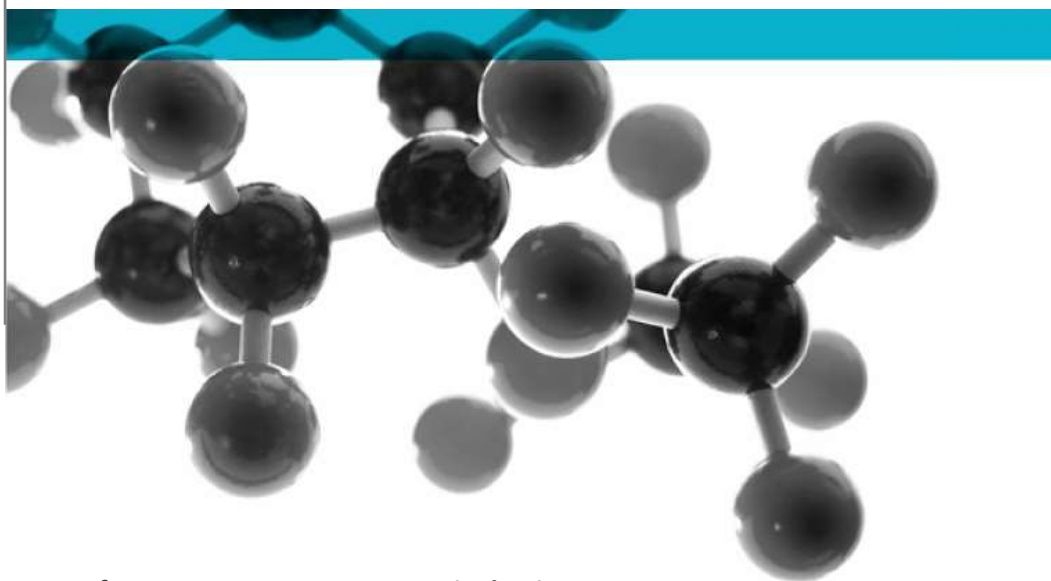


EN 1634-3: 2004

Smoke control test for door and shutter assemblies

To the principles of BS EN 1026: 2016

Windows and Doors – Air Permeability



Test of: 51-120-MD-PF-3WL-36DB Single Riser Doorset

Sponsor: Panel Technologies Ltd

49-61 Jodrell Street
Nuneaten
Warwickshire
CV11 5EG

Date of Test: 25/06/19

Copy: 1

Issue No.: 1

Page 1

Document Reference: WYC415771

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Results of Test: WYC415771/a

Panel Technologies Ltd

49-61 Jodrell Street
Whitacre Road Industrial Estate
Nuneaton
Warwickshire
CV11 5EG

This document confirms that performance testing was conducted on 25th June 2019. Testing was conducted to BS EN 1634-3: 2004 Incorporating corrigendum no. 1 Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware – Part 3: Smoke control test for door and shutter assemblies.

The following results were achieved:

Product tested	51-120-MD-PF-3WL-36DB Single Riser Doorset		
Test Detail	Locked		
Summary of testing procedure			Result
BS EN 1634-3: 2004	Pressure (Pa)	Leakage (m ³ /h)	Leakage (m ³ /m/h)
Results under positive chamber (door leaf opening away from chamber)	50	6.94	1.05
	25	4.48	0.68
	10	2.42	0.37
Results under negative chamber (door leaf opening away from chamber)	50	6.92	1.05
	25	4.37	0.66
	10	2.48	0.38

Testing was carried out at ambient temperature only: temperature of the test chamber was measured using a calibrated digital thermometer before and after testing. From approved document B Fire Safety, doors should have a leakage rate not exceeding 3m³/m/hour when tested at 25Pa.

