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Fire resistance test report

Issuing laboratory: Warringtonfire Testing and Certification Limited

Test standard:	BS EN 1634-1:2014+A1:2018
Test sponsor:	Wood International Agency Ltd
Product:	2 x Single Acting , Single Leaf Marksman Timber Doorsets
Report number:	546417/R
Test date:	13 August 2024
Version:	2

Warringtonfire, accredited for compliance with ISO/IEC 17025:2017 – Testing

Approved Body Number 0833

Quality management

Version	Date	Information about the report		
1	18 July 2025	Description	Initial issue	
			Prepared by	Authorised by
		Name	Stephen Collins	Graham Edmonds
		Signature		
	7 August 2025	Description:	Figures 2 and 3 incorrectly referenced 2 single doors as Active leaf and Passive leaf. This has now been updated to Doorset A and Doorset B. Page 17 item 1 has been amended to add the size of the fixings to the fixing method 5 x 70. And also added Frame to blockwork fixings Page 19 item 9 has been amended to include the detail in the size that there was also a 4 x 4 bolection in the beading. Page 20 item 14 has been amended as this item is for shim packers but the item stated was for rawl plugs so this has now been updated to show the Shim packer information Item 16 page 21 has been updated as previously we had updated the details of the sensors on the closer however this somehow changed back when revisions were made so this has now been updated to match the closer manufacturer of Record UK	
			Prepared by	Authorised by
		Name	Stephen Collins	Graham Edmonds
		Signature		

Signed for and on behalf of Warringtonfire Testing and Certification Limited

Executive summary

This report documents the findings of the fire resistance test of doorsets in accordance with BS EN 1634-1:2014+A1:2018 with deviations as described in Table 3.

Warringtonfire Testing and Certification Limited (Warringtonfire) performed the test on 13 August 2024 at the request of Wood International Agency Ltd.

Table 1 provides a summary of the test specimen, Table 2 gives details of the supporting construction and Table 3 describes the summary of the test results.

Table 1 Test specimen

Item	Detail	Opening direction
Doorset A	Single leaf timber doorset with a vision panel	Away from the furnace
Doorset B	Single leaf timber doorset with a vision panel	Towards the furnace
Latching conditions	Disengaged	

Table 2 Supporting construction

Item	Detail		
Supporting construction	150 mm thick low-density concrete wall with a low-density concrete lintel at the head as described in section 7.2 of EN 1363-1: 2020.		
Dimensions	Width	3050 mm	
	Height	3050 mm	
	Thickness	150 mm	
Aperture dimensions		**Width**	**Height**
	Doorset A	1020 mm	2240 mm
	Doorset B	1020 mm	2240 mm
Restraint conditions	Restrained on all edges		

Table 3 Summary of test results

Item	Criteria		Results
Doorset A	Integrity		No integrity failure
	Insulation	I_1	38 minutes **
		I_2	38 minutes **
	Discrete area (Vision panel)		16 minutes (AV)
	Radiation of 15 kW/m²		Radiation intensity of 15 kW/m² was not reached after 38 minutes
Doorset B	Integrity		36 minutes
	Insulation	I_1	36 minutes*
		I_2	36 minutes*
	Discrete area (Vision panel)		15 minutes (AV)
	Radiation of 15 kW/m²		Radiation intensity of 15 kW/m² was not reached.
Notes:			
The test results for the specimen only apply to the tested orientation. The test was discontinued after 38 minutes. * Indicates due to integrity failure ** Indicates test was discontinued			

Contents

1. Introduction

This report documents the findings of the fire resistance test of doorsets in accordance with BS EN 1634-1:2014+A1:2018.

Warringtonfire performed the test on 13 August 2024 at the request of the test sponsor listed in Table 4.

Table 4 Test sponsor(s) details

Test sponsor(s)	Address
Wood International Agency Ltd	16 King Edward Road Brentwood, Essex CM14 4HL United Kingdom

2. Test specimen and supporting construction

2.1 Drawings of test assembly

The leaders in the drawings (Figure1 – Figure 10) represent the items listed in section 2.2. All measurements are in millimetres – unless indicated otherwise.

The drawings were supplied by the test sponsor and verified by Warringtonfire (unless stated otherwise).

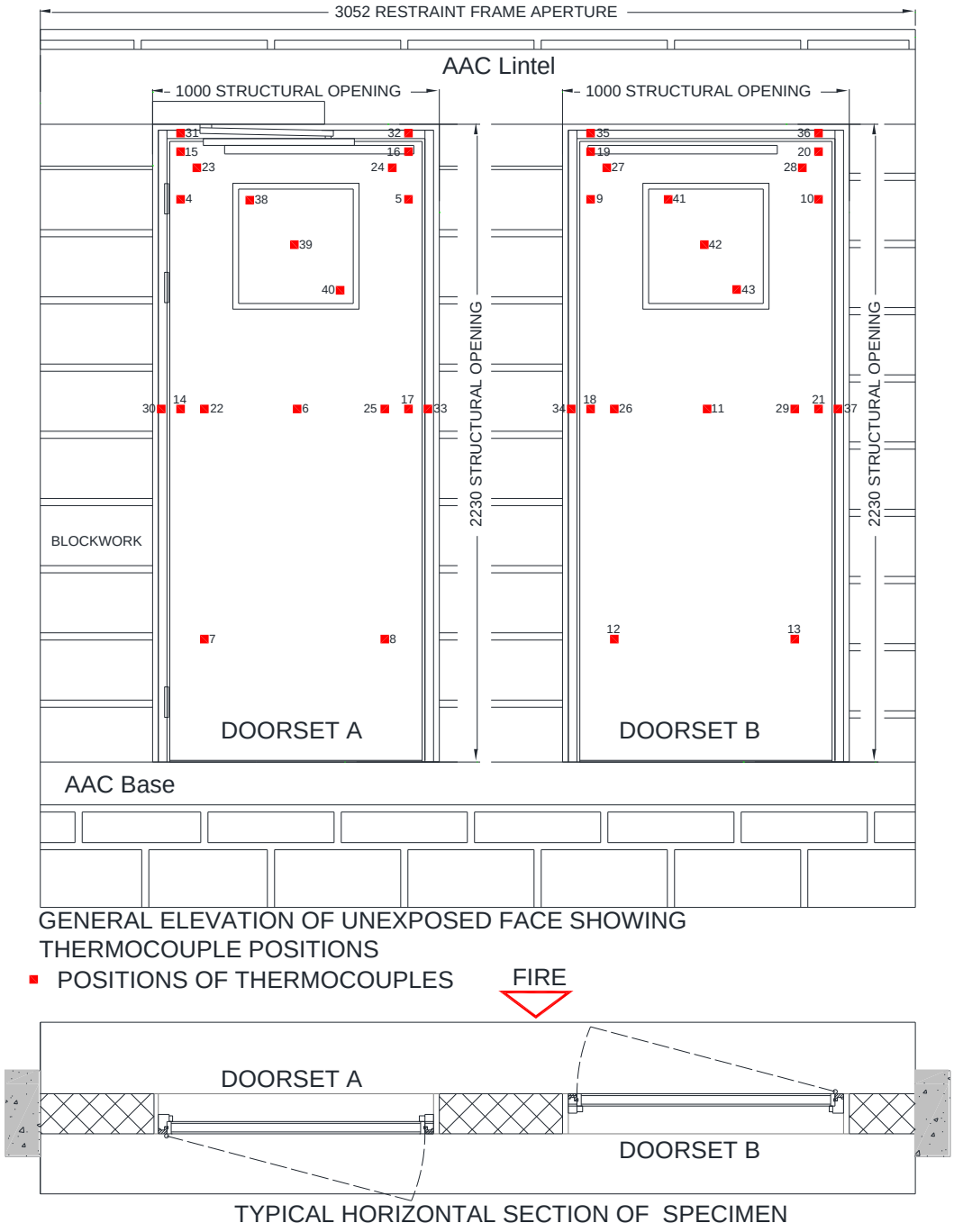
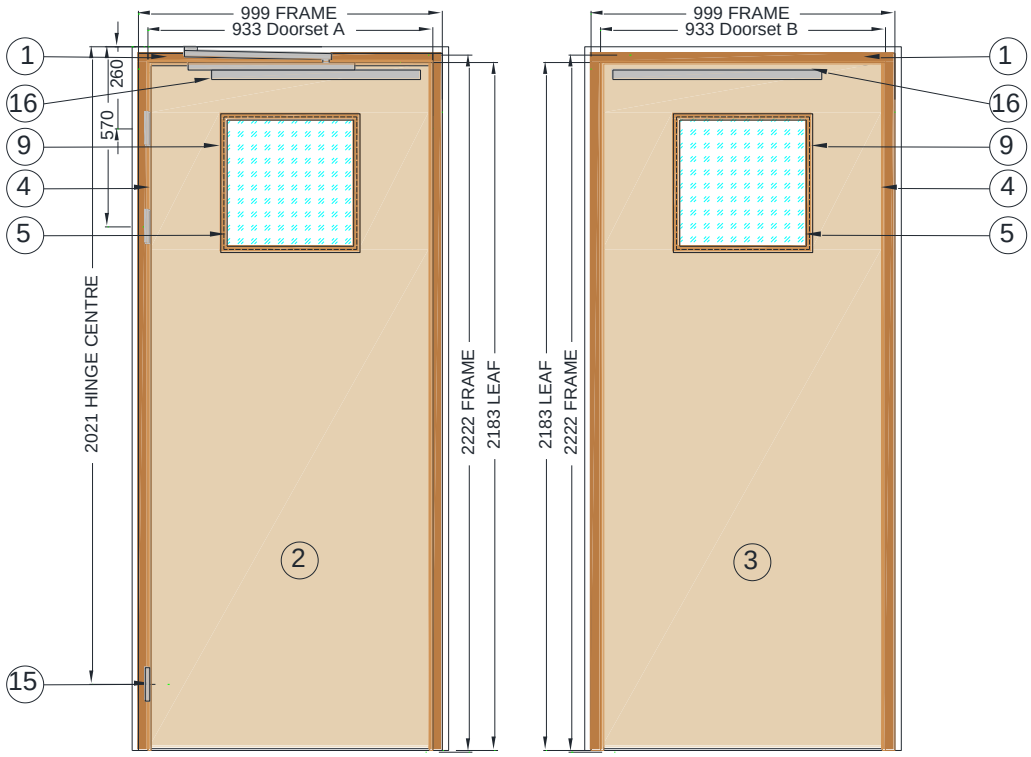
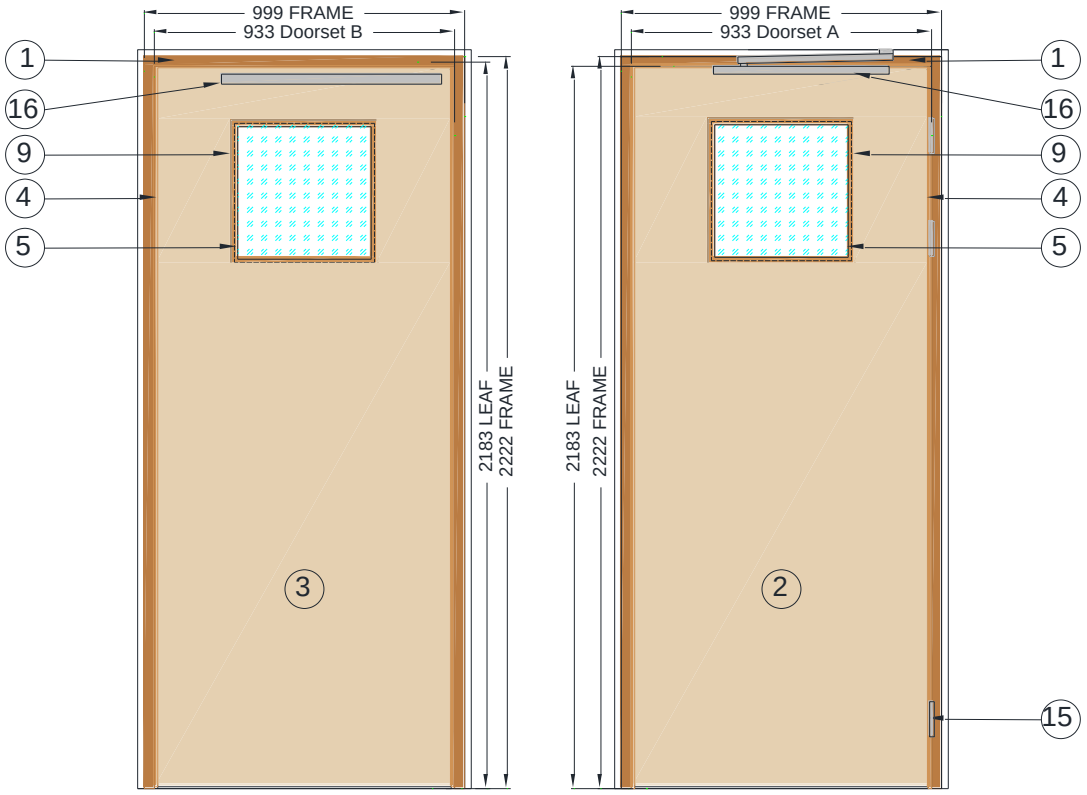


