



Our Ref: MTP/F02023

18th July 2002

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For the attention of Mr T Beasley

Dear Sir

Re: Report on an indicative test of 1No type of Exitile Ltd access panel for air leakage, following the principles of BS 5368: Part 1, 1976, methods of testing windows for air permeability. Contract Reference – MTP/F02023

This letter is to confirm the results of indicative testing performed on behalf of your company under the above reference on the 17th and 18th March 2002.

Specimen

The Exitile Ltd access panel was fitted with a removable key locking mechanism. The overall dimensions of the specimen were 1838mm high x 603mm wide x 65mm thick.

The access panel was fitted by the client within a timber sub frame, which was flush with both faces of the panel.

Description of Exitile access panel (ref. EX/WB/SB/SW/AT)

- 1.1 Overall nominal frame dimensions were 1838mm high x 603mm wide x 65mm thick. The panel was single acting and opened outwards
- 1.2 The frame consisted of a 1.2mm thick Zintec Steel section with 5No M6 bolts welded to the hinge side. The 25mm wide beaded front flange was mitred at each corner. Two Lorient Polyproducts Limited neoprene seals were fixed to the inside back edge of the frame, between the door tray and frame
- 1.3 The overall nominal dimensions of the panel door were 1830mm high x 595mm wide x 62mm thick. The access panel door tray consisted of a 1mm thick steel skin, which was polyester powder coated in RAL9010, 20% gloss, with preformed 1mm thick steel top hat stiffeners welded to the inner face. The voids within the door tray were filled with Rockwool cavity wall insulation. A 12.5mm thick sheet of Lafarge Megadeco wallboard was fixed to the rear face of the door tray with 20No drywall screws

- 1.4 A continuous steel hinge was welded to the door tray and fixed to the frame using M6 hank brushes and bolts welded to the frame at 150mm in from the edges and 300mm centres
- 1.5 The panel was locked with a 3 point locking system (manufactured by EMKA reference 1049-U20)
- 1.6 The panel was locked with a removable key. The key lock hole in the front of the door tray was fitted with a removable screw bung with a neoprene washer. 4No 16mm diameter holes were cut into the panel (2No in the top edge and 2No in the bottom edge). These holes were plugged with 16mm plastic insert plugs.

The client supplied the above description, and it was verified where possible by a Chiltern Dynamics Engineer.

The sample was marked Chilt/P02023 and fitted vertically in the test rig, and secured to ensure there was no movement or twist.

The access panel was then tested on both the internal and the external faces.

Results

Internal face	Pressure applied (pa)	1 st Recorded leakage m ³ /h	2 nd Recorded leakage m ³ /h
	15pa	0.07	0.05
	30pa	0.00	0.00
	45pa	0.16	0.17
	60pa	0.10	0.09
	75pa	0.11	0.11
	90pa	0.16	0.18
	105pa	0.14	0.15
	120pa	0.16	0.13
	135pa	0.11	0.11
	150pa	0.11	0.15
External face	Pressure applied (pa)	1 st Recorded leakage m ³ /h	2 nd Recorded leakage m ³ /h
	15pa	0.00	0.02
	30pa	0.00	0.24
	45pa	0.05	0.11
	60pa	0.11	0.16
	75pa	0.05	0.11
	90pa	0.11	0.17
	105pa	0.16	0.22
	120pa	0.16	0.22
	135pa	0.06	0.17
	150pa	0.16	0.27

These test results relate to an investigation which utilised the test methods given in BS 5368: Part 1, 1976, methods of testing windows for air permeability, the full requirements of the test were not, however, fully complied with.

The information is provided for the test sponsor's information only and should not be used to demonstrate performance against the standard nor compliance with a regulatory requirement

This test was not conducted under the requirements of UKAS accreditation.

Report written by



Alan Turvey
Test Engineer / Project Leader

Issued under the authority of



Jon Osborn
Testing Manager

Date: 18. July. 2002

Tom Beasley

From: Alan Turvey [Aturvey@chilternfire.co.uk]
Sent: 18 April 2002 16:36
To: 'tom@exitile.com'
Subject: Air permeability test (air tightness)

Dear Tom,

Following the testing performed on your specimen yesterday (17th April), here are the results of each test performed.

Face 01 (internal) - test 1

Pressure (pa) relative to opening joint	Chamber permeability - m ³ /hr/m length	Total permeability	Leakage
15	0	0	
30	0	0	
45	1.18	1.45	0.05
60	1.45	1.99	0.11
75	1.99	2.26	0.05
90	2.26	2.80	0.11
105	2.53	3.34	0.16
120	2.80	3.57	0.16
135	3.32	3.62	0.06
150	3.35	4.15	0.16

Face 01 (internal) - test 2

Pressure (pa) relative to opening joint	Chamber permeability - m ³ /hr/m length	Total permeability	Leakage
15	0	0.1	0
30	0	1.18	0
45	1.18	1.72	0.11
60	1.45	2.25	0.16
75	1.99	2.53	0.11
90	2.26	3.08	0.17
105	2.53	3.61	0.22
120	2.80	3.88	0.22
135	3.32	3.32	0.17
150	3.35	4.69	0.27

Face 02 (External) - test 1

Pressure (pa) relative to opening joint	Chamber permeability - m ³ /hr/m length	Total permeability	Leakage
15	1.72	2.09	0.07
30	3.34	3.35	0
45	4.16	4.96	0.16
60	5.24	5.74	0.10
75	6.04	6.59	0.11
90	6.85	7.65	0.16
105	7.76	8.46	0.14
120	8.45	9.26	0.16
135	9.26	9.80	0.11
150	9.80	10.34	0.11

