Field of Application Report

KFS Report PAR/24810/01

Fire Resistance Standard: BS EN 1634-1: 2014+A1: 2018

Prepared for:

Specialized Security Products Ltd

Assessed Product/System:

Various Items of Specialized Security Products Hardware to be Installed in 30 and 60 Minute Timber Door Assemblies

Assessed Performance:

30 and 60 Minutes Fire Resistance

Issue Date	Expiry Date
August 2024	August 2029

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Kiwa Fire Safety Compliance

Kiwa Fire Safety Compliance (KFS) is part of the **Kiwa UK Group**. The company is a specialist engineering consultancy delivering independent, honest and practical fire safety solutions to professionals across the built environment. The sought after fire safety advice protects life, preserves property and safeguards business continuity.

Formerly called International Fire Consultants, the company was established in 1985 to provide high quality and impartial technical expertise concerning fire safety. Since then the team of highly qualified Fire Engineers and Fire Safety Professionals have continued to deliver robust, innovative and cost-effective fire safety solutions, including Assessments, Designs and Inspections.

Kiwa Fire Safety Compliance lend their insight and practical expertise for: Fire Safety Engineering, Fire Risk Management, Product Evaluation, Fire Life Safety Systems, Expert Witness Testimony and Fire Protection Training, to developments of all sizes and complexities; from residential, education and healthcare structures to sporting venues, airports and iconic heritage buildings, such as historical royal palaces and stately homes.

Recognised internationally as the go-to professionals in all aspects of fire safety, Kiwa Fire Safety Compliance is one of the world's leading fire engineering and solution providers, trusted by many of the most prestigious construction firms, architects and estate owners.

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Private and Confidential

Report Reference Number:	PAR/24810/01
Prepared on behalf of:	Specialized Security Products Ltd
Project:	Camfield House Avenue One Letchworth Garden City SG6 2WW
Issue Date:	August 2024
Expiry Date:	August 2029
Ref ID:	24810

Issue and Amendment Record

REV	DATE	AUTHOR	REVIEW	SECTION	AMENDMENTS
-	August 2024	RS	DC/WL	-	-

Contents

1. Introduction

This report has been prepared by Kiwa Fire Safety Compliance (KFS), on the instruction of Specialized Security Products, to define the Field of Application for various items of hardware when fitted to timber door leaves of the types listed below, where such door assemblies are required to provide 30 or 60 minutes fire resistance performance, as applicable, when adjudged against BS EN 1634-1: 2014+A1:2018.

The scope of this Field of Application Report includes hardware when fitted to the following 30 minute door leaf constructions, although some limitations may be imposed in subsequent clauses;

- Halspan Core (Three-Layer Particleboard) 44mm thick
- Strebord 44 Core

The scope of this Field of Application Report includes hardware when fitted to the following 60 minute door leaf constructions, although some limitations may be imposed in subsequent clauses;

- Halspan Core (Three-Layer Particleboard) 54mm thick
- Strebord 54 Core

The scope of this Field of Application Report includes the following hardware to be fitted to the approved 30 minute and 60 minutes door leaves as shown above:

PRODUCT REFERENCE	PRODUCT TYPE
EM01-FIRE	Maglock
EM01DS-FIRE	Maglock
EM02-FIRE	Maglock
EM02DS-FIRE	Maglock
EM10-FIRE	Maglock
EM10DS-FIRE	Maglock
EM20-FIRE	Maglock
EM20DS-FIRE	Maglock
EM00-FIRE	Mortice Maglock
EM00R-FIRE	Mortice Maglock
EM02-ECO	ECO Maglock
EM20-ECO	ECO Maglock
EM300ABP-FIRE	Armature Mounting Plate

PRODUCT REFERENCE	PRODUCT TYPE
EM320M-FIRE	Armature Bracket
EM300L-FIRE	L Maglock Bracket
EM300CL-FIRE	L Maglock Bracket with Cover
EM300ZL-FIRE	Z and L Maglock Bracket
EM300AZLG-FIRE	Z and L Maglock Bracket with Cover
EM300AZLG-DC-FIRE	Double covered Z and L Maglock Bracket
EM500ABP-FIRE	Armature Mounting Plate
EM520S-FIRE	Armature Housing
EM500L-FIRE	L Maglock Bracket
EM500ZL-FIRE	Z & L Maglock Bracket
EM500CL-FIRE	L Maglock Bracket with Cover
EM500AZLG-FIRE	Z & L Maglock Bracket with Cover
EM500AZLG-DC-FIRE	Z & L Maglock Bracket with Double Cover

This assessment has been produced using the principles outlined in the Passive Fire Protection Forum (PFPF): *'Guide to Undertaking Technical Assessments of Fire Performance of Construction Products Based on Fire Test Evidence, 2021, Industry Standard Procedure'*.

