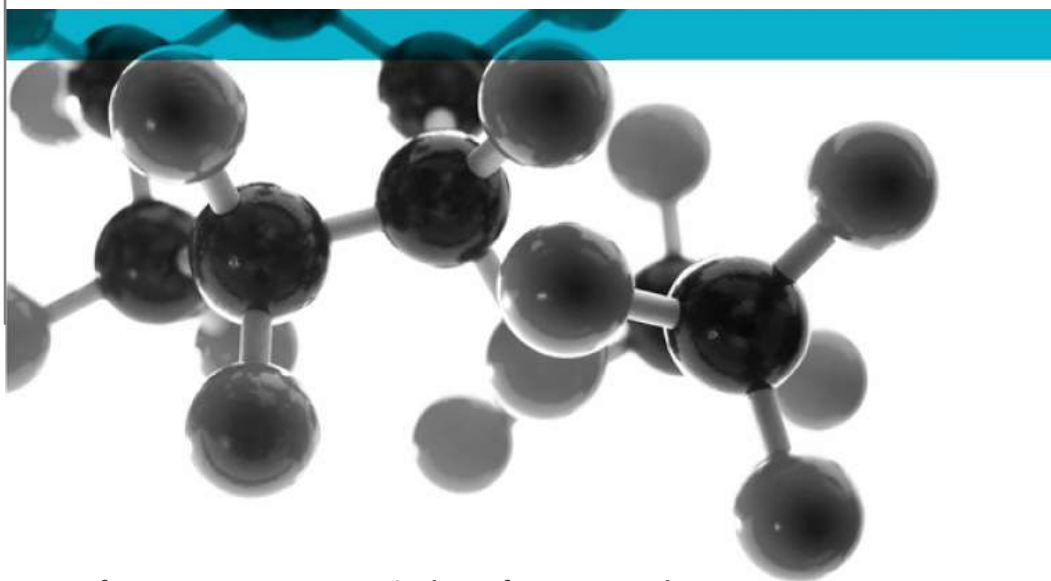


EN 1634-3: 2004

Smoke control test for door and shutter assemblies

To the principles of BS EN 1026: 2016

Windows and Doors – Air Permeability



Test of: 51-120S-MD-PF-3WL Single Leaf Access Panel

Sponsor: Panel Technologies Ltd

49-61 Jodrell Street
Nuneaton
Warwickshire
CV11 5EG

Date of Test: 08/06/2021

Copy: 1

Issue No.: 1

Page 1

Document Reference: WYC504480

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Results of Test: WYC504480/Test1

Panel Technologies Ltd

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

This document confirms that performance testing was conducted on 8th June 2021. 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	51-120S-MD-PF-3WL single leaf access panel		
Test Detail	Locked, with threshold not taped		
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	1.82	0.28
	25	1.74	0.26
	10	0.56	0.09
Results under negative chamber (door leaf opening away from chamber)	50	1.65	0.25
	25	1.36	0.21
	10	0.14	0.02

Testing was carried out at ambient temperature only: temperature of the test chamber was measured using a calibrated digital thermometer before and after testing.

The perimeter length of gap was 6.58m



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Issued Date: 11th June 2021

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Results of Test: WYC504480/Test2

Panel Technologies Ltd

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

This document confirms that performance testing was conducted on 8th June 2021. Testing was conducted to the principles of BS EN 1026: 2016 – Windows and Doors – Air permeability – Test method:-
The following results were achieved:

Product tested		51-120S-MD-PF-3WL single leaf access panel					
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	1.82	0.28	0.78	50	1.65	0.25	0.71
100	2.33	0.35	1.00	100	2.21	0.34	0.94
150	3.71	0.56	1.59	150	3.25	0.49	1.39
200	4.65	0.71	1.99	200	4.12	0.63	1.76
250	6.54	0.99	2.79	250	6.07	0.92	2.59
300	8.00	1.22	3.42	300	7.53	1.14	3.22
450	10.65	1.62	4.55	450	9.28	1.41	3.97
600	15.87	2.41	6.78	600	15.00	2.28	6.41

Testing was carried out at 22.1°C and 36.9% RH. The perimeter length of gap was 6.58m. The overall area was 4.38m²

*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 4' classification.
Please note that is for reference only as this product is neither a doorset nor window and cannot be fully classified under EN 12207: 2016*



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Jamie Nelson
Technical Officer



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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 8th June 2021. The specimen was configured as a single leaf, single acting access panel. 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 6.1 for further details).

2. Specimen verification

The access panel was delivered to Warringtonfire on 8th June 2021. 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 5).

2.1. Conditioning

The specimen was made from non-hygroscopic materials and was conditioned for 1 hour before the test at an average temperature between 22.1°C and 24.5°C. Relative humidity was between 36.9% and 37.3%.

