Test Report

The fire resistance performance of two timber, single acting single door assemblies when tested in accordance with BS EN 1634-1:2014+A1:2018.

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Trusted to ensure.

Change History

Issue Date	Revision	Created by	Authorised by	Description of Change
27/07/2025	A	AC	NS	Initial Issue

Signatories

	
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*For and on behalf of United Kingdom Testing and Certification.

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1 Executive Summary

1.1 Specimen Summary

Specimen A and Specimen B had overall nominal dimensions of 1000 mm wide by 2300 mm high, incorporating a single door leaf with overall dimensions of 930 mm wide by 2260 mm high by 54 mm thick.

The door leaf was formed from particle board and had 8 mm thick hardwood lippings to all four edges.

The door leaf was hung in a hardwood frame on four steel hinges and incorporated Exitex intumescent strips to the leaf edges and frame reveal, an Exitex drop seal, tubular latch with lever handles and a face fixed closer.

1.2 Specimen Verification

United Kingdom Testing and Certification carried out a comprehensive survey to verify the information provided by the Test Sponsor. This included verifying the materials, dimensions, and manufacturing methodologies of the test specimens, wherever possible. Refer to page 18 for full details of this survey.

1.3 Specimen Installation and Fixity

Specimen A was installed into the test construction by United Kingdom Testing and Certification. The specimen was installed such that the door leaf opened towards the heating conditions at the request of the Test Sponsor. The specimen was unlatched and unbolted prior to the commencement of the test at the request of the Test Sponsor.

Specimen B was installed into the test construction by United Kingdom Testing and Certification. The specimen was installed such that the door leaf opened away from the heating conditions at the request of the Test Sponsor. The specimen was unlatched and unbolted prior to the commencement of the test at the request of the test sponsor.

1.4 Specimen Conditioning

The specimen's storage, construction, and test preparation took place in the test laboratory over a total, combined time of five days. Throughout this period, both the temperature and the humidity of the laboratory were measured and recorded as being within a range of from 14.9 °C to 16.4 °C and 51.5 % to 66.1 % respectively.

1.5 Instruction to Test

The test was conducted on 13 May 2025 at the request of the Test Sponsor. The test was witnessed by Mark Thorne, a representative of the Test Sponsor.

1.6 Sampling

United Kingdom Testing and Certification was not involved in the sampling or selection of the tested specimen or any of the components. A representative of BM TRADA sample selected the following components of the tested specimen:

Component	Sampling date	Sampling report reference
Specimen A & B	25/03/2025 31/03/2025 02/04/2025	SC24294T

Refer to page 51 for the copies of the sampling reports.

1.7 Summary of Expression of Results

Summary of results per the criterion specified in BS EN 1634-1:2014+A1:2018 § 11 for each specimen is presented in the table below. A detailed breakdown of the results for each specimen is contained within Section 8 on Page 39.

Specimen ID	Integrity		Insulation
A	Sustained Flaming	57 minutes	57 minutes
	Gap Gauge	57 minutes*	
	Cotton Pad	57 minutes	
B	Sustained Flaming	61 minutes**	61 minutes**
	Gap Gauge	61 minutes**	
	Cotton Pad	61 minutes**	

*mastic was applied after a period of 57 minutes.

**The test was discontinued after a period of 61 minutes.

2 Pre-test Examination

2.1 Operability Test

Specimen A was opened from fully closed to maximum opening and back again 25 times prior to the commencement of the test in accordance with BS EN 16034:2014 § A.2.2.

Specimen B was opened from fully closed to maximum opening and back again 25 times prior to the commencement of the test in accordance with BS EN 16034:2014 § A.2.2.

2.2 Self-Closing Test

Specimen A was opened to 30° ± 2°, held for 20 ± 2 seconds and released without shock and allowed to close at a maximum mean average speed of 300 mm/s to ensure that a closed position was achieved in accordance with BS EN 16034:2014 § A.4.1.

Specimen B was opened to 30° ± 2°, held for 20 ± 2 seconds and released without shock and allowed to close at a maximum mean average speed of 300 mm/s to ensure that a closed position was achieved in accordance with BS EN 16034:2014 § A.4.1.

2.3 Closing Force Measurement

The door closing forces were measured and recorded three times. The results are presented below:

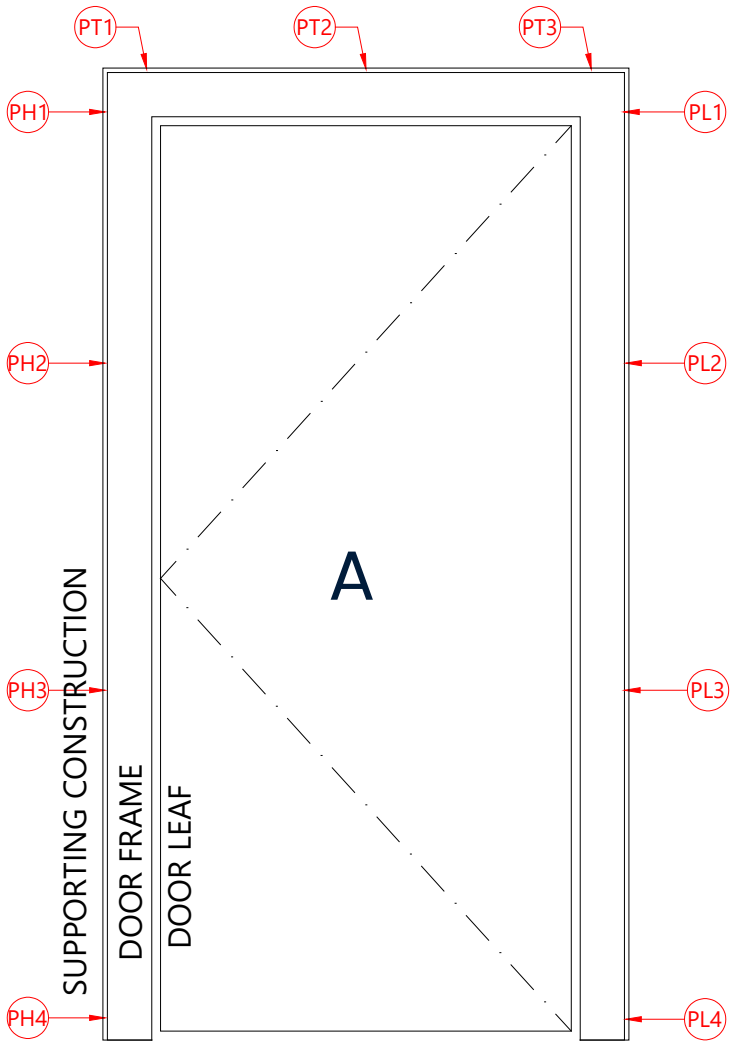
Measurement	Maximum Recorded Force (N)	Distance from Pivot to Measurement Location (m)	Moment (Nm)
Closing Force Specimen A	47.8	0.800	38.24
Opening Force Specimen A	53.4	0.800	42.72
Closing Force Specimen B	37.2	0.800	29.76
Opening Force Specimen B	57.4	0.800	45.92

2.4 Gap Measurements

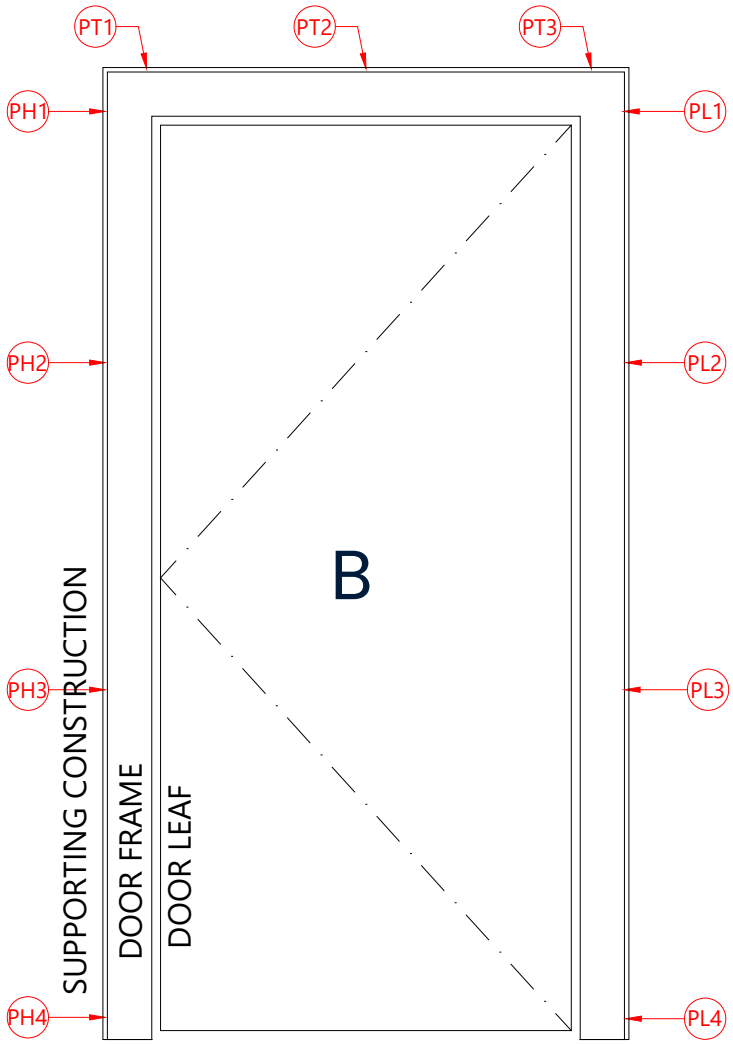
All measurements are in millimeters (mm) unless stated otherwise, include structural opening perimeter gaps.

2.4.1 Structural Perimeter gaps

The gaps between the perimeter of the frame and the supporting construction were measured prior to the commencement of the test. This was measured from the annotated locations in the figure below. The measurements were taken from the Primary face.



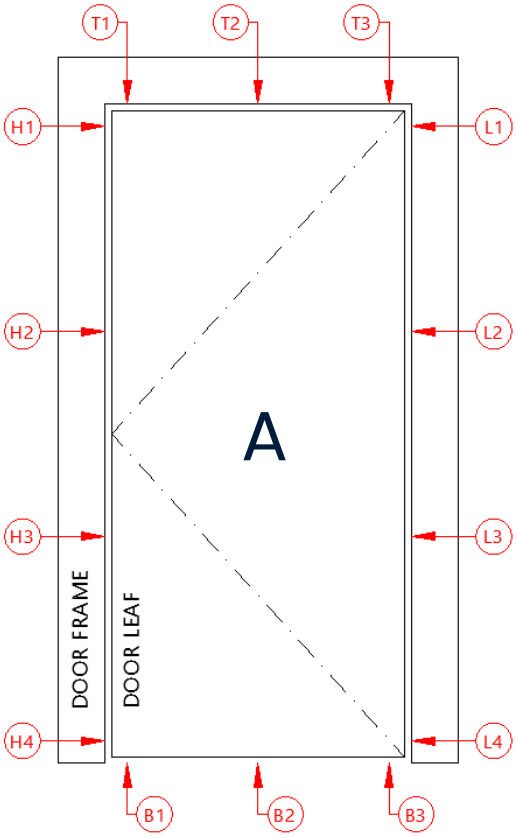
Perimeter Gaps							
PH1	13.4		PL1	13.74		PT1	5.72
PH2	13.44		PL2	14.09		PT2	6.21
PH3	12.32		PL3	15.99		PT3	6.3
PH4	9.97		PL4	16.54			

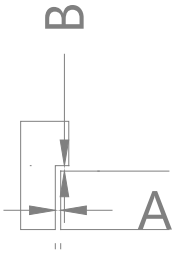


Perimeter Gaps					
PH1	10.15	PL1	11.24	PT1	6.63
PH2	10.16	PL2	11.49	PT2	6.08
PH3	8.96	PL3	15.09	PT3	6.8
PH4	9.69	PL4	13.45		

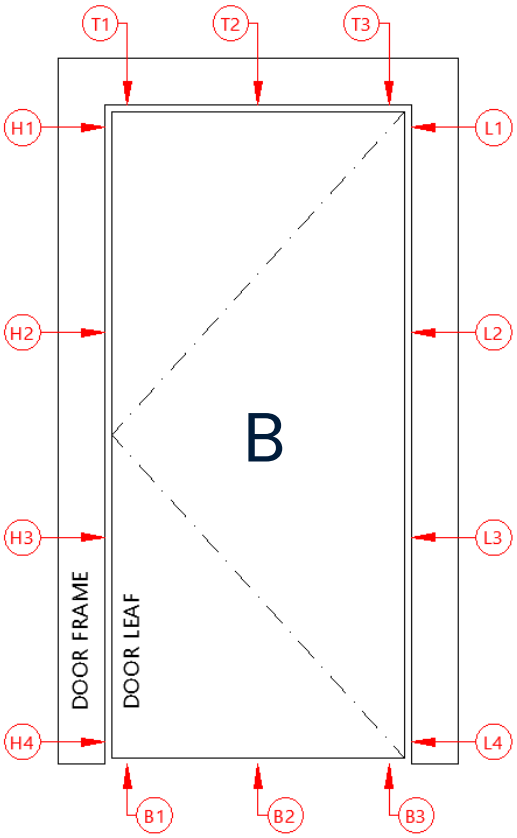
2.4.2 Doorset Perimeter gaps

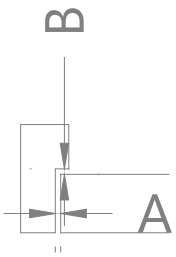
The gaps between the perimeter of the door leaf and the frame were measured prior to the commencement of the test.





