | 2.8 | 3.7 | / |
| | | +4P/4=3600 | 11.5 | 12.8 | 3.6 | 5.3 | 1:389 |
| | | 0 | 0.5 | 0.4 | 0.3 | 0.1 | / |
| Mullion | 2060 | -P/4=-900 | 7.0 | 5.1 | 1.2 | 2.9 | / |
| | | -2P/4=-1800 | 10.6 | 8.3 | 2.0 | 4.3 | / |
| | | -3P/4=-2700 | 14.5 | 12.1 | 3.0 | 5.8 | / |
| | | -4P/4=-3600 | 21.6 | 17.5 | 4.1 | 8.8 | 1:234 |
| | | 0 | 0.8 | 0.5 | 0.1 | 0.4 | / |

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A.2 Air infiltration test – Test method AS/NZS 4420.1-2016

Overall area: 8.76 m²

Joint Length: 8.30 m

Table 6 Test Data of Air Infiltration Test

| | | |
|-------------------------|--|---------------------|
| Test pressure of 150 Pa | Infiltration rate (positive direction) | 14.09 L/s |
| | Exfiltration rate (negative direction) | 25.14 L/s |
| | Average air leakage rate | 19.62 L/s |
| | Rating | Non air conditioned |
| | Requirement: Geometric mean | 34.11 L/s |

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A.3 Sample Drawings



Fig.1 Drawing of Representative Sample

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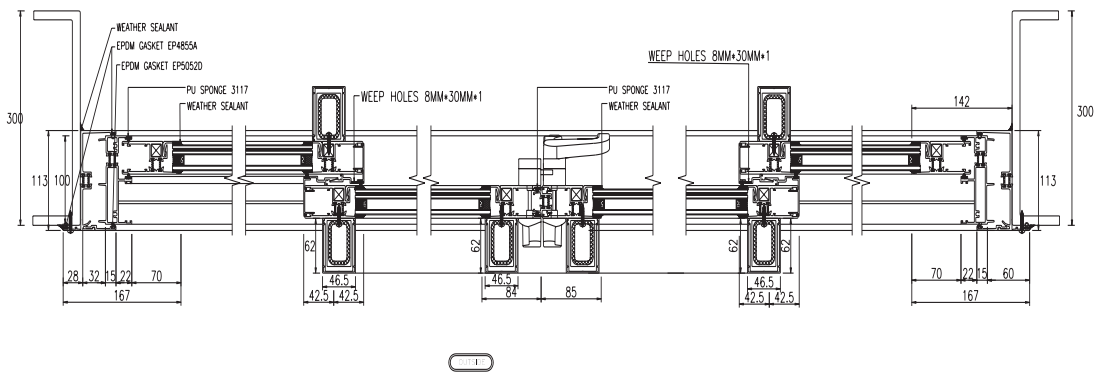