Figure 1 General Elevation of Thermocouple Positions



GENERAL ELEVATION OF UNEXPOSED FACE

Figure 2 General Elevation of Test Construction – Unexposed Face



GENERAL ELEVATION OF EXPOSED FACE

Figure 3 General Elevation of Test Construction – Exposed Face

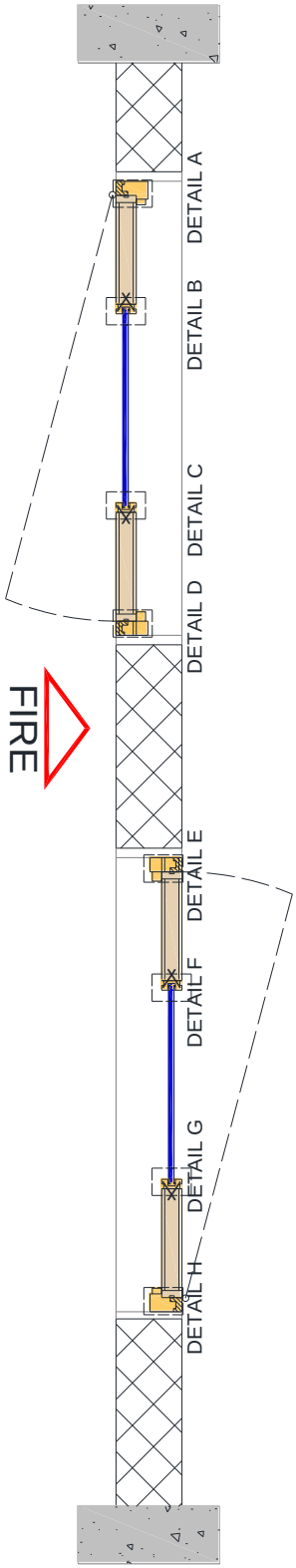


Figure 4 Horizontal Section Through Test Construction

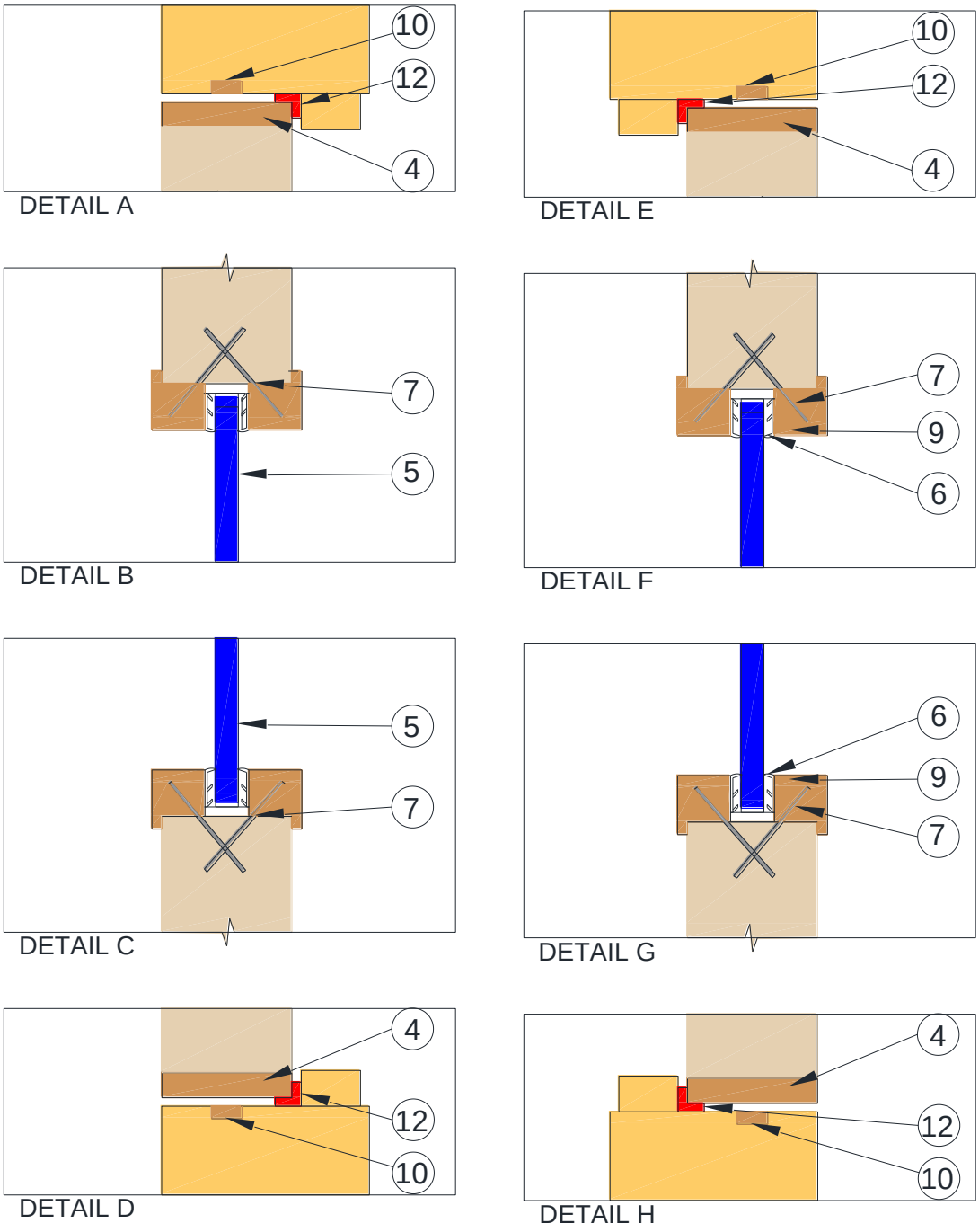


Figure 5 Horizontal Section Detail Views

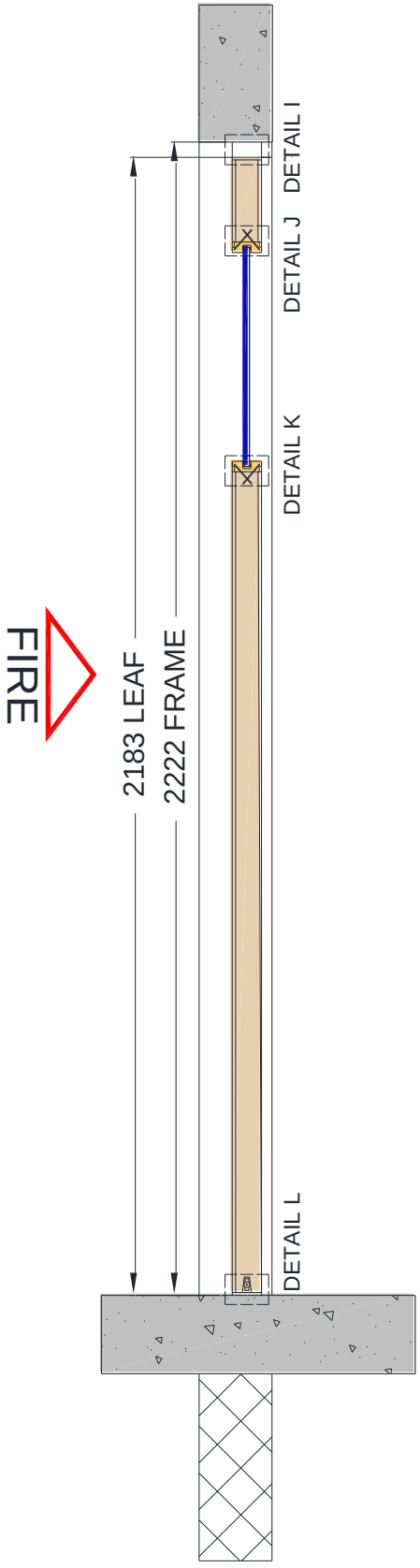


Figure 6 Typical Vertical Section Through Test Construction

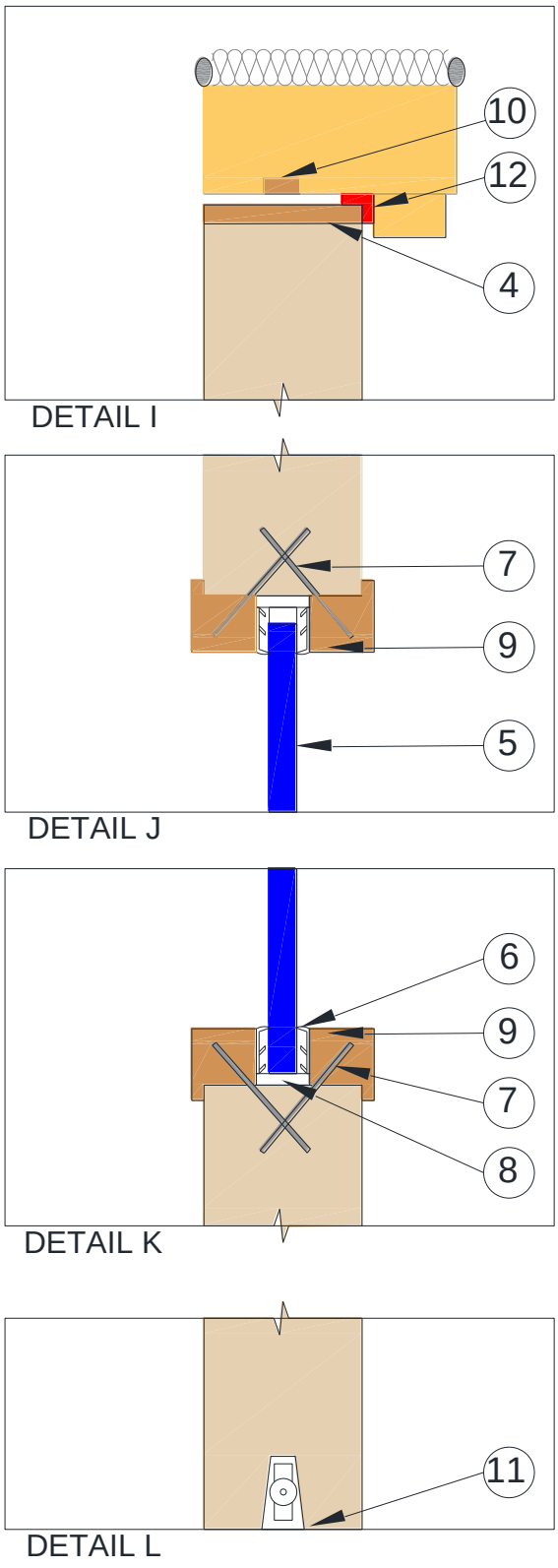
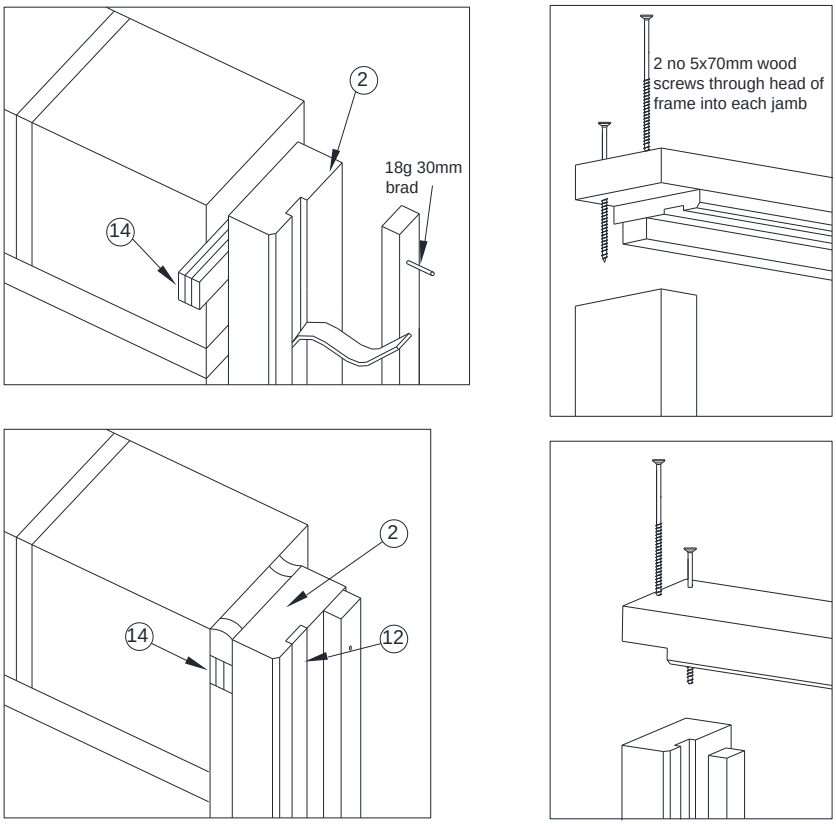


Figure 7 Vertical Section Details



Detailed Diagram of frame & jamb detail

Figure 8 Detailed diagram of frame & jamb detail

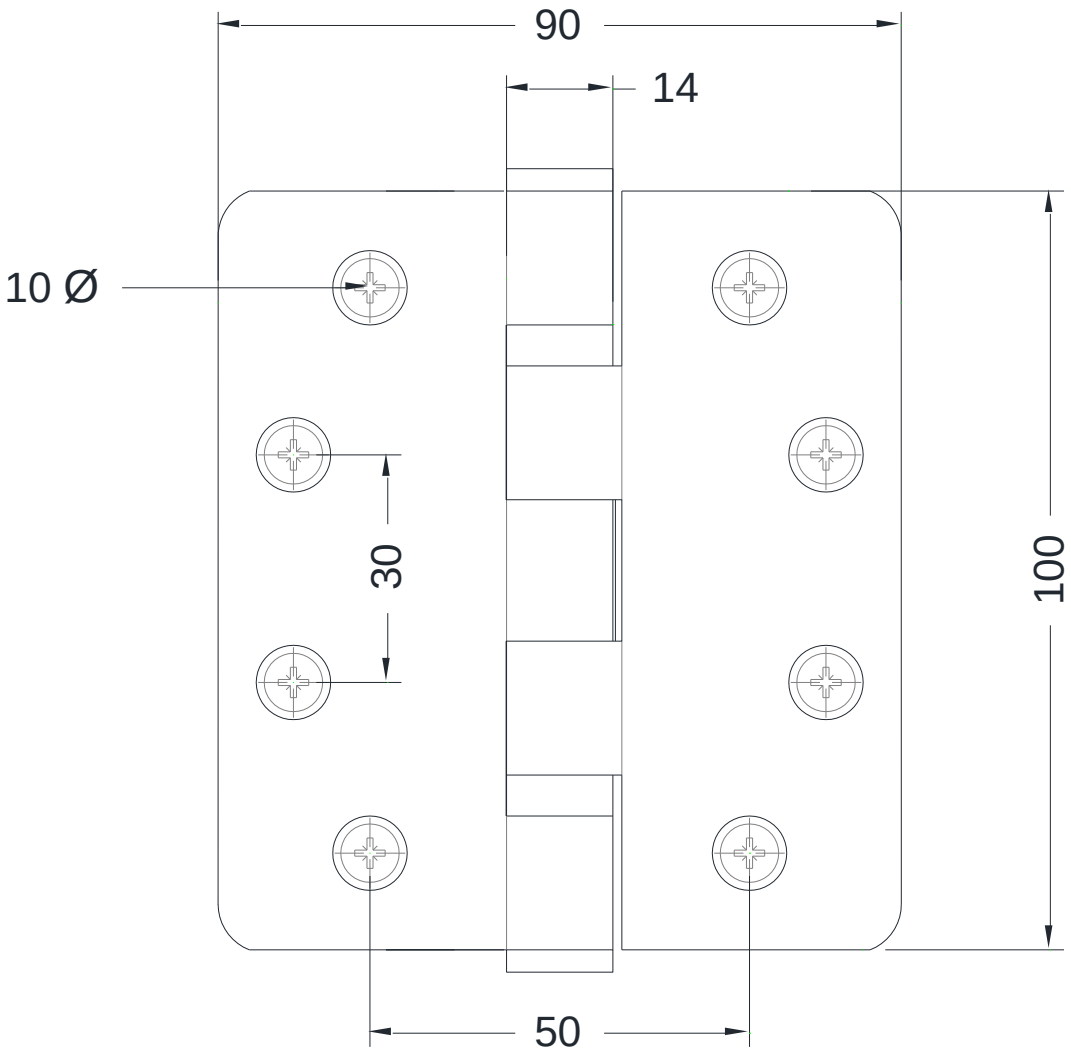


Figure 9 Detailed diagram of hinge detail AR8182

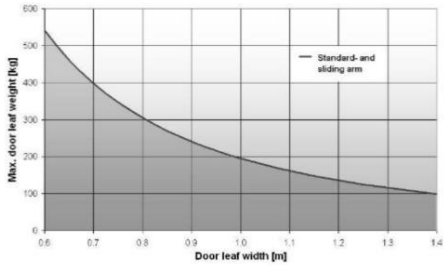
Technical Data

Dimensions:	Operator 600 x 85 x 124 mm (w x h x d)
Operating voltage:	230V~
Power consumption:	Standby 13 W, rated power 67 W
Max. torque:	50 Nm
Opening angle:	Adjustable from 70° to 115°
Time delay:	Adjustable from 0 to 20 seconds
Opening speed:	Adjustable from 3 to 20 seconds
Closing speed:	Adjustable from 5 to 20 seconds
Noise emission	-18 dB

Environment conditions

Temperature range:	-15 to + 50°C
Humidity range:	Up to 85% relative humidity, non bedewing

3.1 Permissible door leaf weights and door widths



The curves are calculated using to the following formula:

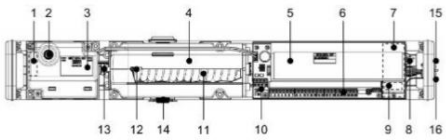
$$J = 1/3 \times m \times b^2$$

Standard arms : J max. 65 kgm²
Slide arms : J max. 65 kgm²

Key : J = mass moment of inertia [kgm²]
m = door leaf weight [kg]
b = door leaf width [m]

4 Construction and Function

4.1 Construction



Key to illustration:

1	Mains connection terminals	9*	Slide switch S1 (rotating direction)
2	Fine-wire fuse	10*	Multifunctional switch MF on STG
3	Power supply NET	11	Closing spring
4	Drive unit ATM	12	Vision panel adjust. spring tension
5	Control unit STG	13*	Adjusting screw for spring tension
6	Connection terminals control unit	14	Connectors for arms (both sides)
7	Motor print MOT	15	Standard switch BDI
8	ATE drive unit terminals	16	Status signal and Reset button

⚠ * Do not change any settings or adjustments! These operations are reserved exclusively for trained and authorized persons.

4.2 Components

The record DFA 127 swing door operator forms part of an electromechanical swing door system and comprises the following main components:

Control unit STG: Intelligent, learning, microprocessor-controlled control system.

Driving unit ATE: Low maintenance DC geared motor with electronic path measurement and integral thermostatic protective switch, gear box with adjustable spring tension.

Power supply NET: Compact 230 V power supply with integral input filter and over-voltage protection.

