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Title:

The Fire Resistance Performance of Two, Single-Acting, Single-Leaf Doorsets, When Tested in Accordance with BS EN 1634-1:2014+A1:2018

Date of Test:

18/06/2021

Issue 1
08/02/2022

WF Report No:

WF 504980

Prepared for:

Pacific Rim Wood Ltd

Ground Floor Suite
Block B
Old Kelways
Somerton Road
Langport
Somerset
TA10 9SJ
Approved Body No. 1314

1762

Test Specimens

Summary of Tested Specimens

For the purposes of the test the doorsets were referenced as A and B.

Both doorsets had overall nominal dimensions of 1025mm wide by 2242mm high, incorporating a single door leaf with overall dimensions of 930mm wide by 2150mm high by 44mm thick. The door leaf comprised a Flamebreak 430 door core leaf including stiles and rails as supplied.

Doorset A was hung to open in towards the furnace and Doorset B was hung to open away from the heating conditions of the furnace.

The leaves were hung within a Hardwood Sapele frame. The frame reveal was fitted with a Pyroplex 15mm x 4mm Intumescent brush strip and Pyroplex smoke seal.

The results of this test were obtained where both doorsets were tested fitted with a Winkhaus AV2 latch, which was engaged only in the central point for the duration of the test.

Both leaves were fitted with NICO security hinges, Winkhaus GmbH & Co lever handles, A custom rain guard and cill, a Soterian TS008 letterplate and a UAP Limited door viewer.

Detailed drawings of the test specimen(s) and a comprehensive description of the test construction based on a detailed survey of the specimen(s) and information supplied by the sponsor of the test are included in the Test Specimen and Schedule of Components sections of this report.

Performance Criteria and Test Results

Doorset A

Integrity	
Cotton pad	49 (forty nine) minutes*
Sustained flaming	48 (forty eight) minutes
Gap gauges	49 (forty nine) minutes*
Thermal Insulation	
Insulation I_2 (Mandatory procedure)	43 (forty nine) minutes
Radiation – time to 15kW/m^2	49 (forty nine) minutes*

* No failure of this test criteria was observed at termination of the test at 49 minutes

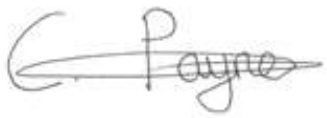
Doorset B

Integrity	
Cotton pad	35 (thirty five) minutes
Sustained flaming	48 (forty eight) minutes
Gap gauges	49 (forty nine) minutes*
Thermal Insulation	
Insulation I_2 (Mandatory procedure)	35 (thirty five) minutes**
Radiation – time to 15kW/m^2	49 (forty nine) minutes*

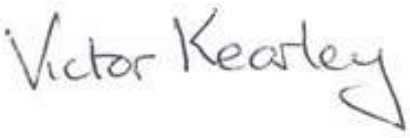
* No failure of this test criteria was observed at termination of the test at 49 minutes
** Failure by virtue of integrity failure

Date of Test 18/06/2021

Signatories



Report Prepared by:
Connor Payne
TECHNICAL OFFICER*



Report Authorised by:
Dr Vic Kearley
Technical Author*

* For and on behalf of **Warringtonfire.**

Report Issued:

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Revision History

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Revised By:	Approved By:
Reason for Revision:	

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CONTENTS PAGE NO.

Test Conditions

Standard

BS EN 1634-1:2014+A1:2018 Fire resistance and smoke control tests for door and shutter assemblies, openable windows, and elements of building hardware - Part 1: Fire resistance test for door and shutter assemblies and openable windows.

Sampling

The doorsets manufactured and supplied for testing were sampled by Michael Chorlton of BM TRADA on 03/06/2021 under the contract reference of **SC21031-1** / 3504 NR 1 and **SC21031-4** / 3669 NR 4, this sampling took place at GPM Group Ltd, Unit 3 Fordgate Business Park, Crabtree Manorway North, Belvedere, Kent DA17 6AS. Copies of these sampling reports are appended to this report.

Installation

The doorsets were received during the month of June and installed within the pre-prepared apertures in a 50mm steel stud supporting construction such that Doorset A opened in towards the furnace and Doorset B opened away from the heating conditions of the test. At the request of the client, representatives of **Warringtonfire** conducted the installation to the client's specification.

Conditioning

The specimens' storage, construction, and test preparation took place in the test laboratory. **Warringtonfire** stored the specimen in climatic conditions approximate to those in normal service.

Pre-Test Conditioning

Prior to testing, the doorsets were subjected to appropriate mechanical pre-test conditioning in accordance with the requirement of BS EN 16034. Specifically, the pre-cycle requirement within Annex A.2.2 as detailed below:

Operability Pre-cycling

Minimum angle of opening:	90°
Number of operation cycles completed:	25

There was no closer fitted to the specimens.

Finally, prior to the test itself the final setting requirement of BS EN 1634-1 Section 10.1.4. was carried out.

Ambient Temperature

The ambient air temperature in the vicinity of the test construction was 18ºC at the start of the test with a maximum variation of 0ºC during the test.

Furnace

The furnace was controlled so that its mean temperature complied with the requirements of BS EN 1363-1: 2012 Clause 5.1 using eight plate thermometers, distributed over a plane 100±50mm from the surface of the test construction.

Thermocouples

Thermocouples were provided to monitor the unexposed surface of the specimen. The output of all instrumentation was recorded at no less than one minute intervals. The locations and reference numbers of the various unexposed surface thermocouples are shown in Figure 1.

Thermocouples have been applied to an item of hardware which passes through the leaf, the letter plate, and have been applied for informational purposes only and do not contribute towards the insulation performance of the doorset being evaluated as described in Section 9.1.2.1 of BS EN 1634-1:2014+A1:2018.

Radiation

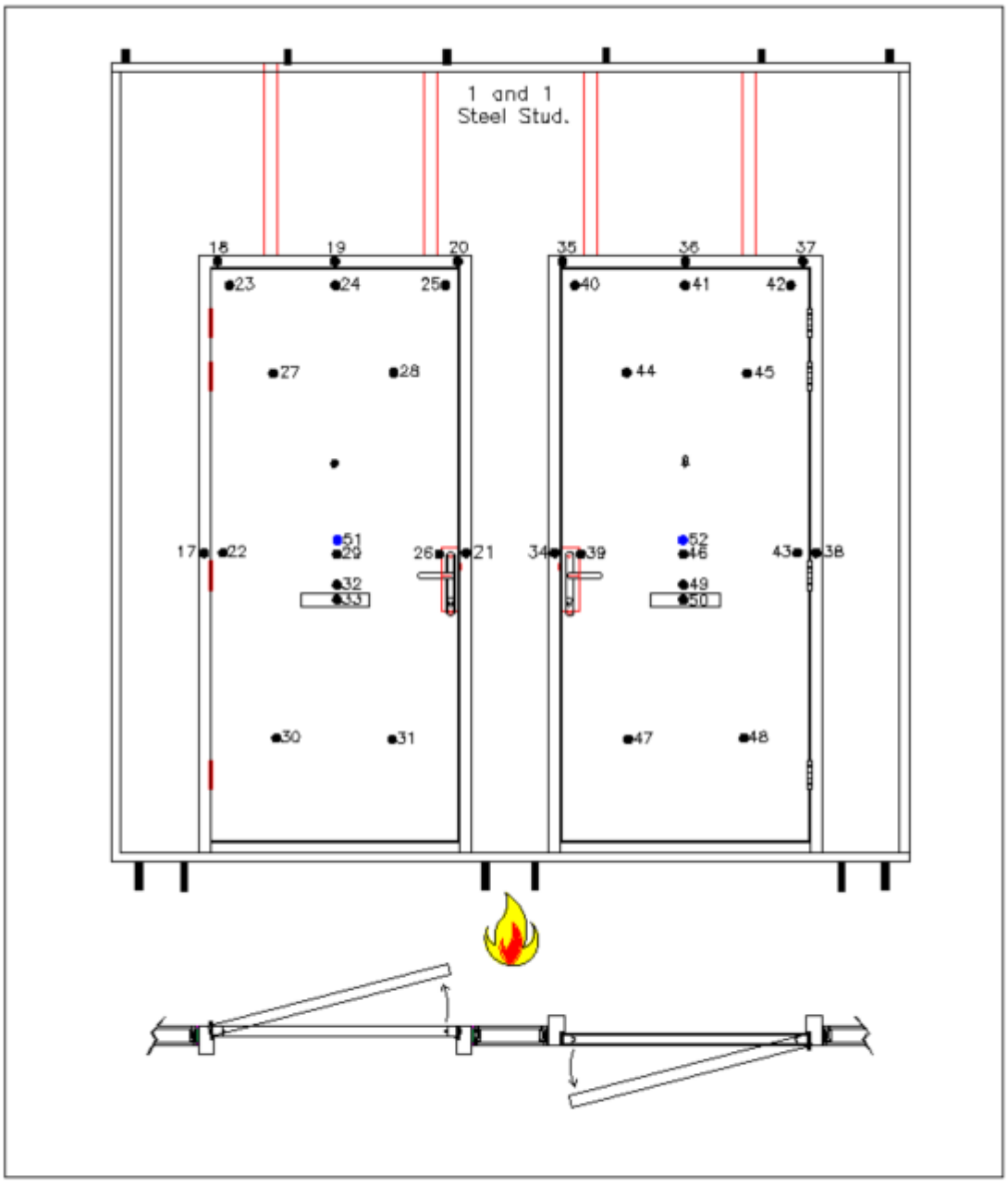
Water-cooled foil heat-flux meters were used to record the heat radiation from the doorsets. The heat-flux meters were positioned at mid-height at a distance of 1 metre from the centre of the doorsets.

Furnace Pressure

After the first 5 minutes of the test, the furnace pressure was maintained at 0 ± 5 Pa and after 10 minutes was maintained at 0 ± 3 Pa with respect to atmosphere, at a point 0.5m from the notional floor level.

Test Specimen Drawings

Figure 1 – General Elevation of the Test Construction, Thermocouple Locations and Opening Direction



