Test Report No:	WTH2519#1-2
Date:	18/12/2025
Testing of:	Single top hung casement window
Tested to:	BS 6375-1:2015+A1:2016
Prepared for:	Nico Manufacturing Ltd

CONTENTS

AUTHORISATION

Test completed by: J.Woodward
Assissted by:
Test witnessed by:

Report produced by: J.Woodward Position: Test Engineer

Signature: JW

Date: 23/01/2026

For and on behalf of Nico Manufacturing Ltd Test Laboratory

Report authorised by: D.Kury Position: Senior Test Engineer

Signature:

Date: 23/01/2026

For and on behalf of Nico Manufacturing Ltd Test Laboratory

Date of issue of report 23/01/2026

Nico Manufacturing Ltd. Test Laboratory

Oxford Road

Clacton-on-Sea

ESSEX

CO15 3TJ

Telephone +44 (0) 1255 422333

Fax +44 (0) 1255 432909

UKAS TESTING
9458

TEST REQUESTED BY

Origin of test request

Company Name	Nico Manufacturing Ltd
Company Address	Oxford Road Clacton on Sea Essex CO15 3TJ
Contact	Ian Harrison
Contact position	Sales & Marketing Director

Quotation Details

Quotation No.	WTH2519
Dated:	20/08/2025

DETAILS OF TEST

Description	Projecting casement window
Model / type	Single top hung
Make / Brand	Eurocell logic
Any special requirements	

Test Specification	BS 6375-1:2015+A1:2016 Performance of windows & doors. Classification for weathertightness and guidance on selection and specification
Date sample received	22/08/2025
Date testing started	19/12/2025
Date testing finished	22/12/2025
Job No.	WTH2519
Any special requirements	

Air permeability tests in accordance with BS EN 1026: 2016 - A series of positive and negative pressures was applied to the test sample and the air leakage through the sample was measured at each pressure step. Pressure steps applied are defined on the air permeability test sheets in this report.

Waterightness test in accordance with BS EN 1027: 2016 - A specified volume of water was constantly sprayed over the external face of the test sample while a positive pressure was applied, the positive pressure was increased at regular intervals. The test pressure, time and location of any water penetration was recorded. Pressure steps applied are defined on the watertightness test sheet in this report.

Resistance to wind load test in accordance with BS EN 12211: 2016 - Positive and negative pressures P1, were applied to the test sample and the deflection under load was measured, a series of 50 cycles of positive and negative pressure P2 were applied and any damage caused was noted and a safety test consisting of a single cycle of positive and negative pressures P3 was applied and any damage caused was noted
P2 = 0.5P1, P3 =1.5P1.
Values of these loads are defined on the Resistance to wind load test sheet in this report.

Test specimen details
Details of the samples construction and hardware components is based on information supplied by the test client, while these details have been checked and verified where possible WTH accepts no responsibility for the accuracy of details supplied. The samples tested were as selected and supplied by the customer with no input from WTH.

Note : The test specimens were kept in the test laboratory for at least 12 hours at environmental conditions of between 10°C to 30°C, and 25% RH to 75% RH before each test was undertaken

The sample was mounted in a timber sub frame (nominal 100mm x 50mm in section) and sealed to the sub frame. The sample was mounted in the test rig without any twists or bends that might influence the test result.

DETAILS OF SAMPLE

Sample number	WTH2519A
Sample details	Eurocell Logic
Fabricator	Allen Installations
Material:	PVC-U Frame - EWS7020 55mm Frame Sash - EWS7005W 75mm T Section Sash Reinforcing - EWS 7604S Steel
Finish	White
Lock & keeps	Nico Wrap around gearing comprising Mk 1 gearbox, part no 94225 with Size 5 wrap around extensions, part no 939W545 keeps - Nico cast zinc, part no 9205L & R
Hinges & protectors	Nico 24" HD Top hung friction hinge, part no 8260HD Nico Xtra bolt hinge protectors, part no 8100
Handle	Total Hardware Quantum Mk3 Inline Window handle
Fixings	Lock - 4.3 x 25mm c'sk head pierce point Keeps - 4.3 x 25mm c'sk head pierce point Hinges - 4.3 x 25mm pan head pierce point to sash & frame Hinge protectors - 4.8 x 25mm pan head pierce point to sash & frame Weather wedges - 4.3 x 25mm c'sk head pierce point to sash & frame
Weather sealing	Weather wedges - GT Sash seal, part nos GTS10017
Glass (or infill)	4-20-4 Clear Tuff Low E : 20mm Silver Spacer
Glazing system	EWS7301WBG 28mm Glazing bead
Sample dimensions	1500 x 1500
Additional information	Face Drainage EWS 7202 Leading Ramp