2.2 Sampling

Warringtonfire was not involved in factory sampling of the products and materials used for the test specimen described in this report, and as such the results apply to the sample as received.

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 8No. 3.9mm x 50mm drywall screws at both jambs, and 2No. 6mm x 100mm screw & 2No. 3.9mm x 50mm drywall screws at head and cill.

The perimeter of the front of the frame was sealed with a bead of fire rated intumescent mastic. The gap between the back of the specimen and supporting construction was nominal 7mm, capped with fire rated intumescent mastic.

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 specimen was identified as a 51-120S-MD-PF-3WL single leaf access panel. The overall frame dimensions were 955mm wide x 2450mm high x 77mm deep. The panel dimensions were 895mm wide by 2395mm high x 44mm thick. The specimen was locked for the tests.

See Appendix 1 for more information.

Panel

	Material/type	Dimensions (mm)
Door Tray	Folded Zintec Steel*	1.5 thick*
Rebate	Single type	25 x 24
Core	None present	-
Door Strengtheners	Folded Zintec Steel*	1.5 thick*
Joints	Welded	-

* As stated by sponsor, not checked by laboratory

Frame

	Material/type	Dimensions (mm)
Stiles and Rails	1.5mm thick folded Zintec Steel*	77 x 44
Rebate	Single type	25 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 left hand rapid fit hinge, with 8mm pin*	19.1 x 19.1 x 40*	Welded into panel leaf*
Locking mechanism	3 point locking system manufactured from bright zinc plated mild steel, with 18mm stroke*	2345 length	M5 x 25 Bright Zinc Plated (BZP) 8.8 High Tensile Steel Hexagon Head Bolts*
Grommet	White Dome Plug, Manufactured from Nylon 66*	5.5Ø	Push fit
Bung	RAL 9010 white, hinged flip top bung and collar*	19Ø	Push fit
Keeps	All keeps are cut outs in frame	-	-

* As stated by sponsor, not checked by laboratory

Perimeter Sealing Details

	Make/type	Size (mm)	Location
Door Edges	Norseal FS1000 intumescent foam tape*	15 x 4	Self-adhered to rebate upstand
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

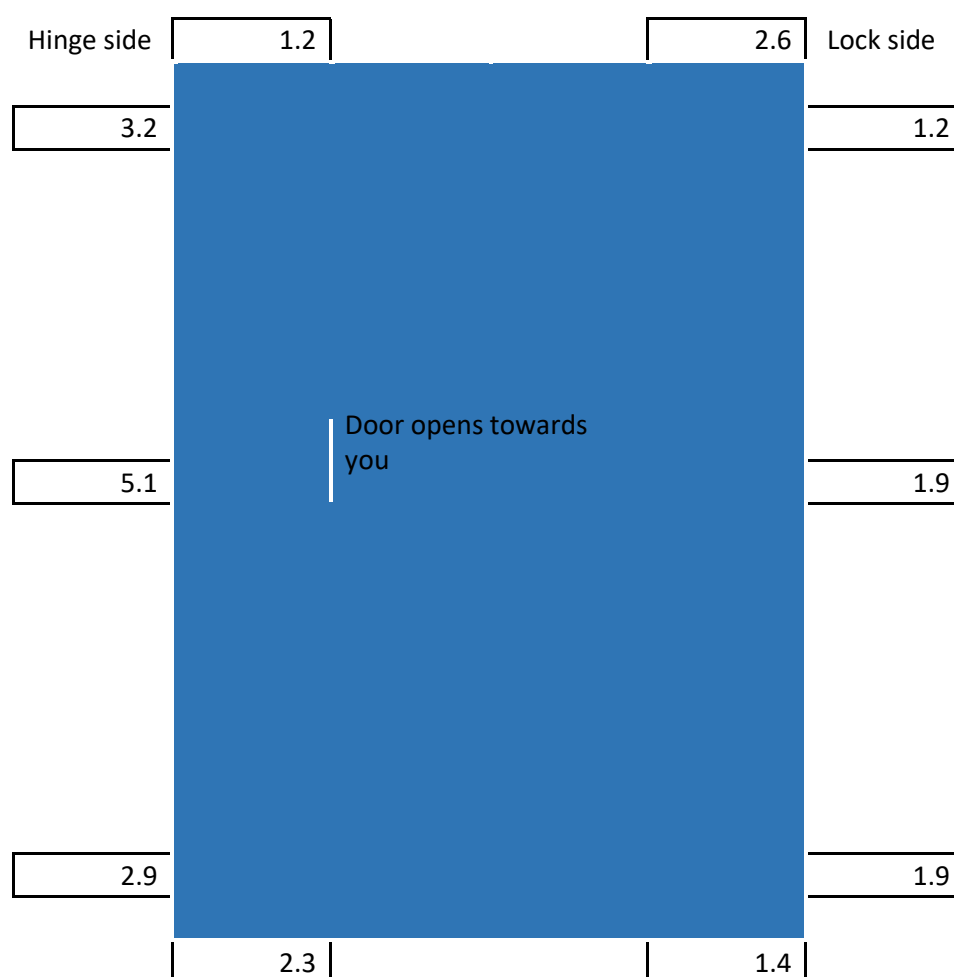
6.2 Retention forces

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.