: Furnace Thermocouples
: Unexposed Face Thermocouples
: Radiometer

Viewed From Unexposed Face

Figure 2 – General Elevation of the Test Construction – Doorset A

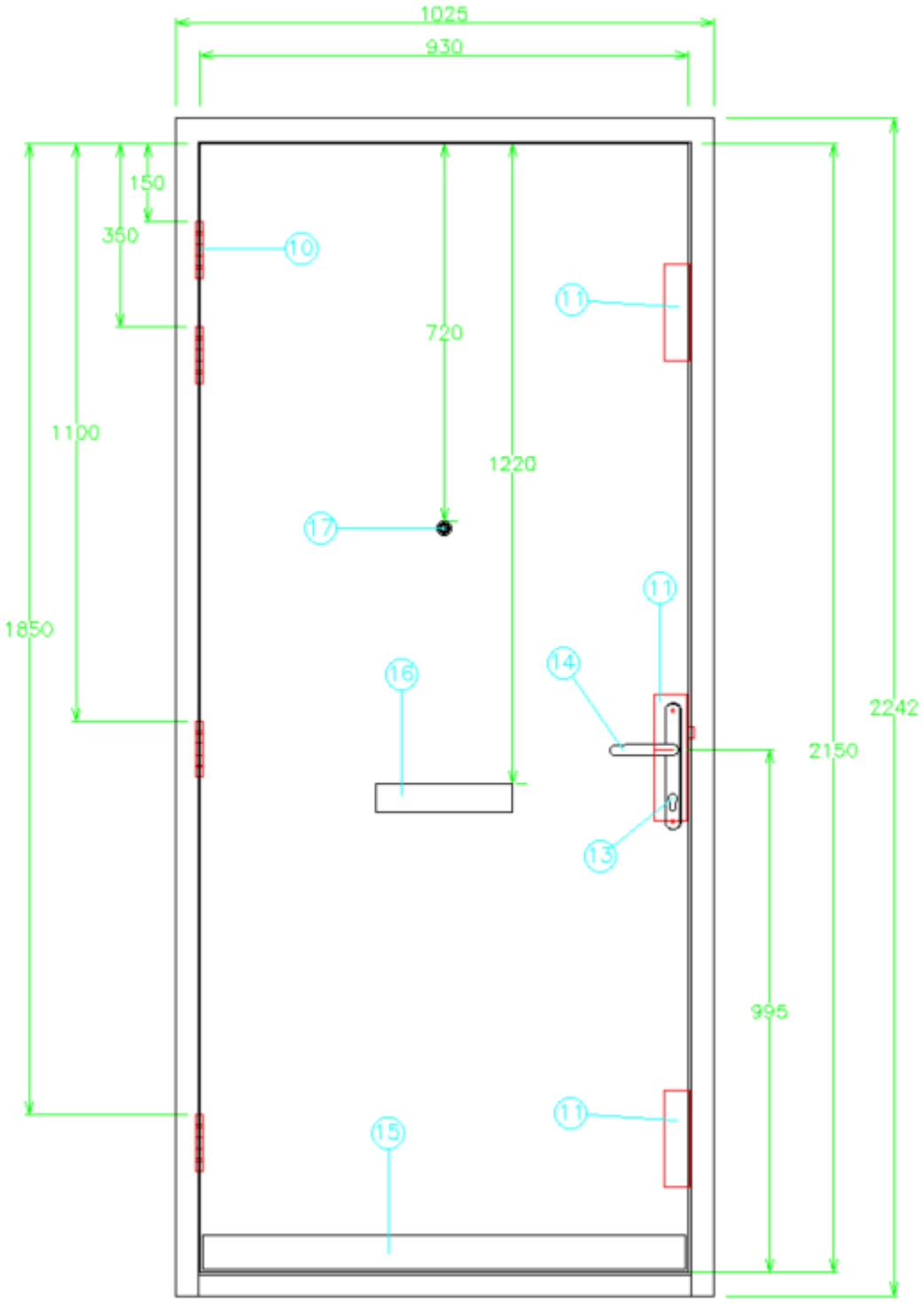


Figure 3 – General Elevation of the Test Construction – Doorset B

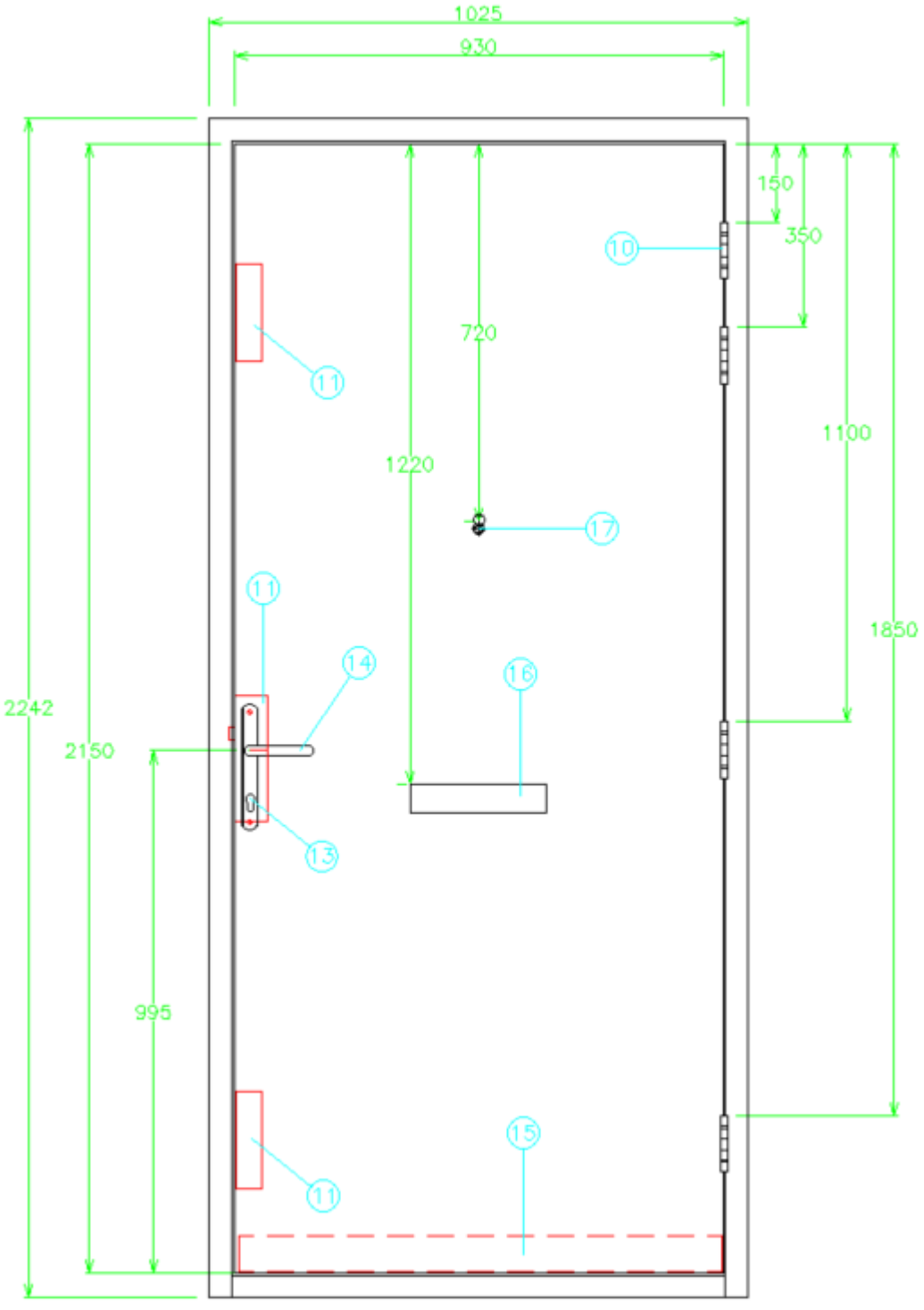
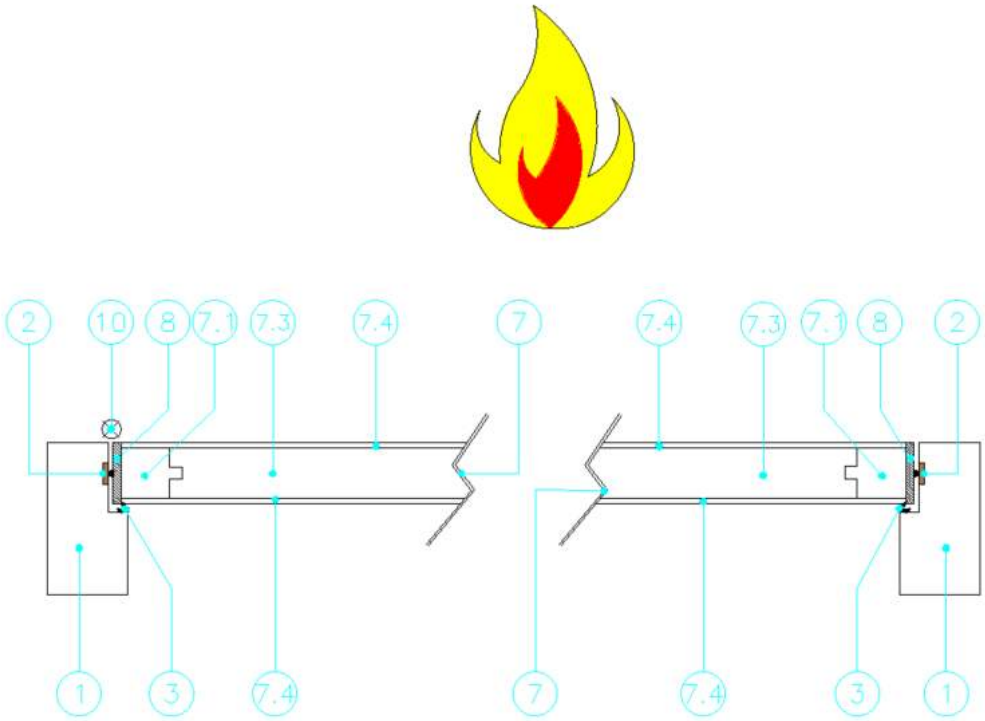