The perimeter length of gap was 6.6m



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Issued Date: 2nd October 2019

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Results of Test: WYC415771/b

Panel Technologies Ltd

49-61 Jodrell Street
Whitacre Road Industrial Estate
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CV11 5EG

This document confirms that performance testing was conducted on 25th June 2019. Testing was conducted to the principles of BS EN 1026: 2016 – Windows and Doors – Air permeability – Test method:-
The following results were achieved:

51-120-MD-PF-3WL-36DB Single Riser Doorset							
Summary of testing procedure		Results		Summary of testing procedure		Results	
Positive Pressure (Pa)	Leakage (m³/h)	Leakage (m³/h/m)	Leakage (m³/h/m²)	Negative Pressure (Pa)	Leakage (m³/h)	Leakage (m³/h/m)	Leakage (m³/h/m²)
50	7.59	1.15	3.26	50	6.81	1.03	2.92
100	12.86	1.95	5.52	100	11.49	1.74	4.93
150	16.61	2.52	7.13	150	14.64	2.22	6.28
200	21.11	3.20	9.06	200	18.60	2.82	7.98
250	24.03	3.64	10.31	250	21.06	3.19	9.04
300	28.24	4.28	12.12	300	24.94	3.78	10.71
450	38.97	5.90	16.72	450	33.77	5.12	14.49
600	52.18	7.91	22.39	600	41.30	6.26	17.72

Testing was carried out at 20°C and 58% RH
The perimeter length of gap was 6.6m
The overall area was 2.33m²

The access panel is not covered under the EN 12207: 2016 classification standard, but based on the dimensions and leakages from EN 1026 test, the panel would 'achieve' 600Pa Class 3 classification. Please note that is for reference only as this product is neither a doorset nor window



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1. Introduction

Performance testing to BS EN 1634-3:2004 incorporating corrigendum no. 1 and to the principles of EN 1026: 2016 was conducted on the access panel on 25th June 2019. The specimen was configured as a single leaf, single acting riser doorset. The specimen was installed opening out of the test chamber. In accordance with BS EN 1634-3: 2004 section 10.1.1, the leaf was pre-cycled before the smoke leakage test (See section 5.1 for further details).

2. Specimen verification

The panel was delivered to Warringtonfire on 21st June 2019. The component parts of the specimen were identified based on nominal information provided by the sponsor. These details are outlined in the specimen construction section of this report (section 4).

2.1. Conditioning

The specimen was made from non-hygroscopic materials and was conditioned for at least 72 hours at an average temperature between 15°C and 22°C. Relative humidity was between 52% and 63%.

2.2 Sampling

Sampling was not carried out on the product detailed in this report.

3 Description of supporting construction

The partition was constructed of nominal 90mm x 45mm timber studs at 600mm centres with one layer of 12.5mm plasterboard on each face. The stud wall is taken to be of a standard wall construction.

The specimen was fixed with 2No. 5 x 80 screws per jamb.

4. Test Equipment

Description
Scientific Monitor
Tape Measure
Callipers
Laminar Flow element:
Mass Flow Meter
Pressure Transducer
Force Gauge

5. Description of Specimen Construction

The specimens were identified as a 51-120-MD-PF-3WL-36DB Single riser doorset. The overall frame dimensions were 900mm wide x 2400mm high x 74mm deep. The leaf dimensions were 896mm wide by 2396mm high x 44mm thick. The specimen was locked for the test.

Panel

	Material/type	Dimensions (mm)	Density (kg/m ³)
Door Tray	Folded Zintec Steel*	1.2 thick	-
Core	Siniat GTEC dB Board*	12.5 thick	889**
	Custom Audio Designs IsoBase R50 Under Floor Resilient Layer*	5 thick	
Door Strengtheners	Zintec Steel*	0.9 thick x 985 length*	-

* As stated by sponsor, not checked by laboratory

**nominal density, not checked by laboratory

Frame

	Material/type	Dimensions (mm)
Stiles and Rails	1.5mm thick Zintec Steel*	74 x 25*
Rebate	Single Type*	26 x 20*
Joints	Mitred and welded*	-