Control unit BDE: As required with convenient, simple mechanical control unit and / or a programmable electronic BDE-D.

Figure 10 Detailed diagram of door operator from manufacturer

2.2 Schedule of components

Table 5 details the schedule of components which describes the test specimen and lists the components used in the construction of the test specimen. These were provided by the test sponsor and surveyed by Warringtonfire.

All measurements were verified by Warringtonfire unless stated otherwise in the schedule of components. All components marked with an "*" have not been verified by Warringtonfire.

Table 5 Schedule of components

Door frame

1. Frame	
Manufacturer	By Dezign Carpentry
Reference	Standard Casing with Plant-On -Stop
Material	European Redwood
Density	Nominally 510 kg/m^3 Measured 530 kg/m^3 during sampling
Moisture content	14 %
Overall size	999 mm W x 2222 mm H x 70 mm D
Head to Jamb fixing method	3 no Wurth Wupofast 2 PZ 5 x 70 mm wood screws per jamb (2 through head 1 through jamb)
Fixing Detail	
Manufacturer	Easy Drive
Material	Zinc plated yellow passivated steel
Size	7.5mm diameter x 120 mm long
Fixing method	Directly into blockwork supporting construction
Location	150 mm from corners max 600 mm centers
2. Leaf A	
Manufacturer	Wood International Agency Limited
Reference	Marksman 44
Material	Graduated Density Particleboard
Density	Nominally 535 kg/m^3 measured 528-557kg/m^3
Moisture content	11 -12 %
Overall size	933 mm W x 2183 mm H x 44 mm D
3. Leaf B	
Manufacturer	Wood International Agency Limited
Reference	Marksman 44
Material	Graduated Density Particleboard
Density	Nominally 535 kg/m^3 measured 528-557kg/m^3
Moisture content	11 -12 %
Overall size	933 mm W x 2183 mm H x 44 mm D

4. Lipping	
Manufacturer	Wood International Agency Limited
Reference	Edgeman EV650
Material	Engineered Hardwood
Density	Nominally 650kg/m3 measured 747-753-/m^3 during sampling*
Moisture content	15 %
Overall size	44 mm x 8 mm
Fixing method	Caberfix D4 PU/Nozzle & Cramped

Glazing

5. Vision Panel	
Manufacturer	Pyroguard
Reference	Pyrogaurd Adv 2 EW60/11-2
Location	263 mm from meeting edge of leaf, 186 mm from head of leaf
Thickness	11 mm
Bead Density	Nominally 640 kg/m^3 Measured 683-688 kg/m^3
Bead Fixings	16 g 38 mm pins @ 200 mm centres
Bead Type	Square bolection
Bead Material	Sapele Hardwood
Glass overall size	400 mm x 400 mm
Overall Aperture size	406 mm x 406 mm
Overall bead	O/A Beads 414x414
Overall sight size	Glass Sight Size 376x376
6. Glazing Tape	
Manufacturer	Sealed Tight Solutions Limited
Reference	ST 104 SG
Material	Graphite with Nitrile carrier and cap
Overall sizes	16.5 mm x 5 mm
Location	adhered up upstand of glazing bead

7. Pins	
Manufacturer	Montana
Reference	FN14X38GF
Material	Stainless steel
Overall sizes	16g x 38 mm
Location	200 mm centres, 50 mm from corners
8. Setting out block	
Material	Calcium Silicate
Overall sizes	50 mm x 10 mm x 3 mm
Location	As required, generally to bottom and sides of glass
9. Bead profile	
Reference	Square bolection
Material	Sapele
Density	Nominally 640 kg/m^3 measured 683-688 kg/m^3
Moisture Content	15 %
Overall size	19.5 mm wide 18.8 mm deep including a 4 x 4 bolection
Fixing Method	Pneumatically fired steel brads
Fixing distances from corners centres and angle of face of glass	50 mm from corners, 200 mm centres and at 35 degrees to face of glass

Fire Stopping

10. Intumescent Seal	
Manufacturer	Sealed Tight Solutions Limited
Reference	ST 154 FO
Material	Graphite, PVC outer casing
Overall size	1 no. 15 mm x 4 mm
Fixing method	Self adhesive backing
Location	14.5 mm from edge of frame
11. Dropseal	
Manufacturer	Sealed Tight Solutions Limited
Reference	ST 422
Material	Casing - Aluminium. Seal - Neoprene/Butyl. Mechanism - Steel/Nylon
Overall size	20 mm x 12 mm
Fixing method	Screw fixed
Location	Centrally in bottom of leaves

12. Smoke Seal	
Manufacturer	Sealed Tight Solutions Limited
Reference	ST1009
Material	Neoprene/Butyl
Overall size	11 mm x 5 mm
Fixing method	Self adhesive
Location	Adhered to upstand of plant on stop
13 Sealant	
Manufacturer	Sealed Tight Solutions Limited
Reference	STS88
Material	Intumescent Mastic
Overall section size	Approximate 10 mm deep
Application method	Cartridge gunned
Location	Around the perimeter of the frame on both sides
14. Shim Packers	
Manufacturer	Broadfix
Reference	Plastic flat shims
Material	Plastic
Overall section size	1-6m thick x 100 mm long x 28 mm wide
Application method	Positioned behind frame fixings
Location	150 mm from top corner x 600mm centres

Hardware

15. Hinges	
Supplier	Arrone
Reference	AR8182-SSS
Quantity	3 per door
Primary material	Stainless Steel
Type	Ball Bearing Butt Hinge
Size	
a. knuckle	14mm diameter
b. blades	102 mm x 76O/A (30mm each blade) mm wide 3 mm thick
Fixings	
a. type	Countersunk head wood screws
b. material	Stainless Steel
c. sizes	30 mm x 4.5 mm
d. number off per blade	4
Centre of each hinge relative to the head of the leaf	182 mm, 482 mm, 1876 mm
Details of intumescent protection	1mm STS graphite adhered behind each hinge blade

16. Closer	
Manufacturer	Record UK
Reference	DFA 127
Material	
Body	Cast Aluminium
Closer arm	Stainless Steel
Cover	Stainless Steel
Configuration	Rack & Pinion
Overall size	
Body	550 mm high x 75 mm wide x 115 mm deep
Cover	600 mm high x 80 mm wide x 120 mm deep
Sensor	
Manufacturer	Record UK
Reference	RC Swing Safety Sensors
Material	
Base Profile	Aluminium
Cover, End caps and PCB	Plastic
Configuration	Exposed face and Unexposed face infared on-door safety sensors
Overall Size	
Body	700mm x 44.3mm x 50.7mm
Details of cable protection	
Manufacturer	Sealed Tight Solutions Limited
References	STS Cable Pro
Intumescent protection	Graphite intumescent. Installation includes graphite protection for Ø10mm drill hole between the door facings, for the full thickness of the door

Supporting Construction

17.Supporting Construction Blockwork	
Manufacturer	THERMALITE
Type	THERMALITE Shield
Material	Lightweight concrete blocks
Overall size	100 mm wide x 215 mm high x 440 mm long
Density	915 kg/m3 (measured)
Fixing method	Ordinary sand/cement mortar, mix 3:1
18.AAC Base	
Type	Steel reinforced concrete lintel
Material	Steel reinforced autoclaved aerated concrete
Overall size	150 mm wide x 600 mm high x 3000 mm long
Density	550 ~ 650 kg/m3
19.AAC Lintel	
Type	Steel reinforced concrete lintel
Material	Steel reinforced autoclaved aerated concrete
Overall size	150 mm wide x 250 mm high x 3000 mm long
Density	550 ~ 650 kg/m3

2.3 Supporting construction

Table 6 details the supporting construction used for this fire resistance test.

Table 6 Supporting construction

Item	Detail		
Supporting construction	150 mm thick low-density concrete wall with a low-density concrete lintel at the head as described in section 7.2 of EN 1363-1: 2020.		
Dimensions	Width	3050 mm	
	Height	3050 mm	
	Thickness	150 mm	
Aperture dimensions		**Width**	**Height**
	Doorset A	1020 mm	2240 mm
	Doorset B	1020 mm	2240 mm
Restraint conditions	Restrained on all edges		

3. Test procedure

Table 7 details the test procedure for this fire resistance test.

Table 7 Test procedure

Item	Detail		
Test standard	The test was performed in accordance with BS EN 1634-1:2014+A1:2018.		
Product standard and/or EAD	**EN 16034: 2014**		
EGOLF agreements and/or recommendations	Certain aspects of some fire test specifications are open to different interpretations. EGOLF have identified a number of these areas and have agreed on resolutions which define a common agreement of interpretations between fire test laboratories that are members of the group. If such resolutions apply to this test, they have been followed.		
Deviations from test method	None		
Instrumentation and equipment	The instrumentation was provided in accordance with BS EN 1634-1:2014+A1:2018, BS EN 1363-1:2020, and where appropriate BS EN 1363-2:1999.		
Pre-test conditioning	The specimen's storage, construction, and test preparation took place in the test laboratory over a total, combined time of 7 days. Throughout this period of time both the temperature and the humidity of the laboratory were measured and recorded as being within a range of from 21.0°C to 31.0°C and 32.0% to 70.5% respectively.		
Functionality test	Gap measurements	According to clause 10.1.2 of BS EN 1634-1:2014+A1:2018, these measurements were completed before the start of the fire test. They are shown in Figure 27 and Table 24 and Table 25 in Appendix C.	
	Operability test	According to clause A.2.2 of EN 16034, the door(s) were subjected to a series of 25 opening and closing cycles of at least 90° for side-hung doorset(s).	
	Self-closing	According to clause A.4 of EN 16034, the door(s) were subjected to 1 cycle which was completed.	
	Final setting	According to clauses 10.1.4 of BS EN 1634-1: 2018 and A.2.2 of EN 16034, the door(s) were subjected to 1 cycle which was completed.	
Pre-test measurements		**Doorset A**	
	Opening force	85.8 Nm	
	Closing force	18.2 Nm	
	Distance from hinge	1 m	
		Doorset B	
	Opening force	93.8 Nm	
	Closing force	18.4 Nm	
	Distance from hinge	1 m	
Installation details	Delivery date of the test specimen		10 August 2024

Item	Detail		
	Start date for construction of supporting construction	7 August 2024	
	Completion date for construction of supporting construction	8 August 2024	
	Start date for installation of test specimen	10 August 2024	
	Completion date for installation of test specimen	12 August 2024	
	Supporting construction constructed by	Representatives of Warringtonfire	
	Doorset installed by	Representatives of the test sponsor	
Symmetry	Asymmetrical: • Doorset A opened away from the furnace • Doorset B opened into the furnace. The direction of exposure was decided by the test sponsor.		
Ambient laboratory temperature	Start of the test	24.0 °C	
	Minimum temperature	23.0 °C	
	Maximum temperature	24.0 °C	
Sampling / specimen selection	Appendix E includes the sampling report. A representative of Warringtonfire sampled and selected the following components of the tested specimen:		
	Component	**Sampling date**	**Sampling report reference**
	RC Swing MB700 BLK (102-401389)	**22/07/2024**	**AO-104383**
	DFA 127 FO unit and Battery Back up DF127 V4 (230453 070)	**22/07/2024**	**AO-104383**
	DFA 127 Guide Rail and Arm	**22/07/2024**	**AO-104383**
	2No identical doors at 999mm wide x 2222mm high	**12/08/2024**	**SC24182T**
	Wood International Agency Limited – Marksman 44	**11/06/2024**	**SC24124B-2**

4. Test measurements and results

Table 8 summarises the results achieved by the test specimen against the performance criteria listed in BS EN 1634-1:2014+A1:2018 for the following parameters:

- Integrity – The specimen must retain its separating function, without causing either ignition of a cotton pad when applied, or permitting the penetration of a gap gauge as specified in BS EN 1634-1: 2014 + A1:2018, or resulting in sustained flaming on the unexposed surface.
- Insulation (I_1) – The test specimen must be evaluated against the maximum temperature rise criteria specified in EN 1363-1: 2020 (180°C).
- Insulation (I_2) – The mean temperature rise (ΔTm) of the unexposed surface must not be greater than 140°C and the maximum temperature rise (ΔTM) must not be greater than 180°C, with the exception that the limit for temperature rise for any frame member or transom member adjacent to the leaf/leaves of the doorset or openable window must be 360°C. Insulation failure also occurs simultaneously with integrity failure as specified in BS EN 1634-1: 2014 + A1:2018.
- Radiation – Elements for which the radiation criteria is evaluated must be given by the time for the measured radiation to exceed the value of 5, 10, 15, 20, 25 kW/m² as specified in BS EN 1363-2: 1999.

Appendix A includes observations of any significant behaviour of the specimen and details of the occurrence of the relevant performance criteria.

Appendix B details the location of the instrumentation used during the test.

Appendix C includes details of the measurements taken during the test, including the radiation measurements.

Appendix D includes photographs of the test specimen before, during and after the test.

Appendix E includes the sampling report.

Table 8 Detailed test results

Criteria		Doorset A	Doorset B
Thermal insulation			
Supplementary procedure – I_1		**38 minutes****	**36 minutes***
ΔTM = 180°C		38 minutes**	36 minutes*
ΔTM = 180°C on the frame		38 minutes**	36 minutes*
Normal procedure – I_2		**38 minutes****	**36 minutes***
ΔTm = 140°C		38 minutes**	36 minutes*
ΔTM = 180°C		38 minutes**	36 minutes*
ΔTM = 360°C on the frame		38 minutes**	36 minutes*
Discrete area (Vision panel)		**16 minutes (AV)**	**15 minutes (AV)**
Integrity		**No integrity failure**	**36 minutes**
Sustained flaming		No integrity failure for this criteria at the termination of the test	36 minutes
Failure with gap gauge		No integrity failure for this criteria at the termination of the test	No integrity failure for this criteria at the termination of the test
Cotton pad failure		No integrity failure for this criteria at the termination of the test	36 minutes
Radiation			
Radiation intensity	15 kW/m²	Radiation intensity of 15 kW/m² was not reached after 38 minutes	Radiation intensity of 15 kW/m² was not reached after 38 minutes
Notes:			
The test results for the specimen only apply to the tested orientation. The test was discontinued after 38 minutes. * Indicates due to integrity failure ** Indicates test was discontinued			

5. Application of test results

5.1 Field of direct application

EN 1634-1:2014+A1:2018 states that “The field of direct application may only be defined following the identification of classification(s)” and that “The field of (direct and, where applicable, extended) application should be included in the classification report”. For these reasons, the field of direct application in is not covered by this test report.

5.2 Validity

This document is the original version of this test report and is written in English. In case of doubt, the original version prevails over a translation. This document is issued subject to Warringtonfire’s standard terms and conditions, which are available at: *Terms and Conditions | Element*.

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criteria for assessing the potential fire hazard of the product in use, nor can the results be extrapolated and applied to other products.

Reports are statements of fact(s) prepared in accordance with the referenced version of the standard(s) stated in Section 3 of this report. Reports are based upon the information provided to Warringtonfire. Warringtonfire takes no responsibility for the accuracy or completeness of such information.

The results stated in this report apply to the test specimens as received.

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 1634-1:2014+A1:2018, BS EN 1363-1:2020, and where appropriate BS EN 1363-2:1999.

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.

Any differences in relation to the aforementioned characteristics may significantly affect the performance and will therefore invalidate the application of the test results to the variant product. It is recommended that any proposed variation to the tested configuration or product should be referred to the test sponsor. The test sponsor should then obtain appropriate documentary evidence of compliance from Warringtonfire or another accredited testing authority. The supplier of the product is responsible for ensuring that the product which is supplied for use is identical to the test specimens that were tested.

The specification and the interpretation of fire test methods are both the subject of ongoing development and refinement. Changes in the applicability of the results of tests in relation to associated legislation may also occur. For these reasons the currency and the relevance of test reports should be considered by the user.

The test report also relates only to the sample(s) of the product submitted to the test. The laboratory accepts no responsibility for the representativeness of the test specimens unless so stated in the test report.

Confidence that the product that is supplied to the market will have the performance indicated in the test report can be supported by use of third-party certification schemes.

The report is issued for the benefit of Warringtonfire's direct customer only, and may not be relied upon by any third parties without Warringtonfire's express written consent.

5.3 Uncertainty of measurement

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.