CONCLUSIONS OF TEST

Test Standard	Classification Standard	Test Description	Test result
BS EN 1026: 2016	BS EN 12207: 2016	Air permeability of test sample (first test)	Class 4
BS EN 1027: 2016	BS EN 12208: 2000	Watertightness test	Class 9A
BS EN 12211: 2016	BS EN 12210: 2016	7.2 Deflection test	Class 4B
BS EN 12211: 2016	BS EN 12210: 2016	7.3 Repeated pressure test	Pass
BS EN 1026: 2016	BS EN 12207: 2016	Air permeability of test sample (second test)	Class 4
BS EN 12211: 2016	BS EN 12210: 2016	Safety test	Pass

WTH are accredited to BS 6375-1:2015 Performance of windows and doors, part 1 Classification for weathertightness and guidance on selection and specification.
This standard refers to a dated version of BS EN 1027:2000, however WTH are accredited to the dated version BS EN 1027:2016
The purpose of the revision of this european standard is to clarify the test method, the changes relate to definitions and descriptions, they do not affect the methodology of the test or the results obtained.

Due to the minimal leakage from the test sample it was not possible to comply with BS EN 1026:2016 section 7.2.3 which states that "In no case shall the air permeability of the test chamber exceed 30% of the overall air permeability of the test specimen and the test chamber"

Exposure category classification in accordance with BS 6375-1:2015+a1:2016 (clauses 6, 7 & 8)

Classification achieved:

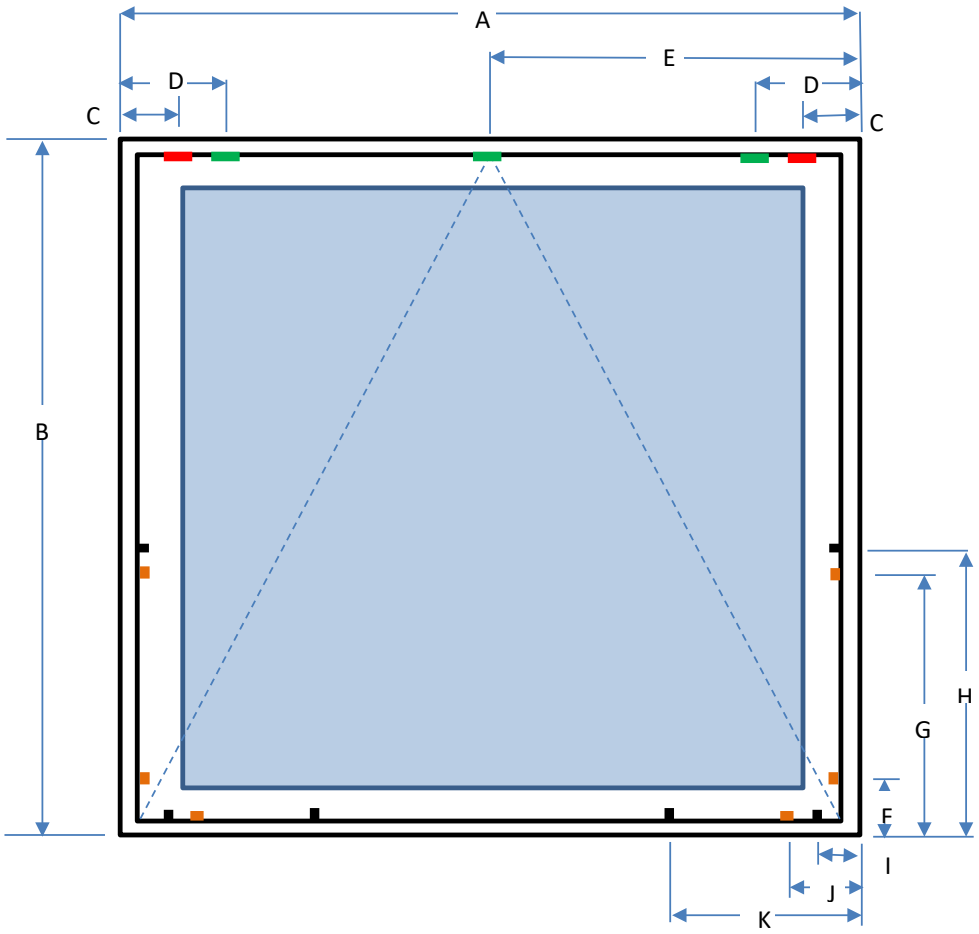
UK exposure category	Air permeability		Watertightness		Resistance to wind load			
	Class	Maximum test pressure (Pa)	Class	Maximum test pressure	Class	P1	P2	P3
1600	4	600	9A	600	B4	1600	800	2400

