



Consiliul Tehnic Permanent pentru Construcții

Șos. PANTELIMON, nr.266, sector 2, BUCUREȘTI

Tel./fax 255.71.72, e-mail office@ctpc.ro, www.ctpc.ro

Nr. 016 din 18.02.2011

SC BFR TOUR SRL, Sita-Buzaului
Domnului Administrator, Daniel NEAGOE

Urmare solicitării dumneavoastră vă comunicăm că produsul Ferestre si usi balcon din PVC, sistem BRUGMANN, cu unul, doua sau mai multe canate compartimentate prin montanti sicsi si/sau mobili, pentru care solicitați înscrierea în Registrul Unic al produselor pentru construcții a cărui conformitate cu specificațiile tehnice armonizate a fost atestată, îndeplinește condițiile prevăzute de Hotărârea Guvernului nr. 622/2004 privind stabilirea condițiilor de introducere pe piață a produselor pentru construcții cu modificările și completările ulterioare pentru Sistemul 3 și în consecință a fost înscris în Registrul Unic. Acest produs se regăsește pe adresa www.ctpc.ro, la rubrica Registrul Unic la Anexa 2, Familia 2.41, Pozitia 222.

SECRETARIAT C.T.P.C.

Radu Andronescu

016/2

Producător sau reprezentantul său autorizat	
Producator	Reprezentant autorizat
SC BFR TOUR SRL Str PRINCIPALA 271 cod - 10 -	-NEAGOE DANIEL
Codul de referință al produsului dat de producător	Ferestre si usi balcon din PVC sistem BRÜGMANN unul, doua sau mai multe canate compartimentate prin montanti ficsi si/sau mobili

In conformitate cu Directiva 89/106/CEE – privind armonizarea legilor, reglementărilor tehnice și a prevederilor administrative ale Statelor membre, referitoare la produse pentru construcții, cu Ordonanta nr.20/18.08.2010 privind stabilirea unor masuri pentru aplicarea unitara a legislatiei Uniunii Europene care armonizeaza conditiile de comercializare a produselor si cu Hotărârea Guvernului nr.622/2004 cu modificările și completările ulterioare privind stabilirea condițiilor de introducere pe piață a produselor pentru construcții, declar pe propria răspundere că a fost efectuată atestarea conformității produsului ferestre si usi exterioare pentru pietoni - tipul :ferestre si usi balcon din PVC sistem BRÜGMANN unul, doua sau mai multe canate compartimentate prin montanti ficsi si/sau pentru utilizari privind economia de energie si reducere acustica si ca poate fi pus în opera conform instructiunilor de utilizare continute în documentația produsului.

Conformitatea este demonstrată avand ca referinta:

(SR) EN 14351-1+A1:2010

Performantele produsului pentru Sistemul 3 de evaluare a conformarii:

Caracteristici	Standardul de încercări	Valori declarate Usi/ferestre balcon
Rezistenta la incarcarea data de vant	EN 12211:2001	C 3
Etansiete la apa - neprotejata	SR EN 1027:2001	8A
Etanseitate la apa - protejata	SR EN 1027:2001	7B
Permeabilitate la aer	SR EN 1026 :2001	CLASA 4
Performanta acustica Rw (C ;Ctr) (db)	determinare	32db(-1;-5)
Transmitanta termica Uw(W(mp xK))	determinare	1,7 W/m²K
Capacitatea de rezistenta a dispozitivelor de siguranta	SR EN 14609:2004	Valoare prag atinsa
Substante periculoase		npd

- Denumirea si descrierea produsului- Ferestre si usi balcon din PVC sistem BRÜGMANN unul, doua sau mai multe canate compartimentate prin montanti ficsi si/sau mobili

- Denumirea si adresa organismului notificat pentru atestarea conformității - Nu este cazul

- Numărul raportului de testare - 320B-2010

- Denumirea și adresa laboratorului notificat –LTB- 41-306 Dabrowa Gornicza, Laski 83, No. Body:1827

Producător sau reprezentantul său autorizat	
Semnătura Nume Funcție Data:	SC B.F.R. TOUR SRL NEAGOE DANIEL ADMINISTRATOR 14.12.10





Laboratorium Techniki Budowlanej s.c.
B. Wójtowicz, A. Żyła, M. Żyła
41-306 Dąbrowa Gornicza, ul. Laski 83
NIP 625-21-29-966
Nr notyfikacji /Notified body/ 1827

tel/fax (032) 26 44 079; (0-608) 50 66 32; (0-608) 50 66 35; (0-604) 976 207
Bank Śląski o/Dąbrowa Górnicza nr 57 1050 1272 1000 0022 3368 1416



AB 661

ITT REPORT № 316/B-2010

Window's testing in accordance with EN 14351-1:2006+A1:2010, entitled:
"Windows and doors – Product standard, performance characteristics – Part 1:
Windows and external pedestrian doorsets without resistance to fire and/or smoke leakage
characteristics"

Characteristics performance

Applicant: **BRÜGMANN S.A.**
Al. Kazimierza Wielkiego 6a
87-800 Włocławek

for Producer: **S.C. B.F.R. TOUR S.R.L.**
Sita Buzaului, № 271
BUZAU

Formal basis to providing test: order from 12th July 2010.


