
TEST REPORT



A Z U M A
Design

WIND AND WATER TESTING

CLIENT – BLUETECH WINDOWS

PRODUCT – HINGED DOOR

TESTED BY

AZUMA DESIGN PTY LTD

AZT0016.24

NATA ACCREDITED LABORATORY NO. 15147

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Test results in this report are relevant only to the sample tested.

1 Customer Requirements

Customer requires all applicable tests from AS/NZS 4420.1 to be conducted to the test sample supplied. The tests are Structural deflection, Operating Force, Air infiltration, Water penetration and Ultimate strength.

2 Reference Standard

- AS 2047 – 2014 (+A2) Windows and External Glazed Doors in Buildings
- AS/NZS 4420.1 – 2016 Windows external glazed timber and composite doors - Methods of test - Test sequence, sampling and test methods

3 General Information

Customer	BlueTech Windows Milosz Zawadowski
Address	Wilenska Street 65/1, 95-200 Pabianice, Poland
Date(s) of Test	29/1/2024
Azuma Test Number	AZT0016.24
Window/Door Type	Double Door
Test Sample Description	Double Door with centre Mullion, Plastic, Double Glazed Glass

4 Test Result Summary

Test Method	Figures Recorded	Result
Deflection Test	Positive – 1200 Pa	Pass
	Negative – 1200 Pa	Pass
Operating Force Test	12/4 N	Pass
Air Infiltration Test	Low	Pass
Water Penetration Resistance Test	450 Pa	Pass
Ultimate Strength Test	Positive – 4000 Pa	Pass
	Negative – 3000 Pa	Pass

5 Test Sample Description

Product Name	Veka Softline
Model	70 AD
Dimension of Test Sample	2450 mm (W) x 2450 mm (H)
Dimension of Sashes	Sash 1: 1045 mm x 2175 mm Sash 2: 1045 mm x 2175 mm
Glazing – Size/Type	Sash 1: 896 mm x 1996 mm Sash 2: 896 mm x 1996 mm Glass Thickness/Type: 4 x 16 x 4 mm
Hardware	Dornmas DM15
Drawing Identification	EPAA63/T021
Profile Section	70 mm
Drain holes	2 per door
Weep holes	30 x 6 mm 165 mm from ends
Gasket/Seals/Hairs	Rubber seals
Glass Retention	Rubber Glazed
Sub Head and Sub Sill Used	N/A

Azuma Design Pty Ltd

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Test results in this report are relevant only to the sample tested

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6 Results

6.1 Deflection Test

Tested in accordance with AS/NZS 4420.1, Clause 3, Deflection test.

Structural Framing Member		Mullion			POSITIVE
Structural Framing Span		2100 mm			
Location Trans No.	Top 1 (mm)	Centre 2 (mm)	Bottom 3 (mm)	Net Deflection	
Pressure, Pa					
0	0	0	0		
200	1.74	2.79	1.11	1.37	
400	3.73	5.77	2.27	2.77	
800	9.65	13.44	5.61	5.81	
1200	15.65	21.14	9.48	8.58	
0	1.49	1.46	1.00		
Net Deflection	8.58 mm		Structural Ratio		1/243
Allowable Deflection	21.00 mm		Allowable Ratio		1/100
Result	Pass				

Structural Framing Member		Mullion			NEGATIVE
Structural Framing Span		2100 mm			
Location Trans No.	Top 1 (mm)	Centre 2 (mm)	Bottom 3 (mm)	Net Deflection	
Pressure, Pa					
0	0	0	0		
200	1.94	3.00	1.23	1.42	
600	4.04	6.21	2.56	2.91	
800	9.68	13.96	6.12	6.06	
1200	15.28	21.74	9.82	9.82	
0	1.68	1.59	1.06		
Net Deflection	9.82 mm		Structural Ratio		1/229
Allowable Deflection	21.00 mm		Allowable Ratio		1/100
Result	Pass				