Hanging Stile	A	B	Closing Stile	A	B
H1	3.1	0.1	L1	3.1	0.1
H2	3.2	0.1	L2	3.1	0.1
H3	3.2	0.1	L3	3.2	0.1
H4	2.7	0.1	L4	2.9	0.1
Mean	3.1		Mean	3.1	
Max	3.2		Max	3.2	
Min	2.7		Min	2.9	
Max Permitted	5.1		Max Permitted	5.1	
Top Edge	**A**	**B**	**Bottom Edge**	**A**	
T1	2.9	3.2	B1	5.4	
T2	3.1	3.1	B2	5.5	
T3	3.1	3.0	B3	5.1	
Mean	3.0		Mean	5.3	
Max	3.1		Max	5.5	
Min	2.9		Min	5.1	
Max Permitted	5.0		Max Permitted	7.4	





Hanging Stile	A	B	Closing Stile	A	B
H1	3.9	0.5	L1	3.0	0.5
H2	3.1	0.5	L2	3.0	0.5
H3	3.0	0.5	L3	3.0	0.5
H4	3.3	0.5	L4	3.2	0.5
Mean	3.3		Mean	3.0	
Max	3.9		Max	3.2	
Min	3.0		Min	3.0	
Max Permitted	5.6		Max Permitted	5.1	
Top Edge	**A**	**B**	**Bottom Edge**	**A**	
T1	3.2	0.5	B1	5.0	
T2	3.0	0.5	B2	6.6	
T3	2.9	0.5	B3	6.2	
Mean	3.0		Mean	5.9	
Max	3.2		Max	6.6	
Min	2.9		Min	5.0	
Max Permitted	5.1		Max Permitted	8.2	

3 Test Specimen Drawings

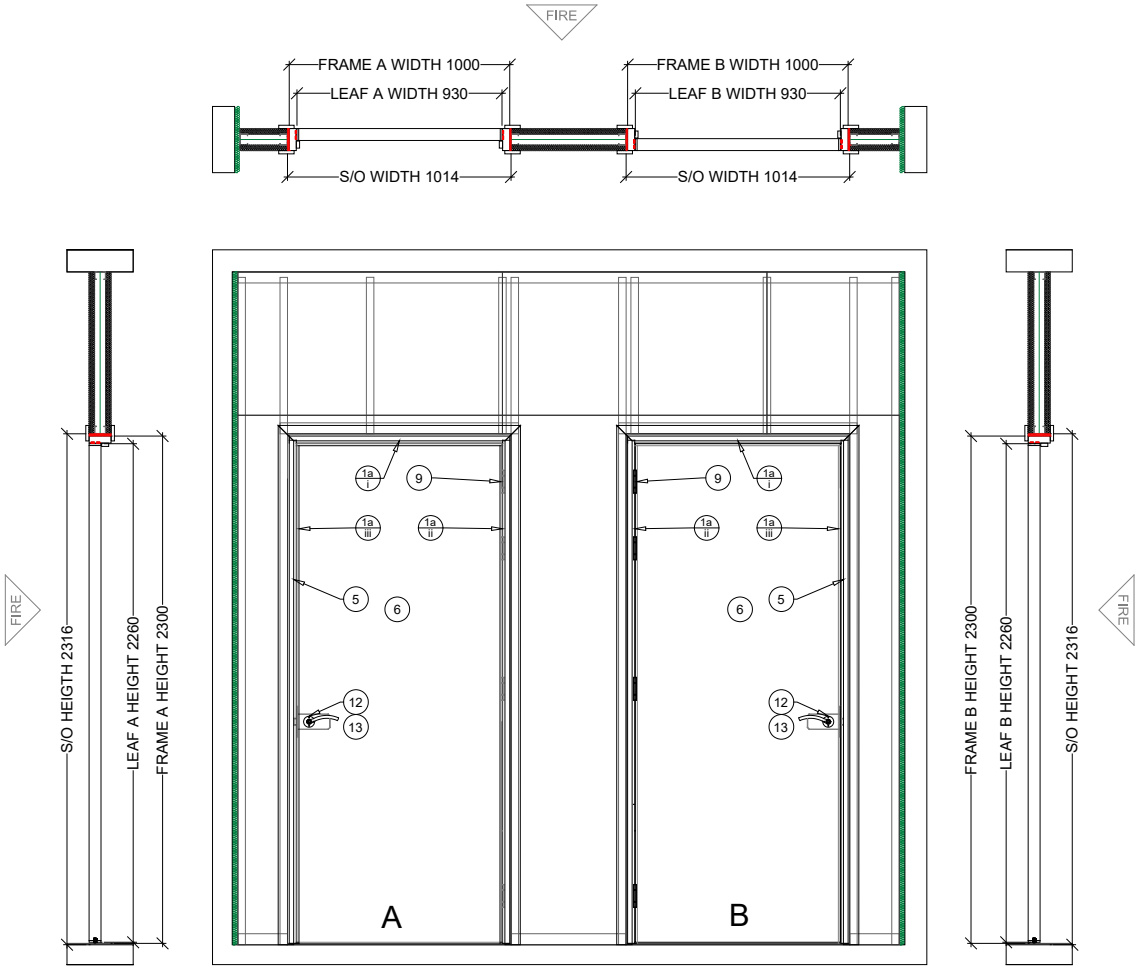


Figure 1 - General arrangement of test construction viewed from the unexposed surface