Appendix A Test observations

Table 9 shows the observations of any significant behaviour of the specimen during the test.

Table 9 Test observations

Min	Sec	System	Observation
00	**00**	**Doorset A & B**	**Commencement of test**
00	30	Doorset A	Steam/smoke release from the leading edge of Doorset A.
01	10	Doorset B	Glazing reacting – cracking white on Doorset A.
01	25	Doorset A	Glazing reacting – cracking white on Doorset B.
01	40	Doorset B	Steam/smoke release from the vision panel on Doorset B and top edge.
02	10	Doorset A	Steam/smoke release increased from leading and hinged edge on Doorset A.
02	30	Doorset B	Steam/smoke release from mid-height leading and hinged edge on Doorset B.
04	20	Doorset A	Steam/smoke release from the top edge and vision panel frame on Doorset A.
05	00	Doorset A & B	Doorset A and B are now unrestrained.
05	46	Doorset A	Doorset A leading edge beginning to char.
08	46	Doorset A	Doorset A hinged edge charring mid-height.
09	12	Doorset A & B	Doorset A and Doorset B discolouring around vision panels.
11	06	Doorset B	Steam/smoke release in the top corners of Doorset B increased.
12	00	Doorset A	Doorset A deflecting away from the furnace at the middle.
12	45	Doorset A & B	Doorset A and Doorset B glazing starting to discolour brown in areas.
13	45	Doorset B	Doorset B deflected inwards at the bottom left corner.
14	50	Doorset A	Doorset A frame becoming more discoloured. Audible clicking/cracking heard.
19	04	Doorset A	Steam/smoke release increasing on Doorset A glazing, through cracks on unexposed face.
31	30	Doorset A & B	Steam/smoke release at the vision panel increasing.
32	00	Doorset B	Black pieces of hardware at the top of Doorset B beginning to droop.
36	**40**	**Doorset B**	**Sustained flaming on Doorset B above vision panel. Sustained flaming integrity failure and cotton pad integrity failure are deemed to have occurred.**
38	**50**	**Doorset A & B**	**End of test**

Appendix B Instrumentation locations

Figure 11 shows the instrumentation locations for this fire resistance test.

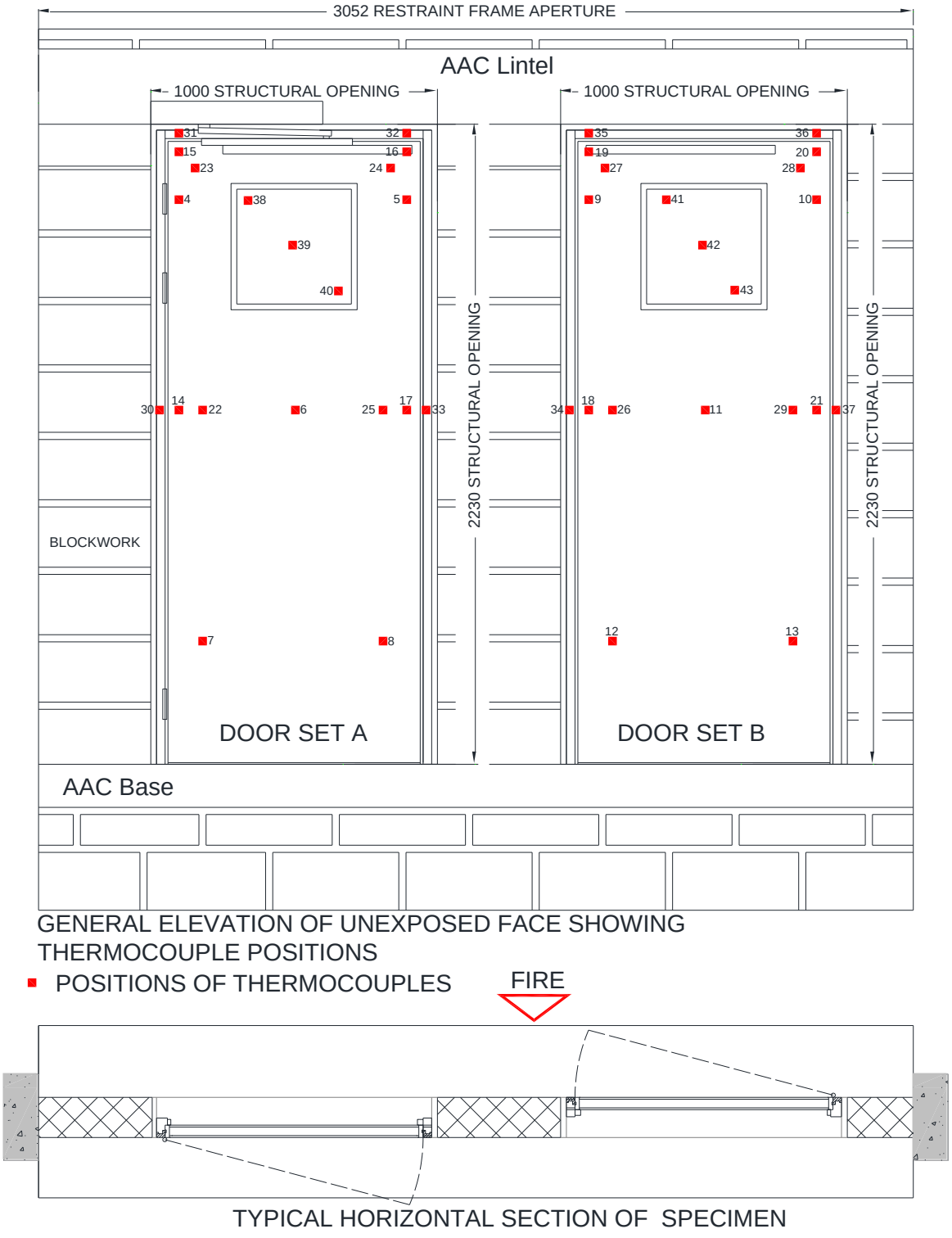


Figure 11 Instrumentation locations

Appendix C Test data

C.1 Furnace temperature and deviation

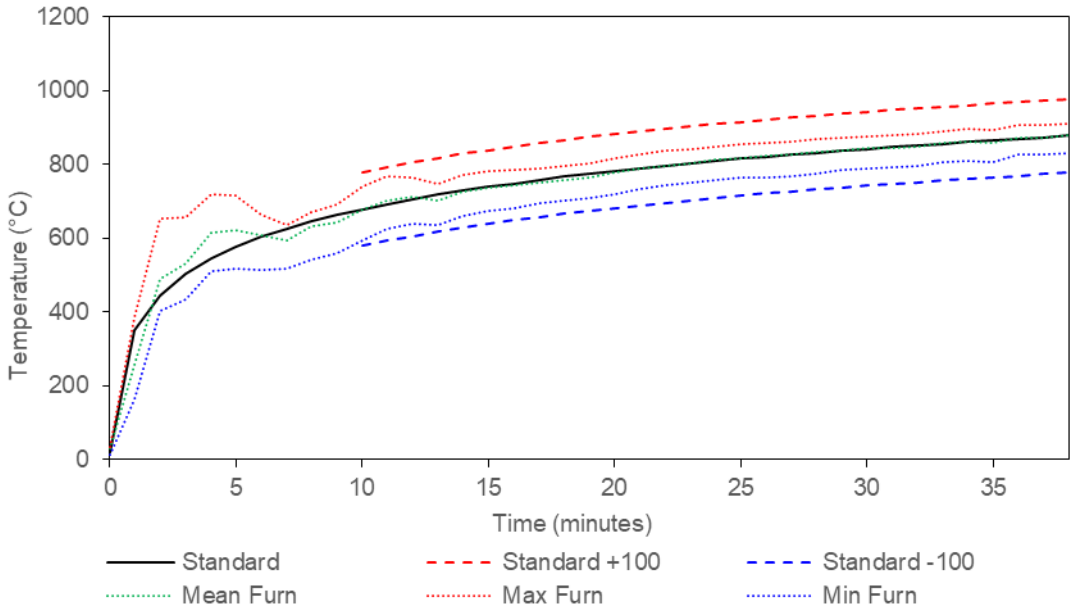


Figure 12 **Furnace thermocouple temperature vs time**

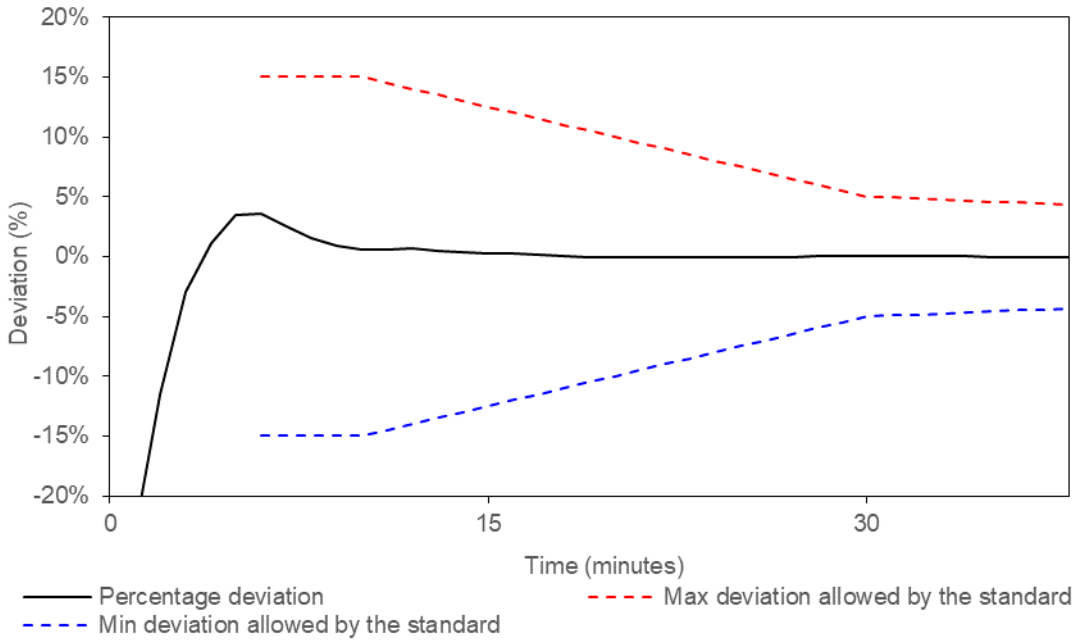


Figure 13 **Percentage deviation of exposure severity vs time**

C.2 Furnace pressure

The furnace pressure was taken at 2250 mm above the sill of the test specimen.

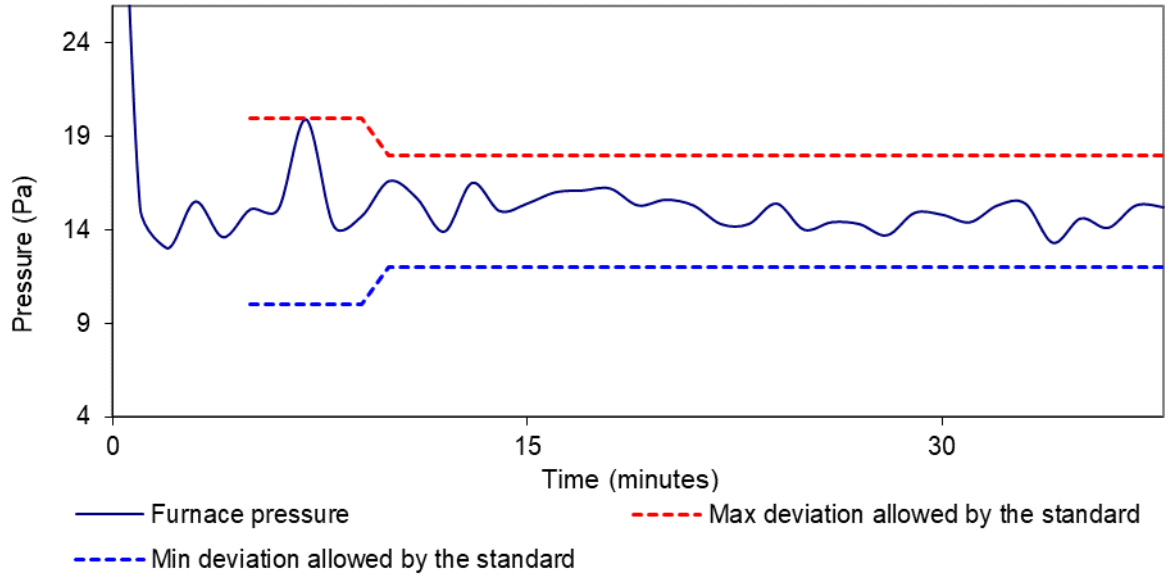


Figure 14 Furnace pressure

C.3 Specimen temperatures

Table 10 Individual And Mean Temperatures Recorded On The Unexposed Surface Of Doorset A

Time (mins)	Tc 004 (°C)	Tc 005 (°C)	Tc 006 (°C)	Tc 007 (°C)	Tc 008 (°C)	Average (°C)
0	27.0	27.0	28.0	27.0	30.0	27.8
2	28.0	28.0	28.0	27.0	30.0	28.2
4	29.0	29.0	28.0	28.0	30.0	28.8
6	41.0	29.0	28.0	28.0	30.0	31.2
8	43.0	30.0	28.0	28.0	31.0	32.0
10	46.0	35.0	31.0	30.0	33.0	35.0
12	47.0	43.0	37.0	34.0	37.0	39.6
14	51.0	50.0	42.0	39.0	42.0	44.8
16	55.0	56.0	47.0	43.0	47.0	49.6
18	59.0	60.0	52.0	47.0	51.0	53.8
20	62.0	63.0	56.0	51.0	55.0	57.4
22	64.0	66.0	59.0	54.0	58.0	60.2
24	66.0	67.0	61.0	57.0	60.0	62.2
26	67.0	69.0	64.0	60.0	63.0	64.6
28	69.0	70.0	66.0	63.0	65.0	66.6
30	69.0	71.0	68.0	65.0	67.0	68.0
32	70.0	72.0	70.0	68.0	69.0	69.8
34	71.0	73.0	72.0	69.0	71.0	71.2
36	72.0	75.0	73.0	72.0	73.0	73.0
38	74.0	76.0	75.0	73.0	75.0	74.6

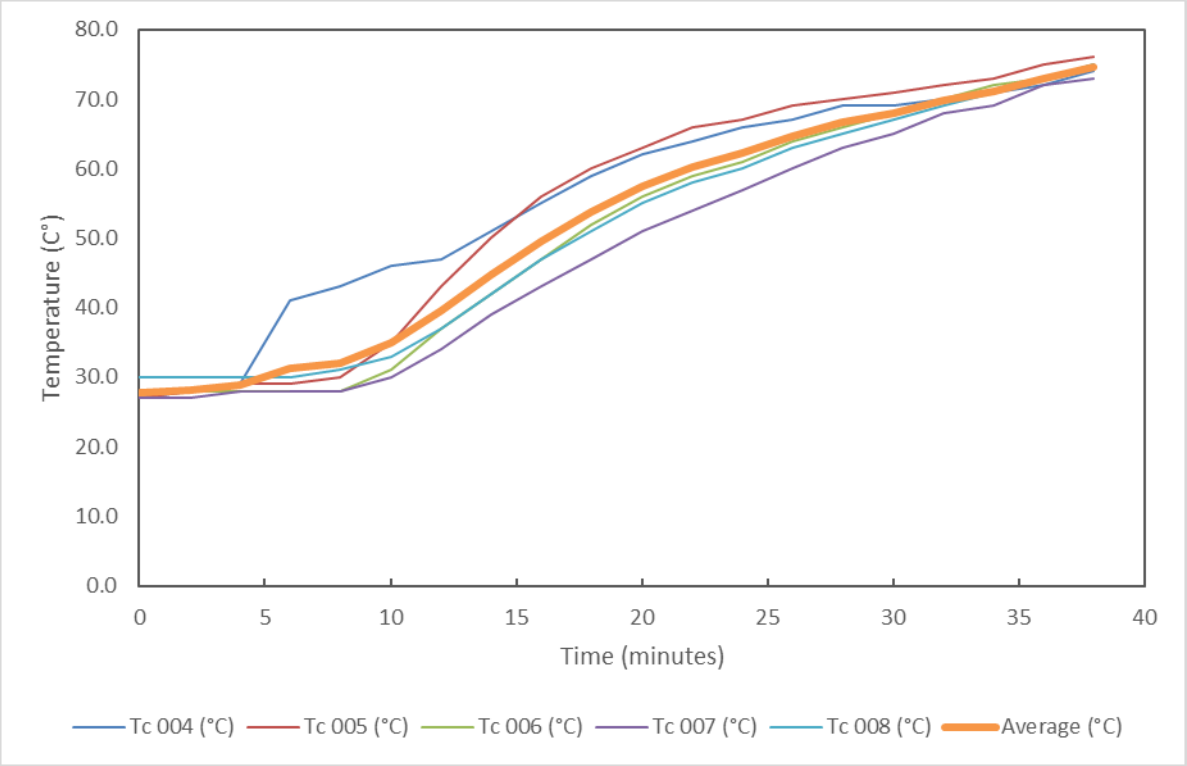


Figure 15 Individual And Mean Temperatures Recorded On The Unexposed Surface Of Doorset A