Quality Manager

Date of issue: 21th July 2010



Laboratorium Techniki Budowlanej s.c.
B. Wójtowicz, A. Żyła, M. Żyła
41-306 Dąbrowa Górnicza, ul. Laski 83
NIP 625-21-29-966
Nr notyfikacji /Notified body/ 1827



tel/fax (032) 26 44 079; (0-608) 50 66 32; (0-608) 50 66 35; (0-604) 976 207
Bank Śląski o/Dąbrowa Górnicza nr 57 1050 1272 1000 0022 3368 1416

AB 661

ITT Report 316/B-2010

Window's testing in accordance with EN 14351-1:2006+A1:2010, entitled:
"Windows and doors – Product standard, performance characteristics – Part 1:
Windows and external pedestrian doorsets without resistance to fire and/or smoke leakage
characteristics"

**Air permeability, resistance to wind load, watertightness and load-bearing capacity of safety
devices test performance of reference window in the framework of cascading ITT.**

1. Applicant.

The tests performances have been ordered by BRÜGMANN S.A.; address: 87-800 Włocławek, Kazimierza Wielkiego str., № 6A; NIP 888-10-16-263, for company: S.C. B.F.R. TOUR S.R.L., Sita Buzaului, № 271, Buzau; NIP RO 17706761 and only these companies are able to receipt the tests results, extend it to another subjects or/and dispose in according to the own acknowledgement.

Text in English version for S.C. B.F.R. TOUR S.R.L.

One copy of this report will be maintained in Laboratory's archives, without possibility of third-party inspections.

The ITT Report № 316/B-2010 assembles twelve pages, marked with numbers from 1/12 to 12/12.

To complete information maintain, the report has to be extend at completely copied parts. Single pages of the report shouldn't be copied and/or extend separately.

All datasheets and working forms are attached to report copy saved at Laboratory's archive.

2. Objective

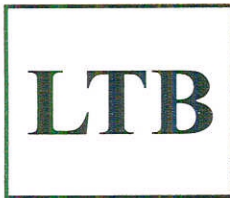
The confirmation of performance characteristic of window made by Producer under Applicant's factory production control (FPC) system.

Harmonized Standard: EN 14351-1:2006+A1:2010

AoC: system 3

Tests performances were started on 2010.07.15 and ended on 2010.07.21.

Bydgoszcz 10/10/10



Tests performances were started on 2010.07.15 and ended on 2010.07.21.

The results concern only submitted specimens and test performance conditions.
 Laboratory takes overall responsibility for results published in this report.

Note!

Tests described in this report are the check tests referred to the cascading of ITT results and are check tests under factory production control system. (EN 14351-1:2006+A1:2010, Cl. 7.2.5.2).

3. Scope.

Specimen: window

- a. air permeability in accordance with EN 1026:2001; positive pressure
- b. air permeability in accordance with EN 1026:2001; negative pressure
- c. watertightness in accordance with 1027:2001
- d. resistance to wind load in accordance with EN 12211:2001; positive pressure
- e. resistance to wind load in accordance with EN 12211:2001; negative pressure
- f. resistance to wind load in accordance with EN 12211:2001; repeatable pressure test
- g. air permeability in accordance with EN 1026:2001; positive pressure, after resistance to wind load test
- h. air permeability in accordance with EN 1026:2001; negative pressure, after resistance to wind load test
- i. resistance to wind load in accordance with 12211:2001; safety test
- j. load-bearing capacity of safety devices

Tests (points : a. to j.) were performed by laboratory technician: Mr. Tadeusz Pawlik

4. Used testing equipment

Test were performed by the use of the "Schulten" test device in LTB's registered office.

The schema given on page № 4/12 in this report, present specimen's montage manner to the test chamber.

All measurement systems were calibrated and ensured suitable measuring precision.