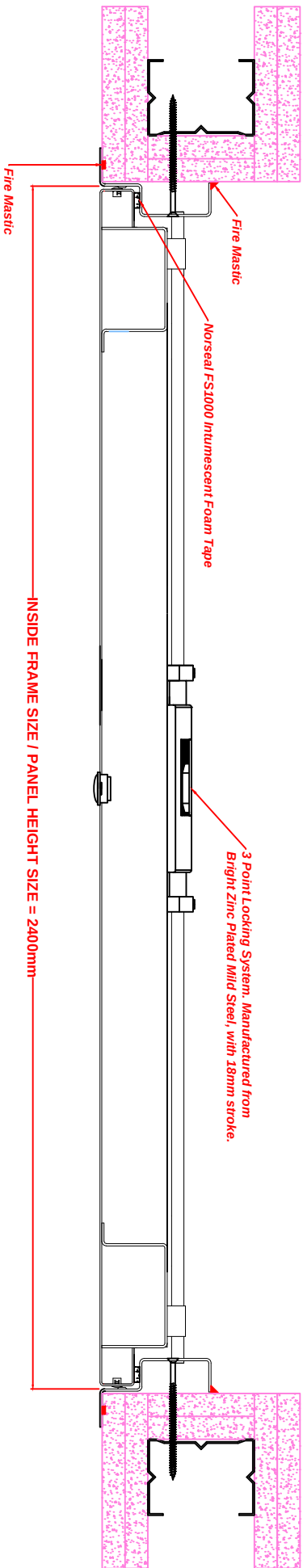
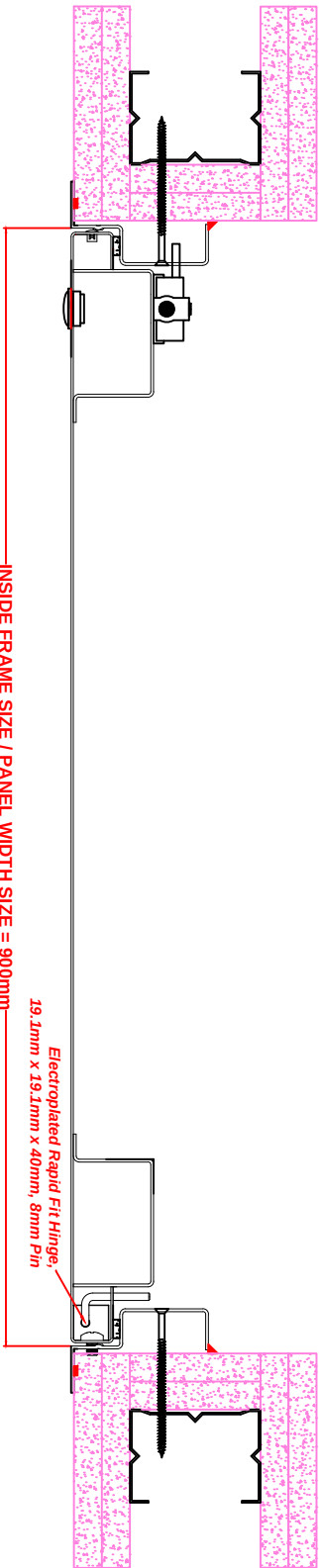
Appendix 1 – Sponsor Drawing (1 Page)

Document No.: WYC504480
Author: Jamie Nelson
Sponsor: Panel Technologies Ltd

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Issue Date: 11/06/2021
Issue No.: 1



ISSUE No:	CHANGE DETAIL'S:



Critical Faces if applicable - - - - -

Scale	Date drawn	Drawn by	Material	Material Thickness	Panel Spec	Description of Panel or Trim
Do Not Scale	11/06/21	RS	ZINTEC	1.2mm/1.5mm	AS PER ORDER	FIRE RATED SINGLE DOOR RISER DOOR
Description of Panel or Product						
SINGLE DOOR RISER DOOR						
Issue no:	Drawing no:	Linear Tolerances	ADDRESS:			
1	51-120S-MD-PF-3WL	+/-0.5 DEGREES	WILLIAM HOUSE, 49-61 JODRELL STREET, NUNEATON WARWICKSHIRE, CV11 5EG			
						Item of Panel or Trim
						ASSEMBLY



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