Table 11 Individual Temperatures Recorded On The Door Leaf 25 mm Away From The Edges On Doorset A

Time (mins)	Tc 014 (°C)	Tc 015 (°C)	Tc 016 (°C)	Tc 017 (°C)
0	31.0	27.0	29.0	29.0
2	31.0	27.0	27.0	31.0
4	31.0	27.0	36.0	39.0
6	32.0	27.0	41.0	38.0
8	32.0	27.0	40.0	36.0
10	34.0	28.0	42.0	37.0
12	37.0	28.0	44.0	40.0
14	42.0	29.0	49.0	45.0
16	47.0	30.0	54.0	49.0
18	52.0	31.0	59.0	53.0
20	56.0	32.0	63.0	56.0
22	60.0	33.0	66.0	59.0
24	63.0	34.0	68.0	62.0
26	65.0	35.0	70.0	64.0
28	68.0	35.0	72.0	66.0
30	70.0	36.0	74.0	68.0
32	73.0	36.0	75.0	70.0
34	75.0	37.0	77.0	72.0
36	77.0	38.0	79.0	74.0
38	79.0	38.0	80.0	75.0

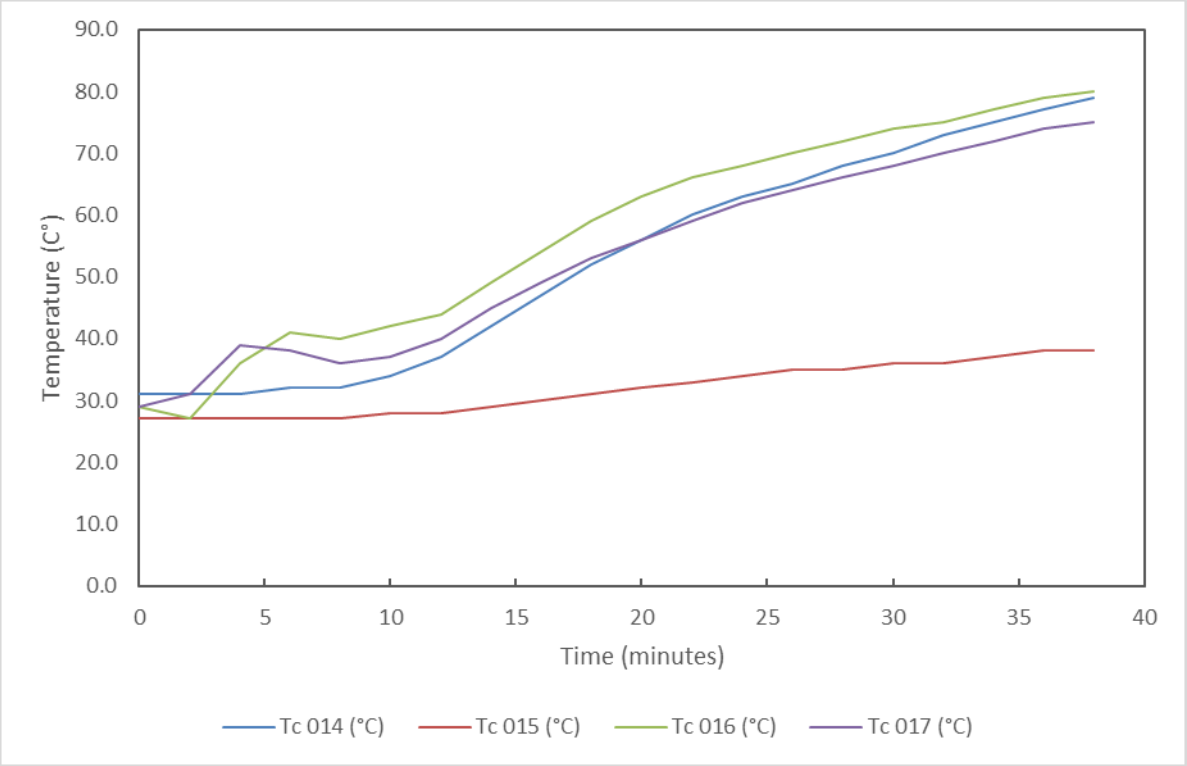


Figure 16 Individual Temperatures Recorded On The Door Leaf 25 mm Away From The Edges On Doorset A

Table 12 Individual Temperatures Recorded On The Door Leaf 100 mm Away From The Edges On Doorset A

Time (mins)	Tc 022 (°C)	Tc 023 (°C)	Tc 024 (°C)	Tc 025 (°C)
0	25.0	24.0	27.0	27.0
2	25.0	24.0	28.0	28.0
4	25.0	24.0	34.0	31.0
6	25.0	25.0	34.0	29.0
8	26.0	25.0	34.0	29.0
10	27.0	27.0	37.0	30.0
12	31.0	27.0	43.0	33.0
14	35.0	27.0	49.0	38.0
16	40.0	29.0	55.0	43.0
18	44.0	30.0	59.0	47.0
20	47.0	31.0	62.0	51.0
22	51.0	32.0	64.0	54.0
24	54.0	33.0	66.0	57.0
26	57.0	34.0	68.0	60.0
28	59.0	35.0	69.0	61.0
30	62.0	36.0	70.0	63.0
32	64.0	36.0	71.0	65.0
34	66.0	36.0	72.0	67.0
36	69.0	37.0	74.0	69.0
38	70.0	38.0	75.0	70.0

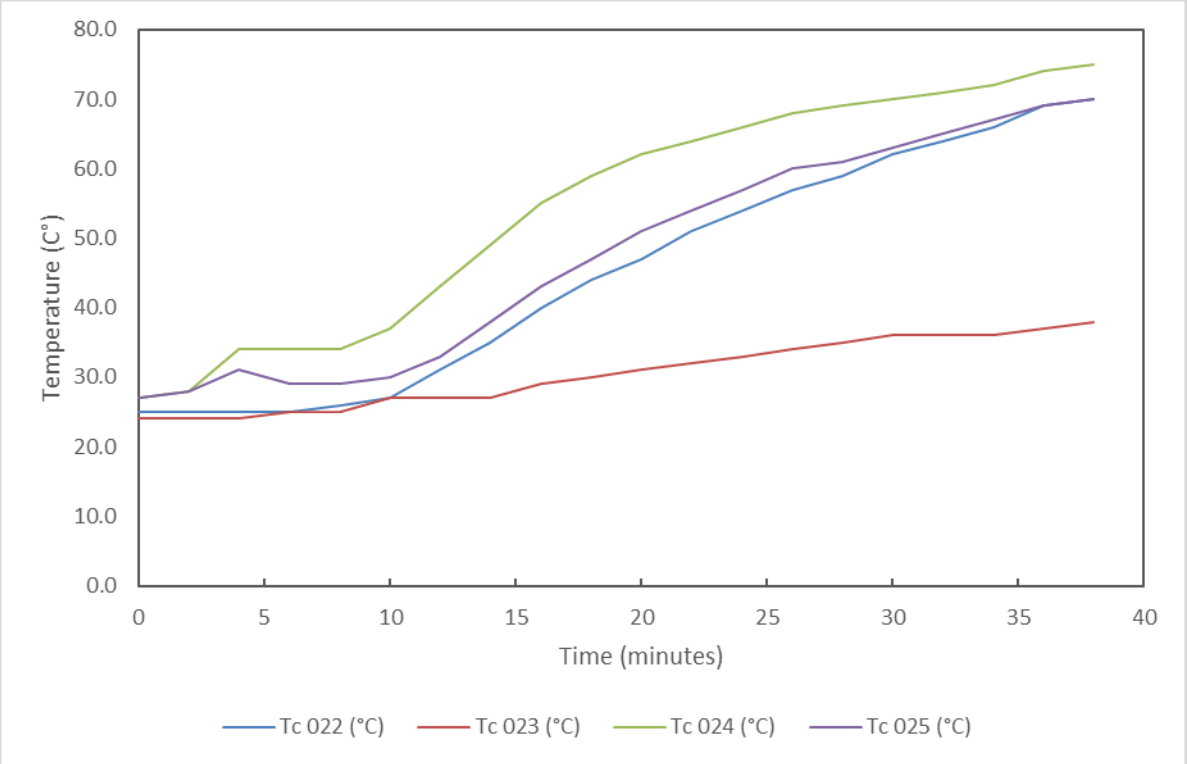


Figure 17 Individual Temperatures Recorded On The Door Leaf 100 mm Away From The Edges On Doorset A

Table 13 Individual Temperatures Recorded On The Unexposed Surface Of The Door Frame On Doorset A

Time (mins)	Tc 030 (°C)	Tc 031 (°C)	Tc 032 (°C)	Tc 033 (°C)
0	28.0	28.0	28.0	28.0
2	28.0	28.0	30.0	33.0
4	34.0	29.0	39.0	42.0
6	40.0	31.0	38.0	44.0
8	56.0	35.0	40.0	44.0
10	63.0	49.0	50.0	44.0
12	57.0	55.0	48.0	43.0
14	52.0	54.0	49.0	43.0
16	48.0	50.0	49.0	44.0
18	46.0	46.0	48.0	47.0
20	46.0	47.0	48.0	53.0
22	46.0	46.0	48.0	65.0
24	48.0	46.0	48.0	77.0
26	51.0	47.0	48.0	85.0
28	54.0	49.0	50.0	89.0
30	58.0	51.0	51.0	91.0
32	63.0	53.0	52.0	93.0
34	68.0	56.0	54.0	93.0
36	74.0	58.0	55.0	95.0
38	81.0	60.0	56.0	95.0

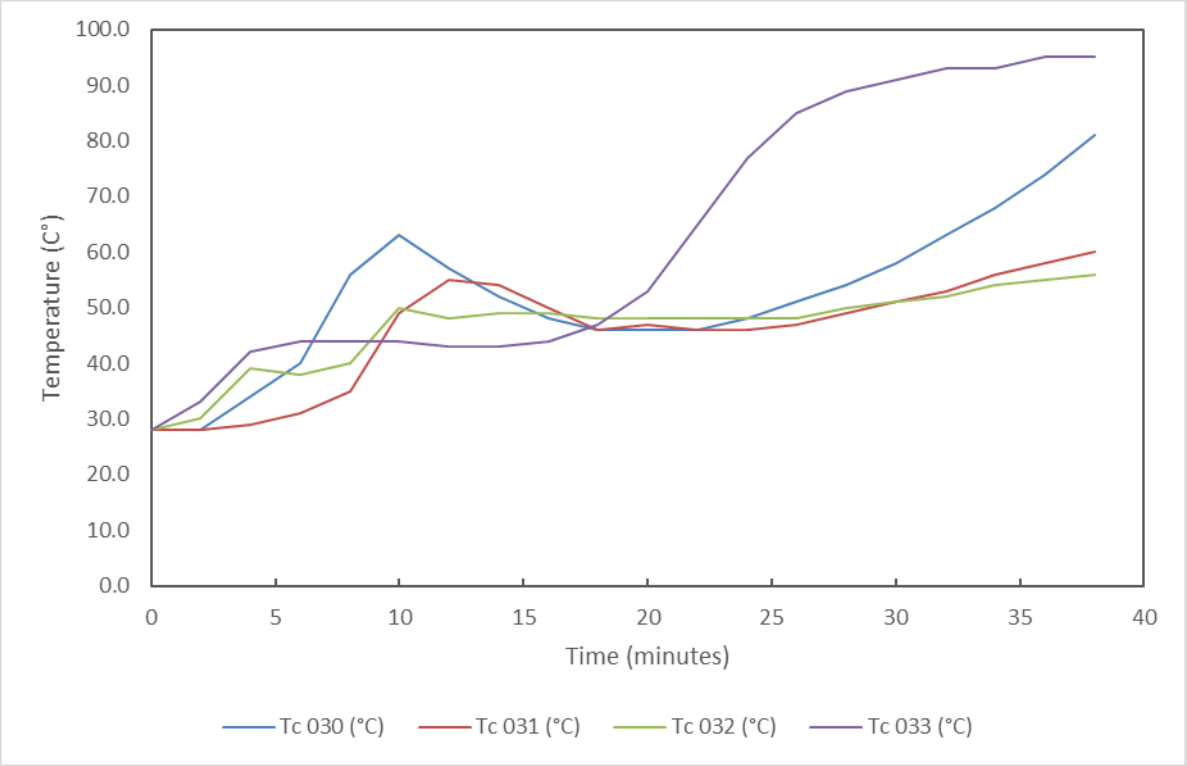


Figure 18 Individual Temperatures Recorded On The Unexposed Surface Of The Door Frame On Doorset A

Table 14 Individual And Mean Temperatures Recorded On The Unexposed Surface Of The Vision Panel On Doorset A

Time (mins)	Tc 038 (°C)	Tc 039 (°C)	Tc 040 (°C)	Average (°C)
0	31.0	31.0	31.0	31.0
2	67.0	68.0	72.0	69.0
4	95.0	96.0	103.0	98.0
6	102.0	101.0	104.0	102.3
8	103.0	103.0	107.0	104.3
10	106.0	110.0	116.0	110.7
12	114.0	126.0	135.0	125.0
14	129.0	147.0	160.0	145.3
16	147.0	168.0	187.0	167.3
17	159.0	178.0	196.0	178.0
18	168.0	184.0	208.0	186.7
19	175.0	193.0	220.0	196.0
20	181.0	205.0	232.0	206.0
22	200.0	230.0	256.0	228.7
24	224.0	254.0	278.0	252.0
26	246.0	274.0	296.0	272.0
28	263.0	292.0	312.0	289.0
30	279.0	310.0	326.0	305.0
32	292.0	326.0	344.0	320.7
34	304.0	343.0	364.0	337.0
36	314.0	360.0	382.0	352.0
38	324.0	379.0	398.0	367.0

