

BUILDING LEAKAGE TEST

Date of Test: 16.09.2024 Test File: Победа

Technician:

Project Number:

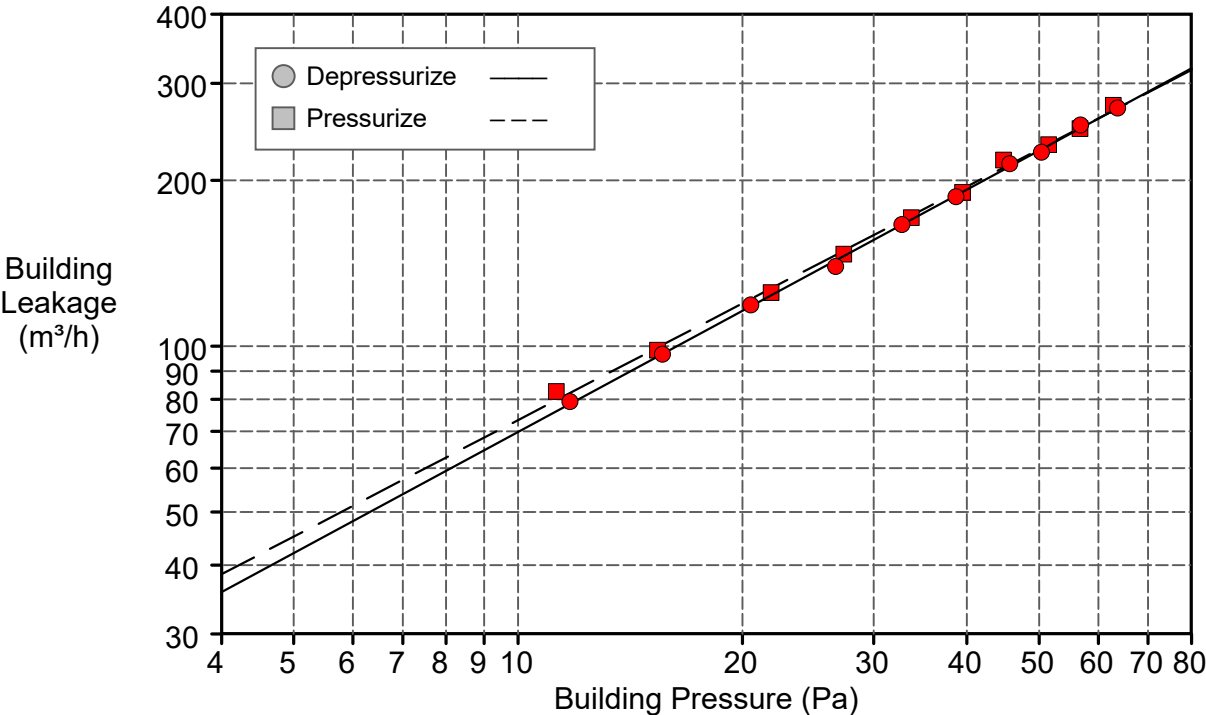
Customer: , СК "СкандиЭкоДом"

Building Address: загородный дом
Победа

Phone:

Fax:

Test Results at 50 Pascals:	Depressurization	Pressurization	Average
q ₅₀ : m³/h (Airflow)	226 (+/- 1.2 %)	228 (+/- 2.0 %)	227
n ₅₀ : 1/h (Air Change Rate)	0.85	0.85	0.85
qF50 : m³/(h·m² Floor Area)	2.67	2.69	2.68
qE50 :			
Leakage Areas:			
ELA 50 : m²	0.0069 (+/- 2.0 %)	0.0069 (+/- 2.0 %)	0.0069
ELA F50 : m²/m²	0.0000814	0.0000820	0.0000817
ELA E50 :			
Building Leakage Curve:			
Air Flow Coefficient (C _{env}) m³/(h·Pa ⁿ)	12.9 (+/- 5.9 %)	14.6 (+/- 10.1 %)	
Air Leakage Coefficient (C _L) m³/(h·Pa ⁿ)	13.0 (+/- 5.9 %)	14.5 (+/- 10.1 %)	
Exponent (n)	0.731 (+/- 0.017)	0.703 (+/- 0.029)	
Coefficient of Determination (r²)	0.99921	0.99751	
Test Standard:	ISO 9972		
Test Mode:	Depressurization and Pressurization		
Type of Test Method:	Method 2 - Test of Building Envelope		
Purpose of Test:	n50 ≤ 4 1/h		