The results contained in this test report relate only to the particular sample/s tested as received and to the specific tests carried out as detailed within this report.

Uncertainty results			Coverage
BS EN 12211:2016 Deflection test	Classification prior to uncertainty analysis	4B	97-103%
	Classification after uncertainty analysis	4B	97-103%

The measured result is equal to the classification limit: taking measurement uncertainty into account it is therefore not possible to state compliance based on the stated coverage probability. However the result indicates that Classification to Class B is more probable than classification to Class A.

TEST WINDOW DRAWING



- Hinge protector
- Weather wedge
- Leading ramp
- Locking point

A	=	1500	mm
B	=	1500	mm
C	=	125	mm
D	=	220	mm
E	=	750	mm
F	=	120	mm
G	=	560	mm
H	=	625	mm
I	=	90	mm
J	=	150	mm
K	=	390	mm

Test Report No.	WTH2519#1-2	Page 9 of 15
Testing of	Single top hung casement window	
Testing to	BS 6375-1:2015+A1:2016	

AIR PERMEABILITY: BS EN 1206: 2016

Closing condition of window	Latched
Window surfaces cleaned and dry (WASHED AND DRIED)	Yes
Window opened and closed before applying pressure pulses	Yes
Three positive pressure pulses applied	Yes

Sample No	Temperature		Measured Humidity		Adjusted humidity		Date
WTH2519B	20.2	°C	48.3	%RH	46.3	%RH	19/12/2025

Table 1 - Air permeability with positive pressure (adjusted for laboratory conditions)

Pressure differential Pa	Air flow through test sample m³/h	Air flow per unit area of test sample m³/h/m²	Air flow per metre of opening joints m³/h/m
50	0.00	0.00	0.00
100	0.37	0.16	0.06
150	0.09	0.04	0.02
200	0.26	0.11	0.04
250	0.20	0.09	0.03
300	0.29	0.13	0.05
450	0.37	0.16	0.06
600	0.35	0.15	0.06

Window opened and closed before applying pressure pulses	Yes
Three negative pressure pulses applied	Yes

Table 2 - Air permeability with negative pressure (adjusted for laboratory conditions)

Pressure differential Pa	Air flow through test sample m³/h	Air flow per unit area of test sample m³/h/m²	Air flow per metre of opening joints m³/h/m
50	0.00	0.00	0.00
100	0.62	0.27	0.11
150	0.23	0.10	0.04
200	0.18	0.08	0.03
250	0.20	0.09	0.03
300	0.23	0.10	0.04
450	0.32	0.14	0.05
600	0.41	0.18	0.07

