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Title:

Classification of Fire Resistance Performance with Ambient Temperature Smoke Control in Accordance with EN 13501-2: 2023.

Approved Body No:

1314

Product Name:

Falcon Timber Ltd,

SD44P-E30SA-FED-LSASD-EXT-G-DR-AC

WF Classification Report No.:

WF556213

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Prepared for:

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Signatories and revision history

Issue No.	Date	FM No.	Report scope and signatures
1	06/02/2026	556213	Initial report issued to Falcon Timber Ltd

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Contents

1. Introduction

This resistance to fire and smoke control classification report defines the classification assigned to the product family referenced: SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC in accordance with the procedures given in BS EN 13501-2: 2023.

2. Details of classified product

2.1 General

The doorset design referenced, the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC product family,(as described by the sponsor), is intended to be used in fire compartmentation and / or escape routes and is defined as the following type of product according to EN 16034: 2014:

- A pedestrian doorset, which is hinged, intended for installation in areas in the reach of persons and for which the main intended uses are giving safe access for persons and is manually operated and opening and self-closing as a normal mode of operation.
- The doorset is complete with building hardware and is contained within a single perimeter frame for inclusion of a single aperture.
- The leaf may be fitted both with and without vision panels and includes seals for fire resistance and ambient temperature smoke control.

2.2 Type of Function

The general technical specification for the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC product family being considered within this classification report is summarised as follows:

- The door leaf comprises a Falcon Timber Ltd, Stredor door blank and includes a central core of poplar ply, pine lamel outer core layers, inner facings of poplar ply and a final facing of beech veneer (43.8mm thick overall). The door leaf is lipped on all edges with hardwood.
- The door leaf nominal thickness is 44mm and the leaf is hung within a timber door frame.

The door frame construction comprises one of the following options:

- A softwood or hardwood door frame with an integral stop.
- A Streframe E door frame excluding the door stop with planted door stop

The doorset design incorporates hardware, intumescent seals and non-intumescent seals (i.e. smoke and weather seals) and may be optionally glazed.

The SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC product family detailed in this classification report are defined as fire resisting and smoke control doorsets as described in in clause 7.5.5 of BS EN 13501-2: 2023. Their function is to:

1. Resist fire in respect of the fire performance characteristics given in clause 5.2.2 of BS EN 13501-2: 2023 and
2. To reduce below a certain value the passage of gases or smoke from one side of the door to the other in respect of the smoke control characteristics given in clause 5.2.7 of BS EN 13501-2: 2023.

This classification has been carried out in accordance with clause 7.5.5 of BS EN 13501-2: 2023 which is the classification of fire doorsets, shutter assemblies and openable windows including their closing devices. The product is to be classified for integrity (E), radiation (W) and ambient temperature smoke control (Sa_4) performance only.

2.3 Description

The SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC doorset design is fully described in the test reports and extended application reports in support of this classification, listed in clause 3.

The scope of application for the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC product family is summarised below. For specific details on approved products and scope of application the Extended Field of Application (EXAP) report referenced WF550026 must be referred to:

- Latched single acting, single leaf doorsets opening towards and away from the fire test conditions.
- Alternative doorset dimensions (smaller than tested).
- Doorsets fitted with and without glazed apertures.
- The doorset has various decorative and protective face options to suit end use application and aesthetic requirements.
- Hardware options: steel butt hinges, multi-point locking system, handles, overhead face fixed closers and more as defined within the EXAP.

3. Test reports in support of the classification

3.1 Test Reports

Name of laboratory	Name of sponsor	Test of EXAP Report reference number	Test Method / EXAP Standard	Test / Report Date
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WF432578	BS EN 1634-1: 2014+A1:2018	02/09/2020
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WF534710	BS EN 1634-1: 2014+A1:2018	28/07/2023
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WF538328	BS EN 1634-1: 2014+A1:2018	29/11/2023
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WF529859	BS EN 1634-1: 2014+A1:2018	08/06/2023
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WF428987 AR1	BS EN 1634-1: 2014+A1:2018	02/11/2022
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WF426419	BS EN 1634-1: 2014+A1:2018	27/02/2020
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WF544878 (Doorset B)	BS EN 1634-1: 2014+A1:2018	26/06/2024
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WF534693 (Doorset A)	BS EN 1634-1: 2014+A1:2018	27/07/2023