Fig.2 Drawing of Representative Sample

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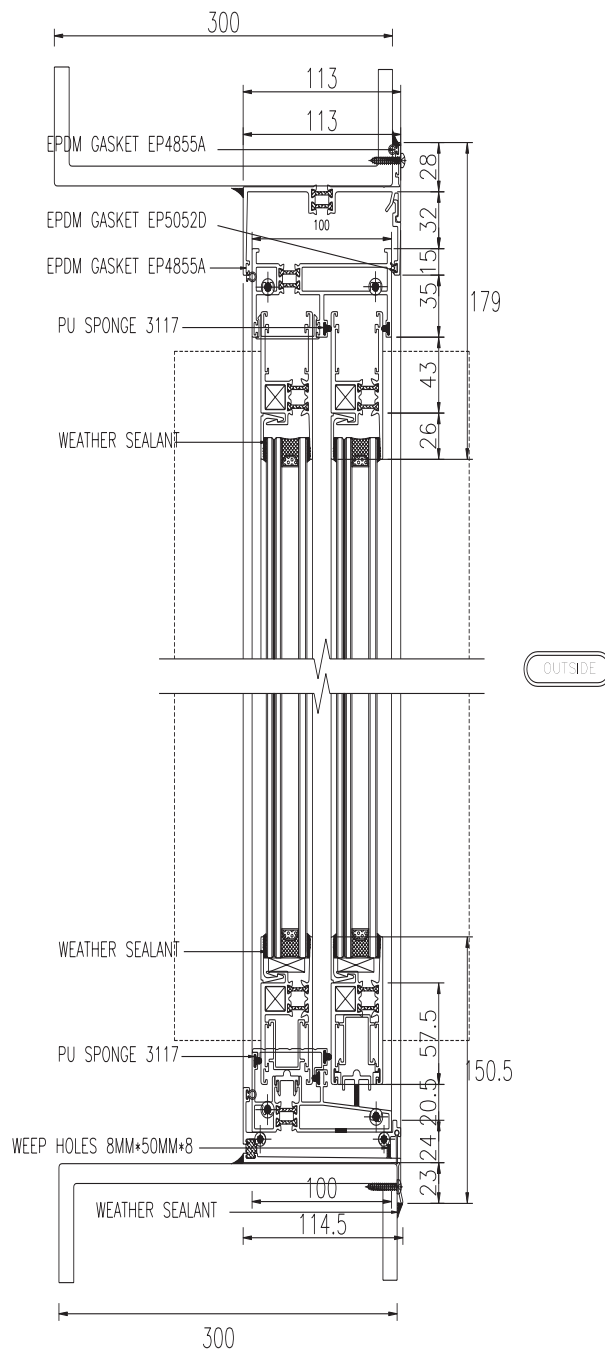


Fig.3 Drawing of Representative Sample

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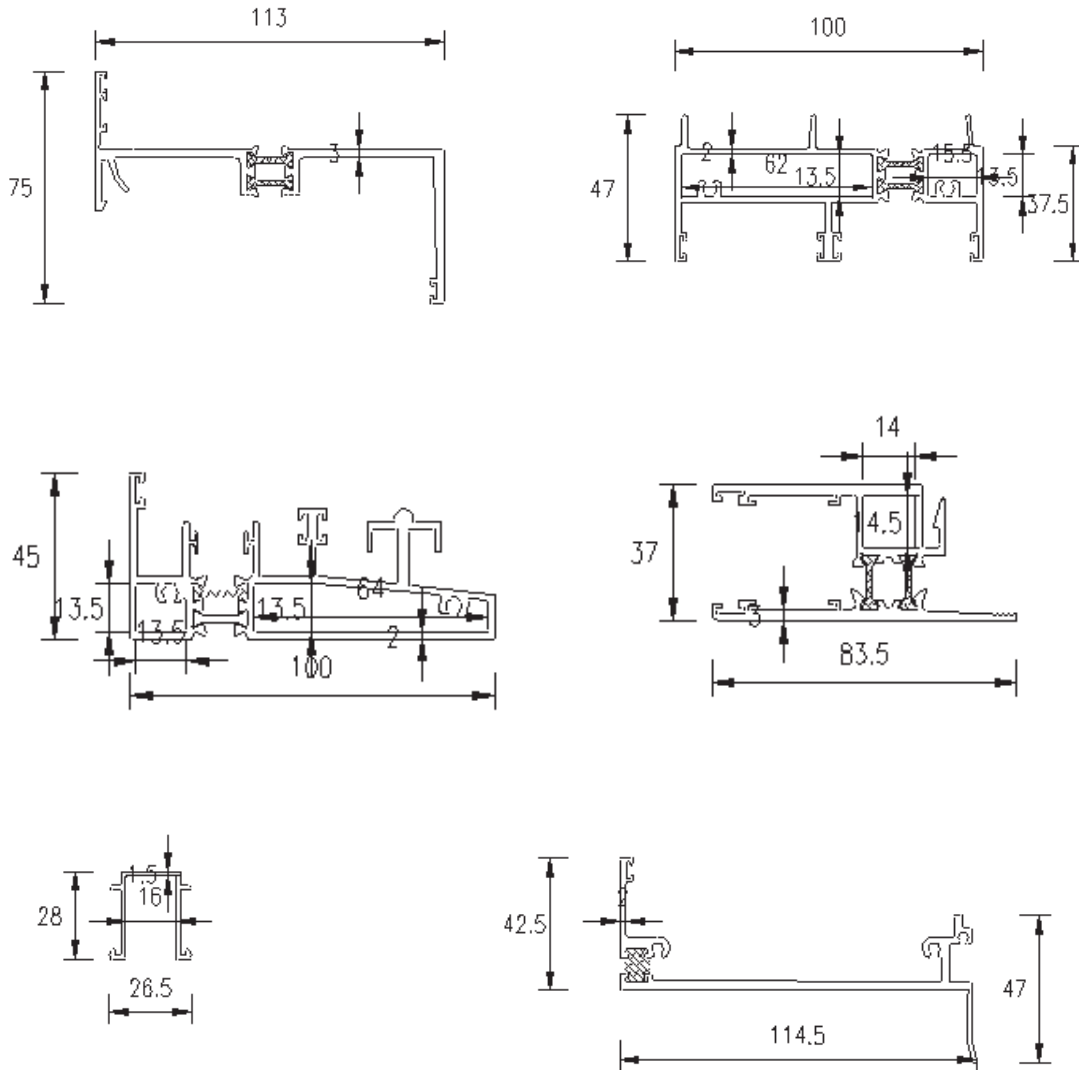