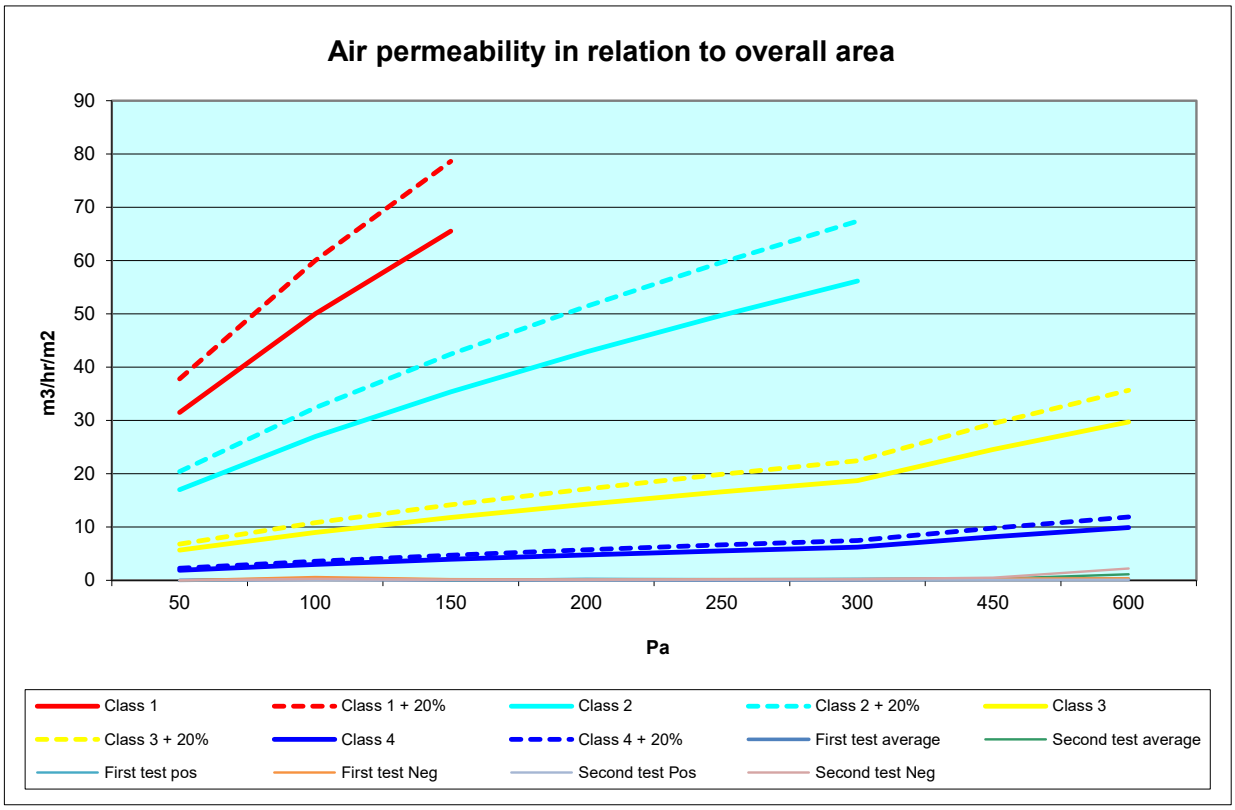
Table 3 - Air permeability averages with positive and negative pressures