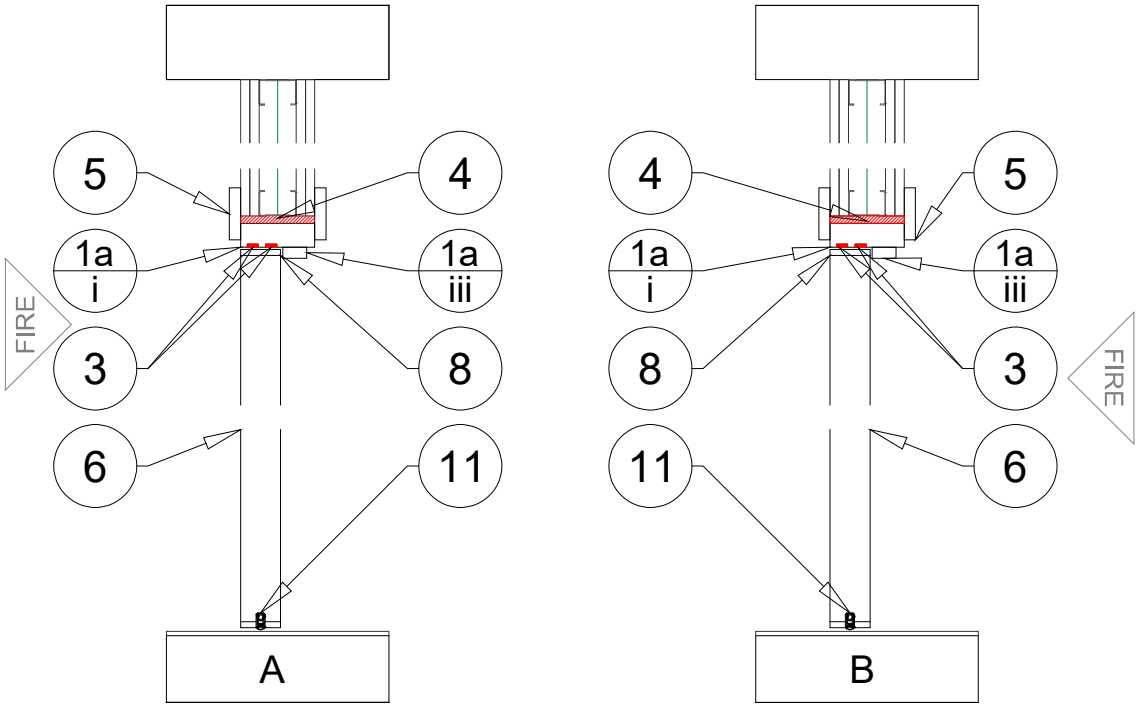


Figure 2 - Typical vertical section through the specimens

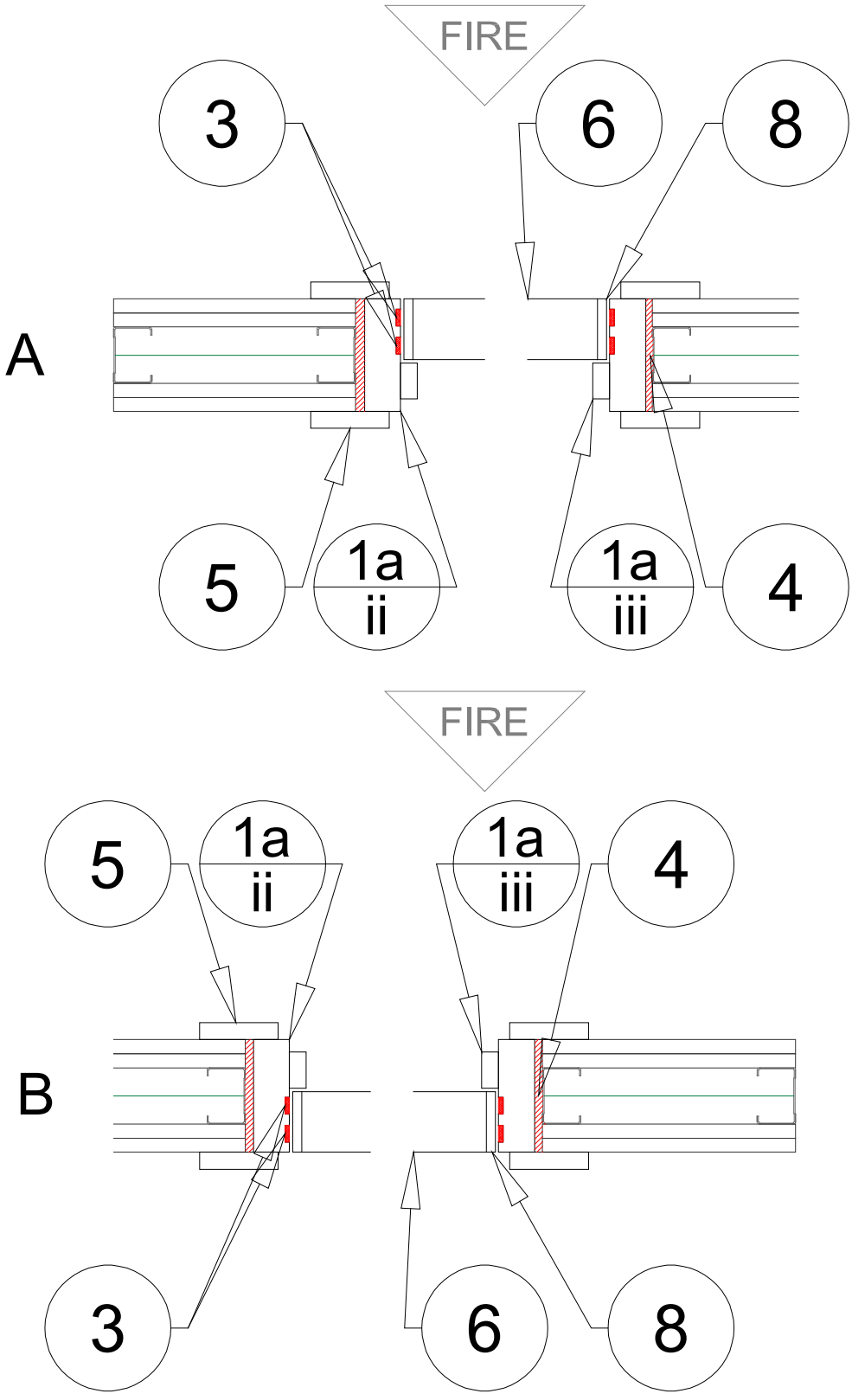


Figure 3 - Typical horizontal section through the specimens

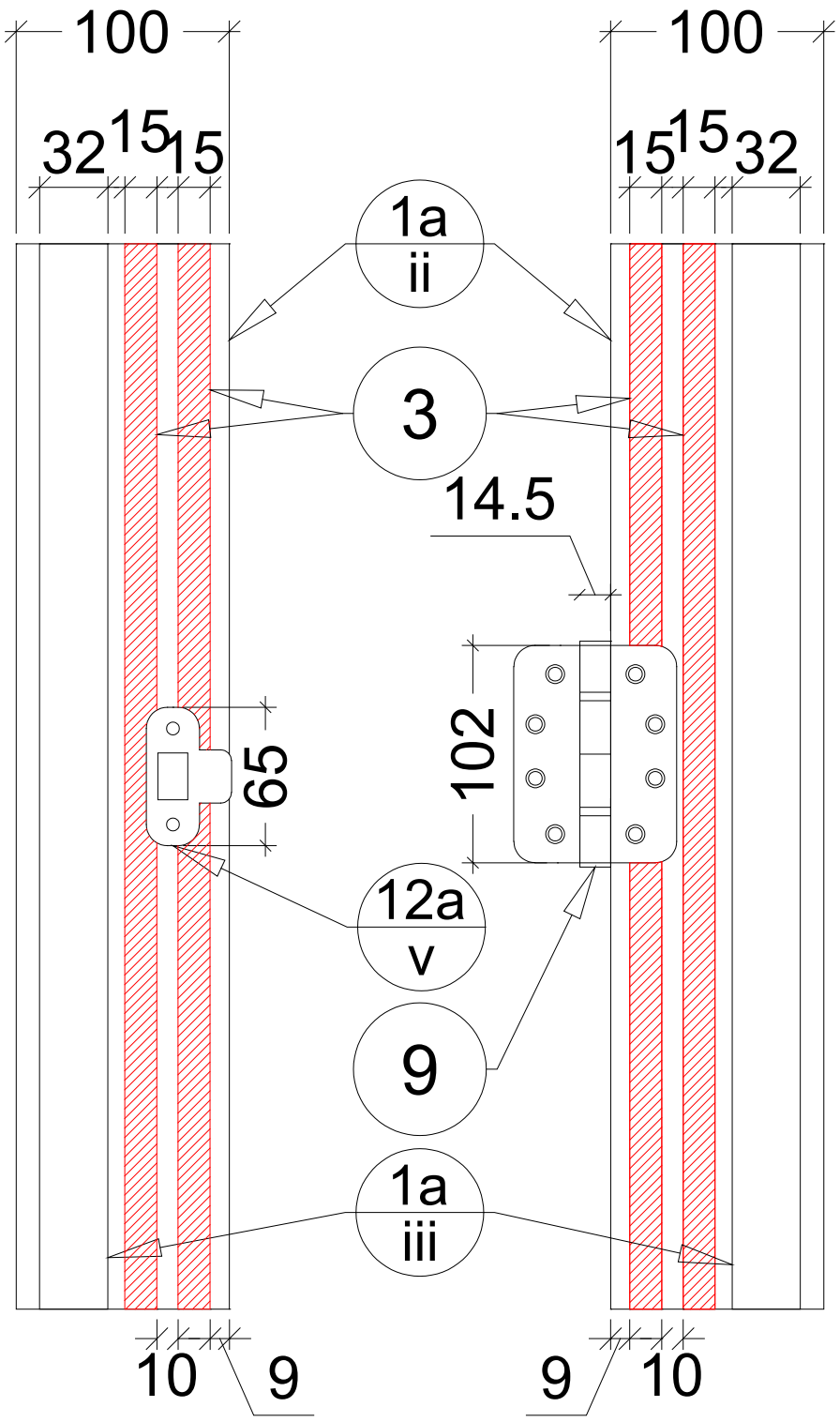


Figure 4 - Hardware intumescent interruptions

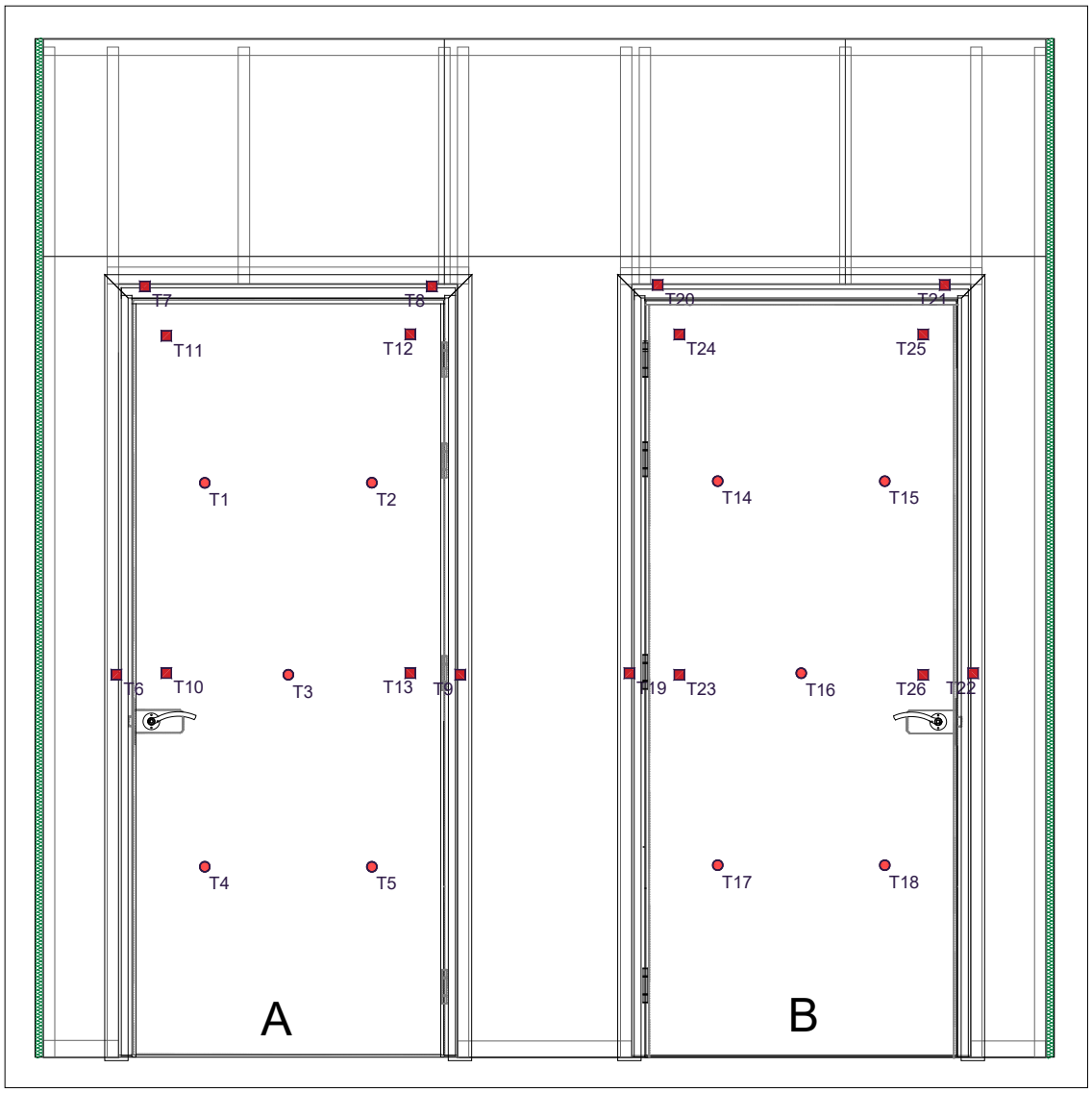


Figure 5 - Layout of instrumentation viewed from the unexposed surface of the test construction

4 Technical Schedule

4.1 Specimen A and B

1. **Frame**	
Manufacturer	DorSuite Ltd [1]
Reference	Sapele [1]
Material	Sapele Head and Sapele Jambs [1]
Density	600-640 kg/m^3 [1]
Moisture content	9.5 – 10 % (Laboratory Measurement)
a. Orientation to heating conditions	
i. Specimen A	Opening towards
ii. Specimen B	Opening away
b. Overall size	1000 mm wide x 2300 mm high
iii. Frame (Head)	100 mm wide x 32 mm thick
iv. Frame (Jambs)	100 mm wide x 32 mm thick
v. Stop	32 mm wide x 12 mm deep
Jamb to Head jointing method, fixing detail and location	Housed butt joint with PVA & 2 No. Ø 0.5 mm x 60 mm long wood screws [1]
Stop to Frame jointing method, fixing detail and location	Pinned with 1.6 mm gauge x 50 mm long steel pins @ 300 mm centres
2. **Frame Fixing Method to Supporting Construction**	
Manufacturer	Timco
Reference	Solo Woodscrews
Type & material	Steel, zinc coated
Overall size	Ø 5 mm x 80 mm long
Location relative to frame reveal	35 mm in
Spacing	150 mm from top corner of jamb, 150 mm from bottom corner of jamb and at no more than 600 mm centres

Does the fixing penetrate intumescent seal within frame reveal	No
Packing Material	Blue 60 Timberex wedges
Packing Material Dimension	2-15 mm taper x 15 mm wide x 80 mm long
3. Intumescent to frame reveal	
Quantity	2
Manufacturer	Exitex [1]
Reference	1.31.0330.2100.35 Exitex LT intumescent strip [1]
Material	Graphite [1]
Overall section size	15 mm wide x 4 mm thick
Application method	Adhesive strip to back
Location (relative to the opening face of the door leaf)	9 mm from opening face 10 mm in between
4. Frame to supporting construction fire stopping detail	
Manufacturer	Blue 60
Reference	Fire Rated Frame Expanding Foam
Material	Expanding foam
Overall dimension	100 mm deep x 6 mm wide
Application method	Cartridge gunned
5. Architraves	
Manufacturer	Dorsuite [1]
Reference	MDF Architraves
Material	MDF
Overall dimension	70 mm wide x 15 mm thick
Application method	Pinned 50 mm from corners and ends at no more than 200 mm centres with Ø 15 mm x 50 mm long steel pins
6. Door Leaf	
Manufacturer	Falcon Panel Products [1]

Reference	Strebord 54 [1]
Quantity of leaves on doorset	1
Overall leaf size supplied for testing	930 mm wide x 2260 mm high x 54 mm thick
Door Undercut (Top of cill / bottom of frame)	5 mm
7. Core element	
Supplier	Falcon Panel Products [1]
Supplier Ref	Strebord 54 [1]
Material	Particle Board [1]
Location	Core
Density	580-620 kg/m^3 [1]
8. Lippings / Edge banding	
Manufacturer	DorSuite Ltd [1]
Reference	LIP -0000 [1]
Material	Sapele [1]
Density	590-640 kg/m^3 [1]
Moisture content	7.3 - 7.8 % (Laboratory Measurement)
Overall size	8 mm thick x 54 mm wide
Fixing method	Adhered on [1]
Location	All edges of the door leaf
a. Adhesives	Polyurethane [1]
i. Manufacturer	Henkel [1]
ii. Type	PUR [1]
iii. Reference	Technomelt PUR 270/7G [1]
iv. Curing method	Moisture Cured [1]
v. Application method	Roller applied [1]
Presence of Mechanical Fixings	No

9. **Hinges**	
Manufacturer	ZOO Hardware [1]
Reference	ZHSS243RS Class 13 [1]
Supplier	DorSuite Ltd [1]
Reference	(0023229) 102 x 76mm Grade 13 Radius Ball Bearing Butt Hinge – GE [1]
Quantity	4 per door
Primary material	Stainless Steel
Type	Grade 13 concealed hinges
a. Size	
i. Knuckle	Ø 14.5 mm 106 mm high
ii. Blades	102 mm high x 31 mm wide x 3 mm thick
b. Fixings	
i. Type	Countersunk Screws
ii. Material	Stainless Steel
iii. Size	Ø 4.5 mm x 31 mm long
iv. Number of per blade	4
Position of each hinge relative to the head of the leaf	120 mm, 422 mm, 1062 mm & 1998 mm
Details of intumescent protection	2 mm Exitex Graphite Hinge Pads (1.31.0826.0031.00) [1]
Interruptions to Intumescent within the frame reveal	Fully interrupts intumescent closest to frame reveal & partially interrupts intumescent closest to stop
10. **Door Closer**	
Manufacturer	Rutland
Reference	TS9205
Supplier	DorSuite Ltd [1]
Supplier Reference	Size 2-5 Scissor Arm Door Closer, Semi Radius Cover c/2 Backcheck & Delayed Action – SNP (0029463) [1]
a. Material	

i. Body	Mild Steel
ii. Closer arm	Mild Steel
iii. Cover	Stainless Steel
Configuration	Fig 1
b. Overall size	
i. Body	55 mm high x 235 mm wide x 38 mm deep
ii. Cover	70 mm high x 269 mm wide x 40mm deep
Fixing method	4 No Ø 4.8 mm x 50 mm on body 2 No Ø 4.8 mm x 50 mm on bracket into frame
11. Drop Down Seal	
Manufacturer	Exitex Ltd [1]
Reference	Concealex A8100 Superior [1]
a. Material	
i. Body	Aluminium
ii. Cover	Rubber
b. Overall size	
i. Body	35 mm high x 14 mm wide x 1.5 mm thick
ii. Cover	60 mm high x 22 mm wide
Fixing method	2 No Ø 3 mm x 25 mm on cover, with Stainless Steel bracket
12. Lockset / Latch 1	
Manufacturer	ZOO Hardware [1]
Reference	PRTL76FD [1]
Supplier	DorSuite Ltd [1]
Supplier Reference	76mm Radius Forend Tubular Latch, 57mm Backset - SSS (0019094) [1]
a. Material	
i. Lockcase	Stainless Steel

ii. Forend plate	Stainless Steel
iii. Latch bolt	Stainless Steel
iv. keeper	Stainless Steel
b. Overall sizes	
i. Central Lockcase	21 mm high x 76 mm wide with 56 mm backset
ii. Forend plate	60 mm high x 25.2 mm wide
iii. Latch bolt	35 mm high x 9 mm wide x 20 mm single projection
c. Fixing method	
i. Forend plate	2 No. Ø 4 mm x 20 mm long screws
ii. keeper	2 No. Ø 4 mm x 20 mm long screws
Operation of lock bolt	Disengaged
Details of intumescent protection	EXI-Fire intumescent 2 mm Graphite [1]
Interruptions to Intumescent within the frame reveal	Fully interrupts intumescent closest to frame
Location of centre of the spindle relative to the bottom of the leaf	Centre of the spindle measures 1000 mm from the bottom of the leaf
13. Lever handles	
Manufacturer	Carlisle Brass (Held in Commercial Confidence) [3]
Reference	SC240G9T (Held in Commercial Confidence) [3]
Supplier	DorSuite Ltd [1]
Supplier Reference	(0029349) 19 mm Dia Return to Door Lever on 8 mm Spring Rose – SSS [1]
Material	Stainless Steel
Overall size	130 mm length x 18.7 mm thick x 65 mm projection
Fixing method, fixing material, sizes, quantity and location	2 no. Ø 3.88 mm x 52.96 mm long bolt throughs (cut down from 60.02) and 4 no. Ø 3.69 mm x 19.69 mm long screws

