

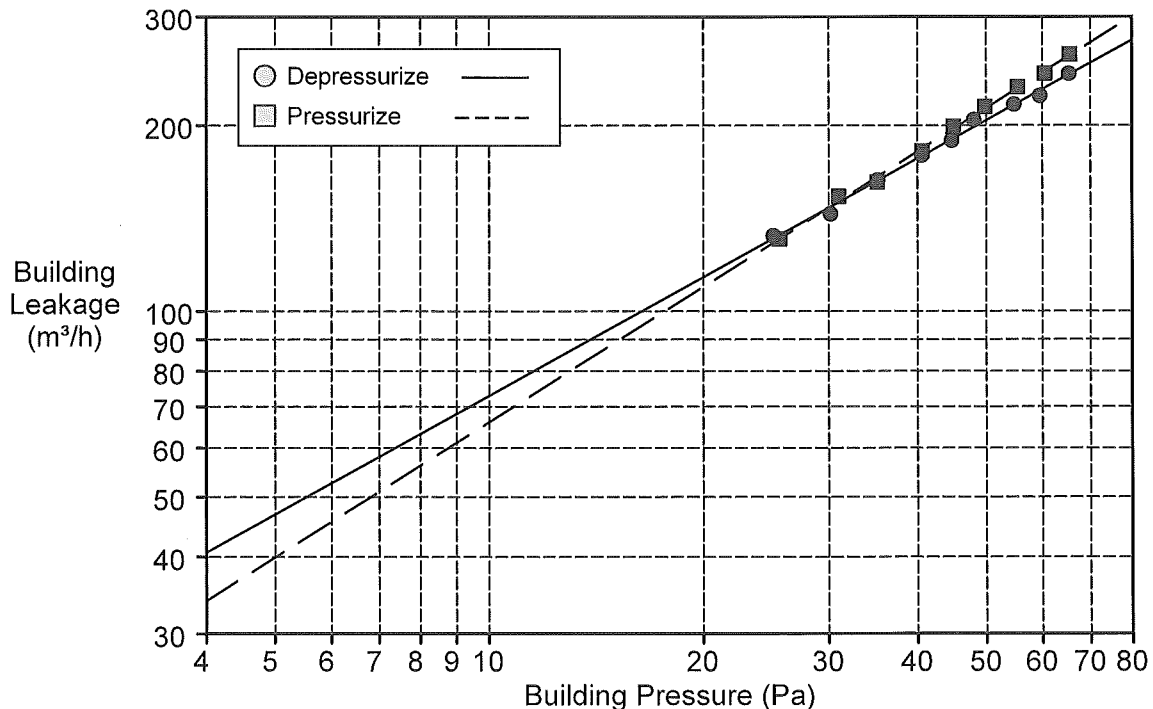
BUILDING LEAKAGE TEST

Date of Test: 17/01/2019
 Test File: Revfem FINAL 17012019

Technician: Baden Brown
 Project Number: Revfem
 Building Address: New Dwelling
 31A Tainui Street
 Ohakune, Waimarino 4625

Customer: Calum Revfem
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 Ohakune, Waimarino 4625
 Phone: +64 21 499 177
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	<u>Depressurization</u>	<u>Pressurization</u>	<u>Average</u>
Test Results at 50 Pascals:			
V50: m ³ /h Airflow	204 (+/- 1.3 %)	213 (+/- 0.9 %)	209
n50: 1/h Air Change Rate	0.56	0.58	0.57
w50: m ³ /h/m ² Floor Area	1.43	1.50	1.47
q50: m ³ /h/m ² Envelope Area	0.39	0.41	0.40
Leakage Areas:			
Canadian EqLA @ 10 Pa (cm ²)	81.4 (+/- 7.5 %)	73.8 (+/- 5.3 %)	77.6
cm ² /m ² Surface Area	0.16	0.14	0.15
LBL ELA @ 4 Pa (cm ²)	43.8 (+/- 11.8 %)	36.6 (+/- 8.2 %)	40.2
cm ² /m ² Surface Area	0.08	0.07	0.08
Building Leakage Curve:			
Air Flow Coefficient (Cenv) (m ³ /h/Pa ⁿ)	16.9 (+/- 18.3 %)	12.4 (+/- 12.7 %)	
Air Leakage Coefficient (CL) (m ³ /h/Pa ⁿ)	16.8 (+/- 18.3 %)	12.4 (+/- 12.7 %)	
Exponent (n)	0.638 (+/- 0.047)	0.728 (+/- 0.033)	
Correlation Coefficient	0.99658	0.99874	
Test Standard:	EN 13829		
Test Mode:	Depressurization and Pressurization		
Type of Test Method:	A		
Regulation complied with:	En13829 n50 ≤ .6 1/h		