Name of laboratory	Name of sponsor	Test of EXAP Report reference number	Test Method / EXAP Standard	Test / Report Date
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WF532750 (Doorset A)	BS EN 1634-1: 2014+A1:2018	30/05/2023
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WF544880	BS EN 1634-1: 2014+A1:2018	27/06/2024
Cambridge Fire Research Limited	Falcon Timber Ltd	CFR2110131	BS EN 1634-1: 2014+A1:2018	13/10/2021
Cambridge Fire Research Limited	Falcon Timber Ltd	CFR2205181	BS EN 1634-1: 2014+A1:2018	18/05/2022
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WYC432787/test2	BS EN 1634-3: 2004	01/09/2020
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WYC534820-03/Test 2	BS EN 1634-3: 2004	18/07/2023
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WYC538563/01/ Test 2	BS EN 1634-3: 2004	17/11/2023
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WYC524839/AR1/test2	BS EN 1634-3: 2004	08/06/2023
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WYC429040/AR1/Test2	BS EN 1634-3: 2004	04/06/2020
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WYC426329/b	BS EN 1634-3: 2004	25/02/2020
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WYC545080/Test 2	BS EN 1634-3: 2004	21/06/2024
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WYC534820/01/test2	BS EN 1634-3: 2004	17/07/2023
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WYC532752/03	BS EN 1634-3: 2004	25/05/2023

Name of laboratory	Name of sponsor	Test of EXAP Report reference number	Test Method / EXAP Standard	Test / Report Date
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WYC545081/Test 2	BS EN 1634-3: 2004	21/06/2024
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WYC509193 Test 1	BS EN 1634-3: 2004	04/10/2021
Warringtonfire Testing and Certification Limited	Falcon Timber Ltd	WF550026	BS EN 15269-3: 2022 & BS EN 15269-20: 2020	20/11/2025

3.2 Results

3.2.1 Fire Resistance

3.2.1.1 WF432578

The following table summarises the results of the test and provides information on the performance of the doorsets in fire test conditions that is required to extend the scope of application for the design using the rules in BS EN 15269-3: 2022.

Doorset Reference	Result (minutes)				Category of performance[1] (A or B)	Distortion[2] (Low, Med, High)
	Integrity	Insulation		Radiation		
		$(I_1)^3$	$(I_2)^4$			
Doorset A	46	N/A	46	46	B	Low
Doorset B	45	N/A	42	46	B	Low

1. In accordance with clause 13.3.2 of BS EN 1634-1: 2014 + A1: 2018
2. In accordance with Annex A of BS EN 15269-3: 2022
3. Supplementary procedure for maximum temperature rise (I_1) in accordance with 11.2.5 in BS EN 1634-1: 2014 + A1: 2018
4. Normal procedure for maximum temperature rise (I_2) in accordance with 11.2.4 in BS EN 1634-1: 2014 + A1: 2018

3.2.1.2 WF534710

The following table summarises the results of the test and provides information on the performance of the doorsets in fire test conditions that is required to extend the scope of application for the design using the rules in BS EN 15269-3: 2022.

Doorset Reference	Result (minutes)				Category of performance[1] (A or B)	Distortion[2] (Low, Med, High)
	Integrity	Insulation		Radiation		
		$(I_1)^3$	$(I_2)^4$			
Doorset A	23	N/A	19	46	N/A	Low
Doorset B	15	N/A	19	N/A	N/A	Low

1. In accordance with clause 13.3.2 of BS EN 1634-1: 2014 + A1: 2018
2. In accordance with Annex A of BS EN 15269-3: 2022
3. Supplementary procedure for maximum temperature rise (I_1) in accordance with 11.2.5 in BS EN 1634-1: 2014 + A1: 2018
4. Normal procedure for maximum temperature rise (I_2) in accordance with 11.2.4 in BS EN 1634-1: 2014 + A1: 2018

In accordance with clause 4.4.2 of BS EN 15269-3: 2022, the full test report has been analysed and the failures observed on both doorsets within the test have been attributed to the threshold seal present in the doorset design.

This is supported by the results obtained within the other tests referenced herein where modified threshold designs, had not shown any visible signs of failure at this location until the tests termination in excess of 30 minutes.