Structural Framing Member		Mullion			POSITIVE
Structural Framing Span		2100 mm			
Location Trans No.	Top 4	Centre 5	Bottom 6	Net Deflection	
Pressure, Pa	(mm)	(mm)	(mm)		
0	0	0	0		
200	1.75	3.23	1.32	1.70	
400	3.76	6.38	2.73	3.14	
800	9.78	14.46	6.69	6.23	
1200	15.94	22.63	11.26	9.03	
0	1.61	1.75	1.15		
Net Deflection	9.03 mm		Structural Ratio	1/233	
Allowable Deflection	21.00 mm		Allowable Ratio	1/100	
Result	Pass				

Structural Framing Member		Door Stile			NEGATIVE
Structural Framing Span		2100 mm			
Location Trans No.	Top 4	Centre 5	Bottom 6	Net Deflection	
Pressure, Pa	(mm)	(mm)	(mm)		
0	0	0	0		
200	1.96	3.1	1.49	1.38	
400	4.12	6.43	3.14	2.80	
800	9.79	14.38	7.39	5.79	
1200	15.35	22.34	11.76	8.79	
0	1.39	1.25	0.87		
Net Deflection	8.79 mm		Structural Ratio	1/239	
Allowable Deflection	21.00 mm		Allowable Ratio	1/100	
Result	Pass				

The test unit satisfied the requirements of AS 2047 in both the positive and negative deflection at the nominated design pressure.

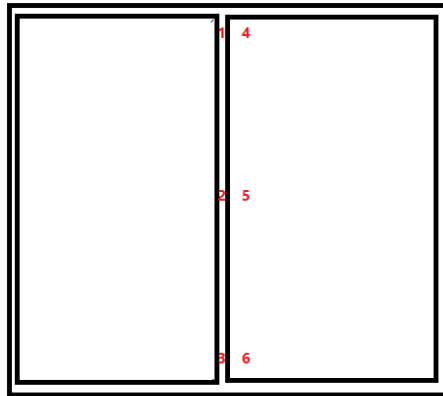


Figure 1 – Transducer Positions

6.2 Operating Force Test

Tested in accordance with AS/NZS 4420.1, Clause 4, Operating force test.

Movement Type	Sash	Opening Force	Closing Force	Result
Initiating	1	12 N	10 N	Pass
Sustaining	1	3 N	3 N	Pass
Initiating	2	12 N	10 N	Pass
Sustaining	2	4 N	3 N	Pass

The test unit satisfied the requirements of AS 2047.

6.3 Air Infiltration Test

Tested in accordance with AS/NZS 4420.1, Clause 5, Air infiltration test.

Air Infiltration Level	Pressure	Direction	Allowable	Actual	Result
Low	75 Pa	Positive and Negative	$< 1.0 \text{ Ls}^{-1}\text{m}^{-2}$	$0.05 \text{ Ls}^{-1}\text{m}^{-2}$ $0.06 \text{ Ls}^{-1}\text{m}^{-2}$	Pass
High		Positive Only	$< 5.0 \text{ Ls}^{-1}\text{m}^{-2}$	$0.05 \text{ Ls}^{-1}\text{m}^{-2}$	Pass

The test unit satisfied the requirements of AS 2047 for a Low Classification.

6.4 Water Penetration Resistance Test

Tested in accordance with AS/NZS 4420.1, Clause 6, Water penetration resistance test.

Maximum Pressure Applied to Sample	450 Pa
Leakages Observed	Nil
Observations	Nil

The test unit satisfied the requirements of AS 2047 at the tested pressure.

6.5 Ultimate Strength Test


Tested in accordance with AS/NZS 4420.1, Clause 7, Ultimate strength test.

Maximum Pressure Applied to Sample	Positive – 4000 Pa Negative – 3000 Pa
Details of Collapse	Nil

The test unit satisfied the requirements of AS 2047 at the tested pressure.