5. Object of the test

Window, delivered by "B.F.R. TOUR" company, made in accordance with all requirements, and materials of the BRÜGMANN AD system.

pogoda



5.1. Window: specification of the components.

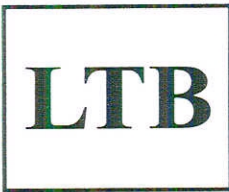
System name: BRÜGMANN AD			
	Material/component	Documentation mark	Material/component mark
1	Frame	HO 1220	BF3 HO 122 LZ 15 04 10
2	Sash	HO 1720	BF3 HO 172 20 04 10 OK
3	Mullion	HO 3020	KY BF3 HO 302 12 08 10
4	Sash – reinforcement	VS 112 s=1,25	inaccessible
5	Frame – reinforcement	VS 112 s=1,25	inaccessible
6	Mullion - reinforcement	VS 302 s=2,00	inaccessible
7	Glazing bead	GP524	unmarked
8	Rebate gasket	coextruded	unmarked
9	Glazing gasket	coextruded	unmarked
10	Insulated glass unit	no data	24 mm, made by "OLIN" company, unmarked on spacer

5.2. Specimen: description.

Two sashes window with mullion, single side-hung casement type, right sash: tilt and turn, opening inwards.

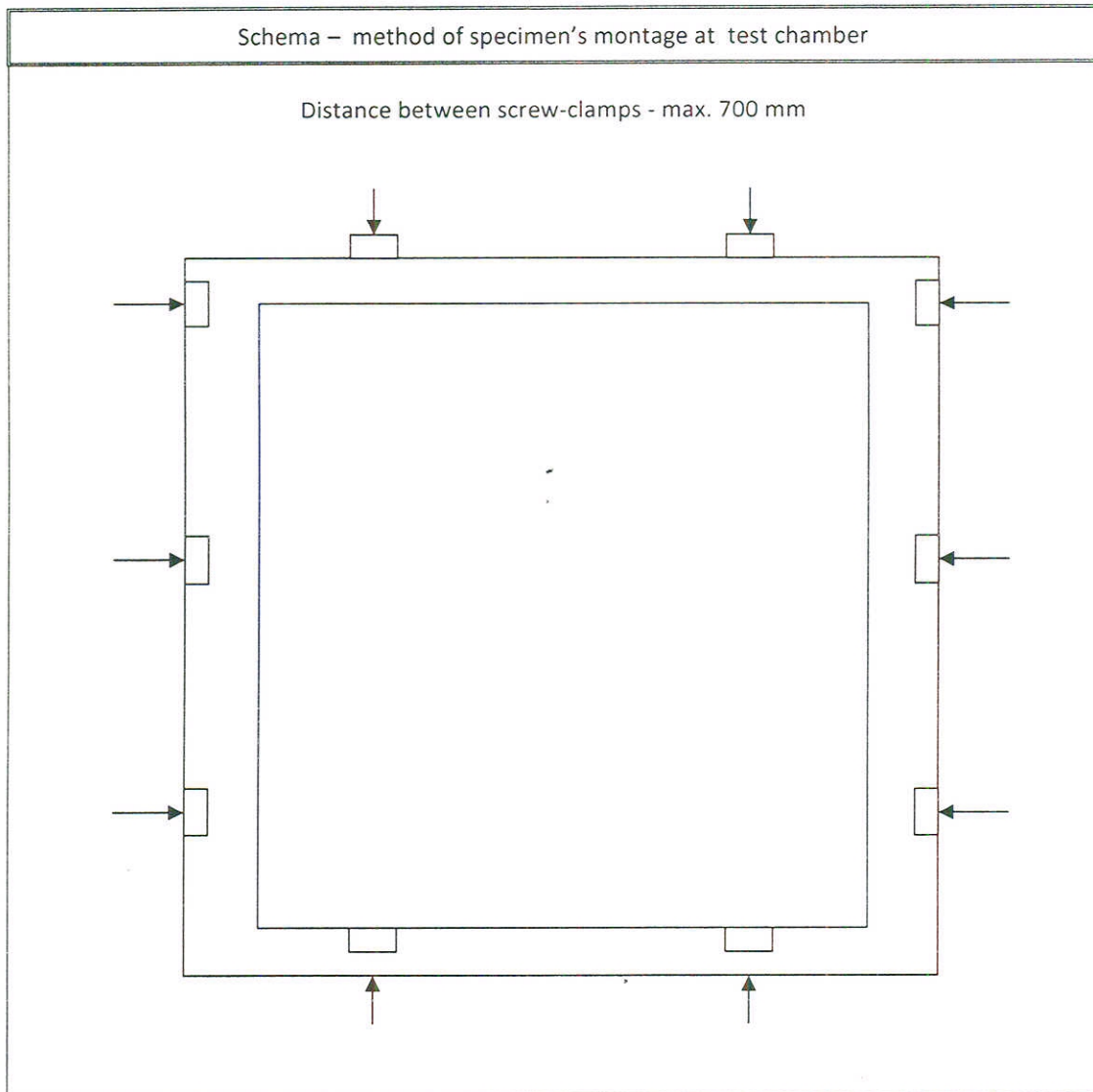
- a. Window made of hard impact PVC profiles, class EU-"B" in accordance with EN 12608:2004.
- b. Main dimensions:
width: 1800 mm; height: 1700 mm; overall area: 3,06 m².
The cross-section of sash/frame combination is given on page 6/12 and mullion/sash on page 7/12 of this report.
- c. Overall length of the joint: 9,89 m.
- d. Frames and sashes edges are connected by welding, at an angle 45°.
- e. Internal gasket continuous, external gasket is cut out on section 100 mm, from upper bar of frame.
- f. Drainage slots: 6 inside the frame, longitudinal, dimensions: 30mm/ø4 mm, distances to the jambs – 25mm; 6 outside the frame, longitudinal, dimensions:30-31mm/ø5mm; outside slots pivots have 80mm axial shift to the inside slots position.
- g. Hardware: "ROTO". Hardware's arrangement draft is presented on page № 5/12 of this report.