Figure 4 – Details of Door Frame, Jamb and Leaf

Doorset A



Doorset B

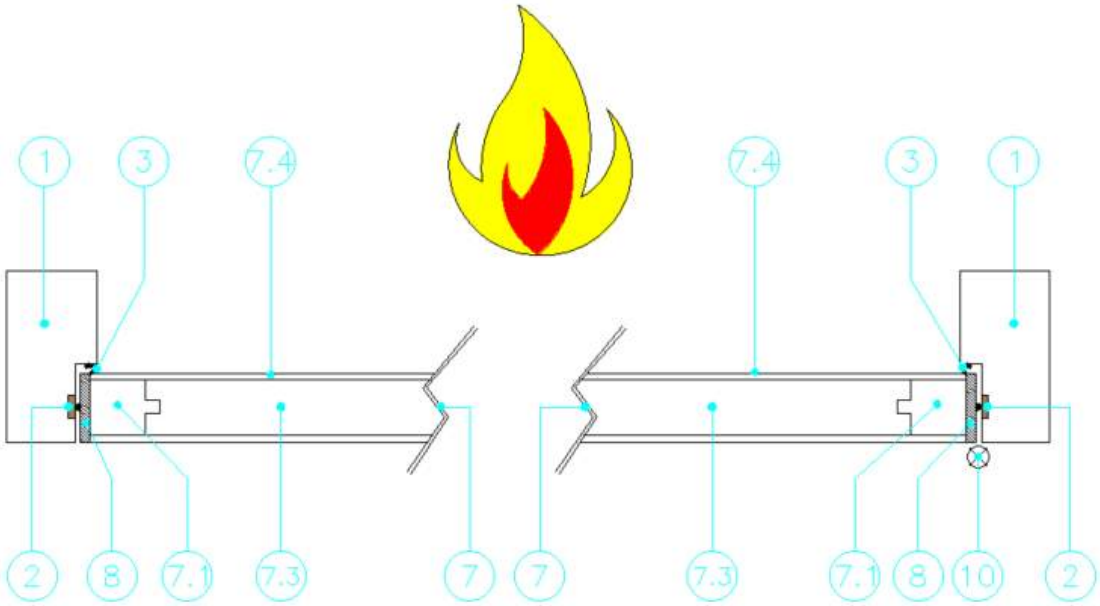


Figure 5 – Details of Door Leaf, Threshold

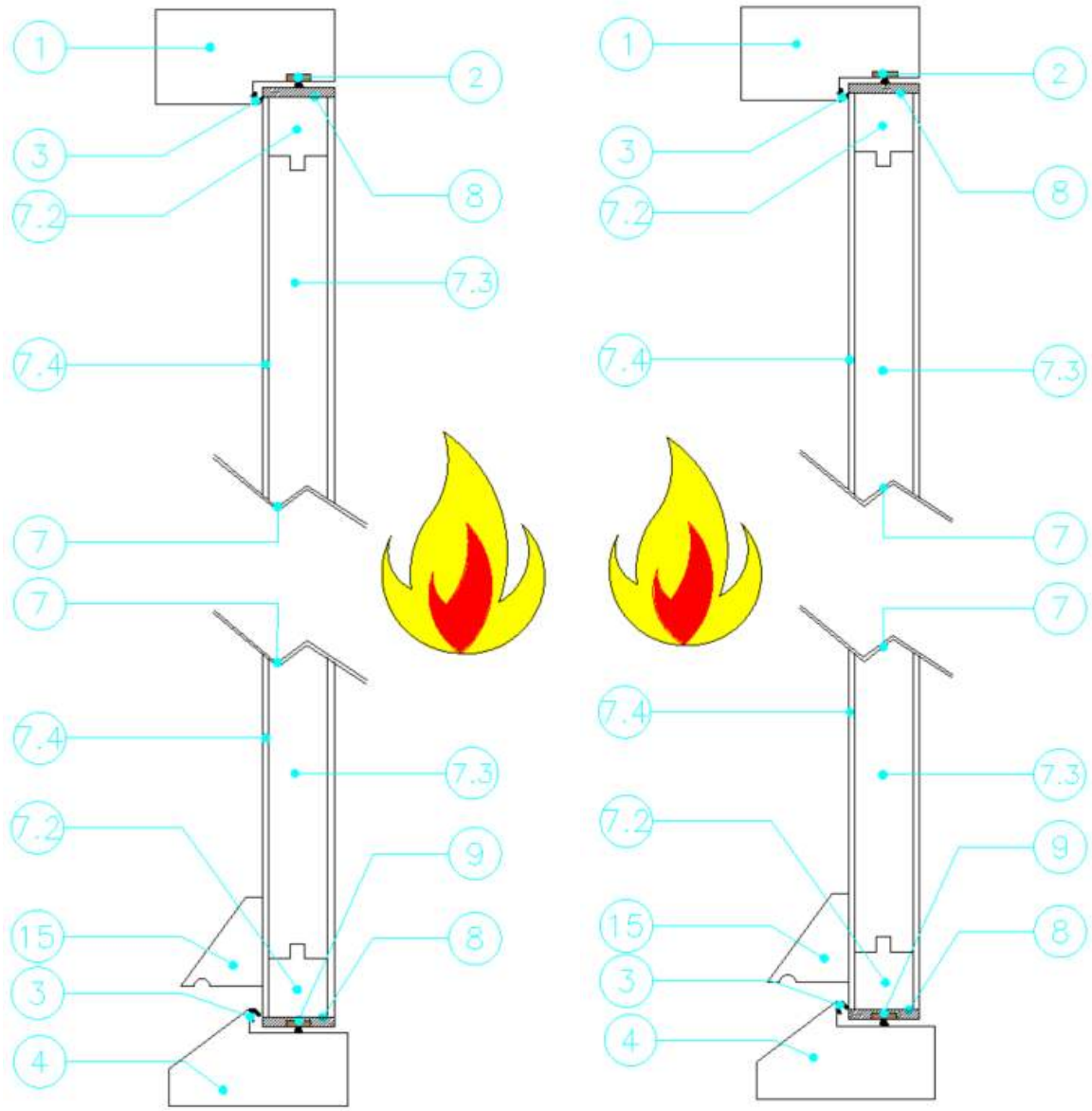
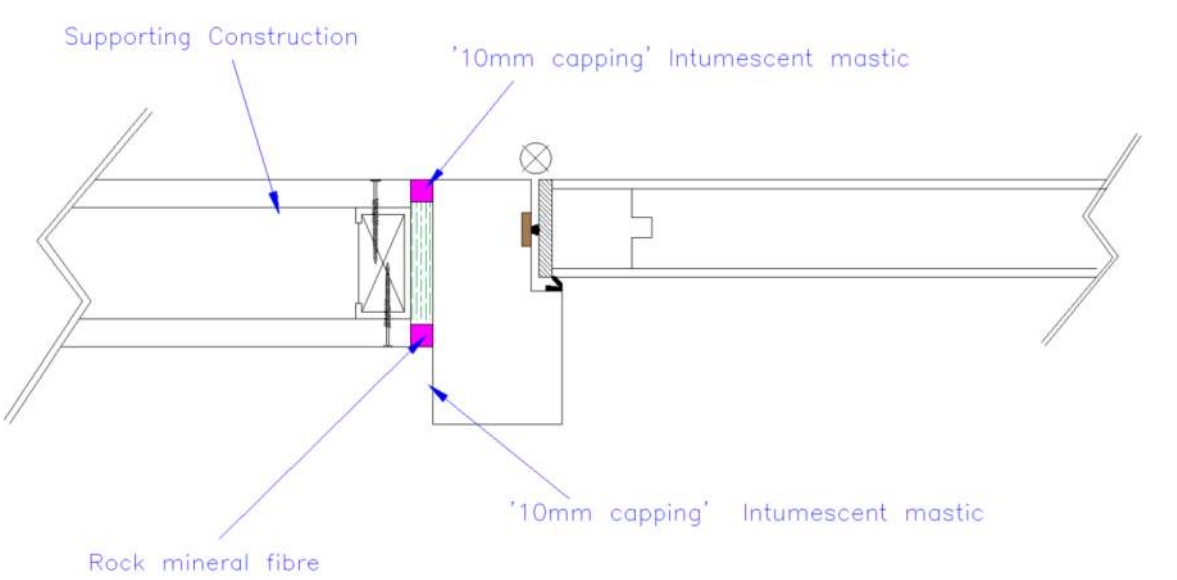
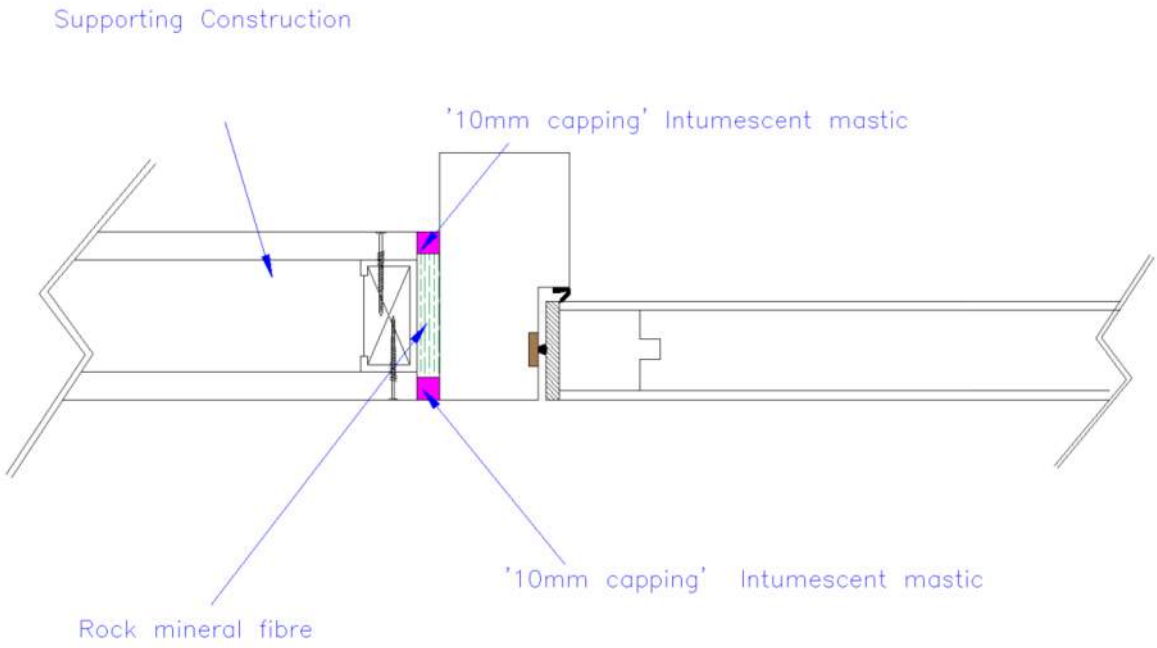


Figure 6 – Details of Supporting Construction to Frame, Fire Stopping

Doorset A



Doorset B



Schedule of Components

(Refer to Figures 1 to 6)
(All values are nominal unless stated otherwise)
* Stated by sponsor, not verified by laboratory

Door Frame

1. Door Frame**	
Reference	Door type 1
Material	Sapele Head and Sapele Jambs
Density	640 kg/m^3 – values 726 – 780 seen
Moisture content	8.3-11.4%
Overall size	1025mm wide x 2246mm high x 110mm deep Internal (tight) rebate Prior to painting: 937 wide x 2157 high
i. Frame (Head)	110mm wide x 59mm thick with 50mm wide x 15mm deep rebate
ii. Frame (Jambs)	110mm wide x 59mm thick with 50mm wide x 15mm deep rebate
iii. Stop	N/A - Integral
Jamb to Head jointing method, fixing detail and location	Rebated butt joint, fixed with 3no 5.0 x 100mm screws at 27,5mm intervals
Stop to Frame jointing method, fixing detail and location	N/A
Presence of Adhesives	Yes
Manufacturer	Timbond Professional
Type	PVA Wood Adhesive
Curing method	Pressure and 20 degrees heat
Application method	Nozzle application

** Manufactured at Sampling Location

2. Intumescent to frame reveal	
Manufacturer	Pyroplex
Reference	8712
Material	Intumescent brush strip
Overall section size	15mm wide x 4mm high
Application method	Self-adhesive strips
Location	Fitted 15mm from opening side
Presence of Adhesives	No

3. Smoke seal to frame reveal	
Manufacturer	Aquamac
Reference	Aquamac 21
Material	Cellular Core
Overall section size	10.7mm x 9.1mm with kerf slot
Application method	Push Fit
Location	Inserted into the 15mm rebate closing edge, jambs, head and cill
Presence of Adhesives	None

4. Cill**	
Reference	Custom
Material	Sapele
Overall section size	145mm wide x 60mm high with 50mm x 15mm high rebate
Fixing method	Screwed into the jambs - fixed with 3no 5.0 x 100mm screws at 27.5mm intervals
Presence of sealants	No
Moisture content	9.8-12.6%
Presence of Adhesives	Yes
Location	Butt joint between both jambs and cill
Manufacturer	Timbond Professional
Type	PVA Wood Adhesive D3 water resistant
Curing method	Pressure and 20 degrees heat
Application method	Nozzle application

** Manufactured at Sampling Location

Fire Stopping

5. Frame to supporting construction fire stopping detail	
Manufacturer	Rockwool
Reference	Low density
Material	Rock mineral wool
Overall dimension	Full depth of frame (allowing 10mm capping either side after installation)
Application method	By hand

6. Sealant to fire stopping detail	
Manufacturer	Mann McGowan
Reference	Pyromas A
Material	Intumescent mastic
Overall section size	5 - 15mm wide x 10mm deep
Application method	Cartridge gun
Location	Frame perimeter both sides

Door Leaf

7. Door Leaf	
Manufacturer (blank)	Pacific Rim Wood Ltd
Reference	Flamebreak 430
Quantity of leaves on doorset	1no
Overall leaf size prior to trimming	915mm wide x 2135mm high x 44mm thick Lippings applied directly over integral stiles and rails
Overall leaf size supplied for testing	931mm wide x 2151mm high x 44mm thick – measured at 44.6/ 44.7/ 44.6/ 44.6

7.1 Stiles	
Manufacturer	Pacific Rim Wood Ltd
Reference	Flamebreak 430
	As supplied stiles remain in place, untrimmed
Quantity	2No
Overall section size	36mm Thick x 35mm deep incorporating a 9mm x 9mm tongue incorporated into core material
Location	1No to each vertical edge

7.2 Rails	
Manufacturer	Pacific Rim Wood Ltd
Reference	Flamebreak 430
	As supplied rails remain in place, untrimmed
Quantity	2No
Overall section size	36mm thick x 35mm incorporating a 9mm x 9mm tongue incorporated into core material
Location	1No each top and bottom horizontal edge