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Building Information

Volume (m ³)	365.25
Surface Area: (m ²)	523.33
Floor Area: (m ²)	142.25
Height (m)	2.4
Uncertainty of Dimensions (%)	1
Year of Construction	2018
Type of Heating	Underfloor (Hydronic)
Type of Air Conditioning	
Type of Ventilation	MHRV
Building Wind Exposure	Partly Exposed Building
Wind Class	Light Air

Equipment Information

Type	Manufacturer	Model	Serial Number	Custom Calibration Date
Fan	Energy Conservatory	Model 4 (230V)	CE 4166	Default
Micromanometer	Energy Conservatory	DG700	35616-7	11/08/2015

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Depressurization Test 1:

Environmental Data

Indoor Temperature (°C)	Outdoor Temperature (°C)	Barometric Pressure (Pa)
25.8	26.3	101325.0

Pre-Test

Baseline Pressure Data

Post-Test

Δp _{0,1} -	Δp _{0,1} +	Δp _{0,1}	Δp _{0,2} -	Δp _{0,2} +	Δp _{0,2}
-0.6	0.0	-0.6	-0.8	0.0	-0.8

Data Points:

Nominal Building Pressure (Pa)	Baseline Adjusted Building Pressure (Pa)	Fan Pressure (Pa)	Nominal Flow (m³/h)	Adjusted Flow (m³/h)	% Error	Fan Configuration
-0.6	n/a	n/a				
-25.8	-25.1	41.7	132	133	1.0	Ring C
-30.9	-30.2	48.7	143	144	-2.7	Ring C
-35.9	-35.2	62.2	162	163	0.1	Ring C
-41.3	-40.6	74.5	178	179	0.3	Ring C
-45.4	-44.7	82.8	188	189	-0.5	Ring C
-48.8	-48.1	96.5	204	204	2.7	Ring C
-55.5	-54.8	107.8	216	216	0.1	Ring C
-60.2	-59.5	114.8	223	224	-1.9	Ring C
-66.1	-65.4	134.6	242	243	0.3	Ring C
-0.8	n/a	n/a				

Deviations from Standard EN 13829 - Test Parameters

None

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Pressurization Test 1:

Environmental Data

Indoor Temperature (°C)	Outdoor Temperature (°C)	Barometric Pressure (Pa)
25.8	26.3	101325.0

Pre-Test

Baseline Pressure Data

Post-Test

$\Delta p_{0,1-}$	$\Delta p_{0,1+}$	$\Delta p_{0,1}$	$\Delta p_{0,2-}$	$\Delta p_{0,2+}$	$\Delta p_{0,2}$
-0.5	0.1	-0.4	-0.6	0.1	-0.4

Data Points:

Nominal Building Pressure (Pa)	Baseline Adjusted Building Pressure (Pa)	Fan Pressure (Pa)	Nominal Flow (m³/h)	Adjusted Flow (m³/h)	% Error	Fan Configuration
-0.4	n/a	n/a				
25.2	25.6	40.6	130	131	-0.2	Ring C
30.6	31.0	55.3	153	153	1.9	Ring C
34.7	35.2	61.5	161	162	-1.9	Ring C
40.3	40.7	76.7	181	182	-1.1	Ring C
44.6	45.0	91.7	198	199	0.8	Ring C
49.5	49.9	105.7	214	214	0.7	Ring C
55.1	55.5	122.3	230	231	0.4	Ring C
60.1	60.5	134.6	242	243	-1.0	Ring C
65.1	65.6	154.6	260	261	0.4	Ring C
-0.4	n/a	n/a				

Deviations from Standard EN 13829 - Test Parameters

None

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Comments

- Ventilation inlet and outlet sealed for the test.
 - Fan located in D04
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