Bożena Wójcik

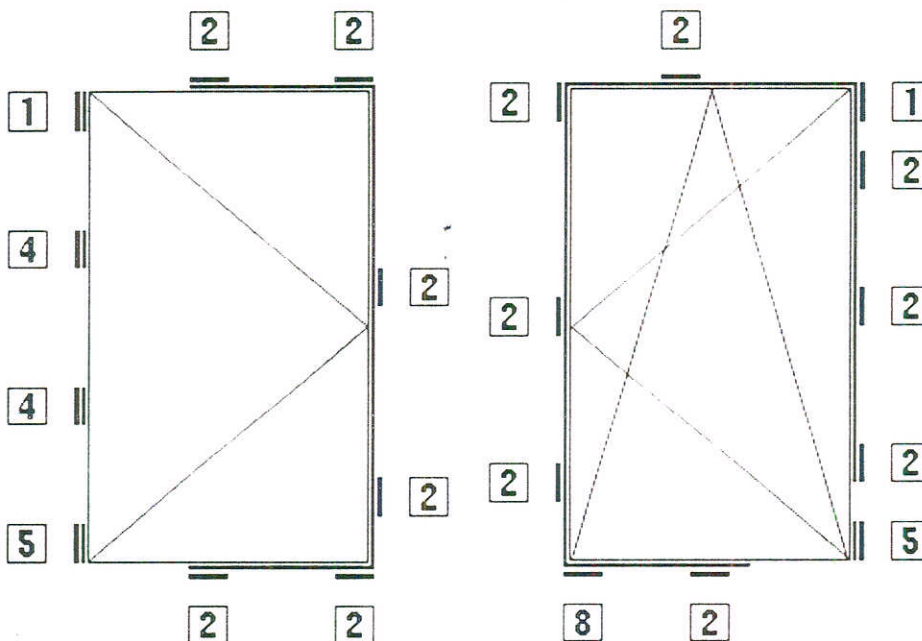


Usługi nieakredytowane: Szkolenia, konsultacje i doradztwo techniczne. Nadzór nad jakością produkcji.