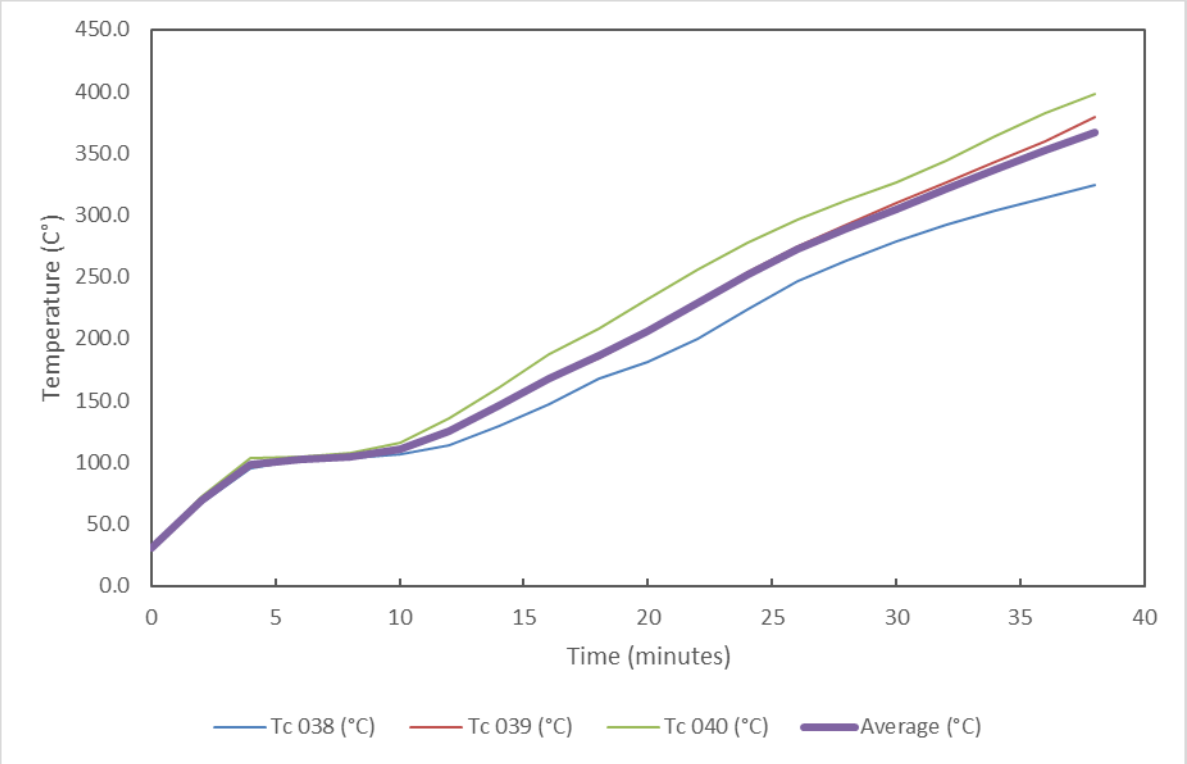


Figure 19 Individual And Mean Temperatures Recorded On The Unexposed Surface Of The Vision Panel On Doorset A

Table 15 Individual And Mean Temperatures Recorded On The Unexposed Surface Of Doorset B

Time (mins)	Tc 009 (°C)	Tc 010 (°C)	Tc 011 (°C)	Tc 012 (°C)	Tc 013 (°C)	Average (°C)
0	30.0	31.0	31.0	30.0	30.0	30.4
2	30.0	31.0	31.0	30.0	30.0	30.4
4	30.0	31.0	31.0	30.0	31.0	30.6
6	31.0	31.0	31.0	31.0	31.0	31.0
8	32.0	33.0	31.0	31.0	31.0	31.6
10	37.0	39.0	32.0	33.0	32.0	34.6
12	44.0	46.0	35.0	36.0	35.0	39.2
14	51.0	53.0	39.0	42.0	39.0	44.8
16	56.0	57.0	44.0	46.0	44.0	49.4
18	61.0	61.0	49.0	51.0	48.0	54.0
20	65.0	64.0	53.0	55.0	53.0	58.0
22	67.0	67.0	57.0	59.0	57.0	61.4
24	69.0	69.0	61.0	62.0	60.0	64.2
26	71.0	71.0	64.0	65.0	64.0	67.0
28	73.0	72.0	68.0	67.0	67.0	69.4
30	74.0	73.0	71.0	70.0	70.0	71.6
32	76.0	75.0	74.0	72.0	73.0	74.0
34	77.0	76.0	77.0	74.0	75.0	75.8
36	78.0	77.0	79.0	76.0	77.0	77.4
38	74.0	80.0	71.0	77.0	78.0	76.0

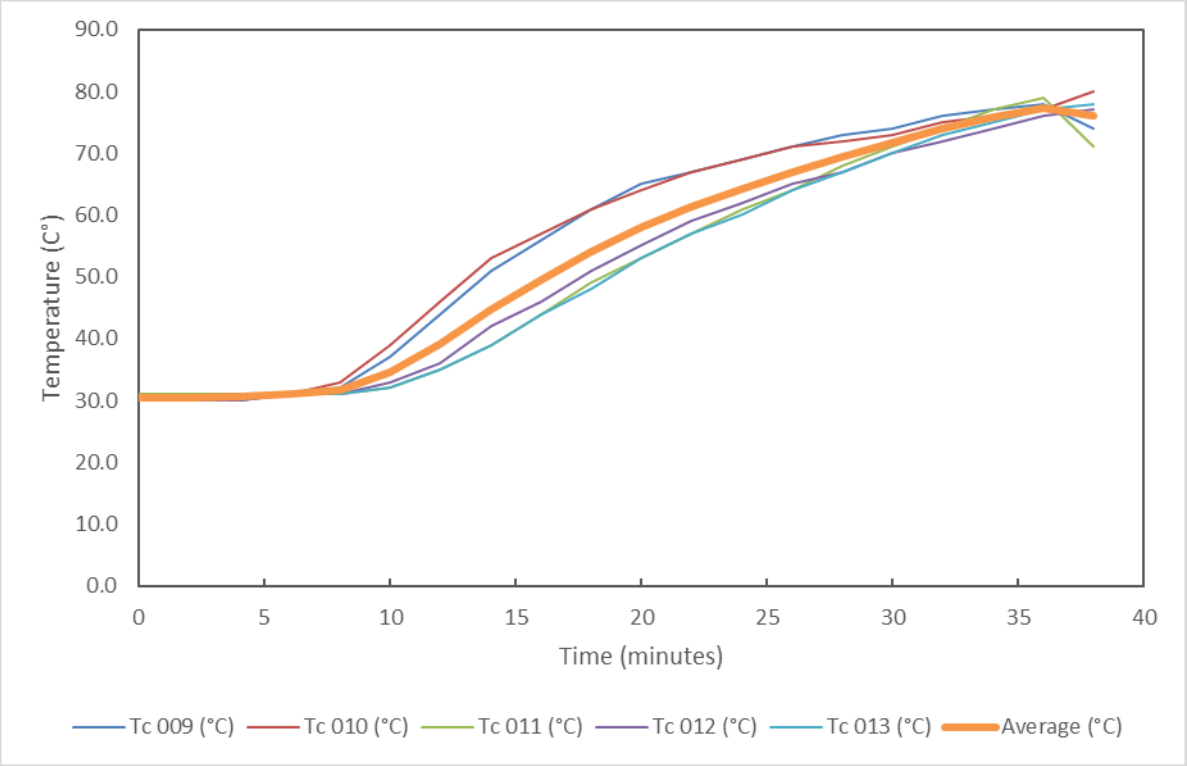


Figure 20 Individual And Mean Temperatures Recorded On The Unexposed Surface Of Doorset B

Table 16 Individual Temperatures Recorded On The Door Leaf 25 mm Away From The Edges On Doorset B

Time (mins)	Tc 018 (°C)	Tc 019 (°C)	Tc 020 (°C)	Tc 021 (°C)
0	29.0	30.0	31.0	30.0
2	29.0	30.0	32.0	30.0
4	29.0	30.0	35.0	30.0
6	29.0	30.0	40.0	30.0
8	29.0	31.0	59.0	31.0
10	31.0	34.0	60.0	33.0
12	34.0	41.0	66.0	38.0
14	39.0	49.0	74.0	43.0
16	44.0	56.0	80.0	48.0
18	49.0	61.0	82.0	53.0
20	54.0	66.0	82.0	57.0
22	58.0	70.0	84.0	62.0
24	62.0	73.0	85.0	66.0
26	66.0	76.0	86.0	70.0
28	69.0	78.0	88.0	73.0
30	72.0	80.0	90.0	76.0
32	74.0	81.0	93.0	78.0
34	76.0	83.0	96.0	79.0
36	77.0	85.0	103.0	81.0
38	79.0	88.0	117.0	82.0

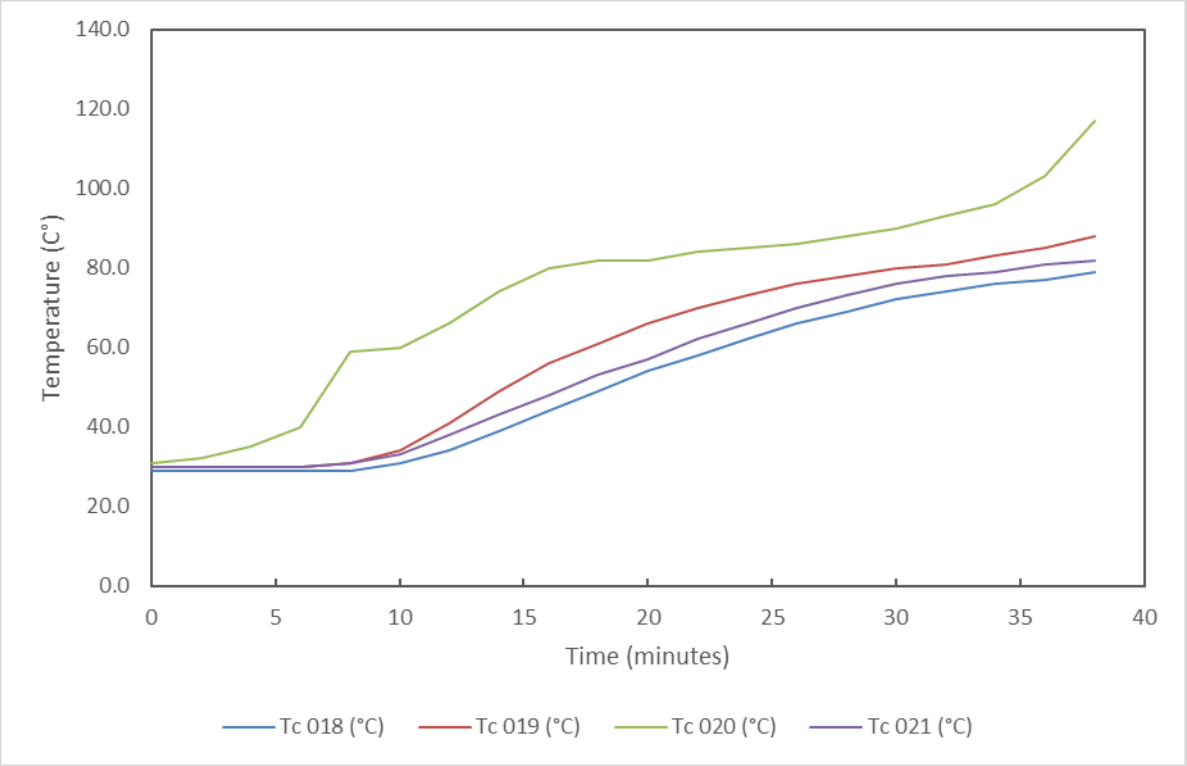


Figure 21 Individual Temperatures Recorded On The Door Leaf 25 mm Away From The Edges On Doorset B

Table 17 Individual Temperatures Recorded On The Door Leaf 100 mm Away From The Edges On Doorset B

Time (mins)	Tc 026 (°C)	Tc 027 (°C)	Tc 028 (°C)	Tc 029 (°C)
0	27.0	28.0	29.0	28.0
2	27.0	28.0	29.0	28.0
4	27.0	29.0	29.0	28.0
6	27.0	29.0	29.0	28.0
8	27.0	31.0	30.0	28.0
10	29.0	38.0	34.0	31.0
12	32.0	45.0	40.0	34.0
14	37.0	52.0	47.0	39.0
16	41.0	57.0	53.0	43.0
18	45.0	62.0	58.0	47.0
20	49.0	65.0	62.0	51.0
22	53.0	68.0	65.0	55.0
24	57.0	70.0	68.0	58.0
26	60.0	72.0	70.0	61.0
28	62.0	74.0	72.0	64.0
30	65.0	75.0	74.0	67.0
32	67.0	76.0	75.0	70.0
34	69.0	78.0	77.0	72.0
36	72.0	80.0	78.0	74.0
38	73.0	83.0	81.0	75.0

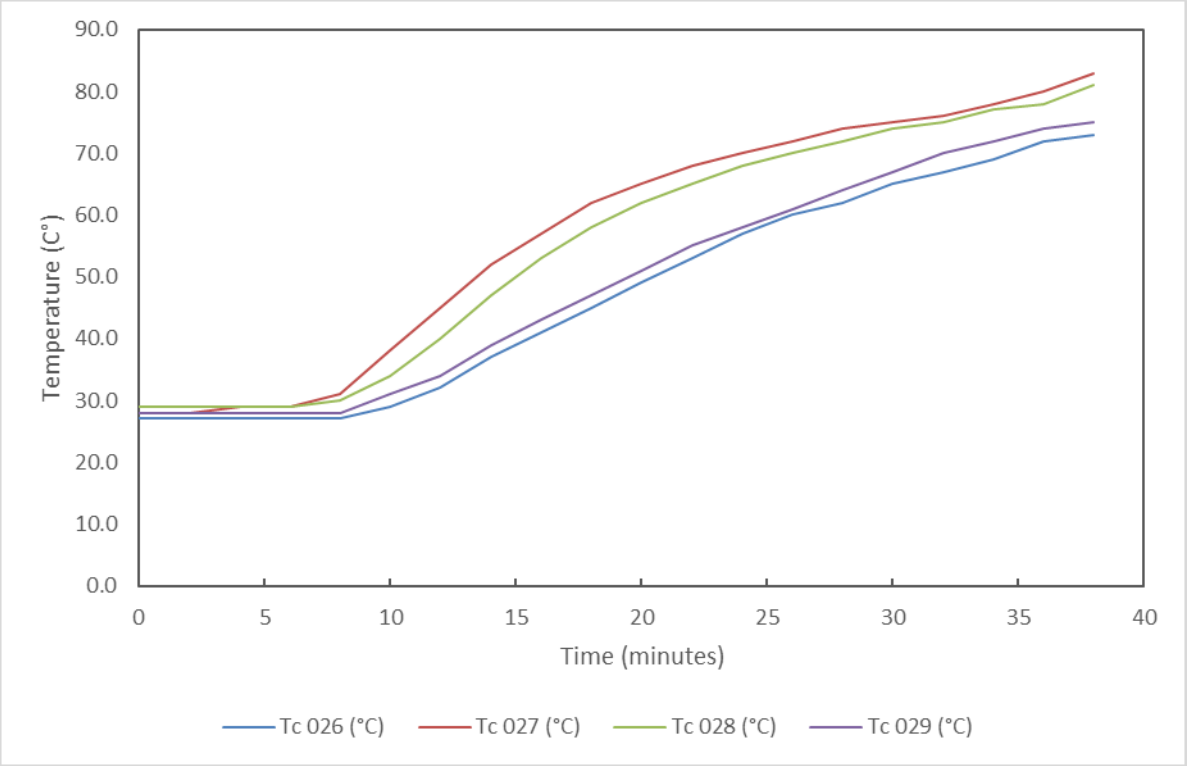


Figure 22 Individual Temperatures Recorded On The Door Leaf 100 mm Away From The Edges On Doorset B

Table 18 Individual Temperatures Recorded On The Unexposed Surface Of The Door Frame On Doorset B

Time (mins)	Tc 034 (°C)	Tc 035 (°C)	Tc 036 (°C)	Tc 037 (°C)
0	27.0	28.0	27.0	27.0
2	27.0	28.0	27.0	27.0
4	27.0	28.0	27.0	27.0
6	27.0	29.0	28.0	27.0
8	27.0	29.0	29.0	27.0
10	27.0	30.0	32.0	27.0
12	27.0	34.0	33.0	27.0
14	28.0	32.0	36.0	28.0
16	29.0	32.0	35.0	29.0
18	31.0	34.0	36.0	30.0
20	34.0	36.0	36.0	32.0
22	37.0	38.0	38.0	34.0
24	40.0	41.0	39.0	36.0
26	42.0	44.0	41.0	38.0
28	45.0	47.0	43.0	40.0
30	47.0	49.0	45.0	43.0
32	49.0	52.0	47.0	45.0
34	52.0	55.0	49.0	47.0
36	53.0	59.0	53.0	49.0
38	56.0	72.0	60.0	50.0