4.2 Supporting Construction

14. Construction As Per BS EN 1363-1:2020 § 7.2.2.4	
Intended Resistance	EI60
Group	A
Timber Inserts to Studs	Head and Jambs
15. Head/ Floor Track	
Supplier/ Manufacturer	Knauf UK
Reference	Knauf U-Channel
Type & Material	Steel U-Channel
Dimensions	52 mm deep x 25 mm wide x 3000 mm long x 0.55 mm thick
Fixing Method	Screw fixed to head and base of the restraint frame
a. Fixing	
i. Supplier	United Kingdom Testing and Certification
ii. Reference	TX Countersunk concrete screw
iii. Material	Steel
iv. Dimension	Ø 7.5 mm x 100 mm at the head Ø 7.5 mm x 60 mm at base long self-tapping screws staggered at max 600 mm centres
16. Studs	
Manufacturer	Knauf UK
Reference	Knauf C stud
Type & Material	Steel C-Stud
Dimensions	52 mm deep x 25 mm wide x 3000 mm long x 0.55 mm thick
Fixing Method	Friction fitted to the head/ floor track, with the fixed edge stud at 600 mm centres
a. Fixing	
i. Supplier	United Kingdom Testing and Certification
ii. Reference	TX Countersunk concrete screw

iii. Material	Steel
iv. Dimension	Ø 7.5 mm x 50 mm long self-tapping screws staggered at max 600 mm centres
v. Location	Fixed edge stud only
17. Lining(s)	
Manufacturer	Knauf UK
Reference	Knauf Firepanel
Type & Material	Paper faced, gypsum plasterboard type F
Density	10 kg/m^2 [2]
Layer Quantity	2
Dimensions	12.5 mm thick x 1200 mm wide x 2400 mm high
Fixing method	Fixed on the face of the boards into C-studs at 300 C/C
a. Fixings	
i. Supplier	United Kingdom Testing and Certification
ii. Reference	Gyproc Jackpoint Screws
iii. Material	Steel
iv. Dimension	Ø 3.8 mm x 25/32/42 mm
v. Location	Fixed edge stud only
Joints Filled & Taped With	Knauf Fill & Finish Light Plasterboard Joint Filler Ready Mixed and Knauf Tape.
Fixing Plate	2400 mm long x 70 mm high x 0.7 mm thick Knauf fixing plate fixed behind plasterboard joint and between layers of board.
18. Wall Insulation	
Manufacturer	Knauf Insulation Ltd.
Reference	Knauf Insulation Rocksilk® RS45 Building Slab
Type & Material	Rock mineral wool slab
Dimensions	1200 mm high x 600 mm wide x 50 mm thick slab sections
Density	45 kg/m^3 (± 10 kg/m^3) [2]

Fixing Method	Compression Fitted
Locations	Centrally Located in the wall
19. Board for Simulated Floor Level	
Manufacturer	British Gypsum
Reference	Glasroc F MultiBoard 6mm
Density	833 kg/m^3 [2]
Dimensions	6 mm thick x Opening width + 400 mm long x wall depth + 500 mm wide
Fixing(s)	Compression fitted between restraint frame and specimen.
20. Free Edge Gasket	
Manufacturer	Knauf Insulation Ltd.
Reference	Knauf Insulation Rocksilk® RS60 Building Slab
Type & Material	Rock mineral wool slab
Dimensions	1200 mm high x 600 mm wide x 50 mm thick slab sections
Density	45 kg/m^3 (± 10 kg/m^3) [2]
Location	At the free edge of the supporting construction

All dimensions are in millimetres (mm) unless otherwise stated.

1. Information provided by the Test Sponsor. Not verified by United Kingdom Testing and Certification.

2. Nominal value.

3. Information is commercial in confidence. Full details are retained on file by United Kingdom Testing and Certification.

5 Specimen Photographs

Figure 6 – Item 1a ii, 1a iii & 3

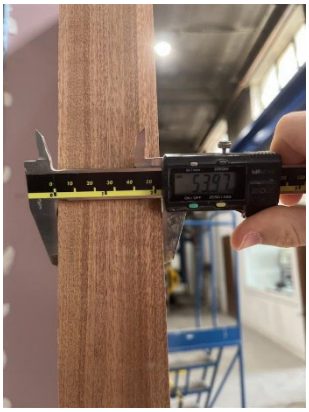


Figure 7 - Item 8

Figure 8 - Item 5

Figure 9 - Item 13

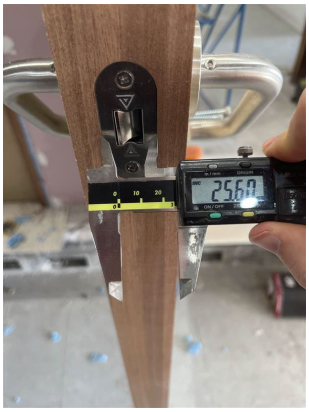


Figure 10 - Item 12

Figure 11 - Item 4

Figure 12- Item 3

Figure 13 - Item 9

Figure 14 – Item 5, 6 & 10

6 Test Procedure

6.1 Ambient Temperature

The ambient air temperature in the vicinity of the test construction was 20.6 °C at the start of the test with a maximum variation of ± 1.6 °C during the test.

6.2 Heating Conditions

The specimens were subject to heating conditions in accordance with BS EN 1363-1:2020 § 5.1. This was monitored and controlled for the duration of the test using type K thermocouples which were distributed across a vertical plane 100 ± 50 mm from the exposed surface of the test construction. The resulting Time-Temperature distribution is presented in Figure 25.

6.3 Pressure Conditions

The specimens were subject to a pressure regime in accordance with BS EN 1363-1:2020 § 5.2. The calculated pressure differential relative to the laboratory atmospheric pressure at a height of 365, 1612 and 2850 mm from the furnace floor level was -1.1, 9.4 and 20.0 Pa respectively which equates to 0 Pa at a height of 500 mm from the furnace floor level. The furnace was maintained at these pressures within ± 5 Pa five minutes after the commencement of the test and ± 3 Pa ten minutes after the commencement of the test and for the remainder of the test duration. The pressure deviated from the specified conditions on no instances throughout the duration of the test. The Time-Pressure distribution is presented in Figure 26.

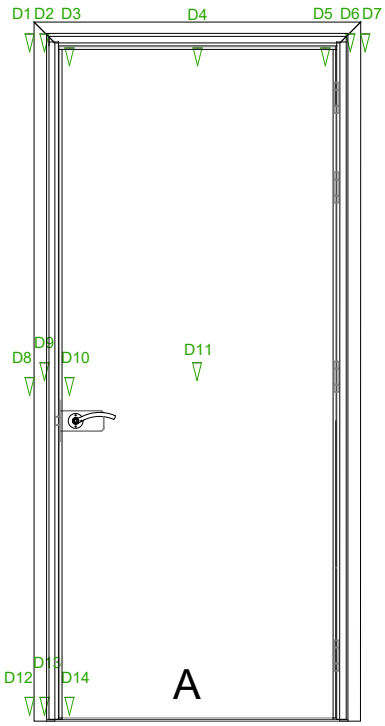
6.4 Unexposed Surface Temperature

A roving thermocouple was available for the evaluation of the maximum temperature rise of the unexposed surface of the specimens for the duration of the test. Any measurements using the roving thermocouple are presented on page 31.

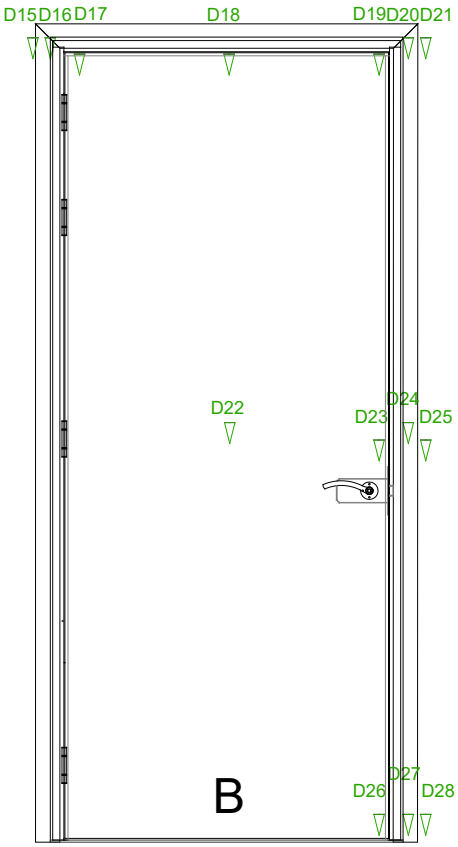
Disc thermocouples were affixed to the unexposed surface of the specimens in accordance with BS EN 1634-1:2014+A1:2018 § 9.1.2 to measure and monitor the maximum and the mean temperature rise of the unexposed surface of the specimens for the duration of the test. A summary of the measurements is presented in Figure 27 and Figure 28 and the locations of these thermocouples is illustrated in Figure 5.

6.5 Deflection

All measurements are in millimeters (mm) unless stated otherwise. Positive values indicate movement towards the heating conditions.



Time (mins)	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	4	4	2	2	-3	-2	1	2	2	2	-2	-1	1	4
20	6	4	5	3	-4	-2	1	3	1	3	-2	-2	0	0
30	3	4	7	3	1	-3	-1	2	2	2	-2	-2	0	0
40	3	3	6	4	0	-2	0	4	3	3	-4	-2	1	-3
50	4	5	3	3	1	-2	-1	6	4	5	-2	-1	2	0
55	3	3	4	4	2	-1	0	5	2	3	-4	-1	3	-3
60	1	4	5	3	2	0	-1	5	3	4	-4	-2	4	-3



Time (mins)	D15	D16	D17	D18	D19	D20	D22	D23	D24	D25	D26	D27	D28
0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	1	2	0	-1	-2	2	2	0	-1	0	3	-1	0
20	0	-1	1	0	1	0	4	-1	-4	0	3	4	0
30	-2	0	3	1	3	4	3	-13	-6	-3	2	8	0
40	1	0	5	-2	5	2	3	-16	-12	-2	1	9	7
50	9	11	18	7	9	8	7	-25	-13	-3	1	13	4
55	8	8	21	9	9	10	9	-29	-15	-4	0	11	4
60	5	7	-1	5	13	9	8	-38	-19	-5	1	17	5

6.6 Observations

Specimen	HH	MM	SS	E[1]	U[2]	Observation
	00	**00**	**00**			**The test commences.**
A + B	00	00	25		X	Steam/smoke releases from perimeter of leaves.
A	00	15	00	X		Face of specimen burning and architraves cracking.
B	00	15	10	X		Face of specimen burning, architraves cracking and stops crack and begin to fall away.
B	00	20	00		X	Glow visible at bottom leading edge corner of leaf and jamb where leaf has deflected away from the stop. Intumescent has not fired at this location yet.
A	00	25	30	X		Closer fallen away from the face of the leaf but still held to frame by the closer arm. Approximately half of the architraves have fallen away.
B	00	25	50	X		Approximately half of the architraves have fallen away.
A + B	00	40	00	X		No significant visible change.
B	00	41	00		X	Lippings begin to delaminate at the bottom leading edge corner of the leaf. A glow is visible through the edge of the lipping.
A	00	46	00		X	Glow visible at the top hanging corner of the leaf.
A	00	51	25		X	Cotton pad test applied to the top hanging corner of the leaf, the cotton pad discoloured moderately.
A	00	54	30		X	Glow visible at the top leading edge corner of the leaf.
A	00	55	30		X	Glow visible 200 mm down from the head on the hanging edge of the leaf.