Fig.4 Drawing of Representative Sample

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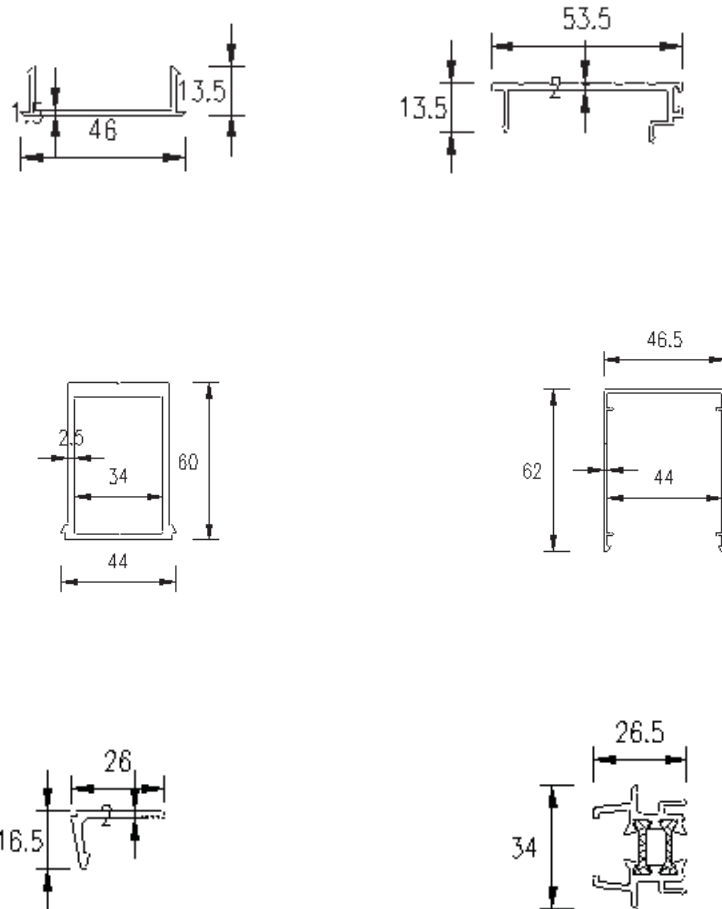