7.3 Core element	
Manufacturer	Pacific Rim Wood Ltd
Reference	Flamebreak 430
Overall section size	12mm hardwood lamels bonded at right angles to form a trilaminate 36mm core

7.4 Facings	
Manufacturer	Pacific Rim Wood Ltd
Reference	Flamebreak 430
Quantity	1No each side
Overall section size	Nominal 4mm thick tropical hardwood plywood
Location	1No Each face
Moisture content	9.8-14.3%

8. Lippings **	
Reference	Custom
Material	Sapele
Density	Nominal 640 kg/m^3 – values seen 705 741 kg/m^3
Moisture content	11%
Overall size	44mm wide x 8mm thick
Fixing method	Applied to door core using a Biesse edge banding machine
Location	All sides of door core (Note: Long lippings run over short)
Adhesives	Yes
Manufacturer	Kleiberit
Type	Reactive PUR/ Hot Melt
Reference	Kleiberit 707.6 PUR
Curing method	Heat
Application method	Edge bander
Presence of Mechanical Fixings	No

** Manufactured at Sampling Location

9. Smoke seal to Bottom Leaf Edge	
Manufacturer	Pyroplex
Reference	8712
Material	Intumescent brush strip
Overall section size	15mm wide x 4mm high
Application method	Self-adhesive and pinned with 18 gauge 30mm pins
Location	Full length on bottom of leaf
Presence of Adhesives	No

Hardware

10. Hinges	
Supplier	NICO Manufacturing Ltd
Reference	NICO security hinge
Quantity	4no hinges per leaf
Primary material	Satin Stainless Steel
Type	Grade 13 R10 Stainless Butt Hinge with two ball bearings
Size	102mm length x 3mm thick x 75mm Open width
i. knuckle	14Ømm x 107mm high
ii. blades	102mm high x 31mm wide x 3mm thick
iii. security pin	7Ømm x 13mm high
Fixings	8no screws/hinge.
i. type	Wood screws
ii. material	Steel*
iii. sizes	4.5Ømm x 30mm long
iv. number off per blade	4no screws/blade
Position of each hinge relative to the head of the leaf	Top hinge: 200mm from the top of leaf until middle of hinge Second hinge from the top: 400mm from the top of the leaf until middle of hinge Middle hinge: 1150mm from the top of the leaf until middle of the hinge – equally spaced between 2nd and 4th hinge Bottom hinge: 1901mm from the top of the leaf until the middle of the hinge – 250 up from bottom to hinge centre.*
Details of intumescent protection	2no 1mm thick x 100mm long x 30mm wide radius NOR910 Norsound intumescent pad. One applied between the hinge blade and frame and the other one between the other hinge blade and the leaf
Interruptions to Intumescent within the frame reveal	Hinge blade fully interrupts seal in frame reveal.

11. Lockset / Latch	
Manufacturer	Winkhaus GmbH & Co.
Reference	Winkhaus AV2 F2070 (Label attached ART 2559895, ORD EMR 18887221)
Material	
i. Lockcase	Galvanised steel*
ii. Forend plate	Stainless steel*
iii. Latch bolt	Galvanised steel*
iv. Lock bolt	Galvanised steel*
v. Top and bottom lock case	Galvanised steel*
vi. Top and bottom lock bolts	Galvanised steel*
Overall sizes	
i. Central Lockcase	185mm high x 15mm wide x 70mm deep Prep: 18mm wide x 78mm deep
ii. Forend plate	1770mm high x 20mm wide x 3mm thick Prep 20mm wide x 3.2mm deep Additional groove for actuator arms 16mm wide x 7.3mm deep
iii. Latch bolt	30mm high x 10mm wide x 10mm projection
iv. Lock bolt	30mm high x 6mm wide x 20mm single projection
v. Top and bottom lock case	11.3mm high x 15mm wide x 40mm deep Prep: 18mmwide x 49mm deep
vi. Top and bottom lock bolts	45mm high x 8mm wide x 25mm projection
Fixing method	12no 3.5mm thread x 50mm long wood screws
Operation of latch bolt	Operated by lever handles
Operation of lock bolt	Operated by Euro cylinder
Operation of Top and bottom lock bolts	Operated by both the lever handles and euro cylinder
Details of intumescent protection	
i. Central lockcase	Interdens 1mm OFFICIAL Winkhaus AV2 kit lock protection
ii. Top and bottom lock case	Interdens 1mm OFFICIAL Winkhaus AV2 kit lock protection
iii. Forend plate	None
Interruptions to Intumescent within the frame reveal	None
i. Forend plate	N/A
Location of centre of the spindle relative to the bottom of the leaf	Centre of the spindle measures 974mm from the bottom of the leaf

12. Keeps	
Manufacturer	Winkhaus GmbH & Co
Reference	Winkhaus STVSBAV2 (top & bottom keeps) and Winkhaus STVSBFR24 (RH and LH centre keeps) Top / bottom keeps marked 4933 948 Centre keep marked 4937 125
Material	
i. Centre Strike Plate and Keep	Stainless steel*
ii. Top and Bottom Strike Plate and Keep	Stainless steel*
Overall sizes	
i. Centre Strike Plate	100mm high x 35mm wide x 1.5mm thick Prep: Depths from frame rebate. 1st groove: 24.5mm wide x 235mm long x 6.5mm deep 2nd groove: 16.3mm wide x 180mm long x 8.8mm deep Latch mortice: 18.9mm wide x 57mm long x 28.8mm deep Deadbolt mortice: 16.6mm wide x 67mm long x 28.8mm deep Strike plate relief: 6.1mm deep x 52mm long
ii. Centre Keep Plate	234mm high x 24mm wide x 2mm thick
iii. Top and Bottom Strike Plate	112mm high x 35mm wide x 1.5mm thick Prep: Depths from frame rebate. 1st groove: 24.5mm wide x 172mm long x 6mm deep 2nd groove: 24.5mm wide x 155mm long x 7.6mm deep Hook mortice: 18mm wide x 28.3mm long x 28.3mm deep Strike plate relief: 6.1mm deep x 112mm long
iv. Top and Bottom Keep Plate	175mm high x 24mm wide x 2mm thick
Fixing method	
i. Centre Strike Plate and Keep	3no 4.0mm diameter x 25mm long screws shown
ii. Top and Bottom Strike Plate and Keep	2No. (Per keep) 4.0mm diameter x 25mm long screws shown
Details of intumescent protection	
i. Centre Strike Plate and Keep	Interdens 1mm OFFICIAL Winkhaus AV2 kit keep protection
ii. Top and Bottom Strike Plate and Keep	Interdens 1mm OFFICIAL Winkhaus AV2 kit keep protection

Interruptions to Intumescent within the frame reveal	Keeps fully interrupt seal in frame reveal.

13. Cylinder with thumbturn	
Manufacturer	ERA
Reference	BS-L-T3535-51 – Stamped with TS007 and KM553031,
Material	Steel*
Overall size	34mm high x 17mm wide x 70mm long euro profile

14. Lever handles	
Manufacturer	Winkhaus GmbH & Co
Reference	Winkhaus Melbourne 1672/2390N – ZA/3816N
Material	F1 aluminium with silver effect*
Overall size	External face plate: 258mm high x 34mm wide x 15mm thick x 4mm cylinder incorporated escutcheon projection Internal face plate: 258mm high x 34mm wide x 10mm thick Handles: 30mm high x 135mm wide x 65mm projection
Fixing method, fixing material, sizes, quantity and location	Face plates are connected by 3no 5.0mm x 60mm steel bolts.
Details of intumescent protection	N/A

15. Rain guard / Weatherbar**	
Reference	Custom
Material	Sapele*
Density	640kg/m^3
Moisture content	9.7-9.9%
Overall size	55mm high x 900mm wide x 45mm projection
Fixing method, fixing material, sizes, quantity and location	4no 5.0mm x 50mm wood screws at regular intervals

** Manufactured at sampling location

16. Letter plate	
Manufacturer	UAP Limited
Reference	Soterian TS008 letterplate
Material	
i. Body	Galvanised steel*
ii. Face plate	Aluminium*
iii. Security cowl	Aluminium*
Overall size	
i. Body size	53mm high x 260mm wide x 70mm thick
ii. Cut out size	External size 40mm high x 259.5mm wide* – measured at 38mm high x 258mm wide Internal size 55mm high x 259.5mm wide* – measured at 55mm high x 258mm wide
iii. Footprint	External footprint: 77mm high x 305mm wide x 18mm thick Internal footprint: 115mm high x 305mm wide x 35mm thick
iv. Security cowl	115mm high x 305mm wide x 6mm thick x 35mm projection
Fixing method	Various screws and bolts provided in the letter plate kit 4 No. machine screws as supplied bolted through to outer cowel 6 No. 4mm x 25mm long screws for internal faceplate
Presence of sealants	No
Details of intumescent protection	Bespoke intumescent protection pre-fitted on internal framing and external face plate. Tubes around screw bosses.

17. Door viewer	
Manufacturer	UAP Limited
Reference	14mm Wide angle door viewer
Material	Brass core and steel barrel
Overall size	
i. Body	14mm dia
ii. Footprint	22mm dia to unexposed face 26mm dia to exposed face
iii. Cut out	16.4mm dia
Fixing method	
Location	721mm from the head of the leaf to the centre of the cut out and 465.5mm from the closing edge of the leaf to the centre of the aperture – measured at 1430mm from foot
Details of intumescent protection	45mm long x 40mm wide x 1mm thick reinforced bespoke intumescent jacket rolled and inserted in the aperture prior to the door viewer being installed – supplied with viewer

Photographs of Components

Hinge

Handle

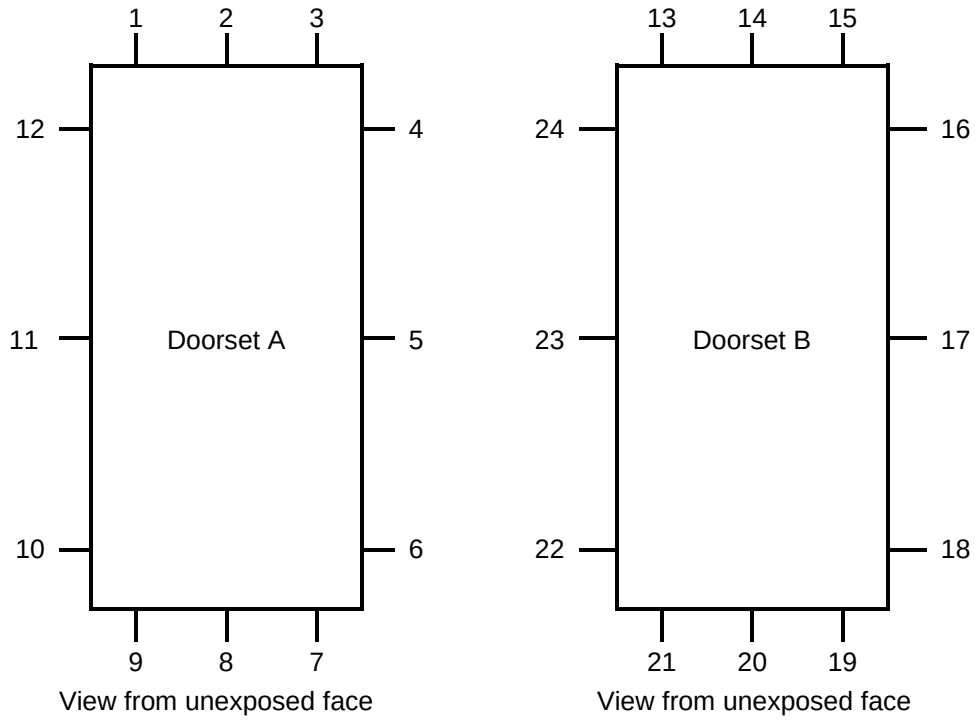
Central keep

Eye viewer

Letter plate

Rain guard

Doorset clearance gaps



View from unexposed face

View from unexposed face

Door Ref	Leaf to Frame Gap Dimension in mm at Positions – Door A from exposed face, Door B from unexposed face											
A	1	2	3	4	5	6	7*	8*	9*	10	11	12
	2.9	2.7	2.7	2.8	2.3	2.7	3.7	3.1	2.9	3.3	2.6	2.9
B	13	14	15	16	17	18	19*	20*	21*	22	23	24
	3.1	2.6	2.6	3.4	2.6	2.9	2.9	2.9	2.1	2.9	2.9	2.5