[1] Viewed from exposed surface of the test construction.
[2] Viewed from unexposed surface of the test construction.

Specimen	HH	MM	SS	E[3]	U[4]	Observation
A	**00**	**57**	**00**		**X**	**Cotton pad test applied to the hanging edge corner of the head, cotton pad ignited, cotton pad integrity failure is deemed to have occurred.**
A	**00**	**57**	**10**		**X**	**A flame emits from the top hanging edge corner of the leaf and sustains for a period greater than 10 seconds.**
A	**00**	**57**	**30**		**X**	**Mastic applied to the top hanging edge corner of the leaf.**
B	00	58	45		X	Glow visible at the top hanging edge corner of the leaf.
B	00	59	25		X	Cotton pad test applied to the top hanging edge corner of the leaf, cotton pad discolours heavily.
A	01	00	00		X	Glow visible down the hanging edge.
B	01	01	10		X	Flames flicker from the top hanging edge corner from behind the architrave.
	01	**01**	**38**			**The test is discontinued at the request of the Test Sponsor.**

[3] Viewed from exposed surface of the test construction.
[4] Viewed from unexposed surface of the test construction.

6.7 Test Images

Figure 15 – The exposed surface of the test construction prior to commencement of the test

Figure 16 - The unexposed surface of the test construction prior to the commencement of the test

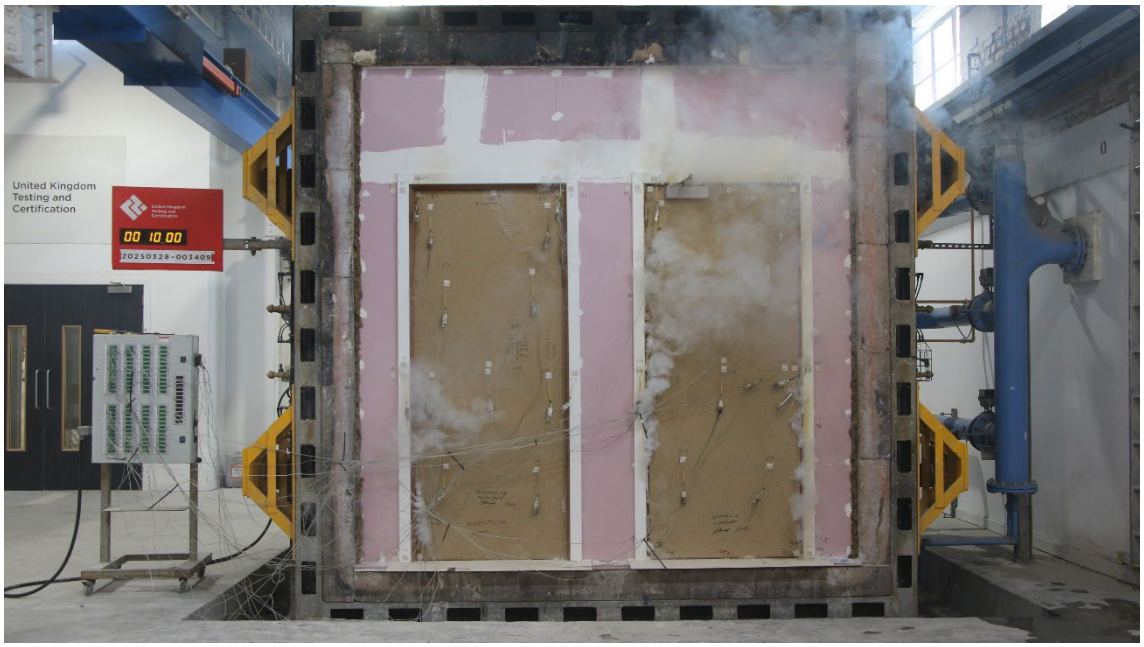


Figure 17 - The unexposed surface of the test construction after a test duration of 10 minutes

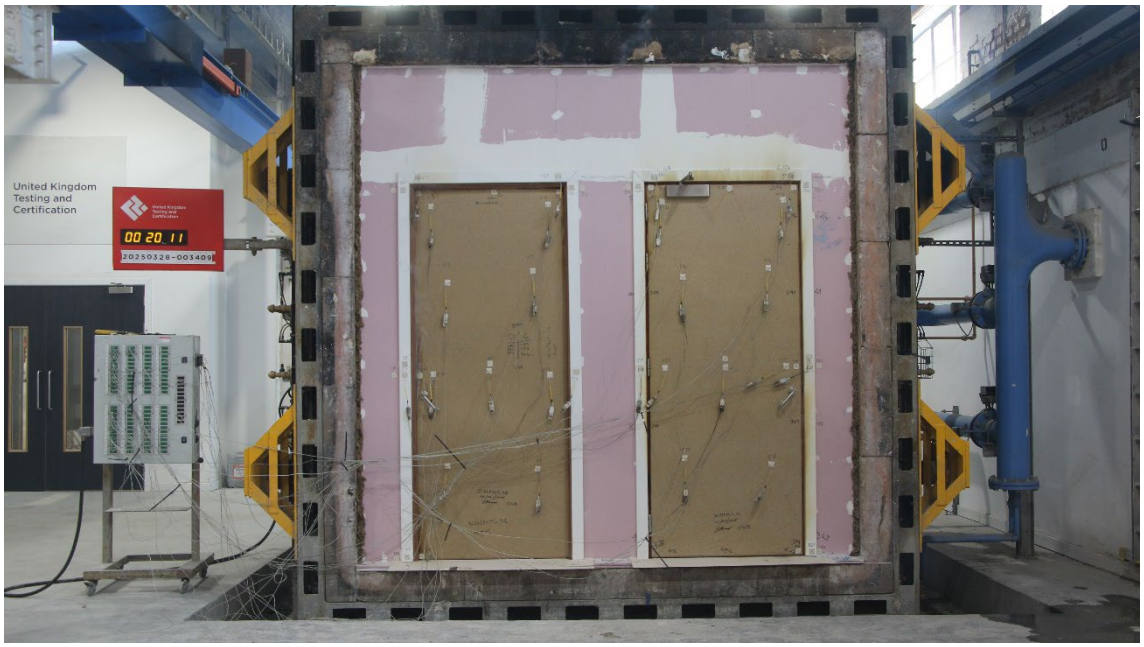


Figure 18 - The unexposed surface of the test construction after a test duration of 20 minutes

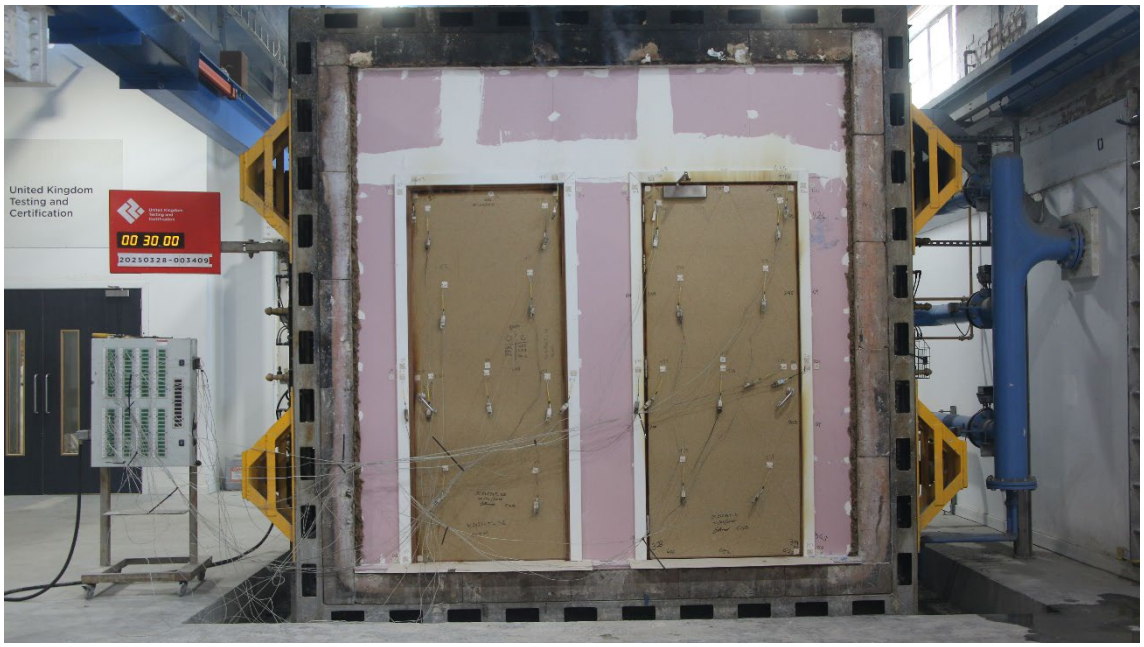


Figure 19 - The unexposed surface of the test construction after a test duration of 30 minutes

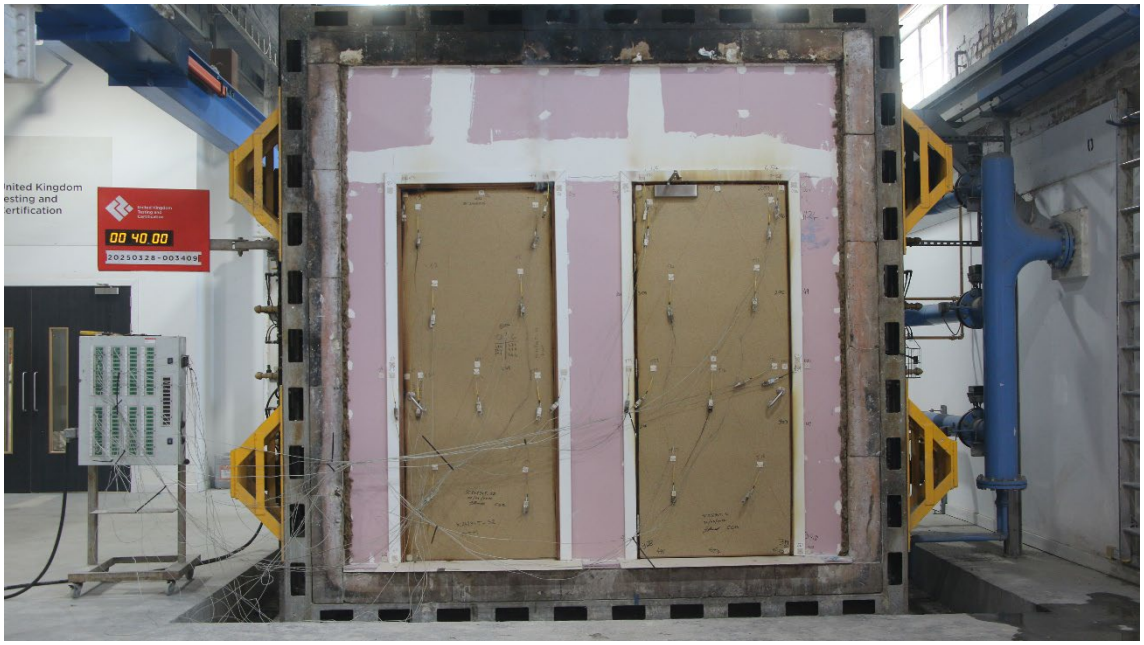


Figure 20 - The unexposed surface of the test construction after a test duration of 40 minutes

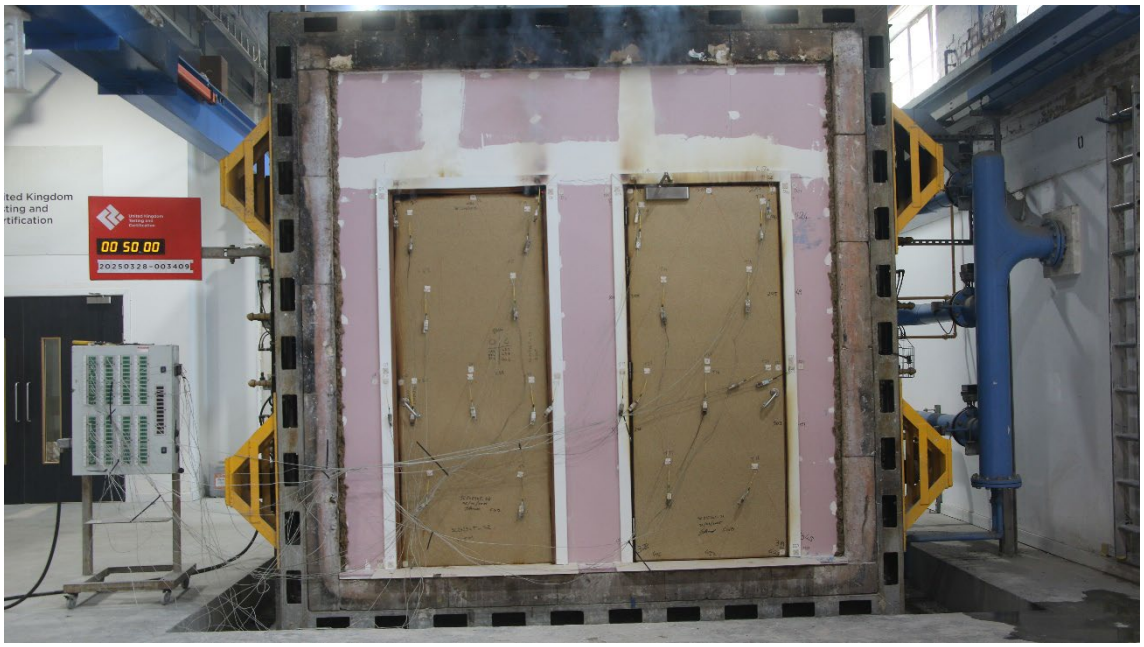


Figure 21 - The unexposed surface of the test construction after a test duration of 50 minutes