When establishing the variations in the construction that can achieve the required fire resistance performance, KFS complies with the principles found in the following documents:

- BS ISO/TR 12470-2: 2017 *'Fire resistance tests - Guidance on the application and extension of results from tests conducted on fire containment assemblies and products. Part 2: Non-load bearing elements'*
- EN 15725: 2023 *'Extended application on the fire performance of construction products and building elements: Principle of EXAP standards and EXAP reports'*

It is proposed that the hardware items, as described in the following sections, may be accommodated into door assemblies, without reducing their potential to achieve a 30 or 60 minute integrity rating, as required, if tested in accordance with the method and criteria of BS EN 1634-1: 2014+A1: 2018. The omission of information on any components or manufacturing methods does not imply a lack of approval of those details but these would need to be the subject of a separate analysis. Only variations specifically mentioned are supported by this Assessment document, and all other aspects must otherwise be as proven in tests, or as in Field of Application Reports, summarised herein.

Except where noted herein, this report applies to door assemblies using 'conventional' one-piece timber frames; as defined in the respective KFS Field of Application Report for the particular door type.

2. Test Evidence

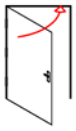
The test evidence used to support this Field of Application Report is summarised in Appendix C of this report.

This report covers the items of hardware outlined in Section 3 and the recommendations herein are based on Kiwa Fire Safety Compliance's experience of fire testing door assemblies fitted with a range of items of hardware and the fundamental principles of the behaviour of materials at elevated temperatures.

3. Scope of Approval

3.1 Door Assembly Configuration

The approved leaf sizes and configurations of door assemblies comprising timber door leaves are outlined below:

CONFIGURATION		ENVELOPE OF APPROVED LEAF SIZES
	• Latched • Single Acting • Single Door • Without Overpanel	Figure PAR/24810/01 B1 in Appendix B

3.2 Maximum Assessable Door Leaf Sizes

The calculated envelopes of assessed leaf dimensions for each door assembly configuration covered by this Field of Application Report are given in Appendix B, based upon using the intumescent seal specifications also shown in Appendix B.

3.3 Door Leaf Specification

The timber door leaf construction with details of the constructional specifications is given below.

The leaf construction, below, is based upon the details contained within the test evidence referenced in Appendix C, and defines variations and tolerances, where it is considered that these will not adversely affect the intended fire resistance performance. The construction details are limited to the information available from the test reports.

For the sake of clarity, this report only approves doors that are rectilinear; i.e. adjacent door edges shall be straight, and at 90 degrees to each other, when viewed in elevation. In addition, doors shall be “flat”; i.e. not curved, when viewed in plan.

3.4 General Requirements

ELEMENT	SPECIFICATION/QUANTITY/DIMENSIONS	
GENERAL	The constructional details, specified herein, are based upon the details contained within the fire test evidence referenced in Appendix C, and define variations and tolerances, where KFS consider that these will not adversely affect the intended fire resistance performance. The construction details are limited to the information available from the fire test reports	
TIMBER	All timber used in the manufacture/construction of the proposed timber door assemblies must meet the following requirements: 1. Must achieve the stated minimum densities when measured at 15% moisture content 2. The timber must be straight grained and of appropriate quality in accordance with BS EN 942: 2007 3. The moisture content must be 11 ± 2% for the UK market, or to suit internal joinery moisture content specification of export countries	
ADHESIVES	All adhesives must be applied in a continuous bed, covering the entire surface area of the leaf face or leaf edge, as applicable. Unless specifically noted otherwise, this report does ***not*** permit the use of spot bonding	
	PU	Polyurethane
	RF	Resorcinol Formaldehyde
	UF	Urea Formaldehyde
	PF	Phenol Formaldehyde
	PVA/PVAc	Polyvinyl Acetate/Polyvinyl Acetate crosslinking
	Note *The list above provides clarification on the abbreviated terms for common glue types, but not all these types may be approved. For glue types approved for use with the proposed timber door assemblies, refer to Section 7*	
DOOR LEAF SHAPE	This report only approves doors that are rectilinear, i.e. adjacent door edges shall be straight, and at 90 degrees to each other, when viewed in elevation. In addition, doors shall be “flat”; i.e. not curved, when viewed in plan	
ADDITIONAL NOTES/ REQUIREMENTS	Alternative materials/components to those approved herein, must not be used without prior consultation with KFS, regardless of how similar they may appear in terms of specification	