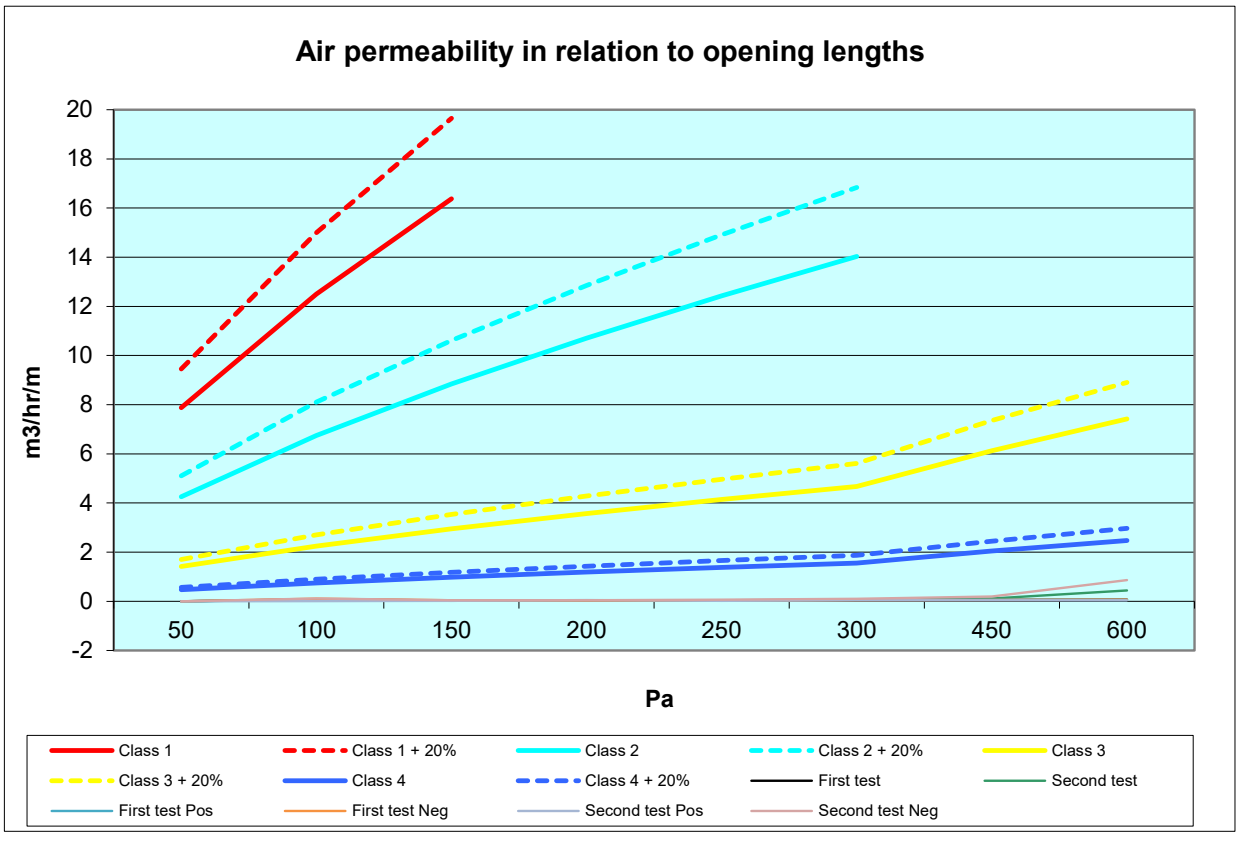
Pressure differential Pa	Air flow per average unit area of test sample m³/h/m²	Air flow average per metre of opening joints m³/h/m
50	0.00	0.00
100	0.22	0.08
150	0.07	0.03
200	0.10	0.04
250	0.09	0.03
300	0.11	0.04
450	0.15	0.06
600	0.17	0.07

Total surface area of test sample (m²)
2.25

Total length of opening joints (m)
5.78

AIR PERMEABILITY GRAPHS





Test Report No.	WTH2519#1-2	Page 11 of 15
Testing of	Single top hung casement window	
Testing to	BS 6375-1:2015+A1:2016	

Sample No	Temperature		Measured Humidity		Adjusted humidity		Date
WTH2519B	20.7	°C	48	%RH	46.0	%RH	19/12/2025

WATERTIGHTNESS: BS EN 1027: 2016 (Pressure pulses should be maximum test pressure + 10% or 500Pa whichever is the greater)

Watertightness data (Test method 1A)

Maximum test pressure	600
Pressure pulses	660

Water temperature

Pre test	17.1	°C	Post test	25.8	°C
Spray angle checked on each nozzle					Yes
Nozzle line height checked ≤150mm above joint					Yes

Closing condition of window	Latched
Window surfaces cleaned and dry (WASHED AND DRIED)	Yes
Window opened and closed before applying pressure pulses	Yes
Three positive pressure pulses applied	Yes

Required air pressure (Pa)	Recorded air pressure	Required Spray duration (mins)	Recorded spray duration	Water Leaks	Position of leak (See also leakage diagram)	Time of leak min:sec
0		15 +1/-0	15	0		
50 +/-5%	50	5 +1/-0	5	0		
100 +/-5%	100	5 +1/-0	5	0		
150 +/-5%	150	5 +1/-0	5	0		
200 +/-5%	200	5 +1/-0	5	0		
250 +/-5%	250	5 +1/-0	5	0		
300 +/-5%	300	5 +1/-0	5	0		
450 +/-5%	450	5 +1/-0	5	0		
600 +/-5%	600	5 +1/-0	5	0		

Laboratory Conditions

Air pressure (mbar)	1005
Laboratory air temp. (ºC)	20.7
Relative humidity (%)	46.0

Number of spray nozzles	4
Total flow rate (LPM)	8

Classification

Test pressure (Pa)	Classification		Spec.
	Test method A	Test method B	
0	1A	1B	15 min
50	2A	2B	C1+5 min
100	3A	3B	C2+5 min
150	4A	4B	C3+5 min
200	5A	5B	C4+5 min
250	6A	6B	C5+5 min
300	7A	7B	C6+5 min
450	8A	8B	C7+5 min
600	9A	9B	C8+5 min