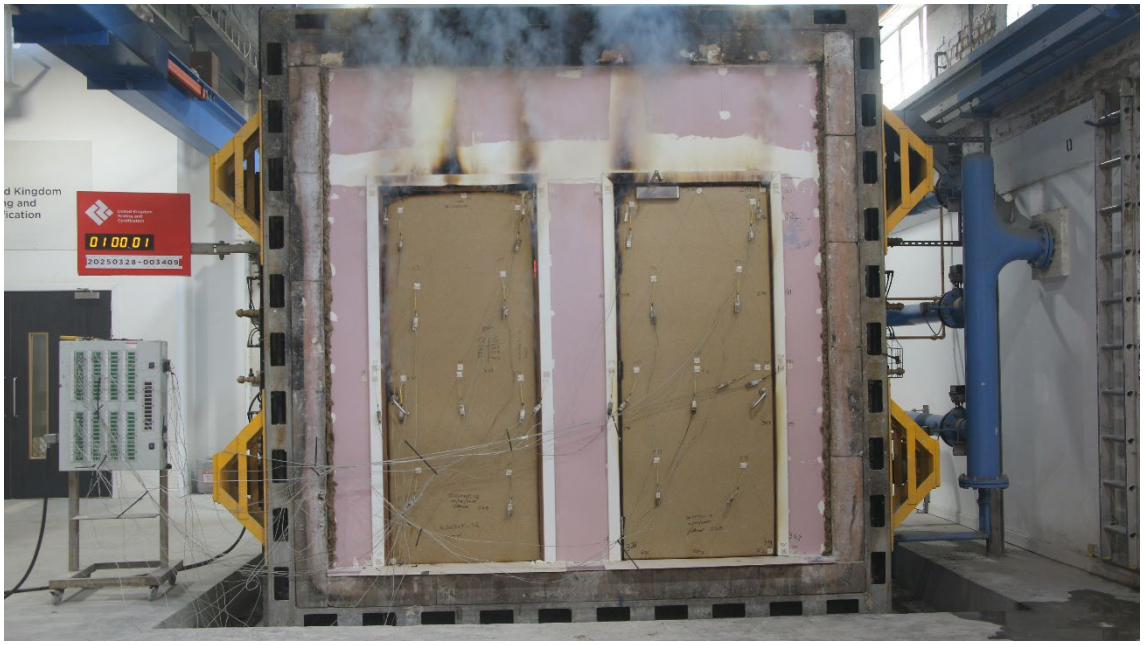


Figure 22 - The unexposed surface of the test construction after a test duration of 60 minutes

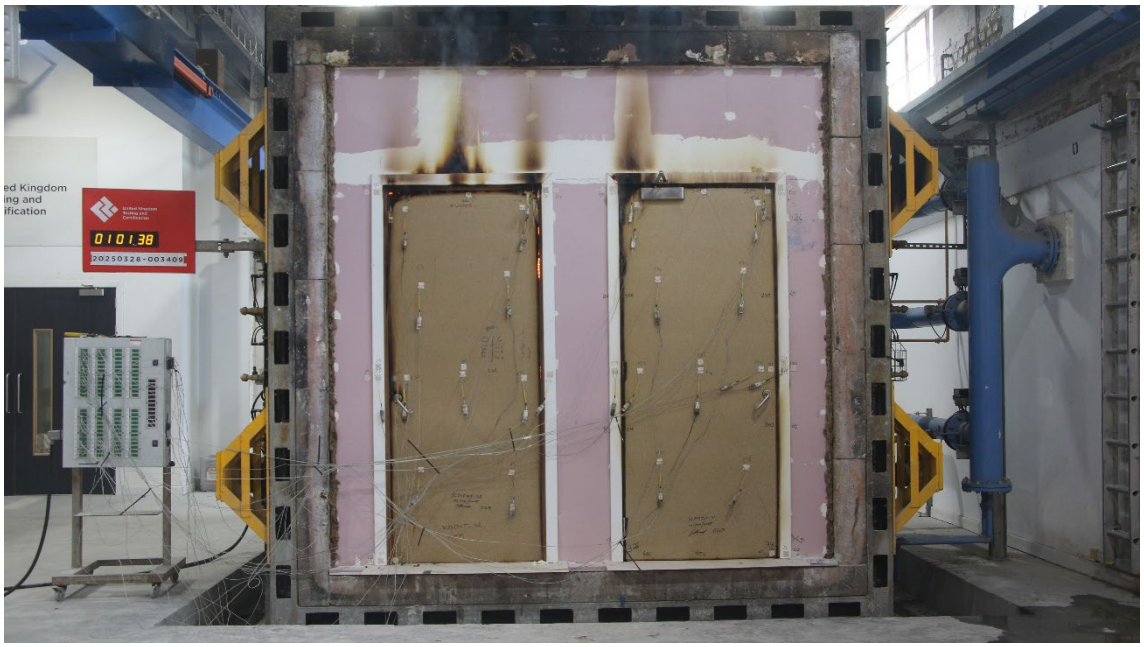


Figure 23 - The unexposed surface of the test construction after a test duration of 61 minutes

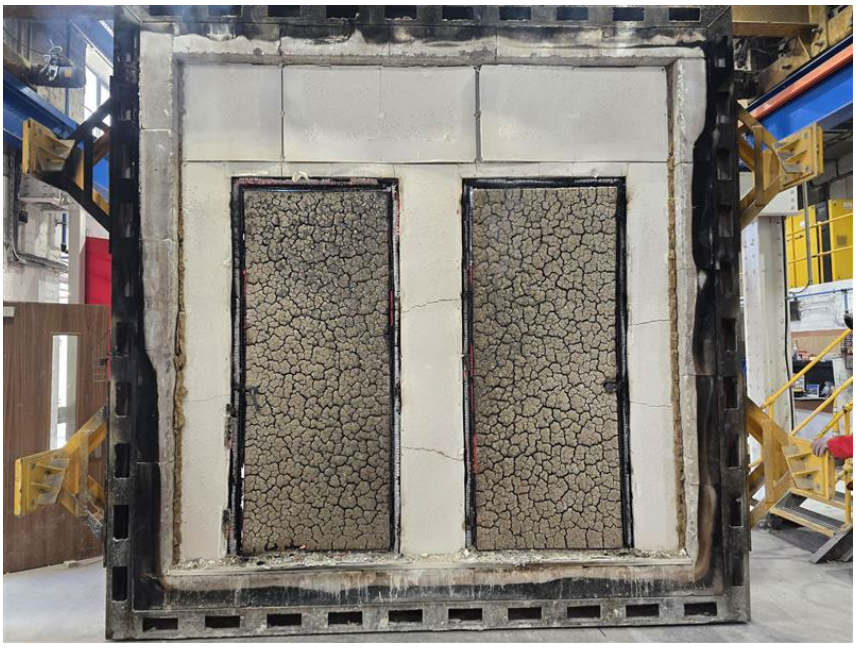


Figure 24 - The exposed surface of the test construction after the test was discontinued

7 On-going Implications

7.1 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 1363-1, and where appropriate BS EN 1363-2. Any significant deviation with respect to size, constructional 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 and should be the subject to design appraisal by a competent individual.

Guidance on the field of direct application can be found in BS EN 1634-1:2014+A1:2018 § 13 and can be applied following the identification of classification(s).

7.2 Accuracy of Results

Due to 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.

No statement of conformity with the testing specifications is made or implied in this report. However, measurement results are reviewed, where applicable, to establish where measurement results exceed the control parameters established in the relevant resistance to fire test standard.

7.3 European Group of Organisations for Fire Testing (EGOLF)

Certain aspects of some fire test specifications are open to different interpretations. EGOLF have identified several such areas and have agreed resolutions which define common agreement of interpretations between fire test laboratories which are members of the Group. The following resolutions have been followed when conducting this test:

1. EGOLF AGREEMENT 034-2018 – Use of cotton pad in fire resistance tests.
2. EGOLF AGREEMENT 036-2018 – Discontinuity-different interpretations.
3. EGOLF Recommendation 013-2017 – Content of statements of 'Field of direct application' in test reports.

8 Detailed Expression of Results

8.1 Specimen A

Specimen A satisfied the performance criterion specified in BS EN 1634-1:2014+A1:2018 § 11 for the following intervals:

Performances		Criteria	Time (completed minute)	Failure Criteria Exceeded
Integrity		Ignition of a cotton pad	57 minutes	
		Sustained flaming	57 minutes	
		Cracks or openings in excess of given dimensions	57 minutes	Area Blanked off
Insulation – Specimen	Normal procedure:	Average temperature, increase of Δ140°C	57 minutes	Due to integrity failure
		Maximum temperature on leaf/leaves, increase of Δ 180 °C	57 minutes	Due to integrity failure
		Maximum temperature on the frame adjacent to leaf/leaves, increase of Δ 360 °C	57 minutes	Due to integrity failure

*The test was discontinued after a period of 61 minutes.

8.2 Specimen B

Specimen B satisfied the performance criterion specified in BS EN 1634-1:2014+A1:2018 § 11 for the following intervals:

Performances		Criteria	Time (completed minute)	Failure Criteria Exceeded
Integrity		Ignition of a cotton pad	61 minutes*	No Failure
		Sustained flaming	61 minutes*	No Failure
		Cracks or openings in excess of given dimensions	61 minutes*	No Failure
Insulation – Specimen	Normal procedure:	Average temperature, increase of Δ140°C	61 minutes*	No Failure
		Maximum temperature on leaf/leaves, increase of Δ 180 °C	61 minutes*	No Failure
		Maximum temperature on the frame adjacent to leaf/leaves, increase of Δ 360 °C	61 minutes*	No Failure

*The test was discontinued after a period of 61 minutes.