Fig.5 Drawing of Representative Sample

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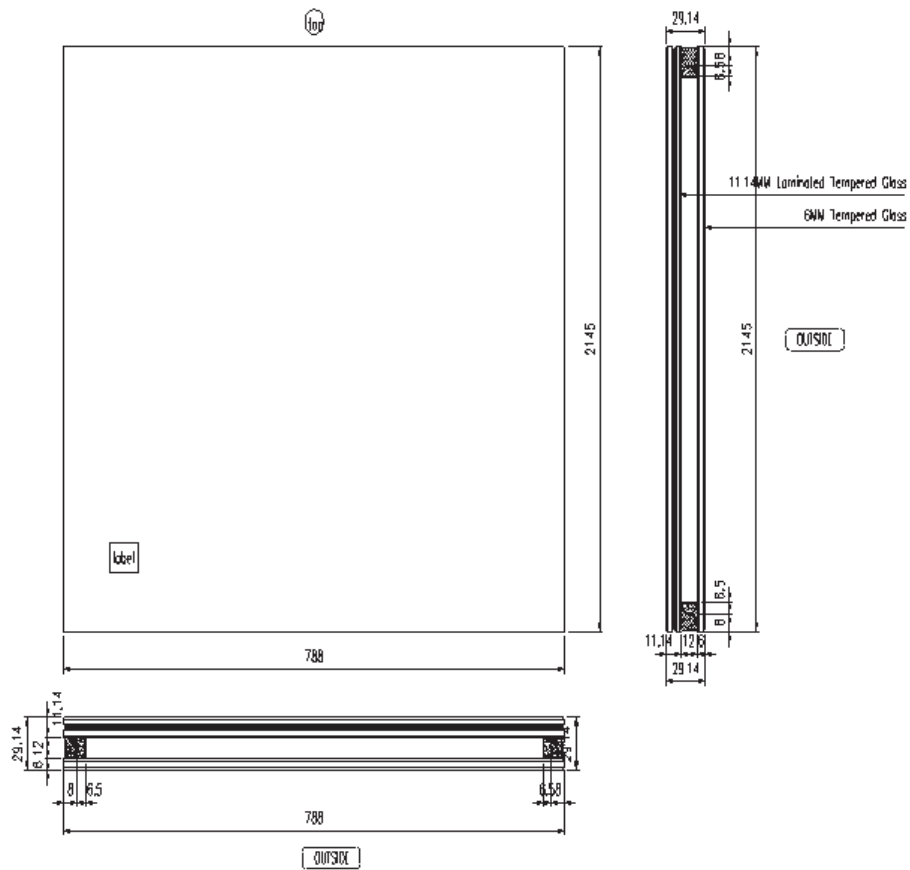


Fig.6 Drawing of Glazing Structure

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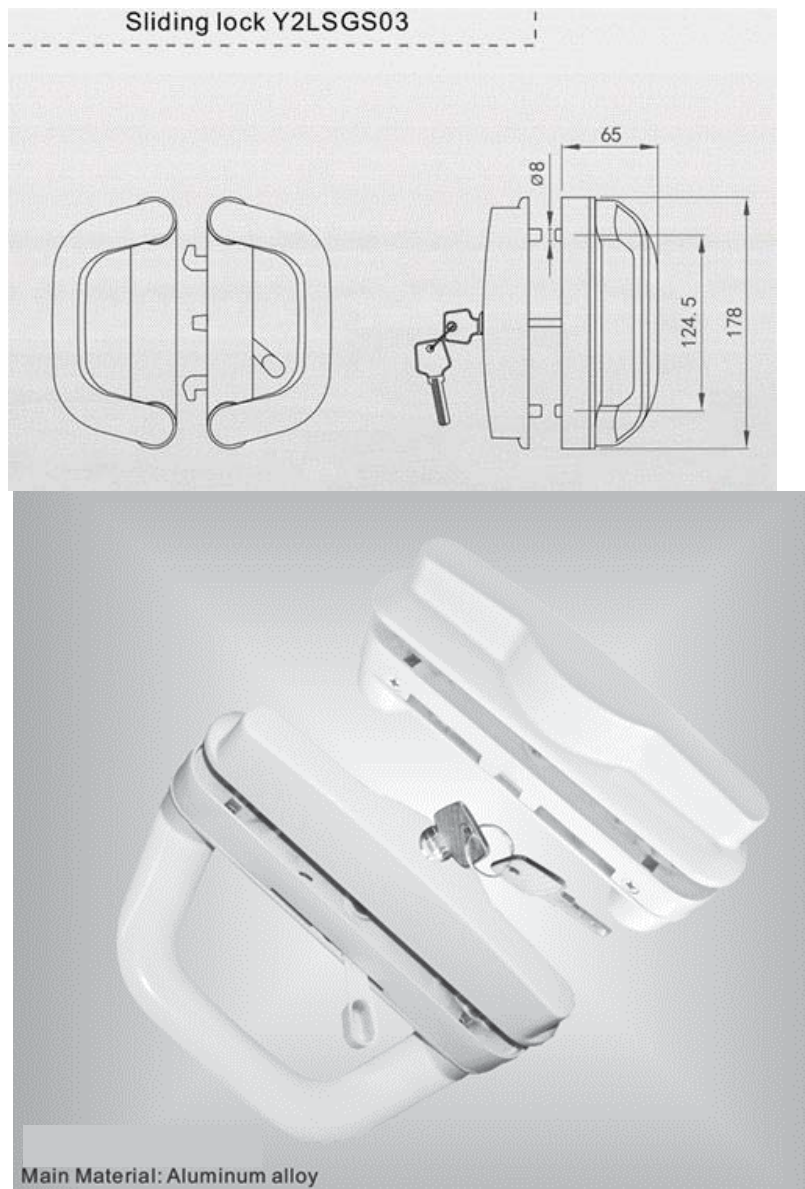