On this basis the tested threshold detail defined within WF534710 has not been included within this extended field of application for the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC product family.

With this in mind the below detailed table summarises the results when the failures recorded at the threshold are isolated:

3.2.1.3 WF534710 (Failure isolated)

The following table summarises the results of the test and provides information on the performance of the doorsets in fire test conditions that is required to extend the scope of application for the design using the rules in BS EN 15269-3: 2022 when the failure associated with the threshold component has been isolated.

In accordance with clause 4.4.3 the performance category has been amended to reflect the performance of the doorset design once the isolated failure is removed.

Doorset Reference	Result (minutes)				Category of performance[1] (A or B)	Distortion[2] (Low, Med, High)
	Integrity	Insulation		Radiation		
		$(I_1)^3$	$(I_2)^4$			
Doorset A	46	N/A	19	46	B	Low
Doorset B	46	N/A	19	N/A	B	Low

1. In accordance with clause 13.3.2 of BS EN 1634-1: 2014 + A1: 2018
2. In accordance with Annex A of BS EN 15269-3: 2022
3. Supplementary procedure for maximum temperature rise (I_1) in accordance with 11.2.5 in BS EN 1634-1: 2014 + A1: 2018
4. Normal procedure for maximum temperature rise (I_2) in accordance with 11.2.4 in BS EN 1634-1: 2014 + A1: 2018

3.2.1.4 WF538328

The following table summarises the results of the test and provides information on the performance of the doorsets in fire test conditions that is required to extend the scope of application for the design using the rules in BS EN 15269-3: 2022.

Doorset Reference	Result (minutes)				Category of performance[1] (A or B)	Distortion[2] (Low, Med, High)
	Integrity	Insulation		Radiation		
		$(I_1)^3$	$(I_2)^4$			
Doorset A	35	N/A	14	47	A	Low
Doorset B	26	N/A	16	47	N/A	Low

1. In accordance with clause 13.3.2 of BS EN 1634-1: 2014 + A1: 2018
2. In accordance with Annex A of BS EN 15269-3: 2022
3. Supplementary procedure for maximum temperature rise (I_1) in accordance with 11.2.5 in BS EN 1634-1: 2014 + A1: 2018
4. Normal procedure for maximum temperature rise (I_2) in accordance with 11.2.4 in BS EN 1634-1: 2014 + A1: 2018

In accordance with clause 4.4.2 of BS EN 15269-3: 2022, the full test report has been analysed and the failures observed on doorset B within the test has been attributed to the fire stopping arrangement present in the doorset design.

This is supported by the results obtained within the other tests referenced herein where other methods of fire stopping materials have been used and not shown any visible signs of failure at this location until the tests termination in excess of 30 minutes.

On this basis the tested fire stopping medium defined within WF538328 has not been included within this extended field of application for the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC product family.

With this in mind the below detailed table summarises the results when the failures recorded at the threshold are isolated:

3.2.1.5 WF538328 (Failure isolated)

The following table summarises the results of the test and provides information on the performance of the doorsets in fire test conditions that is required to extend the scope of application for the design using the rules in BS EN 15269-3: 2022 when the failure associated with the fire stopping medium has been isolated.

In accordance with clause 4.4.3 the performance category has been amended to reflect the performance of the doorset design once the isolated failure is removed.

Doorset Reference	Result (minutes)				Category of performance[1] (A or B)	Distortion[2] (Low, Med, High)
	Integrity	Insulation		Radiation		
		$(I_1)^3$	$(I_2)^4$			
Doorset A	35	N/A	14	47	A	Low
Doorset B	42	N/A	16	47	B	Low

1. In accordance with clause 13.3.2 of BS EN 1634-1: 2014 + A1: 2018
2. In accordance with Annex A of BS EN 15269-3: 2022
3. Supplementary procedure for maximum temperature rise (I_1) in accordance with 11.2.5 in BS EN 1634-1: 2014 + A1: 2018
4. Normal procedure for maximum temperature rise (I_2) in accordance with 11.2.4 in BS EN 1634-1: 2014 + A1: 2018

3.2.1.6 WF529859

The following table summarises the results of the test and provides information on the performance of the doorsets in fire test conditions that is required to extend the scope of application for the design using the rules in BS EN 15269-3: 2022.