3.4.1 30-Minute Door Leaf Specification

Halspan Prima 30

COMPONENT		MATERIAL	MINIMUM DENSITY	DIMENSIONS
CORE		Halspan Prima 30 (Three-layer particleboard)	630kg/m³ Note 1	Minimum 44mm thick
LIPPINGS Note 2	SQUARE EDGES	Hardwood	640kg/m³ Note 3	6mm thick
ADHESIVE BETWEEN CORE AND LIPPINGS		Urea formaldehyde, phenol formaldehyde, polyurethane, PVAc, PVA or holt melt	-	-
MINIMUM LEAF THICKNESS		-	-	44mm
OPTIONAL ADDITIONAL DECORATIVE FINISHES		Timber veneer or decorative plastic based laminate (to leaf faces only)		Maximum 2mm thick
		Paint or varnish		Maximum 0.5mm thick

Strebord 44

COMPONENT		MATERIAL	MINIMUM DENSITY	DIMENSIONS
CORE		Strebord Core (details held on confidential file by KFS)	(Details held on confidential file by KFS)	Minimum 44mm thick
LIPPINGS Note 2	SQUARE EDGES	Hardwood	(Details held on confidential file by KFS)	6-28mm thick
ADHESIVE		Urea formaldehyde, phenol formaldehyde, polyurethane, PVAc, PVA or holt melt	-	-
MINIMUM LEAF THICKNESS		-	-	44mm
OPTIONAL ADDITIONAL DECORATIVE FINISHES		Timber veneer or decorative plastic based laminate (to leaf faces only)		Maximum 2mm thick
		Paint or varnish		Maximum 0.5mm thick

Note 1 Average density with a ±10% variation permissible - Only where specified in test report

Unless otherwise tested, and approved by KFS, the core for each leaf shall be formed from one single piece.

Note 2 Lippings to be fitted to vertical edges of each leaf, or can be fitted to all four edges, if required.

Note 3 Lippings to be straight grained hardwood, with minimum measured density at 12% moisture content and of appropriate quality in accordance with BS EN 942: 2007. Moisture content to be 11 ± 2% for UK market in heated buildings between 12-21°C (or to suit internal joinery moisture content specification of export countries).

The machining of the core/lipping, and bonding process, must be such to ensure that no gaps occur between core and lipping.

Adjustment of Door Leaf Sizes:

- Where door edges are lipped and have square edges, they may be trimmed from each lipped edge; but the minimum lipping width (defined in the Tables above) must be maintained. If a greater adjustment is required, after fabrication, new lippings must be applied, complying with details in the Tables above.

3.4.2 60-Minute Door Leaf Specification

Halspan Prima 60

COMPONENT		MATERIAL	MINIMUM DENSITY	DIMENSIONS
CORE		Halspan Prima 60 (Three-layer particleboard)	620kg/m³ Note 4	Minimum 54mm thick
LIPPINGS Note 5	SQUARE EDGES	Hardwood	640kg/m³ Note 6	6mm thick
ADHESIVE BETWEEN CORE AND LIPPINGS		Urea formaldehyde, phenol formaldehyde, polyurethane, PVAc, PVA or holt melt	-	-
MINIMUM LEAF THICKNESS		-	-	54mm
OPTIONAL ADDITIONAL DECORATIVE FINISHES		Timber veneer or decorative plastic based laminate (to leaf faces only)		Maximum 2mm thick
		Paint or varnish		Maximum 0.5mm thick

Strebord 54

COMPONENT		MATERIAL	MINIMUM DENSITY	DIMENSIONS
CORE		Strebord Core (details held on confidential file by KFS)	(Details held on confidential file by KFS)	Minimum 54mm thick
LIPPINGS Note 5	SQUARE EDGES	Hardwood	(Details held on confidential file by KFS)	8-28mm thick
ADHESIVE		Urea formaldehyde, phenol formaldehyde, polyurethane, PVAc, PVA or holt melt	-	-
MINIMUM LEAF THICKNESS		-	-	44mm
OPTIONAL ADDITIONAL DECORATIVE FINISHES		Timber veneer or decorative plastic based laminate (to leaf faces only)		Maximum 2mm thick
		Paint or varnish		Maximum 0.5mm thick

Note 4 Average density with a ±10% variation permissible - Only where specified in test report

Unless otherwise tested, and approved by KFS, the core for each leaf shall be formed from one single piece.