A	Mean	2.8	Maximum	3.3	Minimum	2.3
B	Mean	2.8	Maximum	3.4	Minimum	2.5

Door Ref	Gap Between Face of Leaf and Doorstop in mm at Position – Door A from unexposed face, Door B from exposed face											
A	1	2	3	4	5	6	7	8	9	10	11	12
	2.5	3.3	5.7	6.1	6.3	4.6	#	#	#	6.2	5.4	3.1
B	13	14	15	16	17	18	19	20	21	22	23	24
	4.2	4.5	5.2	10.5	7.9	7.7	#	#	#	4.5	5.0	6.1

Door Ref	Gap Between Doorframe and Supporting construction in mm at Position											
A	1	2	3	4	5	6	7	8	9	10	11	12
	12.3	8.7	7.8	15.1	14.1	9.9	#	#	#	11.7	10.9	9.1
B	13	14	15	16	17	18	19	20	21	22	23	24
	6.2	7.6	5.0	10.3	6.9	8.3	#	#	#	6.6	6.5	8.2

* Dimension not included in calculations at the bottom
# Gap not measured

Test Observations

Time (minutes)	All observations are from the unexposed face unless noted otherwise.
00:00	The test has started.
00:43	Doorset A & B. There is smoke issuing at the letter plate.
01:47	Doorset A & B. There is a decrease in smoke issuing at the letter plate.
02:55	Doorset B. There is smoke issuing at the closing edge approximately 300mm down from the top closing corner.
03:35	Doorset A & B. There is an increase in smoke issuing at the letter plate.
	Doorset A. There is smoke issuing at the head and at the second hinge.
04:57	Doorset B. There is smoke issuing at the threshold.
05:30	Doorset A. There is smoke issuing at the bottom hanging corner.
	Doorset B. There is smoke issuing at the middle hinge position.
05:58	Doorset A. There is smoke issuing at the top hanging corner.
09:06	Doorset A & B. There is an increase in smoke issuing at the letter plate.
09:56	Doorset B. There is smoke issuing at the bottom hinge position.
	Doorset A & B. There is smoke issuing at the latch position.
12:31	Doorset A. There is smoke issuing at the top hinge position.
15:55	Doorset B. There is an increase in smoke issuing at the top hinge position and at the middle hinge position.
16:17	Doorset B. There is smoke issuing at the head.
16:45	Doorset B. There is smoke issuing at the bottom latch position.
17:58	Doorset B. There is smoke issuing at the top latch position.
20:51	Doorset B. There is smoke issuing at the eye viewer.
22:20	Doorset A. There is an increase in smoke issuing at the top hanging corner.
25:43	Doorset B. There is glow visible at the bottom latch position.
27:27	Doorset B. There is glow visible at the top hinge position.
28:26	Doorset B. There is an increase in smoke issuing at the middle hinge position.
30:19	Doorset B. There is an increase in smoke issuing at the middle latch position.

35:18	Doorset B. A cotton pad test was performed at the bottom latch position which resulted in the ignition of the cotton pad therefore constituting **integrity failure.**
36:00	Doorset A & B. There is discolouration at the closing edge.
36:25	Doorset B. There is intermittent flaming at the bottom latch position.
37:00	Doorset B. There is glow visible at the middle latch position.
38:14	Doorset A. There is an increase in smoke issuing at the middle latch position.
40:47	Doorset B. There is glow visible at the top latch position.
45:26	Doorset A. There is glow visible at the top hinge position.
46:01	Doorset A. A cotton pad test was performed at the top hinge position which did not result in the ignition of the cotton pad. No failure.
46:17	Doorset A. There is glow visible at the head.
46:52	Doorset A. A cotton pad test was performed at the head which did not result in the ignition of the cotton pad. No failure.
47:50	Doorset A. A cotton pad test was performed at the head which did not result in the ignition of the cotton pad. No failure.
47:38	Doorset A. There is glow visible at the letter plate.
48:00	Doorset B. There is continuous flaming at the letter plate thereby constituting **further integrity failure.**
48:48	Doorset A. There is continuous flaming at the head thereby constituting **integrity failure**
48:58	Doorset B. There is continuous flaming at the middle latch position thereby constituting **further integrity failure.**
49:00	Test terminated.

Test Photographs

The unexposed face of the doorsets prior to testing

The unexposed face of the doorsets after a test duration of 10 minutes

The unexposed face of the doorsets after a test duration of 20 minutes

The unexposed face of the doorsets after a test duration of 30 minutes

The unexposed face of the doorsets after a test duration of 40 minutes

The unexposed face of the doorsets after a test duration of 48 minutes

The exposed face of the doorsets after a test duration of 49 minutes

Temperature and Deflection Data

Mean furnace temperature, together with the temperature/time relationship specified in BS EN 1363-1: 2012

Time	Mean Furnace	ISO 834
min	°C	°C
0	20	20
1	321	349
2	382	445
3	422	502
4	547	544
5	593	576
6	618	603
7	623	626
8	612	645
9	627	663
10	671	678
11	692	693
12	692	705
13	692	717
14	706	728
15	727	739
16	745	748
17	763	757
18	773	766
19	782	774
20	787	781
21	791	789
22	795	796
23	800	802
24	805	809

Time	Mean Furnace	ISO 834
min	°C	°C
25	811	815
26	816	820
27	824	826
28	834	831
29	842	837
30	850	842
31	858	847
32	865	851
33	871	856
34	876	860
35	881	865
36	883	869
37	886	873
38	886	877
39	887	881
40	888	885
41	888	888
42	888	892
43	888	896
44	895	899
45	902	902
46	906	906
47	911	909
48	915	912
49	918	915

Individual and Mean Temperatures Recorded on The Unexposed Surface of Doorset A

Time	Chan 27	Chan 28	Chan 29	Chan 30	Chan 31	Mean
min	°C	°C	°C	°C	°C	°C
0	21	20	21	20	20	20
1	21	21	21	20	20	21
2	21	20	21	20	19	20
3	21	21	22	20	19	21
4	21	22	25	20	19	21
5	21	23	27	20	19	22
6	21	24	30	20	20	23
7	21	23	32	20	20	23
8	21	23	34	20	20	24
9	22	25	38	20	20	25
10	22	25	39	20	20	25
11	23	25	39	21	21	26
12	23	25	40	21	21	26
13	23	26	42	22	22	27
14	24	27	43	22	23	28
15	25	28	44	23	24	29
16	27	28	45	24	25	30
17	28	28	46	26	27	31
18	30	29	47	27	29	32
19	32	29	48	29	31	34
20	33	30	49	31	33	35
21	35	31	51	33	36	37
22	37	31	52	36	38	39
23	39	33	54	40	41	41
24	42	35	55	46	46	45
25	45	37	57	53	51	49
26	50	40	59	59	58	53
27	56	43	62	64	65	58
28	60	45	64	68	71	62
29	65	48	67	71	77	66
30	69	50	69	73	81	68
31	73	53	72	75	84	71
32	77	56	75	77	85	74
33	80	59	78	79	87	77
34	85	63	81	82	89	80
35	91	66	85	84	93	84
36	97	70	91	87	96	88
37	102	73	96	91	99	92
38	106	77	100	95	104	96
39	110	80	101	99	112	100
40	119	85	102	103	122	106
41	134	94	104	109	136	115
42	151	103	107	117	152	126
43	170	114	115	127	171	139
44	188	124	128	140	191	154
45	203	133	144	154	209	169
46	218	141	163	171	227	184
47	231	149	182	191	240	199
48	244	156	201	211	255	213
49	257	163	220	226	265	226

Individual Temperatures Recorded on The Leaf of Doorset A 100mm Away from The Edges

Time	Chan 22	Chan 23	Chan 24	Chan 25	Chan 26
min	°C	°C	°C	°C	°C
0	20	21	21	21	21
1	20	21	21	21	21
2	20	21	21	21	20
3	20	21	21	21	21
4	20	21	21	22	22
5	20	21	21	22	32
6	20	21	21	22	41
7	20	21	21	22	42
8	20	21	21	22	40
9	20	22	22	22	39
10	21	22	22	23	38
11	21	22	23	23	38
12	22	23	23	23	37
13	22	24	23	24	37
14	23	25	24	25	38
15	24	26	25	26	38
16	25	27	27	27	39
17	26	29	28	29	40
18	28	31	29	30	41
19	29	33	31	32	42
20	31	35	32	33	44
21	32	36	34	35	45
22	34	38	35	37	47
23	36	40	37	39	51
24	38	43	39	41	57
25	40	46	43	44	61
26	42	49	48	48	65
27	45	53	53	52	69
28	48	58	58	57	72
29	51	62	62	62	76
30	54	66	66	67	78
31	57	71	69	71	80
32	61	75	71	77	82
33	65	80	74	84	84
34	69	85	76	90	86
35	74	90	78	93	88
36	80	95	80	96	91
37	87	98	84	98	93
38	91	102	90	102	96
39	95	105	93	110	98
40	98	111	94	124	101
41	101	121	97	142	107
42	104	135	101	163	118
43	108	156	108	185	134
44	118	184	118	203	153
45	132	206	131	219	174
46	145	229	144	235	193
47	162	252	159	248	214
48	178	266	174	257	232
49	194	296	188	261	245

Individual Temperatures Recorded on The Unexposed Surface of Door Frame A

Time	Chan 17	Chan 18	Chan 19	Chan 20	Chan 21
min	°C	°C	°C	°C	°C
0	20	21	21	20	19
1	19	21	21	20	19
2	19	21	21	20	19
3	19	21	21	20	19
4	19	21	21	21	19
5	19	21	21	21	19
6	19	21	21	21	19
7	19	21	22	21	19
8	19	21	22	21	19
9	19	21	23	22	19
10	19	22	24	23	19
11	19	22	23	23	20
12	19	21	23	24	20
13	19	21	23	24	20
14	19	21	24	25	20
15	19	22	25	25	20
16	19	23	25	25	20
17	20	24	26	25	20
18	20	23	27	25	21
19	20	25	27	25	21
20	20	25	28	25	21
21	20	24	27	25	21
22	20	26	28	25	21
23	20	25	29	25	21
24	20	25	30	26	21
25	20	26	31	26	21
26	20	26	31	27	21
27	20	28	31	27	21
28	20	29	31	28	22
29	20	30	32	28	22
30	20	30	32	29	22
31	20	31	33	29	22
32	21	32	34	30	23
33	21	29	35	30	23
34	21	30	35	30	23
35	21	30	36	30	23
36	21	32	35	32	24
37	21	36	37	32	24
38	21	32	38	32	24
39	22	34	39	33	24
40	22	36	40	34	24
41	22	35	42	34	25
42	22	38	42	35	25
43	22	41	43	36	25
44	23	45	45	36	26
45	23	50	46	37	26
46	23	58	48	39	27
47	24	69	52	40	27
48	24	85	55	42	28
49	24	217	59	45	28