Doorset Reference	Result (minutes)				Category of performance[1] (A or B)	Distortion[2] (Low, Med, High)
	Integrity	Insulation		Radiation		
		$(I_1)^3$	$(I_2)^4$			
Doorset A	39	N/A	18	48	B	Low
Doorset B	35	N/A	22	48	A	Low

1. In accordance with clause 13.3.2 of BS EN 1634-1: 2014 + A1: 2018
2. In accordance with Annex A of BS EN 15269-3: 2022
3. Supplementary procedure for maximum temperature rise (I_1) in accordance with 11.2.5 in BS EN 1634-1: 2014 + A1: 2018
4. Normal procedure for maximum temperature rise (I_2) in accordance with 11.2.4 in BS EN 1634-1: 2014 + A1: 2018

3.2.1.7 WF428987 AR1

The following table summarises the results of the test and provides information on the performance of the doorsets in fire test conditions that is required to extend the scope of application for the design using the rules in BS EN 15269-3: 2022.

Doorset Reference	Result (minutes)				Category of performance[1] (A or B)	Distortion[2] (Low, Med, High)
	Integrity	Insulation		Radiation		
		$(I_1)^3$	$(I_2)^4$			
Doorset A	31	31	31	41	A	Low
Doorset B	41	41	41	41	B	Low

1. In accordance with clause 13.3.2 of BS EN 1634-1: 2014 + A1: 2018
2. In accordance with Annex A of BS EN 15269-3: 2022
3. Supplementary procedure for maximum temperature rise (I_1) in accordance with 11.2.5 in BS EN 1634-1: 2014 + A1: 2018
4. Normal procedure for maximum temperature rise (I_2) in accordance with 11.2.4 in BS EN 1634-1: 2014 + A1: 2018

3.2.1.8 WF426419

The following table summarises the results of the test and provides information on the performance of the doorsets in fire test conditions that is required to extend the scope of application for the design using the rules in BS EN 15269-3: 2022.

Doorset Reference	Result (minutes)				Category of performance[1] (A or B)	Distortion[2] (Low, Med, High)
	Integrity	Insulation		Radiation		
		$(I_1)^3$	$(I_2)^4$			
Doorset A	35	32	35	42	A	Low
Doorset B	41	31	41	42	B	Low

1. In accordance with clause 13.3.2 of BS EN 1634-1: 2014 + A1: 2018
2. In accordance with Annex A of BS EN 15269-3: 2022
3. Supplementary procedure for maximum temperature rise (I_1) in accordance with 11.2.5 in BS EN 1634-1: 2014 + A1: 2018
4. Normal procedure for maximum temperature rise (I_2) in accordance with 11.2.4 in BS EN 1634-1: 2014 + A1: 2018

3.2.1.9 WF544878 (Doorset B)

The following table summarises the results of the test and provides information on the performance of the doorsets in fire test conditions that is required to extend the scope of application for the design using the rules in BS EN 15269-3: 2022.

Doorset Reference	Integrity	Result (minutes) Insulation (I_1)[3]	Insulation (I_2)[4]	Radiation	Category of performance[1] (A or B)	Distortion[2] (Low, Med, High)
Doorset B	40	N/A	12	41	B	Low

1. In accordance with clause 13.3.2 of BS EN 1634-1: 2014 + A1: 2018
2. In accordance with Annex A of BS EN 15269-3: 2022
3. Supplementary procedure for maximum temperature rise (I_1) in accordance with 11.2.5 in BS EN 1634-1: 2014 + A1: 2018
4. Normal procedure for maximum temperature rise (I_2) in accordance with 11.2.4 in BS EN 1634-1: 2014 + A1: 2018

3.2.1.10 WF534693 (Doorset A)

The following table summarises the results of the test and provides information on the performance of the doorsets in fire test conditions that is required to extend the scope of application for the design using the rules in BS EN 15269-3: 2022.