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Building Information

Internal Volume, V (m³) (according to ISO)	267
Net Floor Area, A_F (m²) (according to ISO)	84.8
Envelope Area, A_E (m²) (according to ISO)	
Height (m)	
Uncertainty of Dimensions (%)	
Year of Construction	2024
Type of Heating	
Type of Air Conditioning	
Type of Ventilation	None
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)		-
Micromanometer	Energy Conservatory	DG700	61949	03.06.2014

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Depressurization Test 1:

Environmental Data

Indoor Temperature (°C)	Outdoor Temperature (°C)	Barometric Pressure (Pa)
22.5	16.0	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	0.1	-0.3	-1.9	0.0	-1.9

Data Points - Semi-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
-0.3	n/a	n/a					
-64.8	-63.7	172.1	275	270	271	0.1	Ring C
-57.9	-56.8	150.0	256	251	252	1.4	Ring C
-51.4	-50.3	120.1	228	224	225	-1.2	Ring C
-46.8	-45.7	109.6	218	214	214	1.2	Ring C
-39.8	-38.6	83.8	189	186	187	-0.5	Ring C
-33.8	-32.7	66.9	169	166	166	0.1	Ring C
-27.8	-26.6	47.6	142	139	140	-2.4	Ring C
-21.6	-20.5	34.9	121	118	119	0.6	Ring C
-16.7	-15.6	23.4	98	96	97	-0.1	Ring C
-12.9	-11.7	15.9	80	79	79	0.9	Ring C
-1.9	n/a	n/a					

Deviations from Standard ISO 9972 - Test Parameters

None

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Pressurization Test 1:

Environmental Data

Indoor Temperature (°C)	Outdoor Temperature (°C)	Barometric Pressure (Pa)
22.0	16.0	101325.0

Pre-Test Baseline Pressure Data Post-Test

$\Delta p_{0,1-}$	$\Delta p_{0,1+}$	$\Delta p_{0,1}$	$\Delta p_{0,2-}$	$\Delta p_{0,2+}$	$\Delta p_{0,2}$
-0.1	0.1	-0.0	-0.0	0.8	0.7

Data Points - Semi-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
-0.0	n/a	n/a					
63.2	62.9	166.9	270	274	273	2.0	Ring C
57.1	56.7	138.2	245	249	248	-0.4	Ring C
51.8	51.5	121.4	229	232	232	-0.3	Ring C
45.2	44.8	107.2	215	218	218	3.0	Ring C
39.8	39.5	82.4	188	190	190	-1.6	Ring C
34.0	33.7	67.2	169	171	171	-1.0	Ring C
27.7	27.4	50.0	145	147	147	-1.6	Ring C
22.2	21.8	36.6	123	125	125	-1.9	Ring C
15.7	15.4	22.9	97	98	98	-1.3	Ring C
11.6	11.3	16.4	82	83	83	3.4	Ring C
0.7	n/a	n/a					

Deviations from Standard ISO 9972 - Test Parameters

None

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Comments

Проверка на герметичность ограждающих конструкций.

Согласно российскому ГОСТ 31167-2009 (Приложение Д, таблица Д.1) кратность воздухообмена n_{50} считается "нормальной", если находится в диапазоне 2-4ед.

По результатам теста данная величина $n_{50}=0,85$ ед (при перепаде 50Па), что соответствует действующим нормативам.