* As stated by sponsor, not checked by laboratory

Hardware

	Make/type	Size (mm)	Fixing details (dimensions in mm)
Hinges	Electroplated Rapid Fit Hinge*	19.1 x 19.1 x 40, 8mm pin*	Welded into place*
Locking mechanism	C.R.A. International 3 Point Locking Systems, manufactured from bright Zinc plated mild steel, with 18mm stroke*	162 x 16*	Bolted into place using M5 x 25 bright zinc plated (BZP) 8.8 high tensile steel hexagon head bolts*
Bung	Hinged flip top bung & collar, manufactured from moulded polymer*	19Ø	Push in*

* As stated by sponsor, not checked by laboratory

Perimeter Sealing Details

	Make/type	Size (mm)	Location
Door Edges	C.R.A. International White 'p' Profile Compression Self Adhesive EDPM Seal*	9 x 5.5*	On leaf rebate
	Envirograph G10/10 grey self-adhesive EPDM seal*	10 x 2	On leaf rebate
Frame reveal	None present	-	-
Seal continuity	Uninterrupted by hardware*	-	-

* As stated by sponsor, not checked by laboratory

6. Pre-test measurements

6.1 Operational check

Operability test of 10 manual cycles was completed on the leaf in accordance with BS EN 1634-3: 2004 section 10.1.1.

Minimum angle of opening	30°
Number of operation cycle completed	10

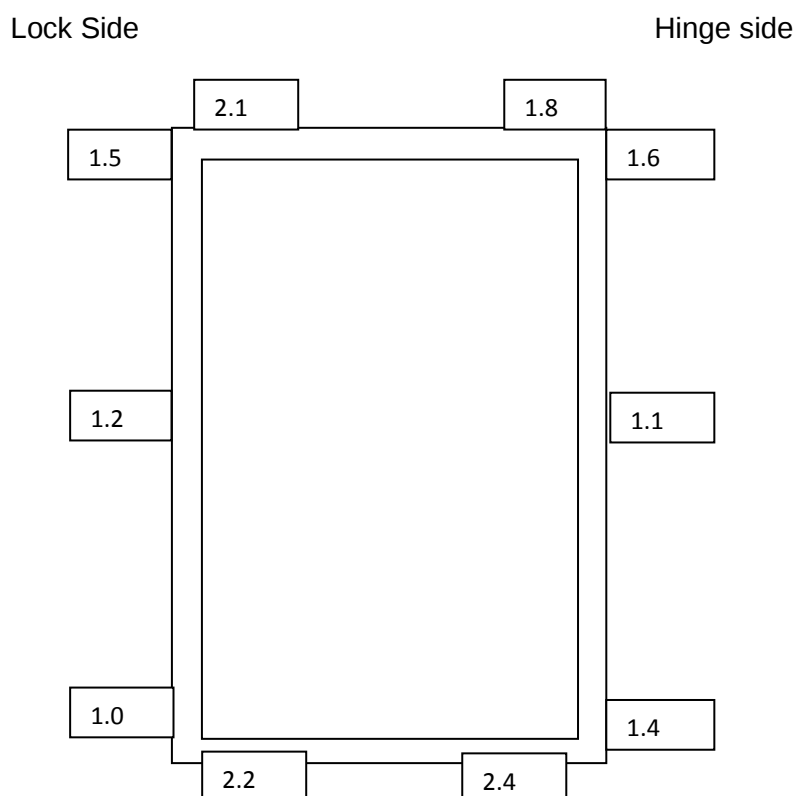
6.2 Retention forces

Measured in accordance with BS EN 1634-3: 2004 section 10.1.2.