Doorset Reference	Integrity	Result (minutes) Insulation (I_1)[3]	Insulation (I_2)[4]	Radiation	Category of performance[1] (A or B)	Distortion[2] (Low, Med, High)
Doorset A	40	N/A	9	41	B	Low

1. In accordance with clause 13.3.2 of BS EN 1634-1: 2014 + A1: 2018
2. In accordance with Annex A of BS EN 15269-3: 2022
3. Supplementary procedure for maximum temperature rise (I_1) in accordance with 11.2.5 in BS EN 1634-1: 2014 + A1: 2018
4. Normal procedure for maximum temperature rise (I_2) in accordance with 11.2.4 in BS EN 1634-1: 2014 + A1: 2018

3.2.1.11 WF532750 (Doorset A)

The following table summarises the results of the test and provides information on the performance of the doorsets in fire test conditions that is required to extend the scope of application for the design using the rules in BS EN 15269-3: 2022.

Doorset Reference	Result (minutes)				Category of performance[1] (A or B)	Distortion[2] (Low, Med, High)
	Integrity	Insulation		Radiation		
		$(I_1)^3$	$(I_2)^4$			
Doorset A	47	N/A	6	47	B	Low

1. In accordance with clause 13.3.2 of BS EN 1634-1: 2014 + A1: 2018
2. In accordance with Annex A of BS EN 15269-3: 2022
3. Supplementary procedure for maximum temperature rise (I_1) in accordance with 11.2.5 in BS EN 1634-1: 2014 + A1: 2018
4. Normal procedure for maximum temperature rise (I_2) in accordance with 11.2.4 in BS EN 1634-1: 2014 + A1: 2018

3.2.1.12 WF544880

The following table summarises the results of the test and provides information on the performance of the doorsets in fire test conditions that is required to extend the scope of application for the design using the rules in BS EN 15269-3: 2022.

Doorset Reference	Result (minutes)				Category of performance[1] (A or B)	Distortion[2] (Low, Med, High)
	Integrity	Insulation		Radiation		
		$(I_1)^3$	$(I_2)^4$			
Doorset	31	N/A	12	34	A	Medium

1. In accordance with clause 13.3.2 of BS EN 1634-1: 2014 + A1: 2018
2. In accordance with Annex A of BS EN 15269-3: 2022
3. Supplementary procedure for maximum temperature rise (I_1) in accordance with 11.2.5 in BS EN 1634-1: 2014 + A1: 2018
4. Normal procedure for maximum temperature rise (I_2) in accordance with 11.2.4 in BS EN 1634-1: 2014 + A1: 2018

3.2.1.13 CFR2110131

The following table summarises the results of the test and provides information on the performance of the doorsets in fire test conditions that is required to extend the scope of application for the design using the rules in BS EN 15269-3: 2022.

Doorset Reference	Result (minutes)				Category of performance[1] (A or B)	Distortion[2] (Low, Med, High)
	Integrity	Insulation		Radiation		
		$(I_1)^3$	$(I_2)^4$			
Doorset	49	N/A	40	55	B	Low

1. In accordance with clause 13.3.2 of BS EN 1634-1: 2014 + A1: 2018
2. In accordance with Annex A of BS EN 15269-3: 2022
3. Supplementary procedure for maximum temperature rise (I_1) in accordance with 11.2.5 in BS EN 1634-1: 2014 + A1: 2018
4. Normal procedure for maximum temperature rise (I_2) in accordance with 11.2.4 in BS EN 1634-1: 2014 + A1: 2018

3.2.1.14 CFR2205181

The following table summarises the results of the test and provides information on the performance of the doorsets in fire test conditions that is required to extend the scope of application for the design using the rules in BS EN 15269-3: 2022.

Doorset Reference	Result (minutes)				Category of performance[1] (A or B)	Distortion[2] (Low, Med, High)
	Integrity	Insulation		Radiation		
		$(I_1)^3$	$(I_2)^4$			
Doorset	60	N/A	40	60	B	Low

1. In accordance with clause 13.3.2 of BS EN 1634-1: 2014 + A1: 2018
2. In accordance with Annex A of BS EN 15269-3: 2022
3. Supplementary procedure for maximum temperature rise (I_1) in accordance with 11.2.5 in BS EN 1634-1: 2014 + A1: 2018
4. Normal procedure for maximum temperature rise (I_2) in accordance with 11.2.4 in BS EN 1634-1: 2014 + A1: 2018

3.2.2 Ambient Temperature Smoke Control

3.2.2.1 WYC432787/test2

The table summarised below details the leakage rates observed throughout the test and provides information to perform the required calculations to generate the requested classification of the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC design once the doorset design is extended using the rules in BS EN 15269-20: 2020.