Face 02 (internal) - test 2

Pressure (pa) relative to opening joint	Chamber permeability - m ³ /hr/m length	Total permeability	Leakage
15	1.72	1.99	0.05
30	3.34	3.34	0
45	4.16	4.99	0.17
60	5.24	5.69	0.09
75	6.04	6.60	0.11
90	6.85	7.71	0.17
105	7.76	8.48	0.15
120	8.45	9.09	0.13
135	9.26	9.80	0.11
150	9.80	10.56	0.15

Test to 600pa

Face 02 (internal) - test 3

Pressure (pa)	Chamber permeability	Total permeability	Leakage
relative to opening joint - m ³ /hr/m length			
50	4.16	4.69	0.11
100	6.85	7.12	0.05
150	9.80	9.53	-0.05
200	10.95	11.41	0.09
300	13.70	14.76	0.22
400	16.85	17.84	0.20
500	19.80	20.08	0.05
600	22.15	22.73	0.12

The maximum leakage at 75pa was recorded as 0.11 m³/hr/m length.
With the $\pm 2\%$ error of our equipment (error allowable by UKAS) you could possibly have a leakage of 0 at 75 pa.

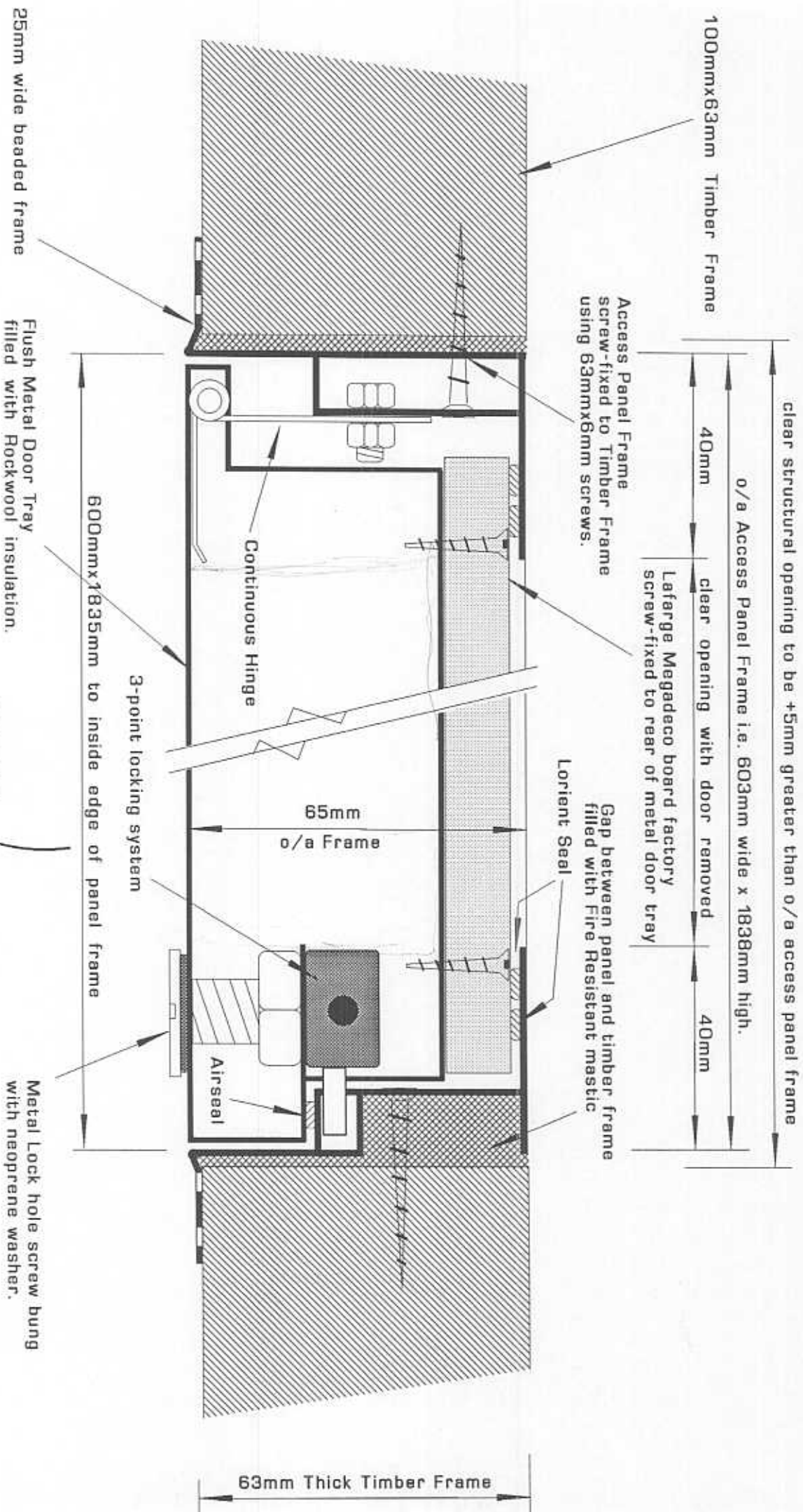
I will get a test confirmation to you tomorrow (I did promise today, unfortunately I was needed in the test lab)
If I can be of any further assistance, please do not hesitate to contact me.

Regards,

Alan Turvey
Test Engineer / Project Leader

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SECTION SHOWING ACCESS PANEL - AIRTIGHT TEST ON 18/04/2002



OPEN

TYPE EX/WD/SB/SW/AT
Airtight Panel - 2 Hour Fire Rated

EXITILE
Access