Note 5 Lippings to be fitted to vertical edges of each leaf, or can be fitted to all four edges, if required.

Note 6 Lippings to be straight grained hardwood, with minimum measured density at 12% moisture content and of appropriate quality in accordance with BS EN 942: 2007. Moisture content to be 11 ± 2% for UK market in heated buildings between 12-21°C (or to suit internal joinery moisture content specification of export countries).

The machining of the core/lipping, and bonding process, must be such to ensure that no gaps occur between core and lipping.

Adjustment of Door Leaf Sizes:

- Where door edges are lipped and have square edges, they may be trimmed from each lipped edge; but the minimum lipping width (defined in the Tables above) must be maintained. If a greater adjustment is required, after fabrication, new lippings must be applied, complying with details in the Tables above.

3.5 Door Frame Specification

Timber frames, to the specifications given below, may be used across the complete range of approved sizes and configurations outlined in Appendix C, utilizing the intumescent seal specification outlined in Appendix B.

3.5.1 30-Minute Door Frame Specification

MATERIAL	MINIMUM DENSITY	MINIMUM FACE WIDTH	MINIMUM FRAME DEPTH	MINIMUM STOP DEPTH
		Single Acting		
Softwood	540kg/m^3 Note 7	32mm, excluding stop Note 8	70mm	15mm Note 9

Note 7 Timber must have a minimum measured density at 12% moisture content. The timber must be straight grained and of appropriate quality in accordance with BS EN 942: 2007. The moisture content shall be 11 ± 2% for UK market, (or to suit internal joinery moisture content specification of export countries).

Note 8 These dimensions assume that the rear of the frame is protected by the adjacent wall, (and firestopping), and that the frame does not project out from the wall.

Note 9 The door stop is to comprise the same material as the door frame and may be either planted and pinned using 40mm steel pins at nominally 300mm centres, or integral with the main door frame, providing the minimum frame thickness remains as stated.

3.5.2 60-Minute Door Frame Specification

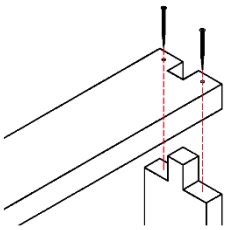
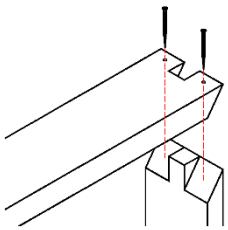
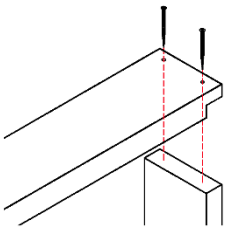
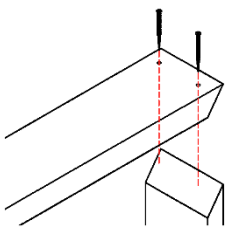
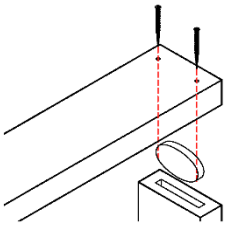
MATERIAL	MINIMUM DENSITY	MINIMUM FACE WIDTH	MINIMUM FRAME DEPTH	MINIMUM STOP DEPTH
		Single Acting		
Hardwood	640kg/m3 Note 10	36mm, excluding stop Note 11	95mm	20mm Note 12

Note 10 Timber must have a minimum measured density at 12% moisture content. The timber must be straight grained and of appropriate quality in accordance with BS EN 942: 2007. The moisture content shall be 11 ± 2% for UK market, (or to suit internal joinery moisture content specification of export countries).

Note 11 These dimensions assume that the rear of the frame is protected by the adjacent wall, (and firestopping), and that the frame does not project out from the wall.

Note 12 The door stop is to comprise the same material as the door frame and may be either planted and pinned using 40mm steel pins at nominally 300mm centres, or integral with the main door frame, providing the minimum frame thickness remains as stated.