The table states the single leaf doorset was outward opening, however, the testing was conducted under negative and positive pressure to provide results that can be applied to the doorset in both directions. This is clarified in the tables that state the side that was exposed to pressure.

Performance Parameters			Results
Results under positive chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m^3/h)	Leakage (m^3/h/m)
	25	3.18	0.64
Results under negative chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m3/h)	Leakage (m^3/h/m)
	25	3.13	0.63

3.2.2.2 WYC534820-03/Test 2

The table summarised below details the leakage rates observed throughout the test and provides information to perform the required calculations to generate the requested classification of the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC design once the doorset design is extended using the rules in BS EN 15269-20: 2020.

The table states the single leaf doorset was outward opening, however, the testing was conducted under negative and positive pressure to provide results that can be applied to the doorset in both directions. This is clarified in the tables that state the side that was exposed to pressure.

Performance Parameters			Results
Results under positive chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m^3/h)	Leakage (m^3/h/m)
	25	4.84	0.93
Results under negative chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m3/h)	Leakage (m^3/h/m)
	25	4.51	0.87

3.2.2.3 WYC538563/01/Test 2

The table summarised below details the leakage rates observed throughout the test and provides information to perform the required calculations to generate the requested classification of the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC design once the doorset design is extended using the rules in BS EN 15269-20: 2020.

The table states the single leaf doorset was outward opening, however, the testing was conducted under negative and positive pressure to provide results that can be applied to the doorset in both directions. This is clarified in the tables that state the side that was exposed to pressure.

Performance Parameters			Results
Results under positive chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m^3/h)	Leakage (m^3/h/m)
	25	2.91	0.56
Results under negative chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m3/h)	Leakage (m^3/h/m)
	25	2.90	0.56

3.2.2.4 WYC524839/AR1/test2

The table summarised below details the leakage rates observed throughout the test and provides information to perform the required calculations to generate the requested classification of the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC design once the doorset design is extended using the rules in BS EN 15269-20: 2020.

The table states the single leaf doorset was outward opening, however, the testing was conducted under negative and positive pressure to provide results that can be applied to the doorset in both directions. This is clarified in the tables that state the side that was exposed to pressure.

Performance Parameters			Results
Results under positive chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m^3/h)	Leakage (m^3/h/m)
	25	5.89	1.13
Results under negative chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m3/h)	Leakage (m^3/h/m)
	25	5.04	0.97

3.2.2.5 WYC429040/AR1/Test2

The table summarised below details the leakage rates observed throughout the test and provides information to perform the required calculations to generate the requested classification of the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC design once the doorset design is extended using the rules in BS EN 15269-20: 2020.

The table states the single leaf doorset was outward opening, however, the testing was conducted under negative and positive pressure to provide results that can be applied to the doorset in both directions. This is clarified in the tables that state the side that was exposed to pressure.

Performance Parameters			Results
Results under positive chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m^3/h)	Leakage (m^3/h/m)
	25	6.27	1.06
Results under negative chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m3/h)	Leakage (m^3/h/m)
	25	6.32	1.07

3.2.2.6 WYC426329/b

The table summarised below details the leakage rates observed throughout the test and provides information to perform the required calculations to generate the requested classification of the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC design once the doorset design is extended using the rules in BS EN 15269-20: 2020.

The table states the single leaf doorset was outward opening, however, the testing was conducted under negative and positive pressure to provide results that can be applied to the doorset in both directions. This is clarified in the tables that state the side that was exposed to pressure.

Performance Parameters			Results
Results under positive chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m^3/h)	Leakage (m^3/h/m)
	25	8.06	1.38
Results under negative chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m3/h)	Leakage (m^3/h/m)
	25	13.76	2.36

3.2.2.7 WTC545080/Test 2

The table summarised below details the leakage rates observed throughout the test and provides information to perform the required calculations to generate the requested classification of the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC design once the doorset design is extended using the rules in BS EN 15269-20: 2020.

The table states the single leaf doorset was outward opening, however, the testing was conducted under negative and positive pressure to provide results that can be applied to the doorset in both directions. This is clarified in the tables that state the side that was exposed to pressure.