Individual and Mean Temperatures Recorded on The Unexposed Surface of Doorset B

Time	Chan 44	Chan 45	Chan 46	Chan 47	Chan 48	Mean
min	°C	°C	°C	°C	°C	°C
0	20	21	20	20	21	20
1	20	21	21	20	21	21
2	20	21	21	20	21	21
3	20	21	21	20	21	21
4	20	21	24	20	21	21
5	20	22	26	20	21	22
6	21	22	30	20	22	23
7	21	22	32	20	22	23
8	21	22	33	20	23	24
9	21	23	34	20	24	24
10	22	23	37	21	25	26
11	22	24	37	21	26	26
12	23	24	37	22	27	27
13	24	26	37	23	28	28
14	25	27	38	24	28	28
15	26	29	38	25	29	29
16	27	31	39	27	30	31
17	29	33	40	28	31	32
18	31	34	42	30	33	34
19	33	36	43	32	34	36
20	35	38	45	33	35	37
21	37	40	46	35	37	39
22	39	42	47	37	39	41
23	42	44	49	38	40	43
24	46	46	50	40	42	45
25	50	49	52	42	44	47
26	55	53	54	45	45	50
27	61	58	58	49	48	55
28	65	63	61	53	51	59
29	69	67	65	57	54	62
30	72	71	68	61	58	66
31	75	75	71	64	61	69
32	79	79	74	67	63	72
33	84	85	78	70	66	77
34	89	91	82	73	69	81
35	93	95	86	76	72	84
36	97	100	92	83	75	89
37	99	104	97	87	79	93
38	103	105	101	91	83	97
39	111	108	103	94	86	100
40	121	112	105	96	89	105
41	133	121	108	98	93	111
42	147	133	113	99	98	118
43	162	148	122	102	102	127
44	176	164	135	109	104	138
45	190	180	150	121	106	149
46	203	196	167	135	109	162
47	217	209	184	150	115	175
48	229	223	214	165	125	191
49	237	235	228	178	137	203

Individual Temperatures Recorded on The Leaf of Doorset B 100mm Away from The Edges

Time	Chan 39	Chan 40	Chan 41	Chan 42	Chan 43
min	°C	°C	°C	°C	°C
0	21	20	20	20	20
1	21	20	20	20	20
2	21	20	20	20	20
3	21	20	20	20	20
4	21	20	21	21	20
5	21	20	21	21	20
6	21	20	21	21	20
7	21	20	21	21	20
8	21	20	21	21	20
9	22	20	21	22	21
10	22	20	21	22	21
11	23	21	22	22	21
12	24	21	22	23	22
13	26	22	23	24	23
14	27	23	24	27	24
15	28	23	26	32	25
16	29	25	28	33	26
17	30	26	30	34	27
18	32	26	32	35	29
19	33	28	33	35	31
20	35	29	35	36	32
21	37	31	37	37	34
22	39	32	39	38	36
23	41	34	41	40	38
24	43	36	42	42	40
25	46	38	44	43	43
26	49	41	47	46	46
27	53	44	50	50	50
28	57	47	53	54	54
29	61	50	56	58	58
30	66	54	59	62	63
31	71	58	61	65	67
32	77	63	63	69	71
33	84	67	65	73	76
34	90	72	68	78	82
35	94	77	71	83	87
36	98	83	75	88	92
37	100	87	82	92	97
38	102	89	87	97	101
39	105	92	89	102	106
40	108	95	89	108	114
41	116	99	90	118	126
42	127	105	91	131	141
43	141	117	93	145	157
44	157	131	96	161	173
45	173	146	101	176	188
46	189	161	110	191	203
47	204	175	121	204	218
48	218	188	134	216	231
49	230	198	144	228	244

Individual Temperatures Recorded on The Unexposed Surface of Door Frame B

Time	Chan 34	Chan 35	Chan 36	Chan 37	Chan 38
min	°C	°C	°C	°C	°C
0	19	20	21	21	20
1	19	20	21	21	20
2	19	20	21	21	20
3	19	20	21	21	21
4	19	20	21	21	20
5	19	20	21	21	20
6	19	20	21	21	20
7	20	20	21	21	20
8	20	21	21	21	20
9	20	21	21	21	20
10	20	21	21	22	20
11	20	22	21	22	20
12	21	22	21	22	20
13	21	23	22	25	21
14	23	24	22	33	22
15	25	25	22	36	22
16	27	27	23	40	23
17	36	28	23	43	23
18	36	28	24	43	23
19	37	36	25	41	23
20	38	42	25	41	23
21	38	40	26	41	24
22	39	41	28	41	24
23	40	41	29	42	24
24	43	46	30	43	25
25	43	39	34	44	25
26	46	37	42	44	26
27	45	38	46	46	26
28	45	38	44	46	28
29	44	39	41	48	33
30	43	40	40	52	35
31	43	42	39	54	38
32	43	43	40	56	44
33	42	45	40	56	44
34	42	46	41	57	45
35	42	48	42	59	45
36	43	50	43	61	45
37	44	51	45	61	46
38	46	53	46	63	48
39	50	55	48	65	49
40	50	58	49	66	51
41	53	60	51	68	52
42	57	62	52	69	54
43	59	63	54	70	57
44	62	65	57	71	58
45	67	67	60	73	60
46	71	70	63	75	62
47	74	72	66	78	64
48	76	75	71	80	66
49	80	77	74	83	68

Recorded Radiation Intensity from The Doorsets

Time	Chan 51	Chan 52
min	kW/m²	kW/m²
0	0.3	0.3
1	0.3	0.3
2	0.3	0.3
3	0.3	0.3
4	0.3	0.3
5	0.3	0.3
6	0.3	0.3
7	0.3	0.3
8	0.4	0.3
9	0.4	0.4
10	0.3	0.4
11	0.4	0.4
12	0.4	0.4
13	0.4	0.4
14	0.4	0.4
15	0.4	0.4
16	0.4	0.4
17	0.4	0.4
18	0.4	0.4
19	0.4	0.4
20	0.4	0.4
21	0.3	0.4
22	0.4	0.4
23	0.4	0.4
24	0.4	0.4
25	0.4	0.4
26	0.4	0.5
27	0.4	0.5
28	0.5	0.5
29	0.4	0.5
30	0.5	0.5
31	0.4	0.5
32	0.5	0.5
33	0.5	0.4
34	0.5	0.5
35	0.5	0.5
36	0.5	0.5
37	0.5	0.6
38	0.5	0.6
39	0.5	0.6
40	0.5	0.6
41	0.5	0.6
42	0.6	0.7
43	0.6	0.6
44	0.7	0.6
45	0.7	0.8
46	0.8	0.9
47	0.8	1.0
48	1.0	1.2
49	1.1	1.1

Individual Temperatures Recorded on The Letterplate of Doorset A

Thermocouples have been applied to an item of hardware which passes through the leaf, the letter plate, and have been applied for informational purposes only and do not contribute towards the insulation performance of the doorset being evaluated as described in Section 9.1.2.1 of BS EN 1634-1:2014+A1:2018. The data recorded can be found in the table below.

Time	Chan 32	Chan 33
min	°C	°C
0	20	18
1	21	40
2	20	35
3	22	46
4	26	62
5	28	72
6	31	79
7	30	80
8	31	84
9	38	111
10	40	115
11	40	117
12	41	111
13	42	106
14	43	103
15	45	102
16	47	102
17	49	105
18	50	110
19	52	117
20	54	126
21	56	133
22	58	137
23	59	138
24	62	140

Time	Chan 32	Chan 33
min	°C	°C
25	64	142
26	67	145
27	70	147
28	73	151
29	76	153
30	78	156
31	80	158
32	83	161
33	86	163
34	90	165
35	95	167
36	99	172
37	103	178
38	110	180
39	124	183
40	144	187
41	175	193
42	204	198
43	236	204
44	273	211
45	310	217
46	340	224
47	375	232
48	447	240
49	517	249

Individual Temperatures Recorded on The Letterplate of Doorset B

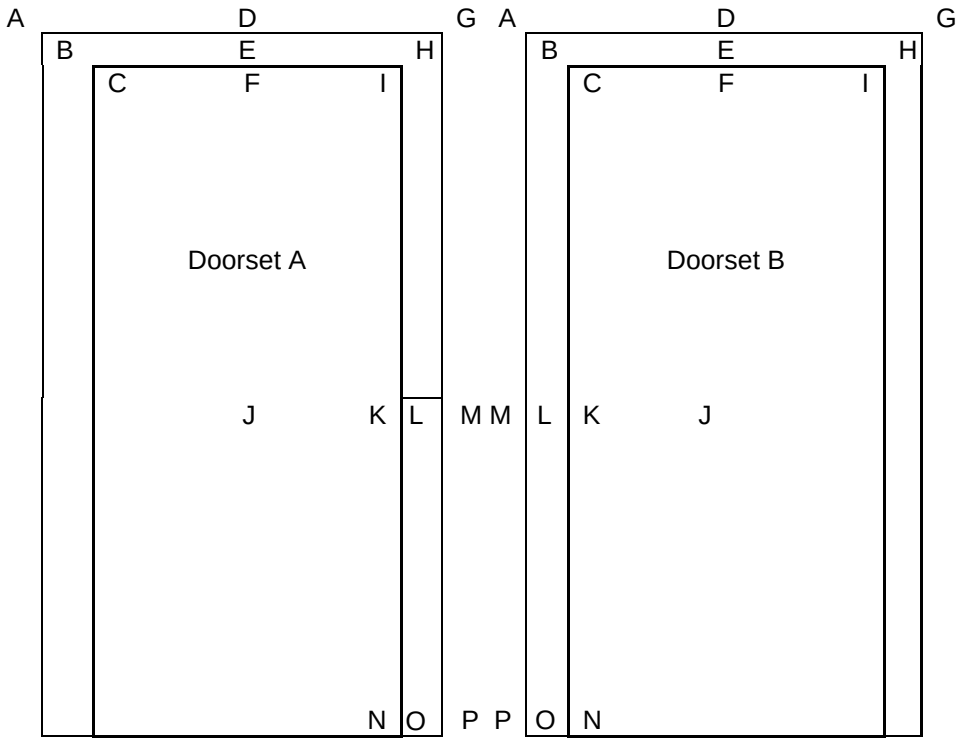
Thermocouples have been applied to an item of hardware which passes through the leaf, the letter plate, and have been applied for informational purposes only and do not contribute towards the insulation performance of the doorset being evaluated as described in Section 9.1.2.1 of BS EN 1634-1:2014+A1:2018. The data recorded can be found in the table below.