Bożena Wójcik



Window – hardware’s arrangement



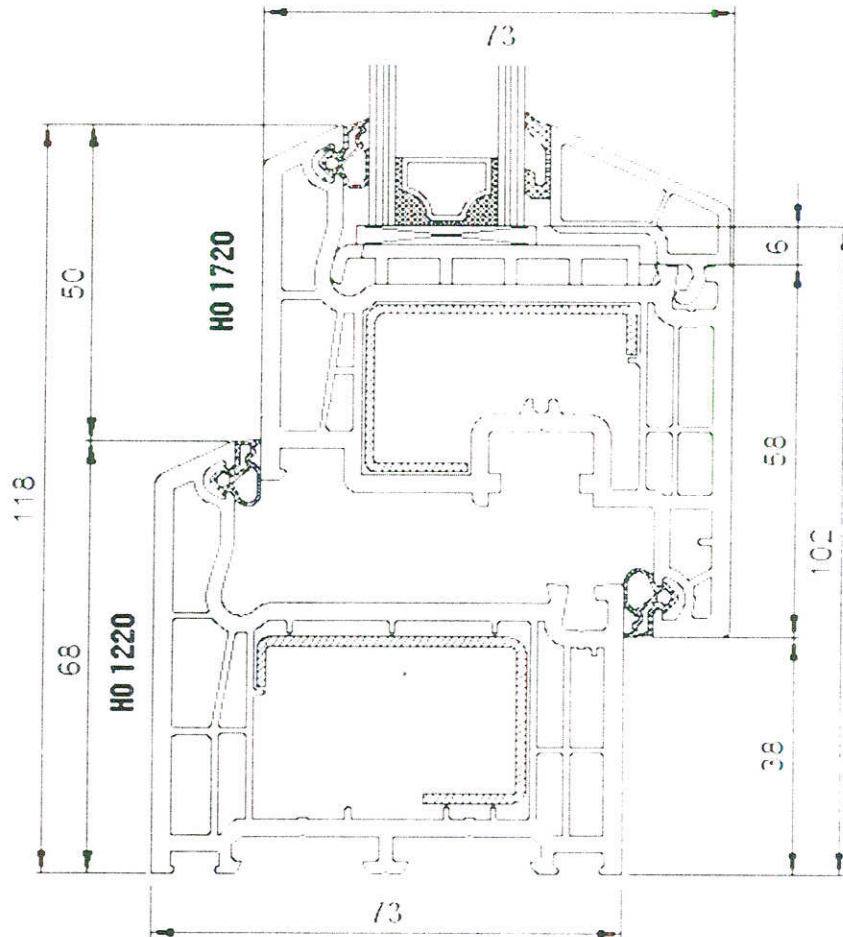
1. Share hinge.
2. Roller keep (382584)
3. Security keep.
4. Riser block.
5. Corner hinge.
6. Tilt keep.
7. Lifter keep..
8. Security tilt plate (382582).
9. Security keep.
10. Mini vent keep.
11. Fail save keep.
12. Tilt limiter.

Usługi nieakredytowane: Szkolenia, konsultacje i doradztwo techniczne. Nadzór nad jakością produkcji.

Bożena Hojda

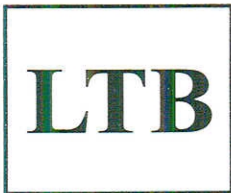
Combination: sash and frame. Cross-section

System: BRÜGMANN AD



Usługi nieakredytowane: Szkolenia, konsultacje i doradztwo techniczne. Nadzór nad jakością produkcji.

bezpośredni nadzór



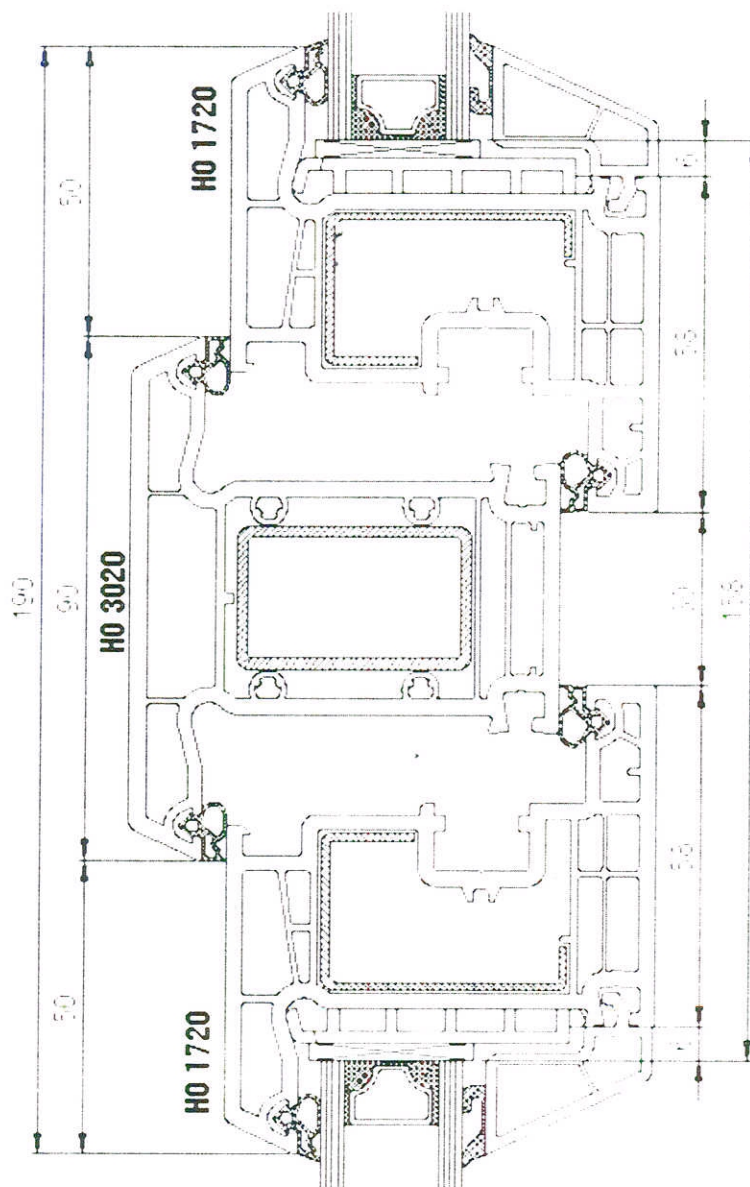
Laboratorium Techniki Budowlanej s.c.
B. Wójtowicz, A. Żyła, M. Żyła
41-306 Dąbrowa Górnicza, ul. Laski 83
NIP 625-21-29-966
Nr notyfikacji /Notified body/ 1827