Performance Parameters			Results
Results under positive chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m^3/h)	Leakage (m^3/h/m)
	25	15.00	2.61
Results under negative chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m3/h)	Leakage (m^3/h/m)
	25	13.65	1.38

3.2.2.8 WYC534820/01/test2

The table summarised below details the leakage rates observed throughout the test and provides information to perform the required calculations to generate the requested classification of the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC design once the doorset design is extended using the rules in BS EN 15269-20: 2020.

The table states the single leaf doorset was outward opening, however, the testing was conducted under negative and positive pressure to provide results that can be applied to the doorset in both directions. This is clarified in the tables that state the side that was exposed to pressure.

Performance Parameters			Results
Results under positive chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m^3/h)	Leakage (m^3/h/m)
	25	17.25	3.04
Results under negative chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m3/h)	Leakage (m^3/h/m)
	25	17.29	3.04

It can be observed that the leakage rate exceeded the required 3m^3/h/m. The failure observed has been determined to have likely been due to the associated air transfer grille. This report has not been utilised to support the performance of the smoke control aspect of the doorset design.

3.2.2.9 WYC532752/03

The table summarised below details the leakage rates observed throughout the test and provides information to perform the required calculations to generate the requested classification of the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC design once the doorset design is extended using the rules in BS EN 15269-20: 2020.

The table states the single leaf doorset was outward opening, however, the testing was conducted under negative and positive pressure to provide results that can be applied to the doorset in both directions. This is clarified in the tables that state the side that was exposed to pressure.

Performance Parameters			Results
Results under positive chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m^3/h)	Leakage ($m^3/h/m$)
	25	2.58	0.49
Results under negative chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m3/h)	Leakage ($m^3/h/m$)
	25	1.71	0.32

3.2.2.10 WYC545081/Test 2

The table summarised below details the leakage rates observed throughout the test and provides information to perform the required calculations to generate the requested classification of the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC design once the doorset design is extended using the rules in BS EN 15269-20: 2020.

The table states the single leaf doorset was outward opening, however, the testing was conducted under negative and positive pressure to provide results that can be applied to the doorset in both directions. This is clarified in the tables that state the side that was exposed to pressure.

Performance Parameters			Results
Results under positive chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m^3/h)	Leakage ($m^3/h/m$)
	25	19.72	2.18
Results under negative chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m3/h)	Leakage ($m^3/h/m$)
	25	21.01	2.32

3.2.2.11 WYC509193 Test 1

The table summarised below details the leakage rates observed throughout the test and provides information to perform the required calculations to generate the requested classification of the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC design once the doorset design is extended using the rules in BS EN 15269-20: 2020.

The table states the single leaf doorset was outward opening, however, the testing was conducted under negative and positive pressure to provide results that can be applied to the doorset in both directions. This is clarified in the tables that state the side that was exposed to pressure.

Performance Parameters			**Results**
Results under positive chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m^3/h)	Leakage ($m^3/h/m$)
	25	2.95	0.56
Results under negative chamber (door leaf opening away from chamber)	Pressure (Pa)	Leakage (m3/h)	Leakage ($m^3/h/m$)
	25	3.34	0.63

3.2.3 Extended Field of Application

3.2.3.1 WF550026

The Extended Field of Application (EXAP) report was commissioned by Falcon Timber Ltd and relates to the fire resistance and ambient temperature smoke control of the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC product family, which comprises a 30 minute fire resisting and smoke controlling timber based doorset design.

The EXAP report concerns test results obtained in accordance with test method BS EN 1634- 1: 2014 + A1 2018; *Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware - Part 1: Fire resistance test for door and shutter assemblies and openable windows* and BS EN 1634- 3: 2004; *Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware - Part 3: Smoke control doors and shutter assemblies.*

The extended application process is carried out in conformity with the following standards:

- BS EN 15269-1: 2019; Extended application of test results for fire resistance and/or smoke control for door, shutter and openable window assemblies, including their elements of building hardware – Part 1: General Requirements
- BS EN 15269-3: 2022; Extended application of test results for fire resistance and/or smoke control for door, shutter and openable window assemblies, including their elements of building hardware – Part 3: Fire resistance of hinged and pivoted timber doorsets and openable timber framed windows
- BS EN 15269-20: 2020; Extended application of test results for fire resistance and/or smoke control for door, shutter and openable window assemblies, including their elements of building hardware – Part 20: Smoke control for hinged and pivoted steel, timber and metal framed glazed doorsets

The report is to be used for extending the field of application for the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC product family and has been written in accordance with the principles outlined in BS EN 15725: 2023; Extended application on the fire performance of construction products and building elements: Principle of EXAP standards and EXAP reports.

