

Test Object

Name:	Masonry Wall
	Anchored insulation trough
	airtightness layer
	BlowerProof Liquid Brush
Test Date:	27/10/2014

Customer Information

Name:	Hevadex bvba i.o.v. Aannemingen Van Wellen
Address:	Smalle Heerweg 152 9080 Lochristi
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Temperature, Barometric Pressure

Temperature Inside	15	°C
Temperature Outside	15	°C
Barometric Pressure	101325	Pa

Orifice Plate

Air Resistance Value c_d :	0,61	[-] (sharp-edged)
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Test

Orifice Diameter (cm)	Orifice Area (A_o) (cm ²)	Δp Wall/Box (Pa)	Δp Orifice (Pa)	Airflow through Orifice (m ³ /h)	Tolerance (%)	Airflow through Wall (m ³ /h)
—	Baseline $\Delta p \Rightarrow$		—	—	—	—
1,50	1,77	-199,10	0,70	0,41	18,58	0,41
1,50	1,77	-188,80	0,30	0,27	-15,31	0,27
1,50	1,77	-179,10	0,30	0,27	-7,67	0,27
1,50	1,77	-165,00	0,30	0,27	5,61	0,27
1,50	1,77	-152,50	0,20	0,22	-1,89	0,22
1,50	1,77	-147,10	0,20	0,22	4,08	0,22
—	Baseline $\Delta p \Rightarrow$	0,00	—	—	—	—

Correlation Coefficient r :	0,860	Confidence interval	
$C_{Window/Door}$ [m ³ /(h Pa ⁿ)]	0,000	max 0,06	min 0,00
$C_{Standard}$ [m ³ /(h Pa ⁿ)]	0,000	max 0,06	min 0,00
n [-]	1,64	max 2,99	min 0,29

Results

	Total Airflow
Pressure difference across the wall (inside - outside): 50 Pascal	0,04 m ³ /hm ² +/- 10 %

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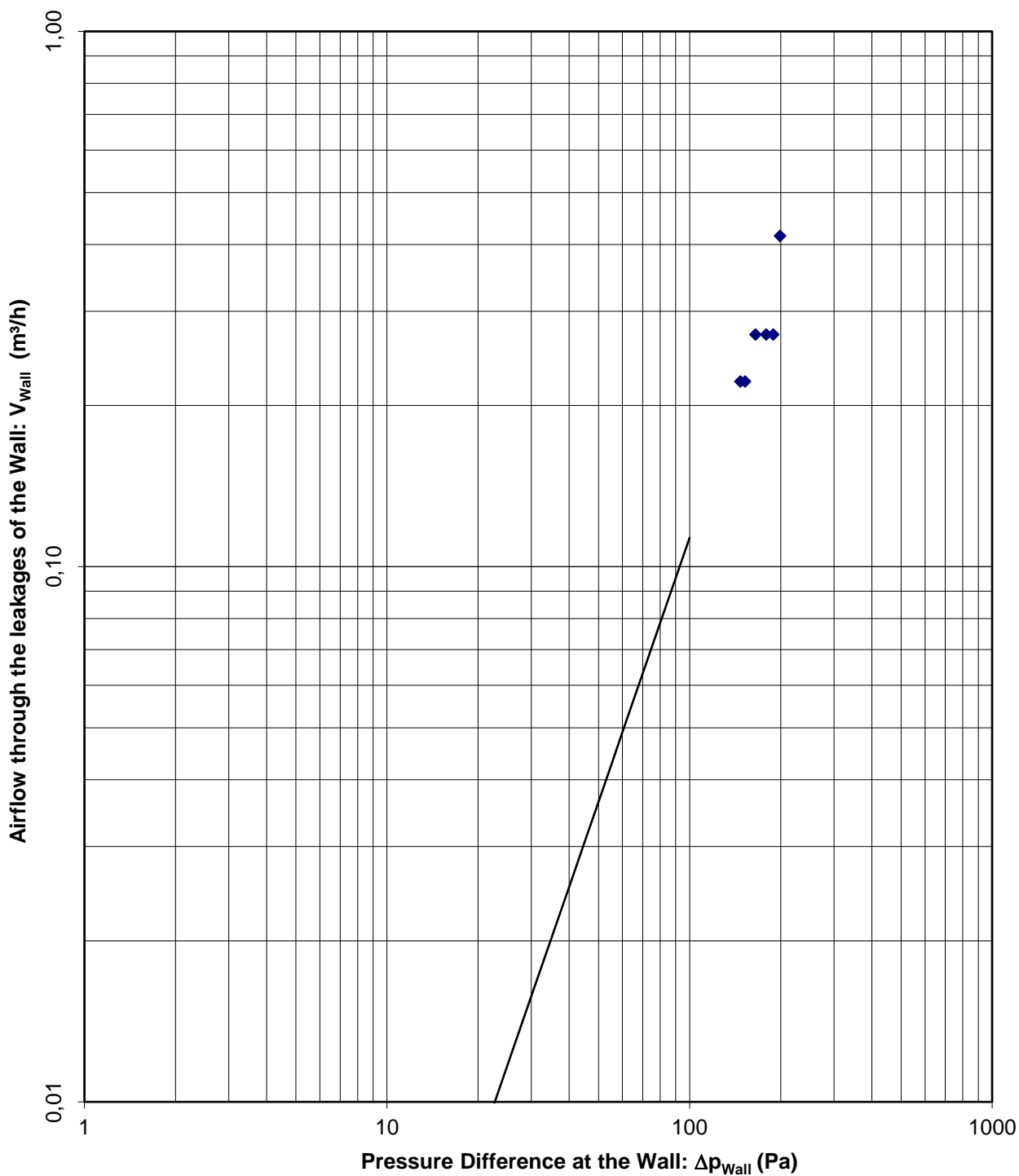
Note: Airflow at Standard conditions (Temperature=20°C, barometric pressure=101325 Pa)

Business Info: Arnout Van der Vliet

BCB bvba
Edgard Tinelstraat 65
9040 Gent

sign

Graph: masonry wall with anchored insulation plates



◆ Airflow Depressurization (m³/h)

— Regression Line Depressurization (m³/h)

Test Object and Measurement System

Object: Masonry Wall
Blowerproof Liquid Brush

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Hevadex bvba i.o.v. Aannemingen Van Wellen

Basic formulas for the test

Formula: $V = 0,36 * (2/\rho)^{0,5} * c_d * A_o * \Delta p^{0,5}$
 with: ρ Air Density
 c_d Air Resistance value
 A_o Area of orifice
 Δp Pressure Difference at orifice
 Method: Test of small airflows through round hole, which is sharp edged and calibrated.

Test object

Description

The airtightness of a non-plastered masonry wall was tested. The outside of the wall was applied with Blowerproof Liquid Brush and rigid insulation plates were anchored. The measurement was held on a surface of 1,25m x 0,75m (= 0,94m²). The measured surface was covered with plastic foil and the edges of the plastic foil were taped with airtight Tescon Vana tape (6cm).

The measurement took place on the building site of nv Van Wellen, Elshoutbaan 15 - Brasschaat 2930.

Photo:



Measuring Equipment and Software

System: Minneapolis BlowerDoor Model 4, DG-700
 Device Number: Fan: CE4255 Pressure gauge: 62296 Calibration: 1/11/2013
 Software: Teclog 2

Comments on the measurement procedure

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Photo 1/3: detail of perforations trough wall



Photo 2/3: general view of perforations trough wall



Photo 3/3: arrangement of the test