7 Signatories

Tested By: Zac Rozema

Signature: 

Date: 29/01/2024

Checked By: Ash Horne

Signature: 

Date: 29/01/2024

END OF REPORT

Position 002 Window

2250 x 2250

Qty

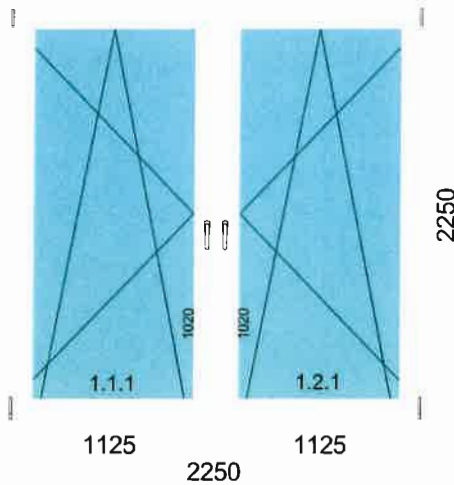
Veka Softline 70 AD

1

Kolor: White HLM Core: white HLM VE

Frame 67/6K / Sash Z105/5K

Interior View



Post: Słupek 85/SL70 AD 2U:
Gasket: Grey
Hinge covers: Window colors - R07.2 white; vRoto Handles 1-side - R07.2 white;
Handles: +vHandle P-Line T43/45 R07.2 M5x50
Uw: 1,4 W/m2K
Glass leiste: Square SL70
Drainage: VE STD (visible, front)
Expander holes:
CE-Wind-load resistnace: C1
CE-Air permeability: 4
CE-Water resistance: 9A
CE-Coefficient Rw [dB]: 30(-1;-6)
CE-Coefficient LT [%]: 82.00
CE-Coefficient g [%]: 64.00

Glazed glass

1.1.1 896x1996 4-16ar-4LE U=1,1 TGI 7040 (31dB)
1.2.1 896x1996 4-16ar-4LE U=1,1 TGI 7040 (31dB)

Fittings Handle height

1.1	1.2
1020 vRU - NT,	1020 vRU - NT,
Fixed handle	Lifting-mishandl. device
DM15	3 strikers AV
Striker of micro-ventilation	DM15
3 strikers AV	Striker of micro-ventilation
Lifting-mishandl. device	Fixed handle

Optional parametres of the construction:

Groove gasket filling: Bottom; Mounting strip: Standard 30mm

Total weight of positions incl. surcharges: **158 kg**
Total circumference of positions: **9 m**

Surface: 10,13 m2	Circuit: 18,00 m	Weight: 317 kg	Qty: 2
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All changes to the orders must be reported within 24 hours after their confirmation by a customer.
The condition for setting the order into production is an advance payment and no overdue receivables.

Customer Assistant:

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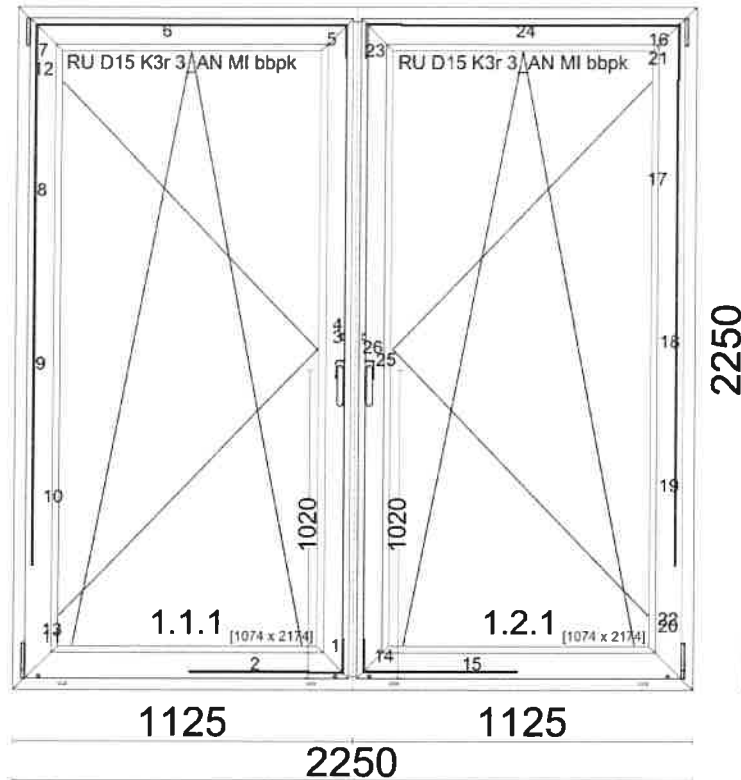
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AZT0016.24