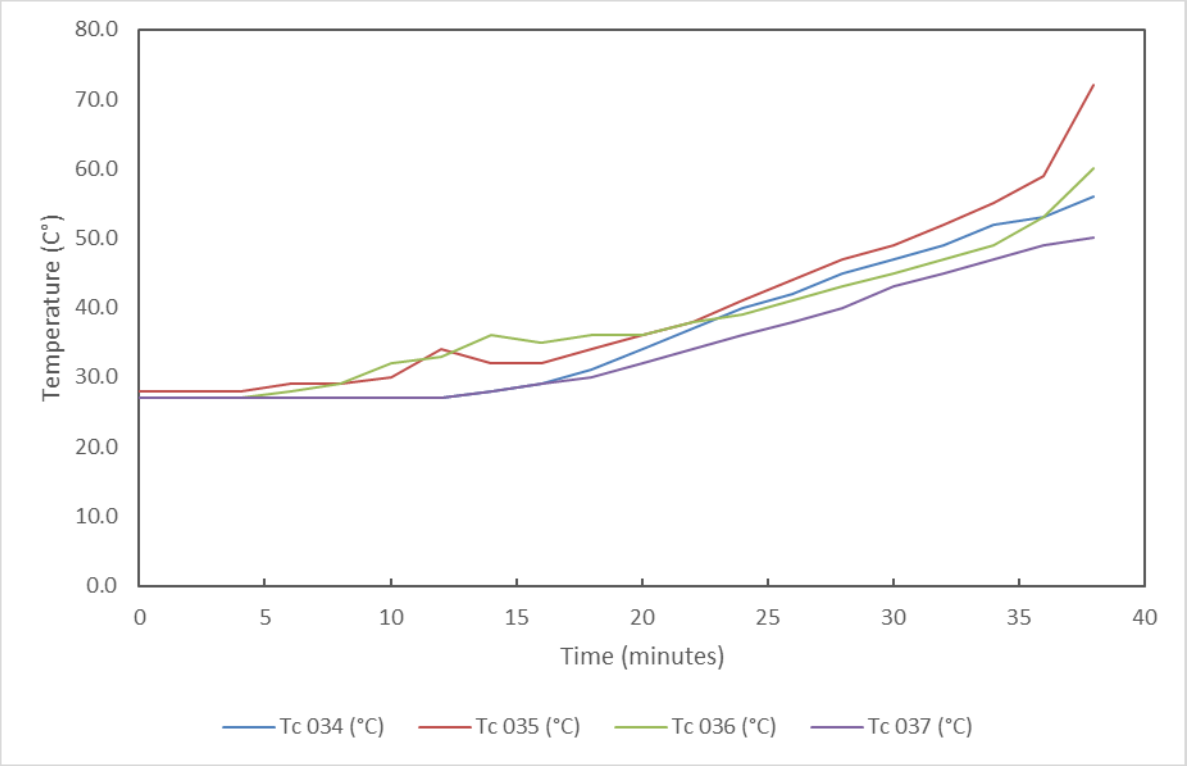


Figure 23 Individual Temperatures Recorded On The Unexposed Surface Of The Door Frame On Doorset B

Table 19 Individual And Mean Temperatures Recorded On The Unexposed Surface Of The Vision Panel On Doorset B

Time (mins)	Tc 041 (°C)	Tc 042 (°C)	Tc 043 (°C)	Average (°C)
0	30.0	31.0	30.0	30.3
2	63.0	74.0	79.0	72.0
4	91.0	105.0	103.0	99.7
6	101.0	107.0	110.0	106.0
8	103.0	119.0	123.0	115.0
10	104.0	136.0	142.0	127.3
12	105.0	153.0	166.0	141.3
14	109.0	172.0	186.0	155.7
15	113.0	180.0	194.0	162.0
16	120.0	187.0	203.0	170.0
17	131.0	196.0	215.0	181.0
18	145.0	207.0	226.0	192.7
20	171.0	227.0	246.0	214.7
22	190.0	247.0	265.0	234.0
24	211.0	266.0	282.0	253.0
26	236.0	286.0	297.0	273.0
28	258.0	304.0	310.0	290.7
30	277.0	321.0	322.0	306.7
32	292.0	338.0	334.0	321.3
34	305.0	361.0	344.0	336.7
36	316.0	390.0	352.0	352.7
38	311.0	387.0	345.0	347.7

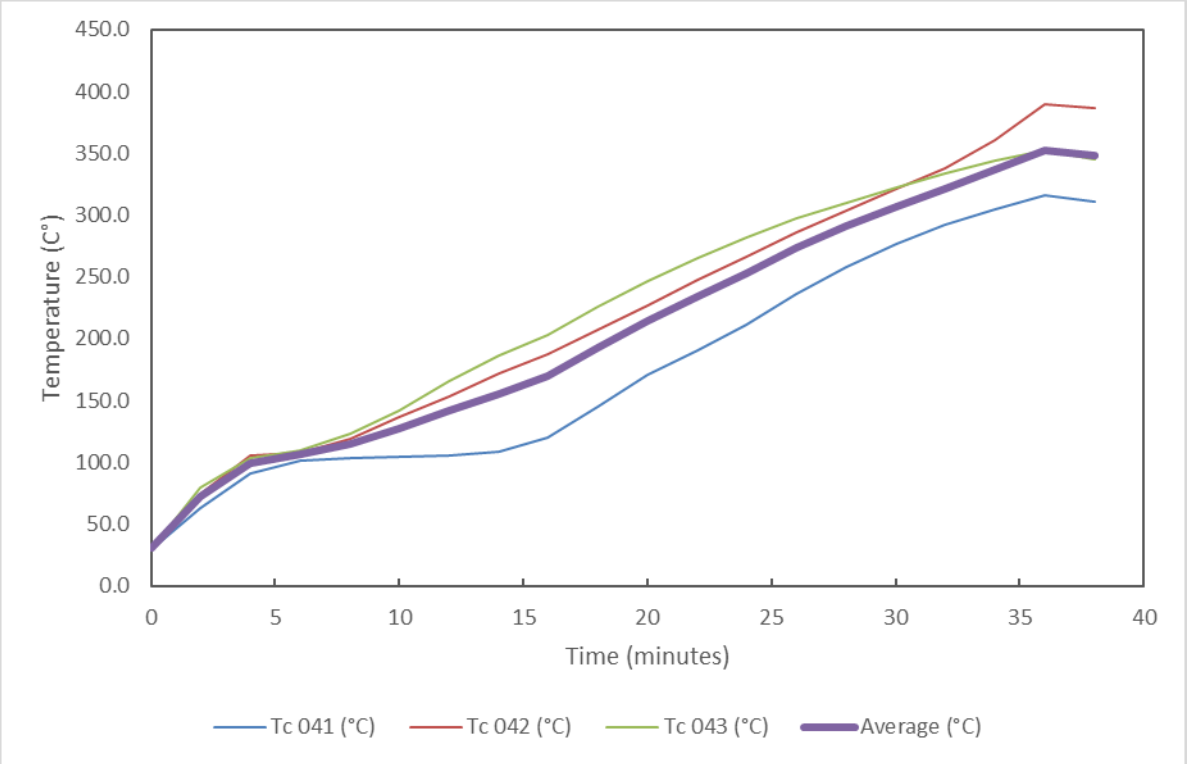


Figure 24 Individual And Mean Temperatures Recorded On The Unexposed Surface Of The Vision Panel On Doorset B

C.4 Specimen Deflections

Table 20 and 21 detail the deflection measurements of the test specimen at locations given in Figure 25.

Negative measurements show movement of the test specimen away from the furnace. Positive measurements show movement of the test specimen towards the furnace.

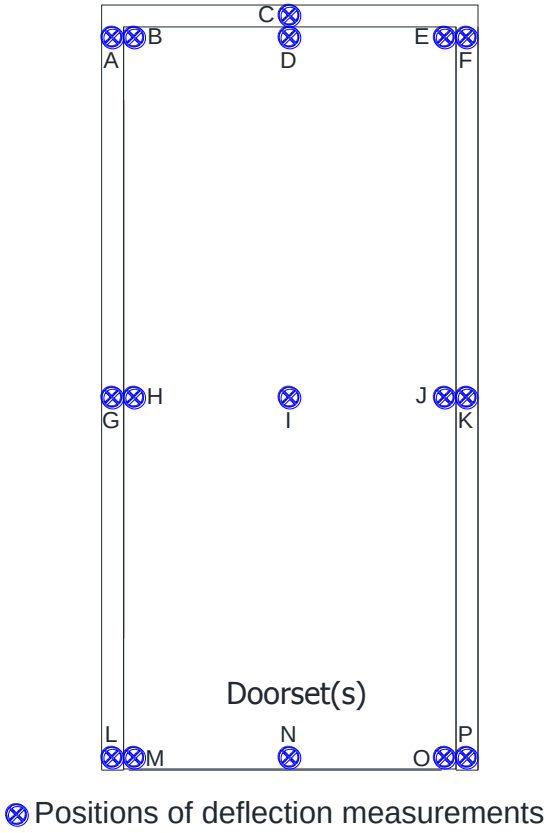


Figure 25 Position of deflection measurements

Table 20 Deflections – Doorset A

Deflections (mm)																
Time (mins)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	2	-3	-5	-2	-7	-2	2	9	-4	-1	-7	9	-2	-9	-1	4
10	-7	-6	-2	-9	-9	-4	6	7	-9	-6	-5	3	-2	-6	-1	4
15	-6	-4	-3	-9	-5	-4	9	5	-5	-5	-2	2	-2	-5	-1	2
20	-7	-7	-2	-5	-4	-4	6	6	-9	-4	-5	2	-2	-1	-1	2
25	2	7	-2	14	-3	-7	6	3	-2	6	-2	1	-2	-2	-1	6
30	4	7	-1	4	3	5	8	5	8	4	4	6	-2	-7	-1	2
35	3	2	-1	9	7	5	2	3	-2	4	3	7	-3	-5	-2	2
Max	-7	+7/-7	-5	+9/-9	-9	-7	9	9	-9	-6/+6	-7	9	-3	-9	-2	6

Table 21 Deflections – Doorset B

Deflections (mm)																
Time (mins)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	-6	-5	-3	-2	-4	-7	-2	-5	-9	-4	-9	-6	-8	-2	-4	-6
10	-5	-6	-8	-8	-8	-5	-5	-5	-4	-8	-6	-5	-9	-7	-5	-9
15	-4	-4	-5	-8	-5	-4	-5	-5	-5	-5	-5	-6	-5	-6	-8	-6
20	-5	-5	-5	-7	-8	-6	-5	-5	-6	-8	-6	-5	-6	-8	-5	-7
25	-7	-2	-2	-8	-5	-9	1	2	-3	-8	-5	-3	1	-5	-2	-5
30	6	4	-8	-7	-2	2	6	3	3	6	3	6	9	6	2	5
35	-3	-5	3	-7	-8	-2	3	3	7	-1	-2	5	8	-5	1	-8
Max	-7	-6	-8	-8	-8	-7	6	-5	-9	-8	-6	-6	-9	-8	-8	-9

C.5 Heat flux measurements

The heat flux was measured 1000 mm away from the specimen and is based on the maximum levels.

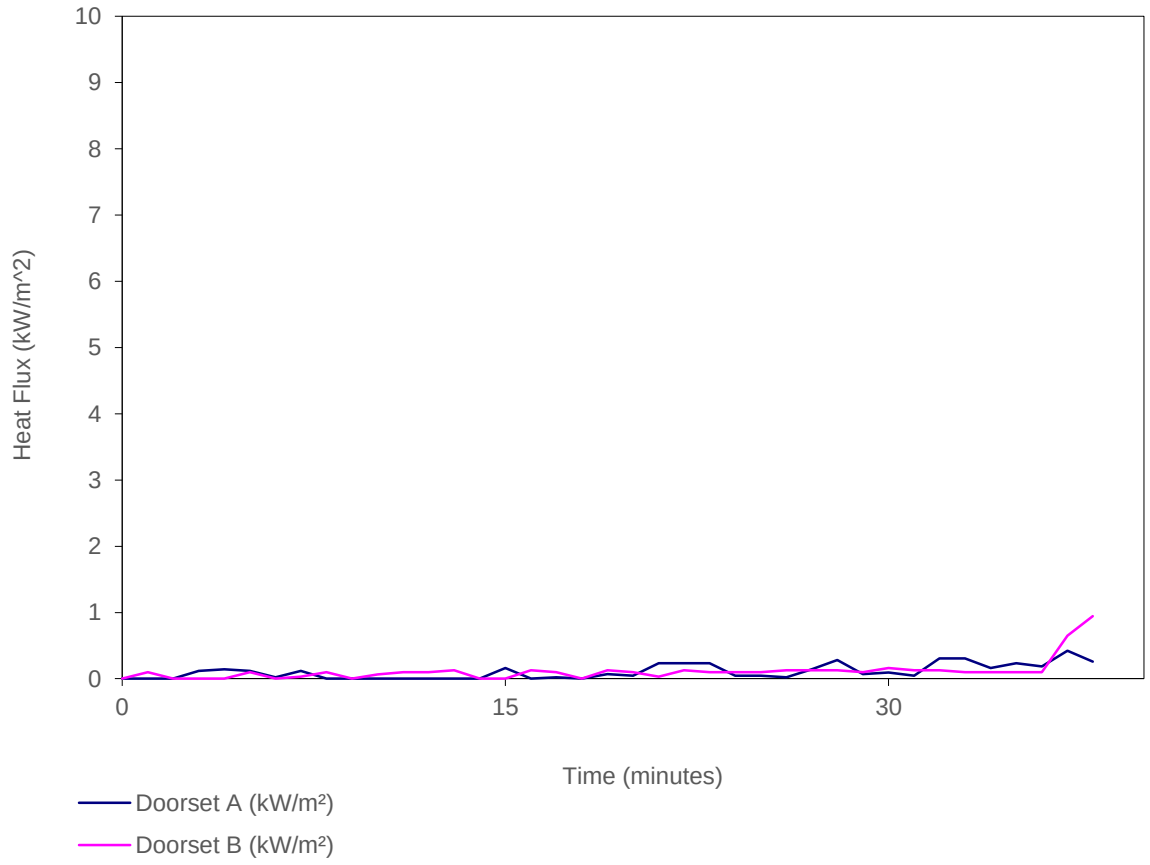


Figure 26 Heat flux measurements of the test specimen vs time

Table 22 Heat flux measurements of the test specimen vs time

Time (mins)	Doorset A (kW/m²)	Doorset B (kW/m²)
0	0.000	0.000
2	0.000	0.000
4	0.141	0.000
6	0.023	0.000
8	0.000	0.098
10	0.000	0.065
12	0.000	0.098
14	0.000	0.000
16	0.000	0.130
18	0.000	0.000
20	0.047	0.098
22	0.234	0.130
24	0.047	0.098
26	0.023	0.130
28	0.281	0.130
30	0.094	0.163
32	0.305	0.130
34	0.164	0.098
36	0.188	0.098
38	0.258	0.945

Table 23 Heat flux thresholds vs time

Radiation intensity	Doorset A	Doorset B
5 kW/m²	Radiation intensity not reached	Radiation intensity not reached
10 kW/m²	Radiation intensity not reached	Radiation intensity not reached
15 kW/m²	Radiation intensity not reached	Radiation intensity not reached
20 kW/m²	Radiation intensity not reached	Radiation intensity not reached
25 kW/m²	Radiation intensity not reached	Radiation intensity not reached