Test Report No.	WTH2519#1-2	Page 12 of 15
Testing of	Single top hung casement window	
Testing to	BS 6375-1:2015+A1:2016	

Sample No	Temperature		Measured Humidity		Adjusted humidity		Date
WTH2519B	20.3	°C	54.3	%RH	52.4	%RH	22/12/2025

RESISTANCE TO WIND LOAD: BS EN 12211: 2016

Closing condition of window	Latched
Window surfaces cleaned and dry (WASHED AND DRIED)	Yes
Window opened and closed before applying pressure pulses	Yes
Three positive pressure pulses applied	Yes

Deflection test: Positive pressure P1= 1600 Pa

Section being measured: Top of sash		Deflection gauge readings (mm)				Measured Length	Relative deflection
3 pulses of	1760	1	2	3	Net deflection		
Pre-test reading		20.0	20.0	20.0			
Max reading		21.1	25.2	21.2			
Net deflection under load		1.1	5.2	1.2	4.1	1370	1/ 338
Residual reading		20.0	20.0	20.0			

Deflection test: Negative pressure P1= 1600 Pa

Section being measured: Top of sash		Deflection gauge readings (mm)				Measured Length	Relative deflection
3 pulses of	1760	1	2	3	Net deflection		
Pre-test reading		20.0	20.0	20.0			
Max reading		19.1	11.8	18.5			
Net deflection under load		-0.9	-8.2	-1.5	-7.0	1370	1/ 200
Residual reading		20.0	20.0	20.0			

Test conclusion:	Worst case deflection	1/ 200	Classification	4B

Cyclic repeated pressure test P2= 800 Pa

50 cycles +/- at 800 Pa	No damage or functioning defects	**Pass**

Safety test P3= 2400 Pa

1 cycle +/- at 2400 Pa	Sample remained closed with no parts becoming detached	**Pass**

Laboratory Conditions

Air pressure	995.0	mbar
Air temperature	20.3	°C
Relative humidity	52.4	%

Classifications

Wind load			
Class	P1	P2	P3
0	Not tested		
1	400	200	600
2	800	400	1200
3	1200	600	1800
4	1600	800	2400
5	2000	1000	3000

Deflection	
Class	Relative frontal deflection
A	≤ 1/150
B	≤ 1/200
C	≤ 1/300

Resistance to wind load			
Wind load class	Relatitive frontal defleection		
	A	B	C
1	A1	B1	C1
2	A2	B2	C2
3	A3	B3	C3
4	A4	B4	C4
5	A5	B5	C5

Test Report No.	WTH2519#1-2	Page 13 of 15
Testing of	Single top hung casement window	
Testing to	BS 6375-1:2015+A1:2016	

Sample No	Temperature		Measured Humidity		Adjusted humidity		Date
WTH2519B	20.6	°C	53.6	%RH	51.7	%RH	22/12/2025

AIR PERMEABILITY: BS EN 1206: 2016

Closing condition of window	Latched
Window surfaces cleaned and dry (WASHED AND DRIED)	Yes
Window opened and closed before applying pressure pulses	Yes
Three positive pressure pulses applied	Yes

Table 1 - Air permeability with positive pressure (adjusted for laboratory conditions)

Pressure differential Pa	Air flow through test sample m³/h	Air flow per unit area of test sample m³/h/m²	Air flow per metre of opening joints m³/h/m
50	0.00	0.00	0.00
100	0.08	0.03	0.01
150	0.14	0.06	0.02
200	0.28	0.13	0.05
250	0.12	0.05	0.02
300	0.26	0.12	0.05
450	0.22	0.10	0.04
600	0.22	0.10	0.04

Window opened and closed before applying pressure pulses	Yes
Three negative pressure pulses applied	Yes

Table 2 - Air permeability with negative pressure (adjusted for laboratory conditions)

Pressure differential Pa	Air flow through test sample m³/h	Air flow per unit area of test sample m³/h/m²	Air flow per metre of opening joints m³/h/m
50	0.00	0.00	0.00
100	0.67	0.30	0.12
150	0.25	0.11	0.04
200	0.23	0.10	0.04
250	0.38	0.17	0.07
300	0.55	0.24	0.09
450	1.11	0.49	0.19
600	4.89	2.17	0.85