9 Figures

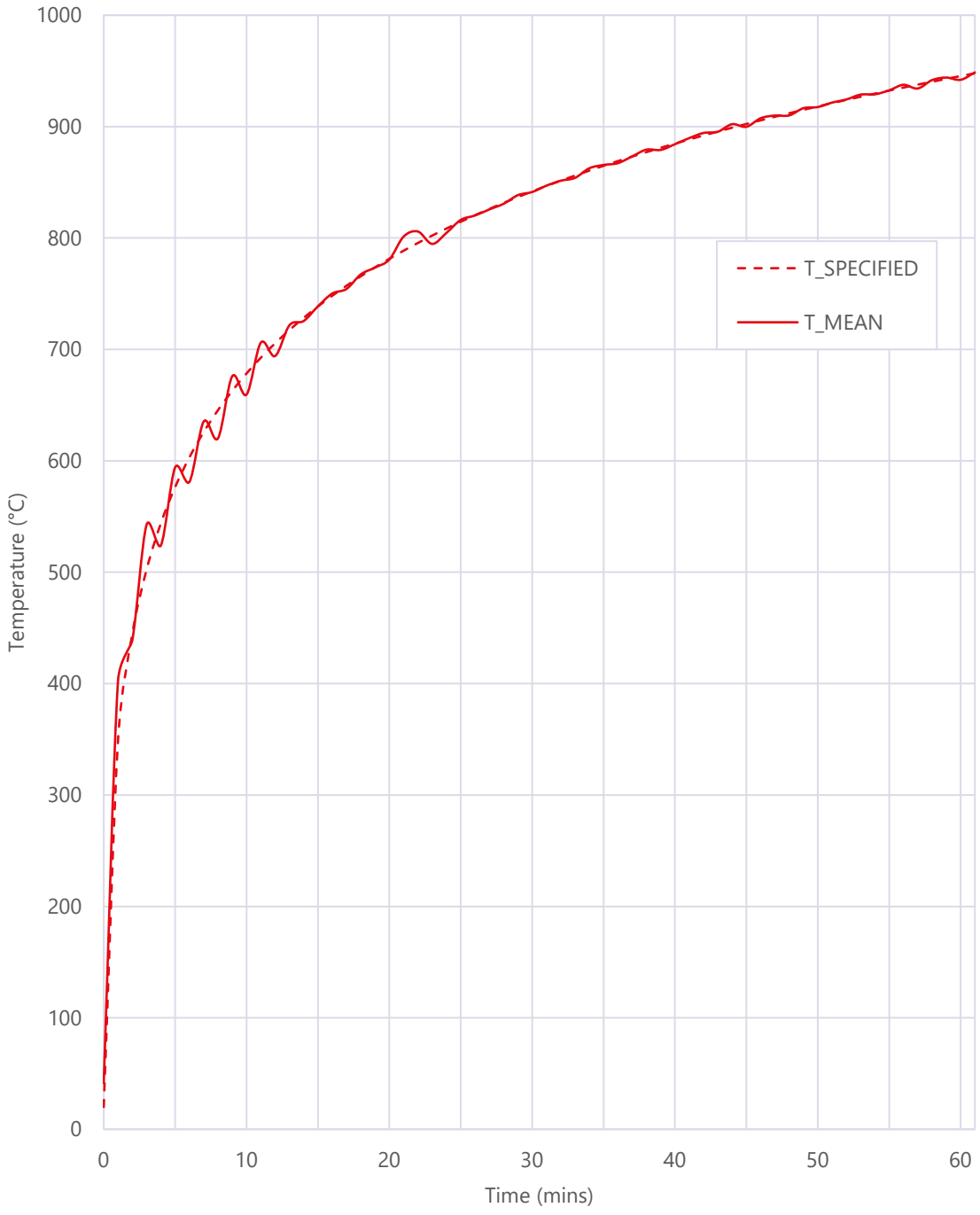


Figure 25 – Graph presenting the Time-Temperature distribution of the furnace

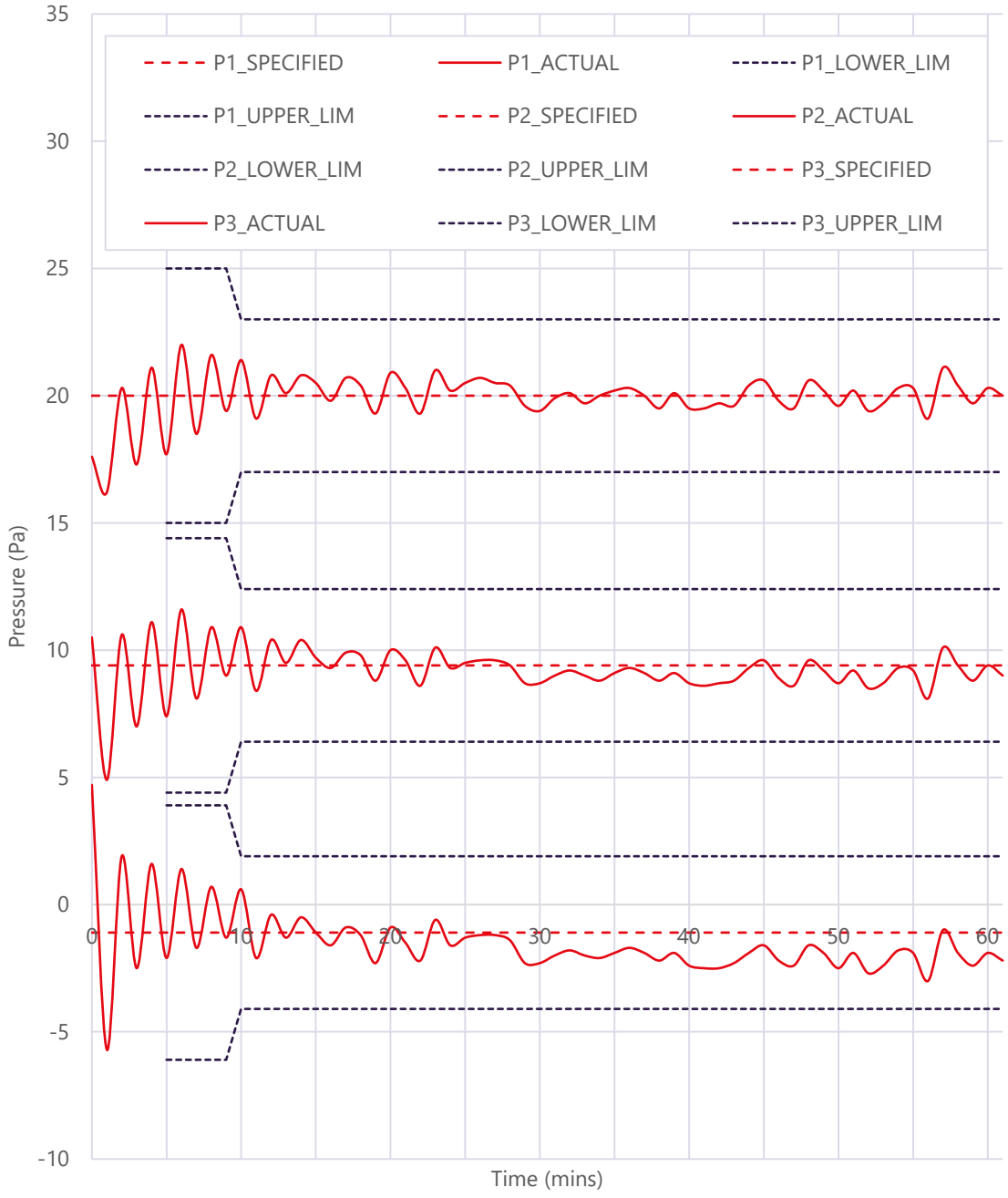


Figure 26 – Graph presenting the Time-Pressure distribution of the furnace

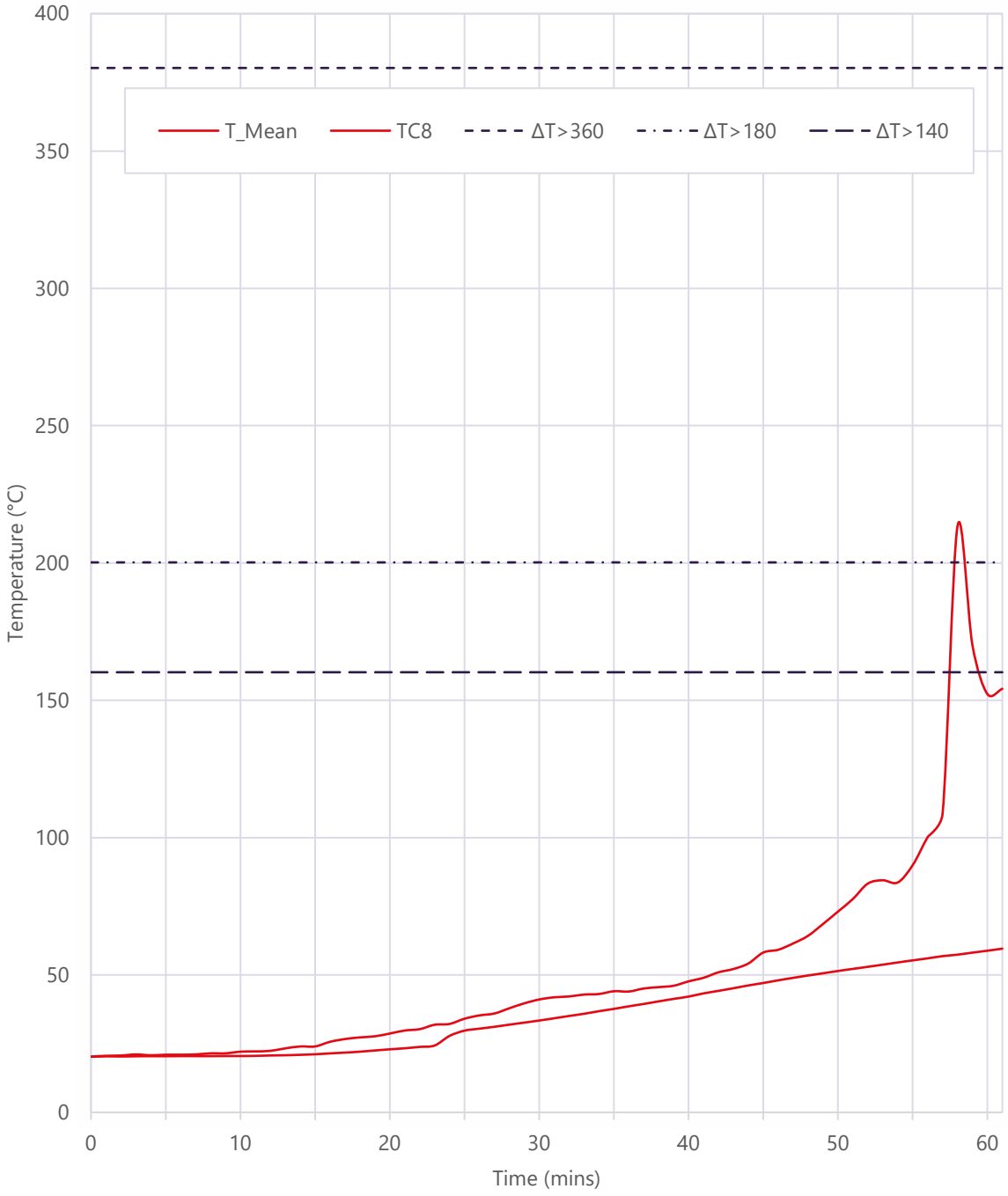


Figure 27 - Graph presenting the Time-Temperature distribution of the unexposed surface of Specimen A

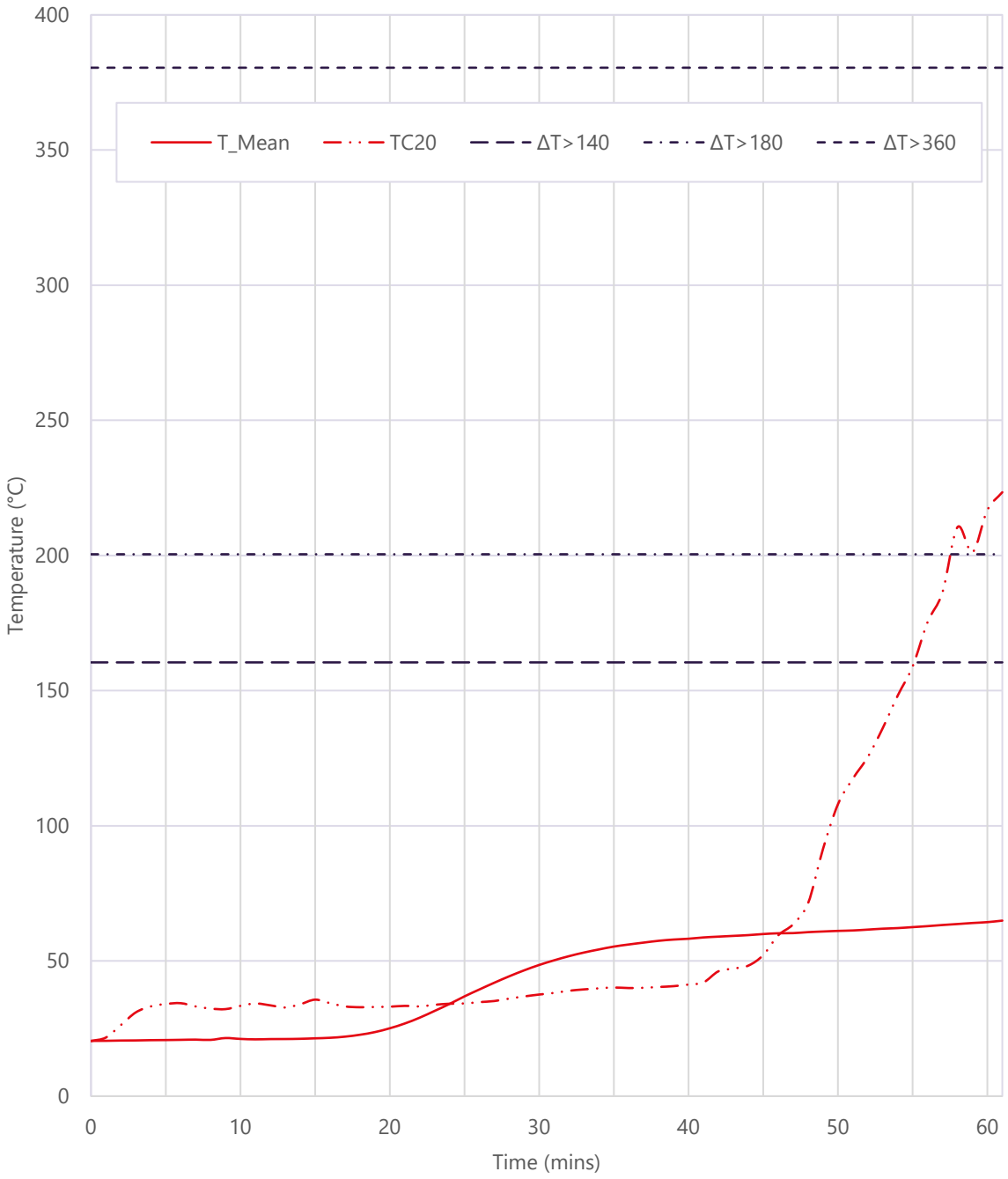


Figure 28 - Graph presenting the Time-Temperature distribution of the unexposed surface of Specimen B

10 Tables

Table 1 – The temperatures recorded by the disc thermocouples used evaluate the mean and maximum temperature rise of the unexposed surface of Specimen A under the normal procedure. Values are in Degrees Celsius (°C) unless otherwise stated.