C.6 Gap measurements

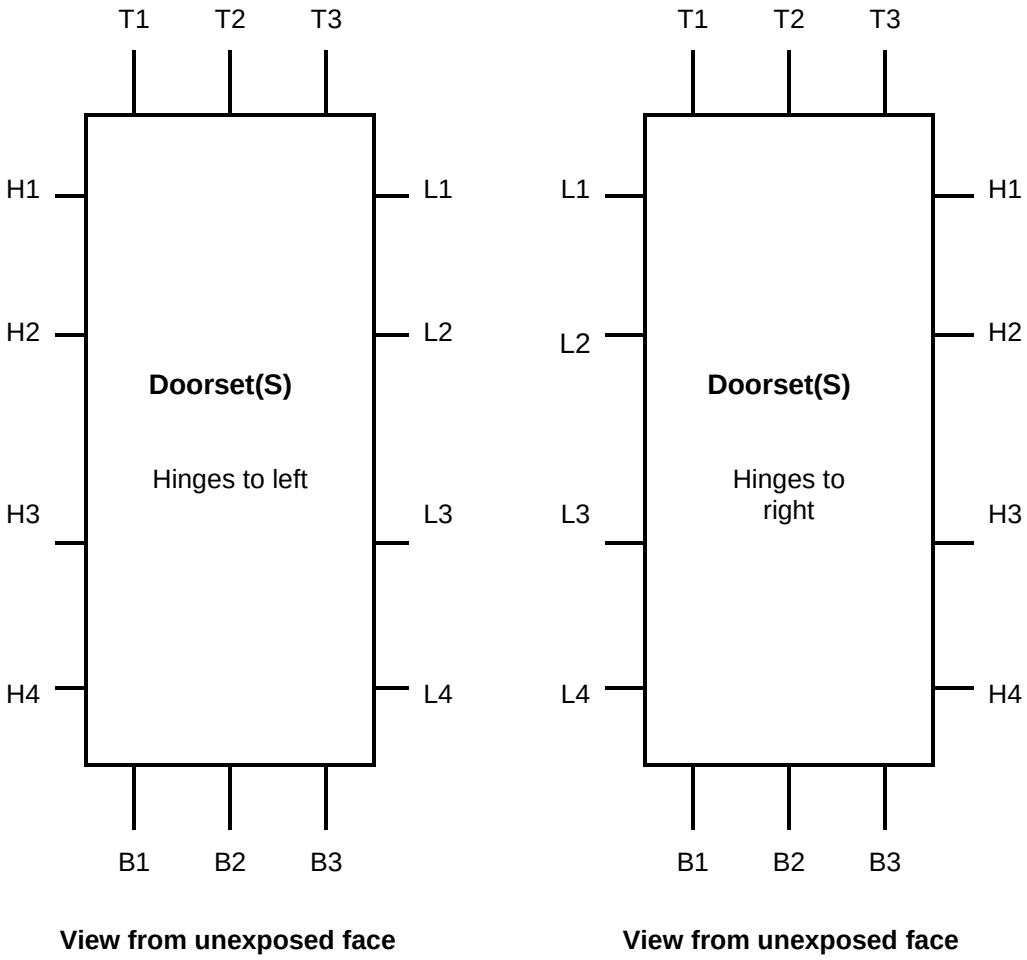


Figure 27 Gap measurements, Doorset A and B (unexposed side shown)

Table 24 Measured and calculated gap sizes for Doorset A

Doorset A (mm)					
Hinge side	**Primary**	**Leaf to stop**	**Leading edge**	**Primary**	**Leaf to stop**
H1	2.71	2.91	L1	2.70	1.40
H2	2.83	3.14	L2	2.69	1.48
H3	2.79	2.73	L3	2.52	1.59
H4	2.73	3.08	L4	2.38	1.62
Mean	2.77		**Mean**	2.57	
Max	2.83		**Max**	2.70	
Min	2.71		**Min**	2.38	
Max permitted	4.80		**Max permitted**	4.64	
Top edge	**Primary**	**Leaf to stop**	**Threshold**	**Primary**	
T1	2.15	0.79	B1	6.83	
T2	*	*	B2	6.96	
T3	2.04	0.80	B3	6.94	
Mean	2.10		**Mean**	6.91	
Max	2.15		**Max**	6.96	
Min	2.04		**Min**	6.83	
Max permitted	4.12		**Max permitted**	8.94	

* Indicates gap was inaccessible

Table 25 Measured and calculated gap sizes for Doorset B

Doorset B (mm)					
Hinge side	**Primary**	**Leaf to stop**	**Leading edge**	**Primary**	**Leaf to stop**
H1	2.08	1.21	L1	2.97	1.55
H2	2.53	1.20	L2	3.18	1.50
H3	2.67	1.22	L3	2.76	1.67
H4	3.29	1.53	L4	3.27	1.84
Mean	2.64		**Mean**	3.05	
Max	3.29		**Max**	3.27	
Min	2.08		**Min**	2.76	
Max permitted	4.97		**Max permitted**	5.16	
Top edge	**Primary**	**Leaf to stop**	**Threshold**	**Primary**	
T1	4.27	1.70	B1	4.41	
T2	*	*	B2	6.28	
T3	2.73	1.54	B3	5.06	
Mean	3.50		**Mean**	5.25	
Max	4.27		**Max**	6.28	
Min	2.73		**Min**	4.41	
Max permitted	5.89		**Max permitted**	7.77	

* Indicates gap was inaccessible

Appendix D Photographs

Figure 28 Unexposed face of the specimens before the start of the test

Figure 29 Exposed face of the specimens before the start of the test

Figure 30 Unexposed face of the specimens at 10 minutes of testing

Figure 31 Unexposed face of the specimens at 20 minutes of testing

Figure 32 Unexposed face of the specimens at 30 minutes of testing

Figure 33 Exposed face of the specimen at 36 minutes 40 seconds displaying sustained flaming on Doorset B

Figure 34 Exposed face of the specimens at the end of the test

Appendix E Sampling report

warringtonfire — Sample Report

This report provides a record of the information relating to samples taken by Warringtonfire Testing and Certification Limited trading, or its agent, for certification of the products detailed below.

Job No.	AO-104383
Certificate Number (if applicable)	NOT APPLICABLE
Manufacturer	Agtatec Limited, Allmendstrasse 24 · 8320 Fehraltorf, Switzerland.
Manufacturing site	Agtatec Limited, Allmendstrasse 24 · 8320 Fehraltorf, Switzerland.
Place of sampling	Record UK Unit 37 Coleshill Industrial Estate, Station Road, Coleshill, B46 1JT
Traceability information	Date/time of production: 26/04/2024 Production unit/line: NOT KNOWN Batch number: NOT KNOWN Shift: NOT KNOWN Record Reference number 198067F Delivery Number: 7404471
Product Details: • Name • Product Number (if applicable) • Description	RC Swing MB700 BLK (102-401389)
Marking of the product by the manufacturer e.g. label, batch number and date of manufacture	Product code, marked with product references.
Marking of the samples by Warringtonfire Testing and Certification Limited	Job No: AO-104383 Date: 22/07/2024 Signature or initials: AW
Stock/batch quantity from which samples selected and sample quantity	12 components sampled, from a stock quantity of 700 products.
Results of tests and/or inspections during manufacture	Verified against delivery note.
Essential characteristics to be tested i.e. Test Reference	Fire Resistance EN1634 – Fire Doors
Samples to be dispatched by manufacturer to *** within *** weeks/month(s)	Samples to be despatched for testing, week commencing 22/07/2024.
Date of sampling	22/07/2024
Warringtonfire Testing and Certification Limited UK Approved Body Number	1121

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Sample Report

This report provides a record of the information relating to samples taken by Warringtonfire Testing and Certification Limited trading, or its agent, for certification of the products detailed below.

Job No.	AO-104383
Certificate Number (if applicable)	NOT APPLICABLE
Manufacturer	Agtatec Limited, Allmendstrasse 24 · 8320 Fehraltorf, Switzerland.
Manufacturing site	Agtatec Limited, Allmendstrasse 24 · 8320 Fehraltorf, Switzerland.
Place of sampling	Record UK Unit 37 Coleshill Industrial Estate, Station Road, Coleshill, B46 1JT
Traceability information	Date/time of production: 12/07/2024 Production unit/line: NOT KNOWN Batch number: NOT KNOWN Shift: NOT KNOWN Record Reference number 1970609 Delivery Number: 7385121
Product Details: • Name • Product Number (if applicable) • Description	DFA 127 FP Unit and Battery back up DF127 V4 (230453 070)
Marking of the product by the manufacturer e.g. label, batch number and date of manufacture	Product code, marked with product references.
Marking of the samples by Warringtonfire Testing and Certification Limited	Job No: AO-104383 Date: 22/07/2024 Signature or initials: AW
Stock/batch quantity from which samples selected and sample quantity	6 components sampled, from a stock quantity of 691 products (DFA 127 FP EU). Stock quantity 64, 6 sampled (Battery Back up)
Results of tests and/or inspections during manufacture	Verified against delivery note.
Essential characteristics to be tested i.e. Test Reference	Fire Resistance EN1634 – Fire Doors
Samples to be dispatched by manufacturer to *** within *** weeks/month(s)	Samples to be despatched for testing, week commencing 22/07/2024.
Date of sampling	22/07/2024
Warringtonfire Testing and Certification Limited UK Approved Body Number	1121

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Sample Report

This report provides a record of the information relating to samples taken by Warringtonfire Testing and Certification Limited trading, or its agent, for certification of the products detailed below.

Job No.	AO-104383
Certificate Number (if applicable)	NOT APPLICABLE
Manufacturer	Agtatec Limited, Allmendstrasse 24 - 8320 Fehraltorf, Switzerland.
Manufacturing site	Agtatec Limited, Allmendstrasse 24 - 8320 Fehraltorf, Switzerland.
Place of sampling	Record UK Unit 37 Coleshill Industrial Estate, Station Road, Coleshill, B46 1JT
Traceability information	Date/time of production: 12/07/2024 Production unit/line: NOT KNOWN Batch number: NOT KNOWN Shift: NOT KNOWN Record Reference number 1970609 Delivery Number: 7385121
Product Details: • Name • Product Number (if applicable) • Description	DFA 127 Guide Rail and Arm
Marking of the product by the manufacturer e.g. label, batch number and date of manufacture	Product code, marked with product references.
Marking of the samples by Warringtonfire Testing and Certification Limited	Job No: AO-104383 Date: 22/07/2024 Signature or initials: AW
Stock/batch quantity from which samples selected and sample quantity	6 components sampled, from a stock quantity of 352 products
Results of tests and/or inspections during manufacture	Verified against delivery note.
Essential characteristics to be tested i.e. Test Reference	Fire Resistance EN1634 – Fire Doors
Samples to be dispatched by manufacturer to *** within *** weeks/month(s)	Samples to be despatched for testing, week commencing 22/07/2024.
Date of sampling	22/07/2024
Warringtonfire Testing and Certification Limited UK Approved Body Number	1121

bmtrada Proud to be part of element	**SAMPLING VISIT REPORT**	Company Name	**Wood International Agency Ltd**
		Establishment No.	**047/21200. CO**
		BM TRADA Notified Body ID: **1224**	

Company Head Office Address	**Wood International Agency Ltd** **Woods House** **16 King Edward Road** **Brentwood** **Essex** **CM5 0RQ**	**Contact Name**	**Neil Harrison**
		Telephone	**+44 (0) 1277 232991**
		Email Address	**doors@woodia.co.uk**

Location where sampling was conducted if different from Head Office Address	**Visit Date**	**BMT Representative**
By Dezign Carpentry, Unit 11B ERW Las, Colomendy Ind Est, Denbigh LL16 5TA	12/08/2024	Michael Chorlton

Requirement	**Evidence / Comments**
Opening Meeting (names of those present)	Mr Neil Harrison / Mr Shaun Harrison
Contract Reference	SC24182T
Technical Specification document / FoA reference Photographs to be taken of all critical areas highlighted in the Technical Specification	Technical Drawing: TBC Technical Specification: WIAD-MMN44-ITT-787-REC Marked up technical specification made by the sampler and must be read in conjunction with this sampling report.
Description of product(s) sampled	2No. Single leaf glazed doorsets incorporating Marksman 44 door core, lipped on four edges with engineered timber and hing in softwood frame on 3No. Butt hinges, operated by Record door swing operator with RC Swing sensors to both sides and completed with single vision panel and drop seal.
Product identification / reference numbers / codes	N/A
Batch number(s)	N/A
Date of manufacture	In stages between 06/08/2024 and 17/08/2024
Quantity of stock and size of sample(s) taken	2No. Identical Doorsets at 999mm wide x 2222mm high.
Traceability of material records ie Purchase Orders and delivery notes	Items with traceability: Door blank Marksman under BM TRADA Sampling SC24124B-2. Glazing units. Glazing intumescent system. Glazing bead and fixings. Door swing operator sampled by 1121 AO-104383. Hinges and fixings. Frame fixings, fire stopping and sealing. Lipping, Bead & door frame species & density. Smoke seal. **Please send Sampling Pack to High Wycombe Laboratory FOA Connor Payne.** Items with limited or no traceability: Hinge Intumescent manuf & type. Drop seal manuf & type.
Example of sampler's markings applied to the product(s) (contract reference, signature of client, date of manufacture)	
Confirmation of minimum mandatory video/live checks undertaken	✓ Glazing assembly (where applicable) ✓ Hardware prep and fitting (where applicable) ✓ Finished doorset with markings ✓ Sampling pack discussion
Details of any further FPC processes witnessed during the visit.	By Dezign do not have a formalised FPC in place. All manufacture made against the technical specification utilising traditional jonery tools and methods. Dimensional checks made throughout manufacture.
Determine the essential characteristics of the product and confirm the details of in-process checks conducted on the sample to ensure conformity.	Door leaf specification. Hardware selection, preparation, intumescent protection and fixings. Glazing selection, preparation, intumescent protection and bead fixings. Door swing operator fixings. Door swing sensor fixing and cable transit with intumescent protection.
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***	Refer to marked up technical specification. Areas in Green = verified during sampling Areas in Blue = Additional sampler notes Areas in yellow with Asterisk * = Will be reported "As stated by customer"
Closing Meeting (names of those present)	No formalised closing meeting possible. Marked up TST and draft sampling report sent for approval and signing.

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

Company Representative Name (Print)	**Company Representative Position**
Neil Harrison	Director
BM TRADA Representative Signature	**Company Representative Signature**

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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SAMPLING VISIT REPORT

Company Name	
Establishment No.	
BM TRADA Approved Body ID: 1224	

Company Head Office Address	**Wood International Agency Ltd** Woods House 16 King Edward Road Brentwood Essex CM5 0RQ	**Contact Name**	**Mr Neil Harrison**
		Telephone	
		Email Address	**neil@woodia.co.uk**

Location where sampling was conducted if different from Head Office Address	**Visit Date**	**BMT Representative**
W3 - Linex Panneaux, ZI Alouville-Bellefose, BP222 – 76197 Yvetot, Cedex France	11/06/24	Mike Chorlton

Requirement	**Evidence / Comments**
Opening Meeting (names of those present)	Neil Harrison, Xavier Domailly, Mike Chorlton
Contract Reference	SC24124 B-2
Technical Specification document / FoA reference Photographs to be taken of all critical areas highlighted in the Technical Specification	Linex Normapan recipe " " specification.
Description of product(s) sampled	44mm Particleboard - Linex Normapan E1
Product identification / reference numbers / codes	Linex Normapan E1 (Wood Int'l name Melaman)
Batch number(s)	Batch Ref 925668/001 (930173/001)
Date of manufacture	Masterboard wk 21 2023, Cut to size 11/06/24
Quantity of stock and size of sample(s) taken	24 No Blanks at 2440 x 1220 x 44
Traceability of material records ie Purchase Orders and delivery notes	Board recipe, production inspection & test. All materials purchased in raw form & processed
Example of sampler's markings applied to the product(s) (contract reference, signature of client, date of manufacture)	Each blank marked SC24124 B-2 + sequential number 1, 2, 3 etc
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.	Quality management system in place with defined stages for each process and individual records and methods defined.
Density nominal 535 kg/m³ Determine the essential characteristics of the product and confirm the details of in-process checks conducted on the sample to ensure conformity Specification held on file by BM TRADA	Raw material processing, cleaning, drying and grading. Glue recipe and dosing rate. Layer forming, pre-pressing and pressing. Board cooling, cutting and sanding. Packing and labelling. Q.C checks made throughout production
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***	NONE
Closing Meeting (names of those present)	Neil Harrison, Xavier Domailly

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

Company Representative Name (Print)	**Company Representative Position**
Xavier Domailly	Quality manager
BM TRADA Representative Signature	**Company Representative Signature**

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Registered office:

Warringtonfire Testing and Certification Limited
3rd Floor, Davidson Building, 5 Southampton Street, London, WC2E 7HA, United Kingdom
Registered Company No. 11371436

Name & address of issuing laboratory:

Warringtonfire Testing and Certification Limited
Holmesfield Road, Warrington WA1 2DS, United Kingdom

Location of performance of laboratory activities:

Warringtonfire Testing and Certification Limited
Holmesfield Road, Warrington WA1 2DS, United Kingdom

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General conditions of use