Time	Chan 49	Chan 50
min	°C	°C
0	21	18
1	24	48
2	24	45
3	28	57
4	37	75
5	43	81
6	52	88
7	53	93
8	53	101
9	56	115
10	61	116
11	60	113
12	59	111
13	59	110
14	59	109
15	59	109
16	57	110
17	58	111
18	58	114
19	60	118
20	61	123
21	62	129
22	64	135
23	65	142
24	66	149

Time	Chan 49	Chan 50
min	°C	°C
25	68	156
26	71	164
27	74	171
28	76	178
29	78	185
30	80	193
31	82	200
32	85	207
33	88	215
34	92	224
35	96	233
36	100	242
37	103	252
38	107	262
39	110	271
40	116	281
41	126	290
42	141	299
43	160	308
44	181	319
45	203	332
46	229	345
47	256	358
48	303	394
49	209	390

Horizontal Deflections of The Doorsets

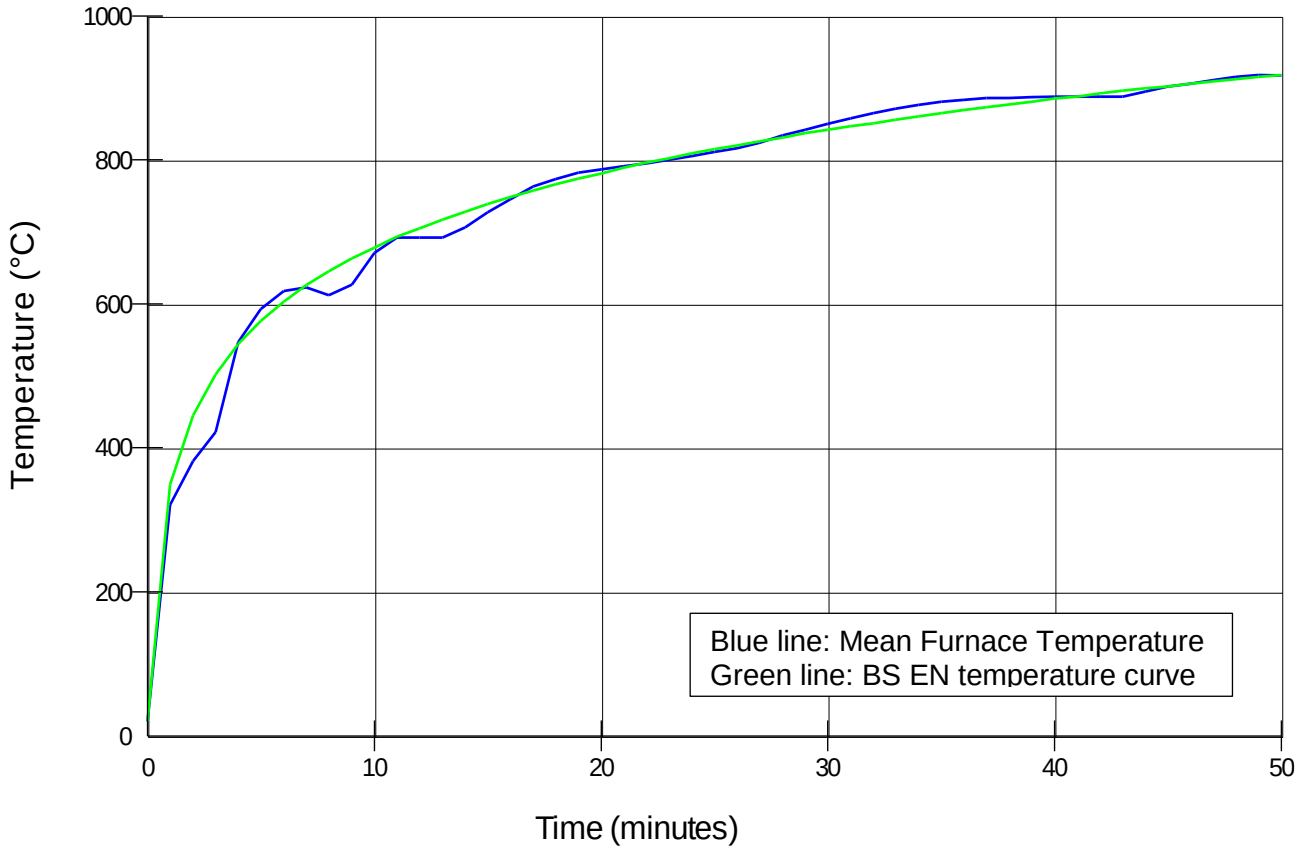
The following tables show the distortion in mm with an accuracy of ±1mm.
A positive measurement indicates distortion towards the furnace.
A negative measurement indicates distortion away from the furnace.



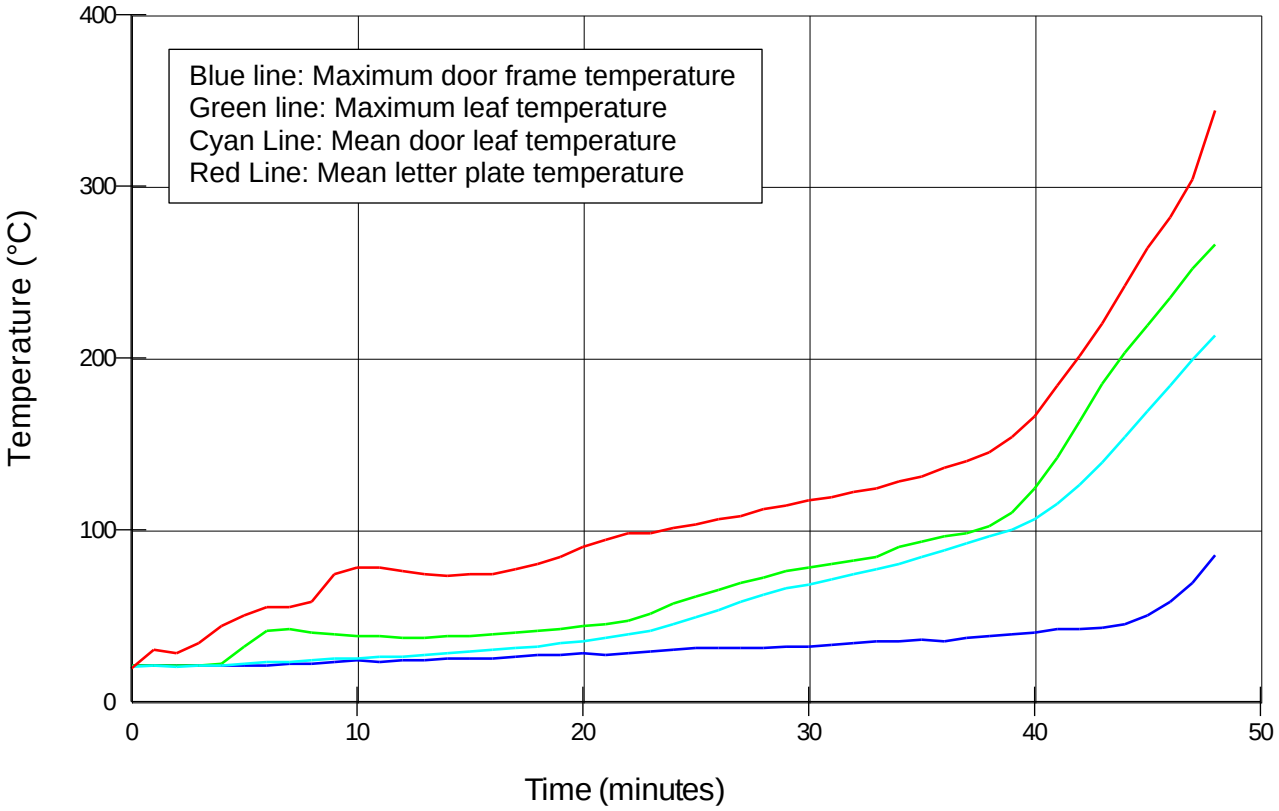
Doorset A																
Deflections (mm)																
TIME (mins)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
10	6	13	3	7	9	5	6	8	12	6	5	5	6	6	5	3
20	9	11	13	14	12	10	10	12	13	4	9	10	12	6	6	4
30	24	26	32	33	28	26	24	28	30	-4	15	16	19	7	8	5
40	29	35	38	41	35	35	29	35	35	-2	16	18	19	3	8	6

Doorset B																
Deflections (mm)																
TIME (mins)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
10	3	4	11	7	6	12	7	8	8	4	5	3	4	5	3	2
20	12	15	19	20	15	15	13	15	15	1	13	11	12	5	4	2
30	21	25	26	31	23	26	18	20	26	-5	12	15	15	4	4	2
40	26	30	25	28	20	24	15	13	20	-7	11	14	18	5	4	1

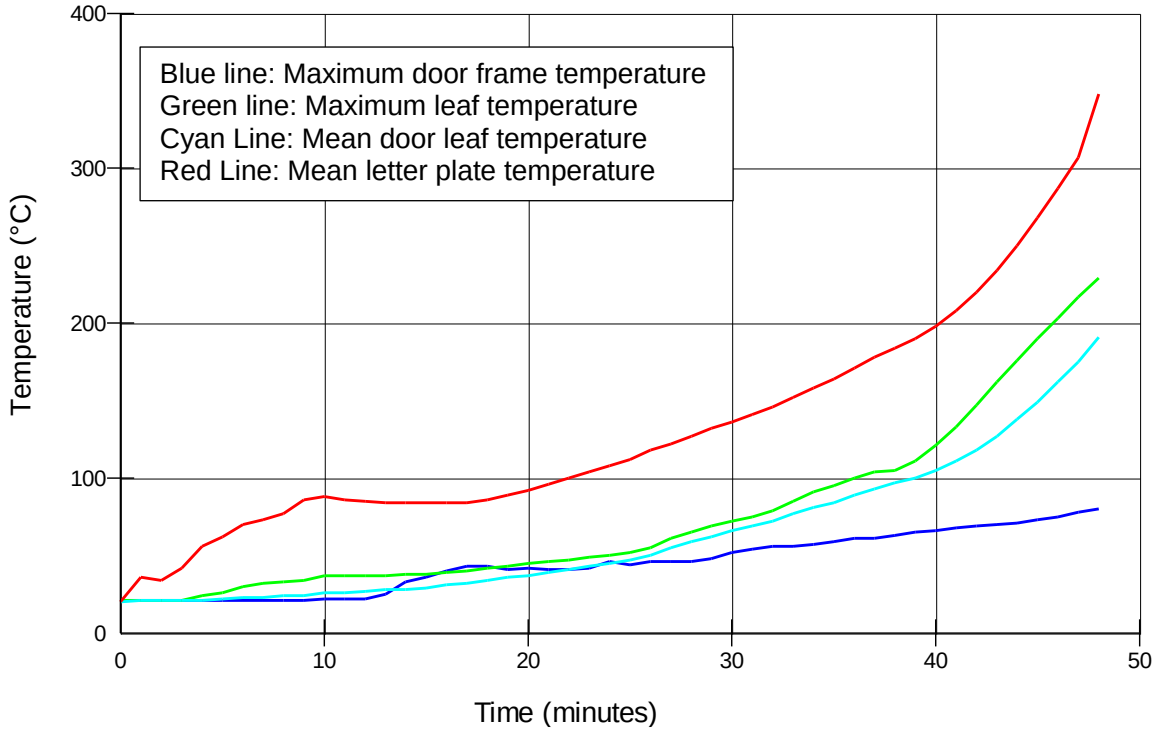
Graph showing mean furnace temperature, together with the temperature/time relationship specified in BS EN 1363-1: 2012