AB 661

tel/fax (032) 26 44 079; (0-608) 50 66 32; (0-608) 50 66 35; (0-604) 976 207
Bank Śląski o/Dąbrowa Górnicza nr 57 1050 1272 1000 0022 3368 1416

Combination: sash and mullion. Cross-section	System: BRÜGMANN AD
--	---------------------



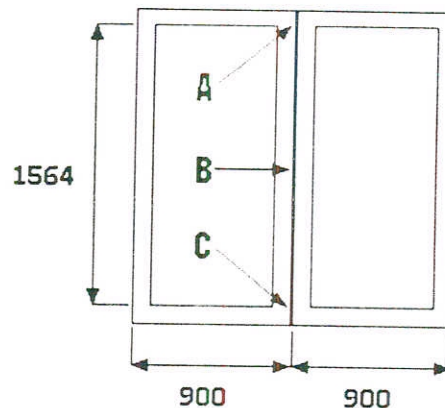
Usługi nieakredytowane: Szkolenia, konsultacje i doradztwo techniczne. Nadzór nad jakością produkcji.

bezobrotowa

6. Results

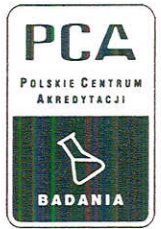
6.1. Window

Window						
Resistance to wind load. Clause 4.2 of standard EN 14351-1:2006+A1:2010						
Characteristic, volume, measure	Corresponding class	Mullion relative deflection			Class according to EN 12210	
		mullion	Pressure " + "	Pressure " - "		
Test pressure P1 1200 Pa	3	A,B,C, D,E,F	1/417 ---	1/417 ---	C	
Test pressure P2 600 Pa	3	Repeatable pressure test			no damage	
Test pressure P3 1800 Pa	3	Safety test			no damage	
Deflection	A	B	C	D	E	F
positive	0,35	4,57	1,29	---	---	---
negative	0,32	4,61	1,40	---	---	---
Increase of air outflow rate after repeatable pressure test	Max air permeability before repeatable pressure test	Max air permeability after repeatable pressure test	Increase of air permeability			
			measured	admitted in class 4		
	1,09 m ³ /h*m ²	1,29 m ³ /h*m ²	0,20 m ³ /h*m ²	0,6 m ³ /h*m ²		
Note. Resistance to wind load – test pressure for class 3 is: 1200 Pa. Frame deflection for class C is: <1/300						



LTB

Laboratorium Techniki Budowlanej s.c.
 B. Wójtowicz, A. Żyła, M. Żyła
 41-306 Dąbrowa Górnicza, ul. Łaski 83
 NIP 625-21-29-966
 Nr notyfikacji /Notified body/ 1827



tel/fax (032) 26 44 079; (0-608) 50 66 32; (0-608) 50 66 35; (0-604) 976 207
 Bank Śląski o/Dąbrowa Górnicza nr 57 1050 1272 1000 0022 3368 1416

AB 661

Window					
Watertightness, test method EN 1027:2001, Clause 4.5 of standard EN 14351-1:2006+A1:2010					
Spray method	Sprayer nozzle quantity	Average quantity of water per nozzle	Test pressure to reach [Pa]	Result, time of water intrusion	Class according to EN 12208
A	5	2 l/min	1200	3min 900 Pa	E750