Page 7 of 12

Inside view

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1. +Corner NT 1P + UR, 260 277
2. +CLOSE. MV400 MID 1P+RP, 255-285
3. +NX Espagnolette. RU KSR 1000/2001-2200 3V D15 S_RSIL+OB., 794 642
4. +v_Striker BK. (lock), 000 110
5. +Corner NT 1P + AN + MI, 260 277
6. +v_Sliding stay. NT 500 (1001-1200) 1E + arms, 260 212
7. +Stay corner NT 1P + AN, 260 286
8. +CLOSE. MIDDLE MV 600 1P COMBINED + OB, 622 882
9. +CLOSE. MIDDLE MV 600 1P COMBINED + OB, 622 882
10. +CLOSE. MIDDLE MV 400 1P+OB, 255 285
11. +Bottom hinge bracket K3/100, 258 590
12. +Stay bracket K3/100, 230 177
13. +Lower sash hinge K3/100 with pressure adjustment, 445 170
14. +Corner NT 1P + UR, 260 277
15. +CLOSE. MIDDLE MV 400 1P+OB, 255 285
16. +Stay corner NT 1P + AN, 260 286
17. +CLOSE. MIDDLE MV 600 1P COMBINED + OB, 622 882
18. +CLOSE. MIDDLE MV 600 1P COMBINED + OB, 622 882
19. +CLOSE. MIDDLE MV 400 1P+OB, 255 285
20. +Bottom hinge bracket K3/100, 258 590
21. +Stay bracket K3/100, 230 177
22. +Lower sash hinge K3/100 with pressure adjustment, 445 170
23. +Corner NT 1P + AN + MI, 260 277
24. +v_Sliding stay NT 500 (1001-1200) 1E + arms, 260 212
25. +NX Espagnolette RU KSR 1000/2001-2200 3V D15 S_RSIL+OB, 794 642
26. +v_Striker BK. (lock), 000 110

Information supplied by customer

System **Veka Softline 70 AD**
 Profile color **White HLM**
 Core color **White HLM VE**
 Frame Frame 67/6K
 Sash Sash Z105/5K
 Post Post 85/SL70 AD 2U:

Glazing strip Straight strip 23,5/21 1U:
 Gasket Grey
 Casings Window colours - R07.2 white; vRoto handle 1-
 slide R07.2 white;
 Handles **+Handle P-Line T43/45 R07.2 M5x50**

Glazed glass

1.1.1 24 4-16ar-4LE U=1,1
896x1996 TGI_szary
 1.2.1 24 4-16ar-4LE U=1,1
896x1996 TGI_szary

Sash dimension Fitting handle

Dehydration VE STD (visible, from the forehead)

1074x2174 vRU - NT, 1020

Handle Mounting: Fixed Handle
 1.1

Dornmas: DM15
 Micro-ventilation: Micro-ventilation striker
 Protection class: 3 AV striker
 lifting mishandling device: lifting mishandling
 device

1.2 1074x2174 vRU - NT, 1020
 lifting mishandling device: lifting mishandling device
 Protection class: 3 AV strikers
 Dornmas: DM15
 Micro-ventilation: Micro-ventilation striker
 Handle Mounting: Fixed Handle

Optional Construction Parameters:

