BUILDING LEAKAGE TEST

Date of Test: 23/06/2015 Technician: Rich Hibbert
Test File: 170 Grow The Future Classroom, NBGW, Coed Cymru

Customer: Tabitha Binding
Coed Cymru
The Sawmills
Tregynon
Newtown, Powys SY16 3PL
Phone: 01686 650777
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Building Address: Grow The Future Classroom
National Botanic Garden of Wales
Llanarthne, Carmarthenshire SA23 8HN

Test Results at 50 Pascals:

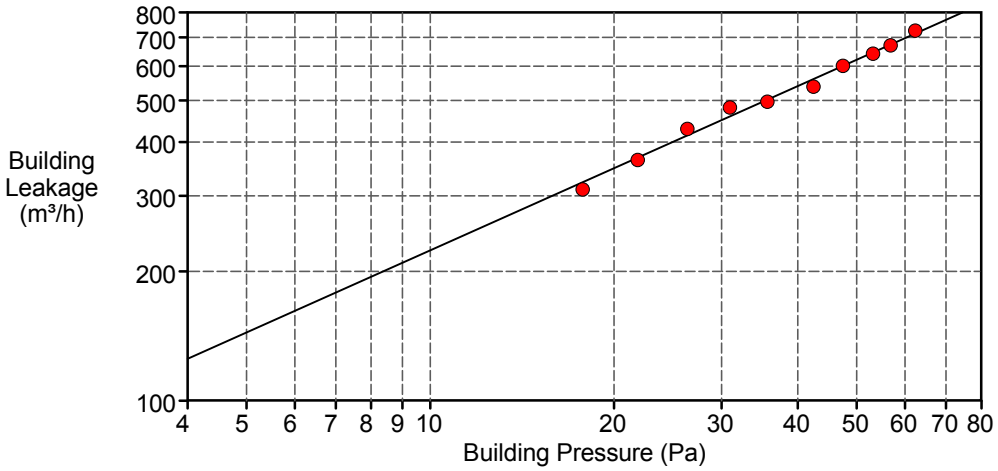
V50: Airflow (m³/h)	622 (+/- 0.9 %)
n50: Air Changes per Hour (1/h)	
w50:	
q50: m³/(h*m² Surface Area)	1.58

Leakage Areas: 250.1 cm² (+/- 3.6 %) Canadian EqLA @ 10 Pa or 0.64 cm²/m² Surface Area
134.9 cm² (+/- 5.8 %) LBL ELA @ 4 Pa or 0.34 cm²/m² Surface Area

Building Leakage Curve: Air Flow Coefficient (Cenv) = 52.3 (+/- 9.1 %)
Air Leakage Coefficient (CL) = 52.1 (+/- 9.1 %)
Exponent (n) = 0.634 (+/- 0.024)
Correlation Coefficient = 0.99432

Test Standard:	EN 13829	Test Mode:	Depressurization
Type of Test Method:	B	Regulation complied with:	ADL2A 2010
Equipment:	Model 3 Minneapolis Blower Door, S/N 15660		

Inside Temperature:	24 °C	Volume:	
Outside Temperature:	21 °C	Surface Area:	392 m²
Barometric Pressure:	100440 Pa	Floor Area:	
Wind Class:	0 Calm	Uncertainty of Building Dimensions:	%
Building Wind Exposure:	Highly Exposed Building		
Type of Heating:	Electric heaters	Year of Construction:	2015
Type of Air Conditioning:	None		
Type of Ventilation:	Natural		



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Comments

A detached, single storey, timber framed classroom constructed in 2015 by Coed Cymru. The classroom has an
reception hall, 2 classrooms and 3 w/c. The classroom has a warm roof.
Envelope area calculated using on-site measures and dimensions.
Heating is via electric heaters.
All external doors and window closed, internal doors wedged open, water in all traps, w/c extracts sealed off
for duration of test.

Data Points: Depressurization - Data Entered Manually

Nominal Building Pressure (Pa)	Fan Pressure (Pa)	Nominal Flow (m³/h)	Temperature Adjusted Flow (m³/h)	% Error	Fan Configuration
1.1	n/a				
-16.2	68.2	311	310	-3.8	Ring C
-24.8	126.1	430	429	3.6	Ring C
-34.1	28.4	497	496	-1.1	Ring B
-45.9	42.0	602	601	-0.1	Ring B
-55.2	52.5	672	671	-0.4	Ring B
-60.8	61.8	727	726	1.5	Ring B
-51.6	48.0	643	642	-0.7	Ring B
-40.9	33.5	539	538	-4.0	Ring B
-29.4	156.5	482	481	4.9	Ring C
-20.3	92.1	364	363	-1.3	Ring C
2.1	n/a				

Test 0 Baseline (Pa): p01- = 0.0 p01+ = 1.1 p02- = 0.0 p02+ = 2.1