Test method: 1A		Specimens overall area : 3,06 m ²		Stand: 109/107	
Temperature of air : 29°C			Relative humidity		Atmospheric pressure
Temperature of water : 26°C			54%		98 [kPa]
Ventilation devices: no ventilation devices					
Conditioning <input checked="" type="checkbox"/>		Opening and closing <input checked="" type="checkbox"/>		Pre-testing pressure impulse 1320 [Pa] <input checked="" type="checkbox"/>	
Testing pressure P [Pa]	Time of spraying [min]	Result, the intrusion time [min]	Points of water intrusion – scheme		
0	15	no intrusion			
50	5	no intrusion			
100	5	no intrusion			
150	5	no intrusion			
200	5	no intrusion			
250	5	no intrusion			
300	5	no intrusion			
450	5	no intrusion			
600	5	no intrusion			
750	5	no intrusion			
900	5	3 rd min.			
1050	5				
1200	5				
1350	5				
1500	5				
1650	5				
1800	5				

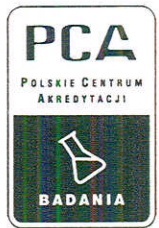
Usługi nieakredytowane: Szkolenia, konsultacje i doradztwo techniczne. Nadzór nad jakością produkcji.

Bożena Wójcik

LTB

Laboratorium Techniki Budowlanej s.c.
B. Wójtowicz, A. Żyła, M. Żyła
41-306 Dąbrowa Górnicza, ul. Łaski 83
NIP 625-21-29-966
Nr notyfikacji /Notified body/ 1827

tel/fax (032) 26 44 079; (0-608) 50 66 32; (0-608) 50 66 35; (0-604) 976 207
Bank Śląski o/Dąbrowa Górnicza nr 57 1050 1272 1000 0022 3368 1416



AB 661

Window

Air permeability. Standard EN 14351-1:2006+A1:2010 clause 4.14

Characteristic, volume, measure	Normal conditions air permeability				Calculated air outflow rate				Class according to EN 12207	
	Positive pressure [m ³ /h]	Negative pressure [m ³ /h]	Average [m ³ /h]	per 1m ² of overall area [m ³ /(h*m ²)]	per 1m of overall length of the joint [m ³ /(h*m)]	per 1m ² of overall area by 100 Pa Q ₁₀₀ [m ³ /(h*m ²)]	Corresponding class	Per 1m of overall length of the joint by 100 Pa Q ₁₀₀ [m ³ /(h*m)]		Corresponding class
Test pressure value [Pa]										
50	2,20	2,25	2,23	0,73	0,22	1,15	4	0,36	4	4
100	3,48	3,48	3,48	1,14	0,35	1,14	4	0,35	4	4
150	4,50	4,43	4,47	1,46	0,45	1,11	4	0,34	4	4
200	5,41	5,18	5,30	1,73	0,54	1,09	4	0,34	4	4
250	6,22	5,87	6,05	1,98	0,61	1,07	4	0,33	4	4
300	7,01	6,50	6,76	2,21	0,68	1,06	4	0,33	4	4
450	9,31	8,25	8,78	2,87	0,89	1,05	4	0,33	4	4
600	12,34	9,66	11,00	3,59	1,11	1,09	4	0,34	4	4
Reference air permeability by 100 Pa in relation to overall area for class 4 is: 3 [m ³ /(h*m ²)]										Air permeability of specimen window: CLASS 4
Reference air permeability by 100 Pa in relation to overall length of the joint for class 4 is : 0,75 [m ³ /(h*m)]										