Fig.7 Drawing of Representative Sample

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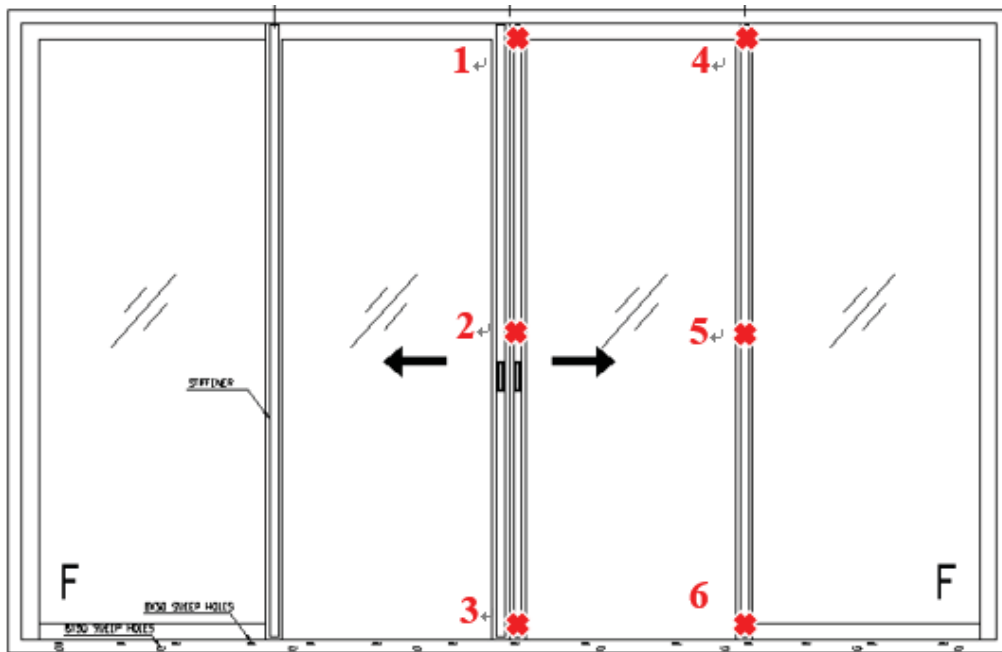


Fig.8 Locations of Displacement Measuring Devices

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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 |
|------------------|------------|-----------------|------------------|-------------|------------|
| 190910159GZU-002 | 2019/11/13 | 0 | First issue | Ziqing Chen | Oliver Zhu |

End of Test Report