Fitting groove filling: Bottom Mounting strip:
 30mm standard

Profiles

Position	Quantity	Length	Cutting angles		Radius (height)
			L/R		
112363-0-14	4	2 256			Gasket 112363 (PVC-P) for Veka SL70 frame (3,5mm), Grey
101208-HL-0NOFO. XX-000650XXX	2	2 256	45,00	45,00	Frame 67/SL70/5K AD U:w/bar, white HLM
101208-HL-0NOFO. XX-000650XXX	2	2 256	45,00	45,00	Frame 67/SL70/5K AD U:w/bar, white HLM
Veka mounting strip	1	2 250			Veka mounting strip
112363-0-14	2	2 164			Gasket 112363 (PVC-P) for Veka SL70 frame (3,5mm), Grey
NP0060-001	2	1 125			Filling NP0060 groove fittings. bE, White
112354-0-14	4	2 180			Gasket 112354 (PVC-P) internal Veka (3,5mm), Grey

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windows australia

Page

5/6

Information supplied by customer

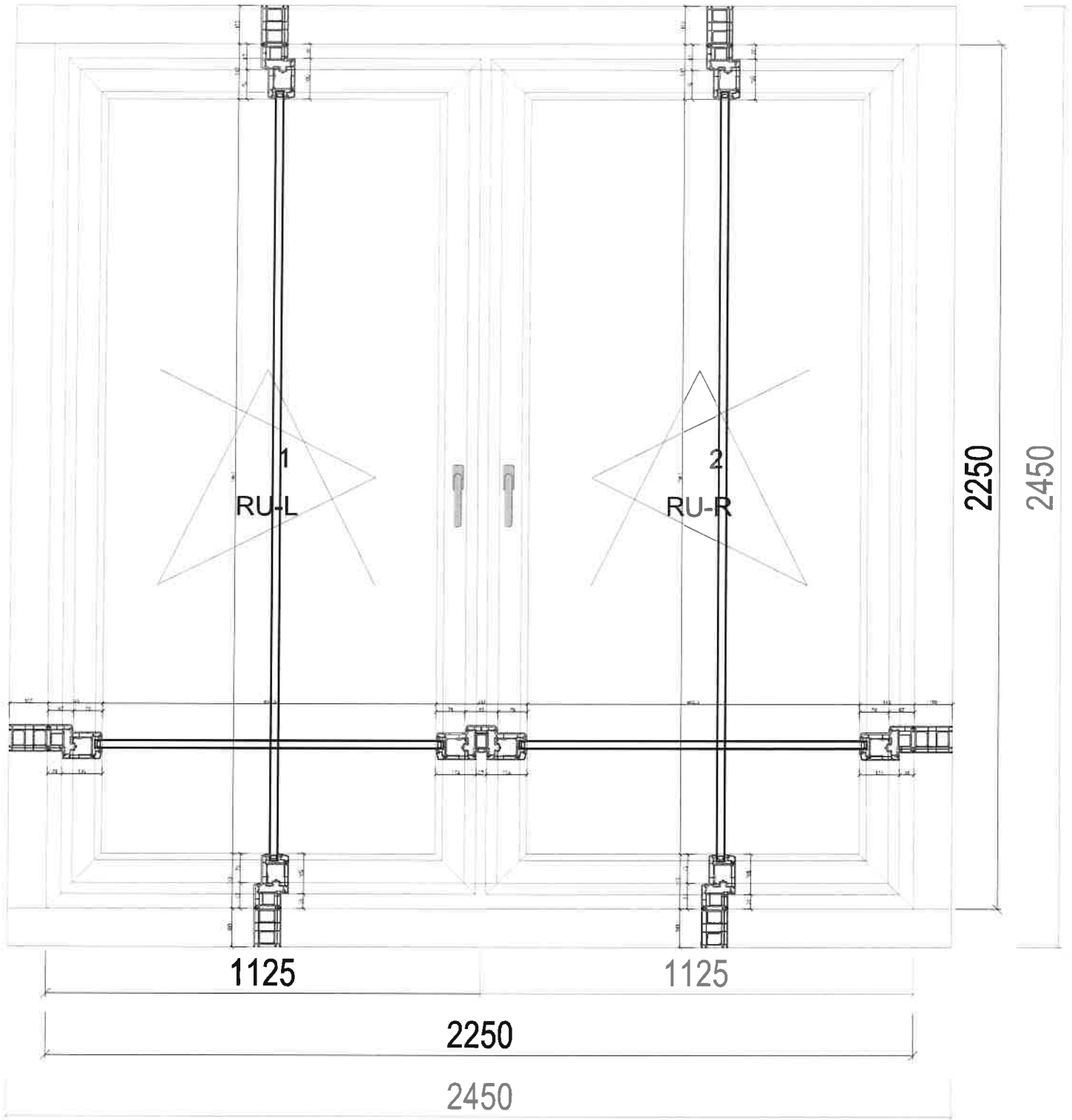
112353-0-14		4	2 180			Gasket 112353 (PVC-P) Veka SL70 (3,5mm), Grey
103241-HL-0NOFO. XX-000650XXX	Pawn	4	2 180	45,00	45,00	Sash Z105/SL70 U:beige, white HLM
112354-0-14		4	1 080			Gasket 112354 (PVC-P) internal Veka (3,5mm), Grey
112353-0-14		4	1 080			Gasket 112353 (PVC-P) Veka SL70 (3,5mm), Grey
103241-HL-0NOFO. XX-000650XXX	Level	4	1 080	45,00	45,00	Sash Z105/SL70 U:beige, white HLM
102218-HL-0NOFO. XX-000650XXX	Pawn	1	2164 [2158]	90,00	90,00	Post 85/SL70 AD U:beige, white HLM
106200-1-34	Pawn	2				Post 106200 connector 85 SL70
107214-HL-0NOFO. XX-1SE650XXX	Pawn	4	2 006	45,00	45,00	Glazing strip 23,5/21 1U:Grey, White HLM
107214-HL-0NOFO. XX-1SE650XXX	Level	4	906	45,00	45,00	Glazing strip 23,5/21 1U:Grey, White HLM