The report is to be used to support the formal fire resistance classification for the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC product family against BS EN 13501-2: 2023; Fire classification of construction products and building elements Part 2: Classification using data from fire resistance tests, excluding ventilation services.

The scope presented in this report relates to the behaviour of the proposed door design variations with associated hardware under the particular conditions of the test; they are not intended to be the sole criterion for considering the potential fire hazard of the door assembly in use.

To prepare the EXAP, in accordance with Annex A of BS EN 15269-3: 2022 and BS EN 15269-20: 2020, the EXAP rules given in table A.1 and table A.2 of BS EN 15269-3: 2022 and Table A.1 of BS EN 15269-20: 2020 have been applied by experts competent in the field of fire resistance and ambient temperature smoke control testing of hinged and pivoted doorsets with timber based leaves.

Fire Performance Parameters

The fire performance parameters for the range of designs covered in the extended field of application report for the Falcon Timber Ltd, SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC product family is tabulated below:

Integrity	
Cotton pad	0 (Thirty) minutes
Continuous flaming	30 (Thirty) minutes
Gap gauges	30 (Thirty) minutes
Insulation	
Average	0 (Zero) minutes
Maximum temperature rise (normal procedure for insulation 2)	0 (Zero) minutes
Maximum temperature rise (supplementary procedure for insulation 1)	Not Evaluated
Radiation	
<15kw/m^2	30 (Thirty) minutes

Smoke Control Performance Parameters

The smoke leakage performance for the range of designs covered in this extended field of application report for the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC product family is based on the ability of the doors to reduce the passage of smoke from one side of the door to the other.

The SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC product family and the extended scope of application given can be considered as capable of limiting the leakage rate (when measured at ambient temperature and at a pressure of up to 25Pa and tested to the requirements of BS EN 1634-3: 2004) to less than 3m^3/h per metre length of gap between the fixed and movable components of the doorset (e.g. between the door leaf and door frame), including leakage at the threshold.

4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with Clause 7 of EN 13501-2:2023.

4.2 Classification

The SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC product family may be classified to the following combinations of performance parameters and classes as appropriate:

R	E	I	W		*t*	*t*	-	M	Sa_4	-	C	IncSlow	sn	ef	r
×	✓	×	✓		×	×		×	✓		×	×	×	×	×

Considering the test evidence submitted for classification, latched, glazed & unglazed, single leaf, single acting doorsets provide the following classifications:

Fire resistance classification*:

EW30-Sa_4

This classification document does not represent type approval or certification of the product.

** Note: the classifications stated are the maximum classifications permitted. Any classification period below this is covered by default.*

This classification has been carried out in accordance with clause 7.5.5 of BS EN 13501-2: 2023 which is the classification of fire doors and shutters including their closing devices and smoke control doors. The product is classified for integrity (E), radiation (W) and ambient temperature smoke control (Sa_4) performance only.

4.3 Field of Direct Application

4.3.1 General

The test results generated for the SD44P-E30SA-FED-LSASD-EXT-G-DR-AC product family have been extended using the rules given in the relevant extended application standards for fire resisting and smoke control doorsets. The report, WF550026, is referenced in section 3 of this classification report.

According to Section 5 of EN 15725 - Extended application on the fire performance of construction products and building elements: Principle of EXAP standards and EXAP reports, an extended application report is equivalent to a test report in that it forms the basis of preparing a classification report.

The scope of application presented within the fire and resistance and smoke control EXAP report for the SD44P-E30SA-FED-LSASD-EXT-G-DR-AC product family design has been written to provide the same extension to scope and the same design options for the product family.

The classification stated in section 4.2 of this report is therefore valid for the SD44P-E30Sa-FED-LSASD-EXT-G-DR-AC product family presented in the EXAP for fire resistance and smoke control referenced in section 3.2.3 of this classification report.

5. Limitations

This classification document does not represent type approval or certification of the product.