Time (mins)	TC1	TC2	TC3	TC4	TC5
0	20.7	21.0	20.8	18.6	20.1
3	20.9	21.3	21.1	18.6	20.2
6	21.0	21.4	21.3	18.5	20.3
9	21.1	21.4	21.3	18.4	20.4
12	21.4	21.7	21.6	18.4	20.5
15	22.2	22.6	22.2	17.8	21.0
18	23.8	24.4	23.5	16.7	22.1
21	26.1	26.7	25.2	14.9	23.8
24	28.7	29.6	27.1		26.0
27	31.5	32.6	29.1	34.1	28.5
30	34.5	35.9	30.8	34.8	31.2
33	37.6	39.3	32.3	36.2	34.1
36	40.7	42.9	33.9	38.2	37.4
39	43.9	46.5	35.3	40.4	40.5
42	47.4	50.2	36.9	42.9	43.8
45	50.7	53.9	38.3	45.4	47.2
48	53.9	57.4	39.8	47.7	50.4
51	56.7	60.5	40.5	50.0	53.5
54	59.3	63.5	41.1	52.2	56.8
57	61.9	66.6	41.4	54.1	60.4
60	64.6	69.6	41.8	55.5	62.8
61	65.4	70.7	42.0	56.0	63.9

Table 2 – The temperatures recorded by the disc thermocouples used to evaluate the maximum temperature rise of the frame/ transom members adjacent to the door leaf of Specimen A under the normal procedure. Values are in Degrees Celsius (°C) unless otherwise stated.

Time (mins)	TC6	TC7	TC8	TC9
0	19.4	20.1	20.3	20.1
3	19.7	28.2	21.1	20.2
6	19.7	27.1	21.0	20.3
9	19.7	23.6	21.5	20.4
12	19.8	22.1	22.4	20.4
15	19.8	22.4	24.0	20.5
18	19.9	22.3	27.3	20.5
21	20.0	23.2	29.8	20.6
24	20.3	24.0	32.2	20.8
27	20.5	25.5	36.0	21.1
30	20.9	28.0	41.1	21.4
33	21.4	32.1	42.9	21.8
36	22.1	31.9	44.0	22.5
39	22.9	32.0	46.1	23.2
42	23.8	32.8	51.0	24.5
45	24.8	35.0	58.2	25.9
48	26.1	37.9	64.3	27.4
51	27.9	46.0	77.7	29.4
54	29.5	57.1	83.7	31.3
57	31.5	72.4	108.7	33.3
60	32.9	101.4	152.3	35.1
61	33.5	105.5	154.2	35.6

Table 3 – The temperatures recorded by the disc thermocouples used to evaluate the maximum temperature rise of the door leaf of Specimen A under the normal procedure. Values are in Degrees Celsius (°C) unless otherwise stated.

Time (mins)	TC10	TC11	TC12	TC13
0	19.8	20.9	19.5	20.5
3	20.0	27.3	19.7	20.7
6	20.1	22.7	19.8	20.8
9	20.0	22.0	19.8	20.9
12	20.1	21.9	19.8	21.1
15	20.2	22.8	19.9	21.8
18	20.3	24.9	20.0	23.3
21	20.3	27.9	19.9	25.2
24	20.6	31.0	20.3	27.8
27	20.4	34.4	20.2	30.8
30	20.3	38.1	20.1	33.8
33	20.5	41.5	20.2	37.0
36	20.6	44.8	20.4	40.3
39	20.7	48.0	20.4	43.8
42	20.6	51.5	20.4	47.2
45	20.6	54.9	20.4	50.9
48	20.7	58.3	20.4	54.7
51	20.6	61.4	20.4	58.0
54	20.7	64.4	20.5	61.5
57	20.8	67.7	20.6	64.6
60	20.8	71.6	20.6	67.6
61	20.8	73.2	20.7	68.6

Table 4 – The temperatures recorded by the disc thermocouples used evaluate the mean and maximum temperature rise of the unexposed surface of Specimen B under the normal procedure. Values are in Degrees Celsius (°C) unless otherwise stated.

Time (mins)	TC14	TC15	TC16	TC17	TC17
0	19.8	20.7	20.2	21.1	20.5
3	20.0	21.1	20.3	21.1	20.6
6	20.5	21.2	20.5	21.3	20.7
9	23.5	21.3	20.6	21.3	20.8
12	21.4	21.3	20.7	21.4	20.8
15	20.7	21.8	21.2	22.0	21.3
18	20.6	23.4	22.9	23.3	23.4
21	21.3	28.2	27.7	27.6	29.6
24	23.0	36.7	35.4	36.2	39.3
27	25.1	46.8	43.1	45.5	49.4
30	27.9	55.7	49.9	53.0	56.2
33	30.2	61.7	54.9	58.8	60.1
36	32.1	65.1	58.3	62.3	62.8
39	33.5	66.7	60.4	64.7	64.4
42	34.1	67.5	61.7	66.4	65.4
45	35.0	68.0	63.0	67.6	66.3
48	35.4	68.5	63.9	68.5	67.1
51	35.7	68.8	64.6	69.5	67.9
54	36.5	69.5	65.8	70.5	68.6
57	37.4	70.4	67.2	71.8	69.8
60	37.8	72.0	68.5	72.9	70.7
61	38.3	72.5	69.2	73.5	71.2

Table 5 – The temperatures recorded by the disc thermocouples used to evaluate the maximum temperature rise of the frame/ transom members adjacent to the door leaf of Specimen B under the normal procedure. Values are in Degrees Celsius (°C) unless otherwise stated.

Time (mins)	TC18	TC19	TC20	TC21
0	20.0	20.4	20.5	20.1
3	20.1	31.0	26.7	25.6
6	20.5	34.4	42.4	25.3
9	25.4	32.2	36.5	27.3
12	26.6	33.6	35.4	26.9
15	23.8	35.7	35.3	24.5
18	23.7	32.9	34.2	23.9
21	23.7	33.4	32.7	24.0
24	24.0	34.2	30.1	24.6
27	24.3	35.2	29.5	25.7
30	25.0	37.6	30.7	26.7
33	26.1	39.5	32.2	28.2
36	27.5	40.0	33.8	29.3
39	29.0	40.7	35.6	30.5
42	31.0	46.2	37.1	31.9
45	33.1	52.2	38.7	33.0
48	35.3	71.4	41.7	35.1
51	37.9	117.5	44.9	38.8
54	41.0	148.2	48.5	43.0
57	44.4	186.5	52.9	47.8
58	45.6	210.5	54.1	49.6
60	47.4	216.8	56.9	53.1
61	48.3	223.4	59.9	54.7

Table 6 – The temperatures recorded by the disc thermocouples used to evaluate the maximum temperature rise of the door leaf of Specimen B under the normal procedure. Values are in Degrees Celsius (°C) unless otherwise stated.

Time (mins)	TC23	TC24	TC25	TC26	TC23
0	20.4	20.5	22.0	20.7	20.4
3	20.5	21.7	20.0	21.0	20.5
6	21.1	25.2	21.5	21.5	21.1
9	23.6	23.6	21.9	21.5	23.6
12	24.4	22.9	21.8	21.6	24.4
15	23.5	22.3	22.2	21.9	23.5
18	23.3	23.3	23.7	23.1	23.3
21	26.0	27.2	27.9	27.7	26.0
24	31.5	35.5	35.1	36.1	31.5
27	37.9	45.7	43.7	45.3	37.9
30	44.1	54.7	49.9	53.2	44.1
33	49.3	60.7	52.4	58.2	49.3
36	53.3	64.0	52.3	61.5	53.3
39	56.1	65.8	51.3	62.6	56.1
42	57.5	66.4	50.8	63.1	57.5
45	58.9	66.7	50.1	63.7	58.9
48	59.9	67.4	49.9	63.8	59.9
51	60.6	68.2	49.3	63.5	60.6
54	61.7	69.5	49.1	64.1	61.7
57	62.8	72.5	49.0	65.1	62.8
60	69.8	77.1	50.1	64.8	69.8
61	70.6	77.3	50.0	65.1	70.6

Appendix A Sample Report

bmtrada
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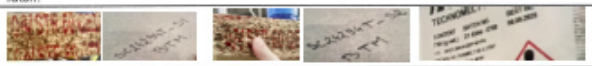
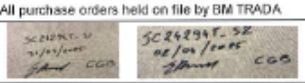
SAMPLING VISIT REPORT

Company Name	Exitex UK Sales LTD
Customer ID.	E002626
BM TRADA Approved Body ID:	1224

Company Head Office Address	Exitex UK Sales LTD St Johns Chambers Love St Chester CH1 1QN	Contact Name	Des Gray / Mark Thorne
		Telephone	
		Email Address	Des.Gray@exitex.com

Location where sampling was conducted if different from Head Office Address	Visit Date	BMT Representative
Dorsuite, Roman House Granitehill Road, Northfield, Aberdeen AB16 7AW	25/03/2025 (videoed) 31/03/2025 02/04/2025	Chris Blount Chris Blount Chris Blount

Requirement	Evidence / Comments
Opening Meeting (names of those present)	Robertas Zioba & Achilleas Sarrigiannidis (Dorsuite) / Chris Blount (BM TRADA)
Sampling Contract Reference	SC24294T
Technical Specification document / ~~FoA reference~~	SC24294T TS T - Technical Specification - FD60 Single Timber doorset - Iss 4 240722_Verified by C... 03/04/2025 17:54
Description of product(s) sampled	2Nr Single Doorsets 1000mm x 2300mm (S1 & S2) - Falcon Strebord 54mm door leaf lipped with sapele lippings fitted with 4Nr hinges, latch (disengaged for test), lever handles, drop down seal and face fix closer. Hung in a sapele frame fitted with 2Nr 15mm x 4mm intumescent strips and door latch.
Batch number(s) / Product identification	
Date of manufacture	25/03/2025 – Door marking, sizing, lipping & prep (process video) 31/03/2025 – Doorset Assembly S1 & partial S2 02/04/2025 - Doorset Assembly S2 completion
Traceability of material records i.e. Purchase Orders and delivery notes	SO 5225910 – Falcon Timber – Falcon Strebord cores - 03/02/2025 DN S-497831-1 – Exitex – Hinge Intumescent, dropseals, glazing system – 29/01/2025 DN S-497859-1 – Exitex – Frame Intumescent – 29/01/2025 PO 93200 – Philip A Cheshire Ltd – Lipping profiles - 10/12/2024 All purchase orders held on file by BM TRADA
Example of sampler's markings applied to the product(s) (contract reference, signature/initials of sampler, date of manufacture)	
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.	None
Determine the essential characteristics of the product and confirm the details of in-process checks conducted on the sample to ensure conformity.	2Nr Single Doorsets 1000mm x 2300mm (S1 & S2) - Falcon Strebord 54mm door leaf lipped with sapele lippings fitted with 4Nr Eurospec HIN1433P/13SSSR hinges (Exitex 2mm graphite intumescent to blades), Zoo (Delta) PRTL76FD-R-SSS tubular latch (Exitex 2mm graphite intumescent to forend, body & keep – latch disengaged for test), Zoo ZCS030SS lever handles, Exitex Concealex A8100 Superior drop down seal and Rutland TS.9205 face fix closer. Hung in a sapele frame fitted with 2Nr 15mm x 4mm intumescent strips, planted door stop and door latch. Door closer and final fitting of stops to be sampled at test lab.
State any items from the Technical Specification / FoA that were not witnessed and require further lab sampling	☐ Side screen / overpanel ☐ Handles ☑ Other (see tech spec marked with 'not seen') ☑ Door closer ☐ Frame re-assembly
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***	SC24294T TS T - Technical Specification - FD60 Single Timber doorset - Iss 4 240722_Verified by CGB 020425 amended to the following sections from original Technical Specification; 1, 2, 3, 5, 6, 7, 8, 9 and 11
Closing Meeting (names of those present)	Robertas Zioba & Achilleas Sarrigiannidis (Dorsuite) / Chris Blount (BM TRADA)

Company Representative Name (Print)	Declaration for the Company
Exitex: Desmond Gray / Dorsuite: Achilleas Sarrigiannidis	I declare that the product/s witnessed during this sampling visit are representative of normal production. No changes will be made prior to delivery to the test laboratory.
Company Representative Position	
Exitex: Sales Director / Dorsuite: R&D Manager	
Company Representative Signature	**BM TRADA Representative Signature**
Exitex: Desmond Gray / Dorsuite:	

This sampling report remains the property of BM TRADA. BM TRADA shall keep confidential all information relating to the sampling process and your organisation and shall not disclose such information to any third party except as required by law or by BM TRADA's Accreditation Bodies. This sampling report will be shared with others within Warringtonfire Testing and Certification Ltd.

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