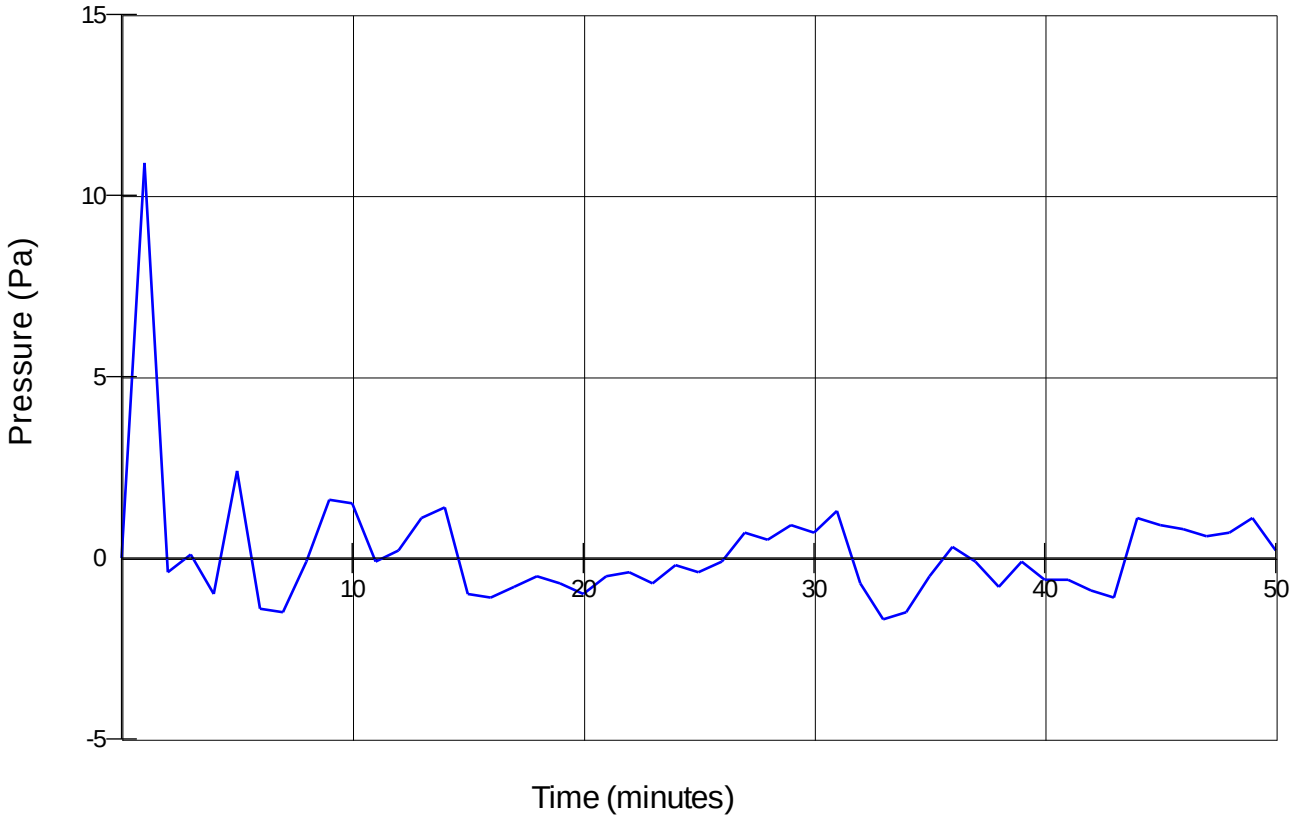
Graph Showing Mean Leaf and Maximum Doorset Temperatures Recorded on The Unexposed Surface of Doorset A



Graph Showing Mean Leaf and Maximum Doorset Temperatures Recorded on The Unexposed Surface of Doorset B



Graph showing recorded furnace pressure at 0.5m from the notional floor level



On-going Implications

Limitations

This report details the method of construction, the test conditions and the results obtained when the specific element of construction described herein was tested following the procedure outlined in BS EN 1634-1, BS EN 1363-1, and where appropriate BS EN 1363-2. Any significant deviation with respect to size, construction details, loads, stresses, edge or end conditions other than those allowed under the field of direct application in the relevant test method is not covered by this report. Annex A of BS EN 1363-1, provides guidance information on the application of fire resistance tests and the interpretation of test data.

The results only relate to the behaviour of the element of construction under the particular conditions of test; they are not intended to be the sole criteria for assessing the potential fire performance of the element in use nor do they reflect the actual behaviour in fires. The results of this test were obtained using the leaf to frame gaps recorded within this report. The fire resistance performance of doors of this design may change if substantially different gaps are employed.

The specification and interpretation of fire test methods are the subject of ongoing development and refinement. Changes in associated legislation may also occur. For these reasons it is recommended that the relevance of test reports over 5 years old should be considered by the user. Warringtonfire will be able to offer, on behalf of the legal owner, a review of the procedures adopted for a particular test to ensure that they are consistent with current practices, and if required may endorse the test report.

Because of the nature of fire resistance testing and the consequent difficulty in quantifying the uncertainty of measurement of fire resistance, it is not possible to provide a stated degree of accuracy of the result.

EGOLF

Certain aspects of some fire test specifications are open to different interpretations. EGOLF have identified a number of such areas and have agreed Resolutions which define common agreement of interpretations between fire test laboratories which are members of the Groups. Where such Resolutions are applicable to this test they have been followed.

Field of Direct Application

BS EN 1363-1:2012, Fire resistance tests - Part 1: General requirements, states within Section 12.1, Clause v) that “The field of direct application of the results for the specimen being evaluated, either in the form of the full text from the appropriate standard, or only those clauses which are relevant for the specimen tested” shall be included within the test report. The full text of the field of direct application for the results of the specimen being evaluated herein, can be found within the appropriate test standard, which is referenced on the front cover of this report.

Sampling Report

bmtrada Proud to be part of element	SAMPLING VISIT REPORT	Company Name	Pacific Rim Wood Ltd
		Establishment No.	006/1686
		BM TRADA Notified Body ID: 1224	

Company Head Office Address	Pacific Rim Wood Ltd Pt Kutai Timber Indonesia Jl. Tanjung Tembaga Baru, Pelabuhan Probolinggo 67201, Jawa Timur Indonesia	Contact Name	Mr Shaun Hannan
		Telephone	01598 710100
		Email Address	Shaun@prwuk.com

Location where sampling was conducted if different from Head Office Address	Visit Date	BMT Representative
GPM Group Ltd, Unit 3 Fordgate Business Park, Crabtree Manorway North, Belvedere, Kent DA17 6AS	03/06/2021	Michael Chorlton

Requirement	Evidence / Comments	
Opening Meeting (names of those present)	Mr Paul Baddick (GPM) / Mr Adam Wilton (GPM)	
Contract Reference	SC21031-1 / 3504 NR 1	
Technical Specification document reference. Photographs to be taken of all critical areas highlighted in the Technical Specification	TS T – Door Type 1 Technical Specification (Mark up available). Additionally a mark up of the PAS24 draft report has been made.	
Description of product(s) sampled	Single timber based flush doorset based on PRUK Flamebreak 430 blank.	
Product identification / reference numbers / codes	GPM Job Ref: 3504 Nr 1	
Batch number(s)	N/A	
Date of manufacture	Manufactured in stages between 17/05 and 03/06	
Quantity of stock and size of sample(s) taken	1No. doorset at 1025mm wide x 2246mm high (Leaf: 931 wide x 2151 high)	
Traceability of material records ie Purchase Orders and delivery notes	Door cores initially labelled, hardware generally marked or package labelled, intumescents marked, frame and lipping material timber checks made, POs requested for unmarked intumescents and hardware.	
Example of sampler's markings applied to the product(s) (contract reference, signature of client, date of manufacture)	 Leaves marked on bottom, frames marked on back face.	
Confirmation of minimum mandatory video/live checks undertaken	~~☐ Glazing assembly (where applicable)~~	✓ Finished doorset with markings
	✓ Hardware prep and fitting (where applicable)	✓ Sampling pack discussion
Details of any further FPC processes witnessed during the visit.	Dimensional checks made throughout.	
Determine the essential characteristics of the product and confirm the details of in-process checks conducted on the sample to ensure conformity.	Door blanks (FB 430) selected and marked. Lipped on all four edges with 9mm lippings. Trimmed to size and machined for hinge and lock and ancillary hardware. Frame assembly and machined pockets / mortices. Painting was not witnessed, however traceability recorded via marking. Final assembly including hardware protection and fitting. NOTE: A Closer was not fitted and the supporting construction requirements not communicated. Laboratory to finalise requirements.	
Confirm any clauses within the Technical Specification that were found to be different on the sampled product/s. ***Non-conformances may be raised for pre-cert and audit test sampling***	The following clauses of the technical specification have been amended or have information added by the sampler: 1 door frame, 8 seals, 12 Cill, 16 leaf, 16.1-16.6 core, 16.9 lippings, 19 seal, 21 hinges, 24 lockset, 25 keeps, 26 cylinder, 29 rainguard, 30 letterplate, 31 veiwer, 32 security bar.	
Closing Meeting (names of those present)	Mr Paul Baddick	

Declaration	I declare that the product/s witnessed during this sampling visit are representative of normal production.

Company Representative Name (Print)	Company Representative Position
Sent to Paul Baddick (GPM) and verbally approved	N/A
BM TRADA Representative Signature	**Company Representative Signature**
	N/A

bmtrada Proud to be part of element	SAMPLING VISIT REPORT	Company Name	Pacific Rim Wood Ltd
		Establishment No.	006/1686
		BM TRADA Notified Body ID: 1224	

Company Head Office Address	Pacific Rim Wood Ltd Pt Kutai Timber Indonesia Jl. Tanjung Tembaga Baru, Pelabuhan Probolinggo 67201, Jawa Timur Indonesia	Contact Name	Mr Shaun Hannan
		Telephone	01598 710100
		Email Address	Shaun@prwuk.com

Location where sampling was conducted if different from Head Office Address	Visit Date	BMT Representative
GPM Group Ltd, Unit 3 Fordgate Business Park, Crabtree Manorway North, Belvedere, Kent DA17 6AS	03/06/2021	Michael Chorlton

Requirement	Evidence / Comments
Opening Meeting (names of those present)	Mr Paul Baddick (GPM) / Mr Adam Wilton (GPM)
Contract Reference	SC21031-4 / 3669 NR 4
Technical Specification document reference. Photographs to be taken of all critical areas highlighted in the Technical Specification	TS T – Door Type 1 Technical Specification (Mark up available). Additionally a mark up of the PAS24 draft report has been made.
Description of product(s) sampled	Single timber based flush doorset based on PRUK Flamebreak 430 blank.
Product identification / reference numbers / codes	GPM Job Ref: 3669 Nr 4
Batch number(s)	N/A
Date of manufacture	Manufactured in stages between 17/05 and 03/06
Quantity of stock and size of sample(s) taken	1No. doorset at 1025mm wide x 2248mm high (Leaf: 931 wide x 2151 high)
Traceability of material records ie Purchase Orders and delivery notes	Door cores initially labelled, hardware generally marked or package labelled, intumescents marked, frame and lipping material timber checks made, POs requested for unmarked intumescents and hardware.
Example of sampler's markings applied to the product(s) (contract reference, signature of client, date of manufacture)	 Leaves marked on bottom, frames marked on back face.
Confirmation of minimum mandatory video/live checks undertaken	~~☐ Glazing assembly (where applicable)~~ ✓ Finished doorset with markings ✓ Hardware prep and fitting (where applicable) ✓ Sampling pack discussion
Details of any further FPC processes witnessed during the visit.	Dimensional checks made throughought.
Determine the essential characteristics of the product and confirm the details of in-process checks conducted on the sample to ensure conformity.	Door blanks (FB 430) selected and marked. Lipped on all four edges with 9mm lippings. Trimmed to size and machined for hinge and lock and ancillary hardware. Frame assembly and machined pockets / mortices. Painting was not witnessed, however traceability recorded via marking. Final assembly including hardware protection and fitting. NOTE: A Closer was not fitted and the supporting construction requirements not communicated. Laboratory to finalise requirements.
Confirm any clauses within the Technical Specification that were found to be different on the sampled product/s. ***Non-conformances may be raised for pre-cert and audit test sampling***	The following clauses of the technical specification have been amended or have information added by the sampler: 1 door frame, 8 seals, 12 Cill, 16 leaf, 16.1-16.6 core, 16.9 lippings, 19 seal, 21 hinges, 24 lockset, 25 keeps, 26 cylinder, 29 rainguard, 30 letterplate, 31 veiwer, 32 security bar.
Closing Meeting (names of those present)	Mr Paul Baddick

Declaration	I declare that the product/s witnessed during this sampling visit are representative of normal production.

Company Representative Name (Print)	Company Representative Position
Sent to Paul Baddick (GPM) and verbally approved	N/A
BM TRADA Representative Signature	**Company Representative Signature**
	N/A