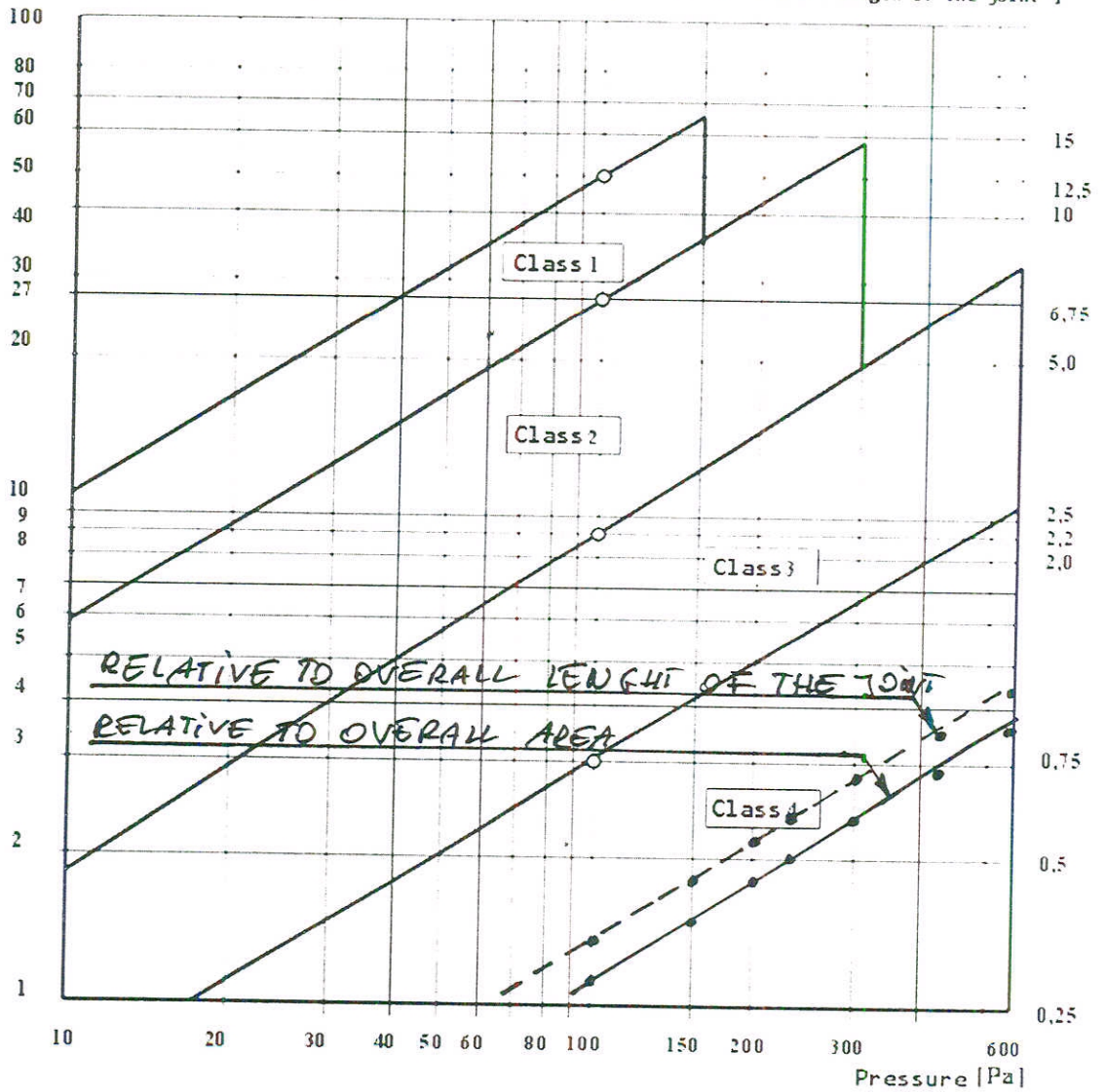
Specimen : Window – air permeability diagram

Air permeability
relative to overall area

Air permeability relative to
overall length of the joint

[m³/h*m² overall area]

[m³/h*m overall length of the joint]



EN 12207:2001 Windows and doors. Air permeability. Classification

Usługi nieakredytowane: Szkolenia, konsultacje i doradztwo techniczne. Nadzór nad jakością produkcji.

bagdan m...

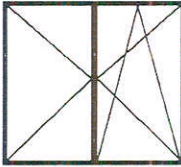


6.2. Load-bearing capacity of safety devices.

Test was performed in accordance with clause 4.8. of standard EN 14351-1:2006+A1:2010, by force reactive to tilted sash. Value of the force: 350 N, reactive perpendicular to windows area and at an angle of 45° to the ground plane. Time of reaction: 60 sec.

Window did not become damaged nor malfunction.

6.3. Report Part.No.1 – results comparison.

No	Characteristic	Tested specimen
		Classification/Value
	Appropriate clause number of standard 14351-1:2006+A1:2010	
		 B=1800, H=1700
1.	4.2. Resistance to wind load. Test pressure P1[Pa]	3 (1200 [Pa])
2.	4.2. Resistance to wind load. Frame deflection	C (<1/300)
3.	4.5. Watertightness. Unshielded (A) Test pressure [Pa]	E750 (750 [Pa])
4.	4.14. Air permeability Max test pressure [Pa] Reference air permeability by 100 Pa	4 (750 [Pa]) (3 m ³ /(h*m ²)) (0,75 m ³ /(h*m))
5.	4.8. Load-bearing capacity of safety devices	350 N

Date of issue of the report. Signature

Krzysztof Żyła
2010.07.21.

“LTB” LABORATORIUM
 TECHNIKI BUDOWLANEJ s.c.
 B. Wójtowicz, A. Żyła, M. Żyła
 41-306 DĄBROWA GÓRNICZA
 ul. Łaski 83

Reviser.

Bogdan Wójtowicz