Strengthen

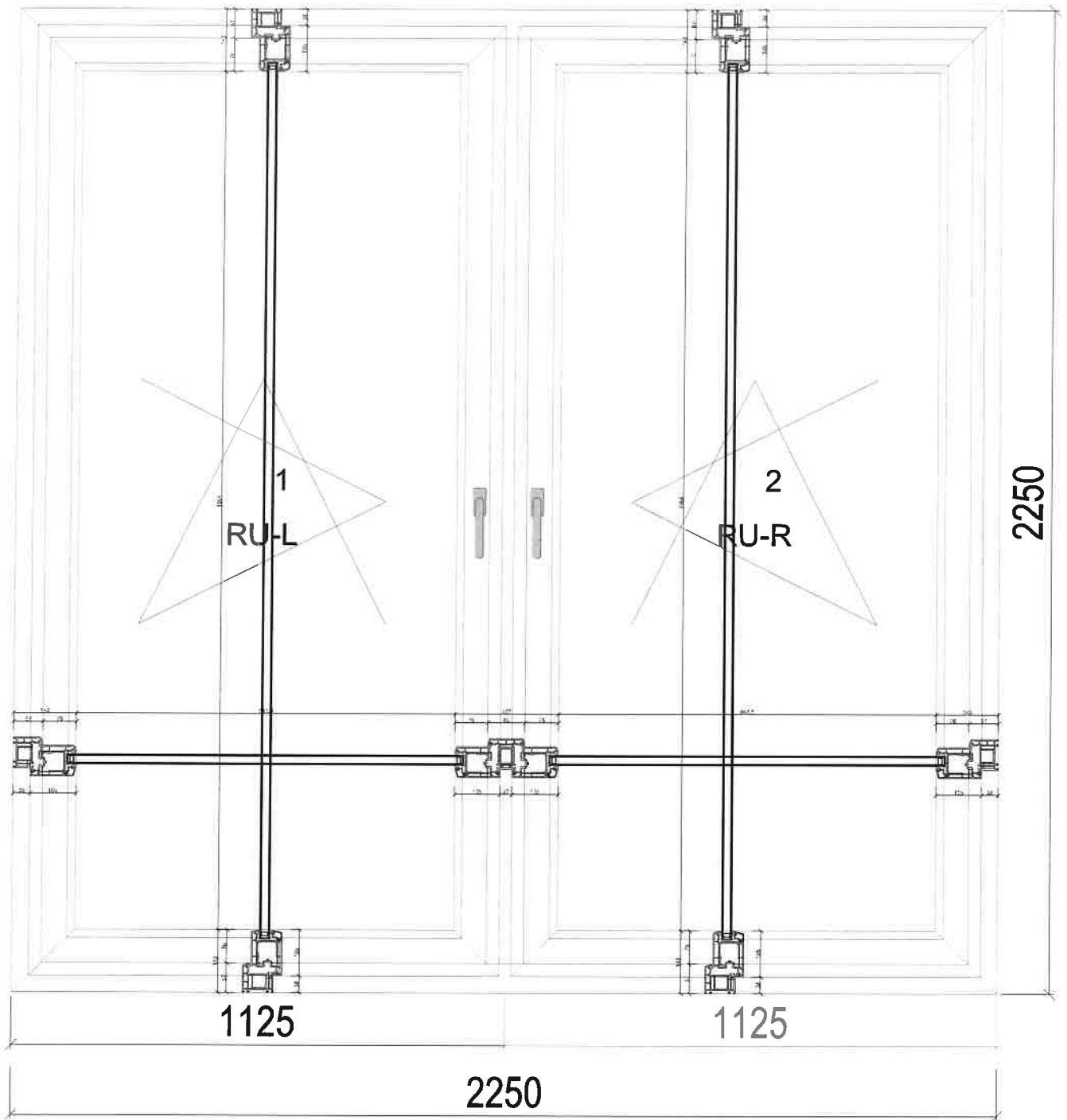
113025-0-600 Reinforcement in frame	1.5mm 30x30 (ix=2.25 iy=2.25)	2	2 150		
113025-0-600 Reinforcement in frame	1.5mm 30x30 (ix=2.25 iy=2.25)	2	2 150		
113271-4-600 Reinforcement in the post	4.0mm 30x38 (ix=8.04 ly=5.48)	1			2 138
113270-0-600 Reinforcement in the sash	1,5mm 47,9x45 (ix=6,11 iy=4,19)			4	1 995
113270-0-600 Reinforcement in the sash	1,5mm 47,9x45 (ix=6,11 iy=4,19)			4	895

Fittings

260 552	2	NT VEKA Topline Lock Ramp
260 277	2	Corner Ku/r NT/1P
260 277	2	Corner Ku/r NT/1P
795 927	2	NX lifting mishandling device.RSIL
794 642	2	NX Espagnolette tilt/turn KSR 1000/2001-2200/3V
260 212	2	Sliding stay NT 500/1090s1001-1200/E
258 042	1	stay arm NT 500/801-1400 K 12/20-13
258 043	1	stay arm NT 500/801-1400 K 12/20-13
227 354	2	stay bolt 71 NT
230 177	2	Stay bracket K3/100 NT
258 590	2	Bottom hinge bracket NT K3/100 new
338 019	2	Striker tilt&turn/turn NT Veka Topline AD/MD13
364 057	2	Striker micro-ventilation NT VEKA T,ROPL 4K,ALUPL PL
792 178	16	Striker NT EK8.5 Veka/NR211
348 410S	4	NT VEKA Topline Striker
260 286	2	Close the corner of the NT/1P stay
255 285	4	Close. middle 1P NT MV400
622 882	4	Close. middle 1P NT MV600 combined
445 170	2	Bottom hinge NT K3/100 with adjustable pressure



Information supplied by customer



Information supplied by customer