Opening Forces
N/A – no closer fitted

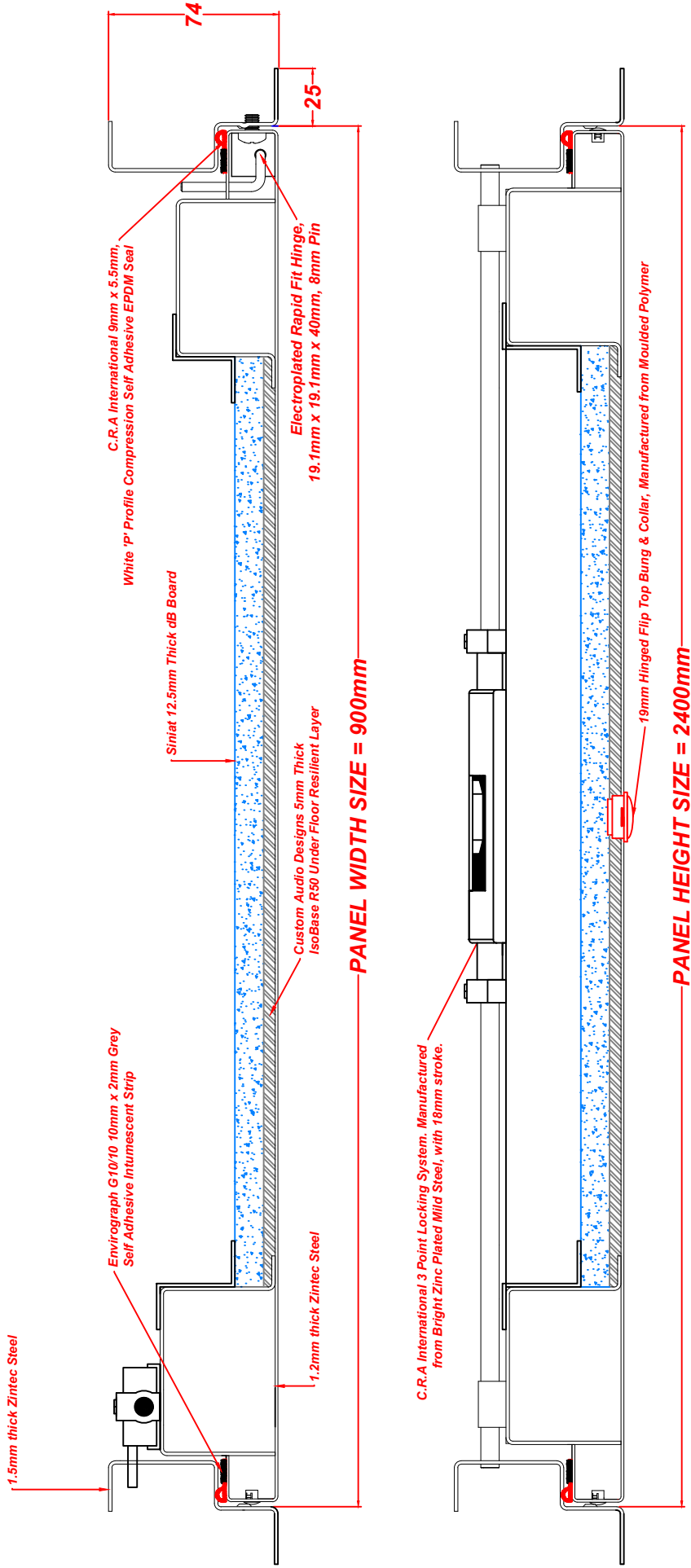
6.3 Leaf/frame gaps

The gaps were measured before testing commenced – See diagram below (Gaps were measured within 20mm from corners and at the centre of stiles) – All measurements given in mm.



Appendix 1 – Sponsor Drawing (1 Page)

- 51-120-MD-PF-3WL-36DB – Smoke Test / Air Pressure Tested Riser Doorset



Critical Faces if applicable - - - - -

Scale	Date drawn	Drawn by	Material	Material Thickness	Paint Spec	Description of Panel or Trim
Do Not Scale	08/07/19	RS	ZINTEC	1.2mm/1.5mm	AS PER ORDER	SMOKE TEST / AIR PRESSURE TESTED RISER DOOR
51-120-MD-PF-3WL-36DB						
Issue no:	Drawing no:	Linear Tolerances	ADDRESS: WILLIAM HOUSE, 49-61 JODRELL STREET, NUNEATON WARWICKSHIRE, CV11 5EG			
1	51-120-MD-PF-3WL-36DB	+/-0.5 DEGREES	ASSEMBLY			