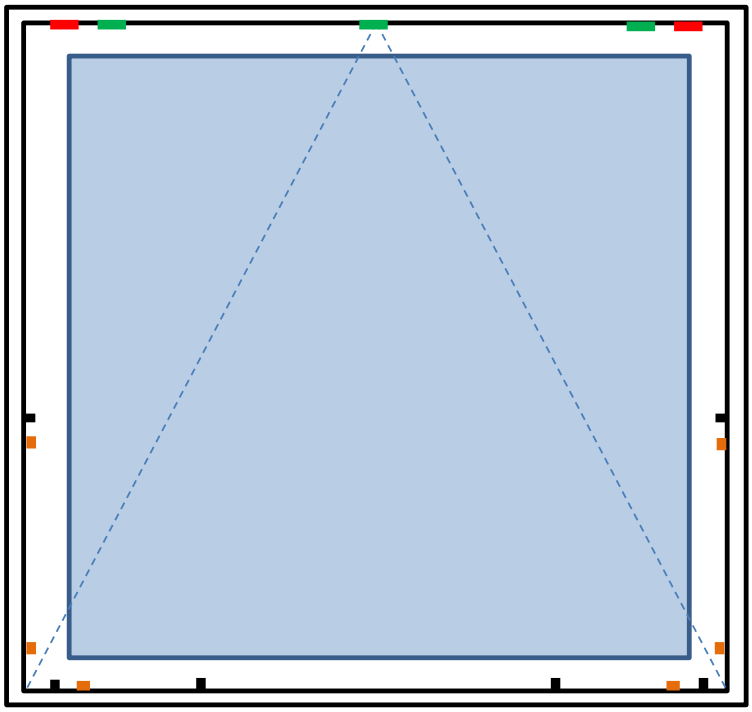
Table 3 - Air permeability averages with positive and negative pressures

Pressure differential Pa	Air flow per average unit area of test sample m³/h/m²	Air flow average per metre of opening joints m³/h/m
50	0.00	0.00
100	0.17	0.06
150	0.08	0.03
200	0.11	0.04
250	0.11	0.04
300	0.18	0.07
450	0.29	0.11
600	1.13	0.44

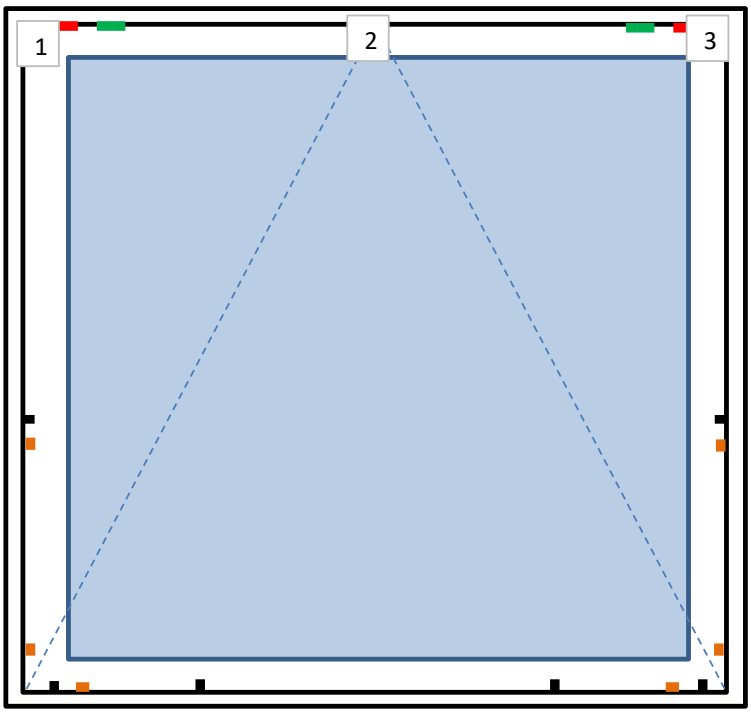
Total surface area of test sample (m²)
2.25

Total length of opening joints (m)
5.78

Positions of water leakage and significant air leakage



Position of deflection measurement



PICTURE OF TEST WINDOW

END OF REPORT