

BUILDING LEAKAGE TEST

Date of Test: 09/02/2023 Test File: Untitled

Technician: Domazetovic

Project Number: HRZZ

Customer:

Building Address: Hala

Test Results at 50 Pascals:

q_{50} : m^3/h (Airflow)	262 (+/- 15.5 %)
n_{50} : 1/h (Air Change Rate)	10.08
q_{F50} : $\text{m}^3/(\text{h}\cdot\text{m}^2)$ Floor Area)	23.82
q_{E50} : $\text{m}^3/(\text{h}\cdot\text{m}^2)$ Envelope Area)	3.49

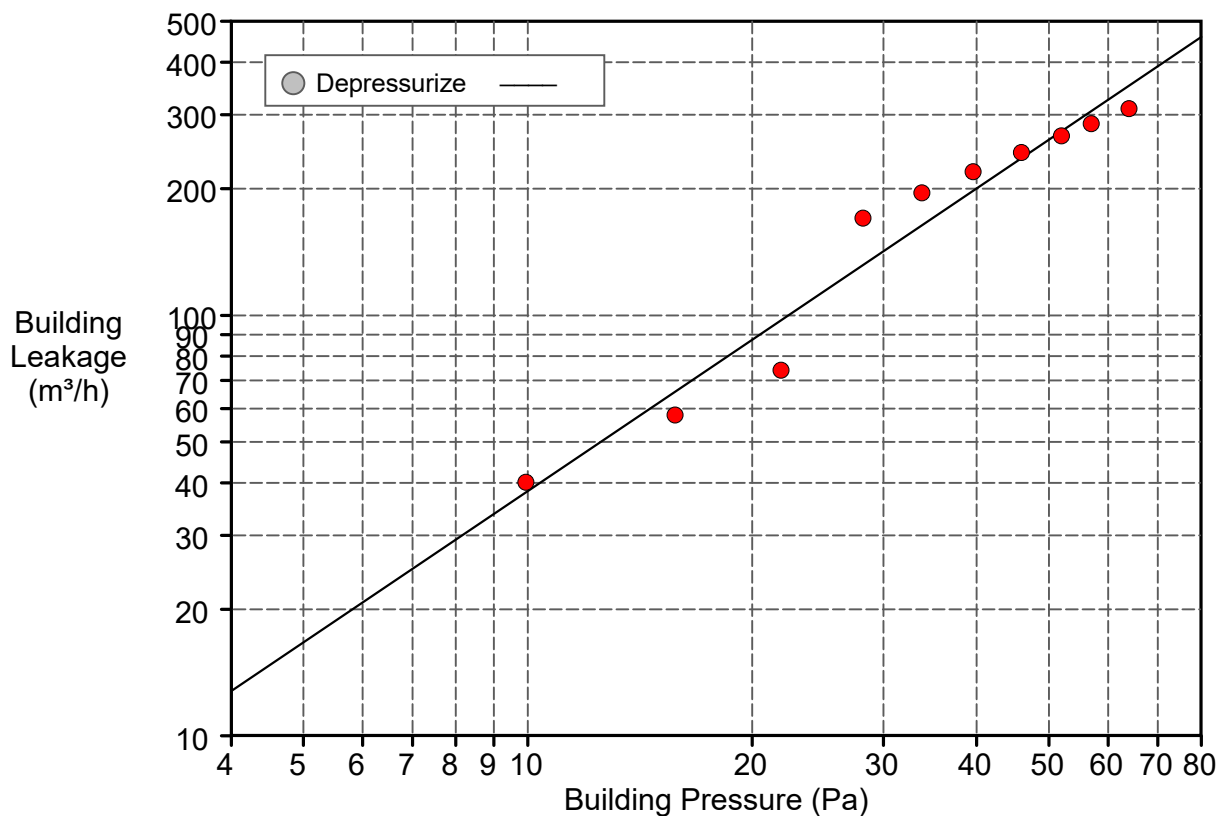
Leakage Areas:

ELA $_{50}$: m^2	0.0080 (+/- 15.5 %)
ELA $_{F50}$: m^2/m^2	0.0007260
ELA $_{E50}$: m^2/m^2	0.0001065

Building Leakage Curve:

Air Flow Coefficient (C_{env}) = $2.5 \text{ m}^3/(\text{h}\cdot\text{Pa}^n)$ (+/- 75.3 %)
Air Leakage Coefficient (C_L) = $2.4 \text{ m}^3/(\text{h}\cdot\text{Pa}^n)$ (+/- 75.3 %)
Exponent (n) = 1.196 (+/- 0.214)
Coefficient of Determination (r^2) = 0.95389

Test Standard: ISO 9972
Test Mode: Depressurization
Type of Test Method:
Purpose of Test:



BUILDING LEAKAGE TEST Page 2 of 4Date of Test: 09/02/2023 Test File: Untitled

Building Information

Internal Volume, V (m³) (according to ISO)	26
Net Floor Area, A_F (m²) (according to ISO)	11
Envelope Area, A_E (m²) (according to ISO)	75
Height (m)	2.45
Uncertainty of Dimensions (%)	3
Year of Construction	
Type of Heating	
Type of Air Conditioning	
Type of Ventilation	None
Building Wind Exposure	Highly Protected Building
Wind Class	Calm

Equipment Information

Type	Manufacturer	Model	Serial Number	Custom Calibration Date
Fan	Energy Conservatory	Model 3 (110V)		-
Micromanometer	Energy Conservatory	DG700	62127	08/01/2013

BUILDING LEAKAGE TEST Page 3 of 4

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Depressurization Test:

Environmental Data

Indoor Temperature (°C)	Outdoor Temperature (°C)	Barometric Pressure (Pa)
20.0	1.0	101325.0

Pre-Test

Baseline Pressure Data

Post-Test

$\Delta p_{0,1-}$	$\Delta p_{0,1+}$	$\Delta p_{0,1}$	$\Delta p_{0,2-}$	$\Delta p_{0,2+}$	$\Delta p_{0,2}$
-0.4	0.0	-0.4	-0.4	0.0	-0.4

Data Points - Automated Test (TTE 5.0.8.4)

Nominal Building Pressure (Pa)	Baseline adjusted Building Pressure (Pa)	Fan Pressure (Pa)	Nominal Flow q_r (m³/h)	Adjusted Flow q_{env} (m³/h)	Adjusted Flow q_L (m³/h)	% Error	Fan Configuration
-0.4	n/a	n/a					
-64.4	-64.0	76.4	336	314	310	-11.9	Ring C
-57.3	-56.9	65.1	310	290	286	-6.6	Ring C
-52.4	-52.0	57.2	290	271	267	-2.6	Ring C
-46.3	-45.9	47.9	264	247	244	3.1	Ring C
-40.0	-39.6	39.0	238	222	220	10.9	Ring C
-34.2	-33.8	31.1	212	198	195	19.3	Ring C
-28.5	-28.1	23.8	185	173	170	29.3	Ring C
-22.3	-21.8	44.7	80	75	74	-24.0	Ring D
-16.2	-15.8	27.2	63	59	58	-12.0	Ring D
-10.3	-9.9	70.2	43	41	40	5.7	Ring E
-0.4	n/a	n/a					

Deviations from Standard ISO 9972 - Test Parameters

- n value (1.196) outside of acceptable limits ($0.5 \leq n \leq 1$).
- Coefficient of Determination (0.954) outside of acceptable limits ($0.98 \leq r^2 \leq 1$).

BUILDING LEAKAGE TEST Page 4 of 4

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Comments

None