3.5.3 Timber Door Frames – Head Joints

ELEMENT	SPECIFICATION/QUANTITY/DIMENSIONS
JOINT FIXINGS	• 2no. minimum 5mm x 80mm screws between each vertical & horizontal framing member • Screws must be of a suitable length to penetrate each jamb by a minimum of 50mm
DIAGRAMS	
MORTICE AND TENON JOINT	OMEC JOINT
	
HOUSED JOINT	MITRED JOINT
	
BUTT JOINT WITH BISCUIT	
	

3.5.4 Door Frame Fixing Requirements

ELEMENT	SPECIFICATION/QUANTITY/DIMENSIONS
FIXING TYPE	The selected fixing must be suitable for use in the type of construction surrounding the door opening (refer to fixing manufacturer/supplier for guidance)
FIXING DIAMETER	Minimum 5mm
FIXING LENGTH	• When fixing to masonry walls, fixings must be of a sufficient length to penetrate the wall by at least 50mm • When fixing to timber/steel stud partitions, fixings must be of a sufficient length to fully penetrate the timber stud or timber reinforcement within the metal studs
FIXING MATERIAL	Steel
FIXING POSITIONS	• All fixings must be inset from the edge of the door frame by a minimum of 20mm • There must be a minimum of 1no. line of fixings passing through the door frame in the plane of the leaf thickness. • Primary door frame sections up to 100mm in width/depth require a single line of fixings and those over 100mm in width/depth require a twin line of fixings
FIXING FREQUENCY	• Fixings must be located at 150-200mm from the top and bottom of the jambs and on maximum 600mm centres thereafter • A minimum of 1no. fixing must be fitted centrally across the width of the frame head in double doors
CONCEALING FIXINGS	• Fixings may be concealed behind the intumescent strips or door stops • Alternatively, fixing holes may be countersunk to a maximum depth of 10mm and then be plugged/pelleted • Plugs/pellets must be of the same material as the door frame and glued in place using PVA or PU adhesive

3.5.5 Door Frame/Door Leaf Alignment

REQUIREMENTS/NOTES
• The door assemblies must sit entirely within the plane of the fire rated supporting construction • This Field of Application Report does ***not*** permit the door leaf or door frame to project beyond the face of the supporting construction. This includes any degree of door leaf or door frame projection to enable alignment with decorative 'cladding' which is fitted on the face of the fire-resisting supporting construction (e.g. timber panelling on battens, or plasterboard on dabs) • The door assembly design shall be such that when closed, the door leaves finish flush, or are set back slightly, from the outer frame edge • The face of the door leaves in double door assemblies must be flush with one another at the meeting stiles when closed (with a permitted tolerance of ±1mm)

3.6 Maglocks

A variety of bolt-through electromagnetic locks have been tested by Specialized Security Products Ltd, which may be installed onto the door assemblies approved herein, in accordance with the following tables.

3.6.1 EM01-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Slim fire rated unmonitored electromagnetic lock
DIMENSIONS	BODY	250mm long x 48mm wide x 26mm thick
	ARMATURE PLATE	180mm long x 38mm wide x 12mm thick
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 15mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.6.2 EM01DS-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Slim fire rated unmonitored electromagnetic lock with door status
DIMENSIONS	BODY	250mm long x 48mm wide x 26mm thick
	ARMATURE PLATE	190mm long x 38mm wide x 12mm thick
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 15mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.6.3 EM02-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Slim fire rated monitored electromagnetic lock
DIMENSIONS	BODY	250mm long x 48mm wide x 26mm thick
	ARMATURE PLATE	180mm long x 38mm wide x 12mm thick
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 15mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.6.4 EM02DS-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Slim fire rated monitored electromagnetic lock with door status
DIMENSIONS	BODY	250mm long x 48mm wide x 26mm thick
	ARMATURE PLATE	190mm long x 38mm wide x 12mm thick
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 15mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.6.5 EM10-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Standard fire rated unmonitored electromagnetic lock
DIMENSIONS	BODY	268mm long x 76mm wide x 40mm thick
	ARMATURE PLATE	185mm long x 60mm wide x 16.5mm thick
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 15mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.6.6 EM10DS-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Standard fire rated unmonitored electromagnetic lock with door status
DIMENSIONS	BODY	268mm long x 76mm wide x 40mm thick
	ARMATURE PLATE	195mm long x 60mm wide x 16.5mm thick
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 15mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.6.7 EM20-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Standard fire rated monitored electromagnetic lock
DIMENSIONS	BODY	268mm long x 76mm wide x 40mm thick
	ARMATURE PLATE	185mm long x 60mm wide x 16.5mm thick
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 15mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.6.8 EM20DS-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Standard fire rated monitored electromagnetic lock with door status
DIMENSIONS	BODY	268mm long x 76mm wide x 40mm thick
	ARMATURE PLATE	195mm long x 60mm wide x 16.5mm thick
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 15mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.7 Mortice Maglocks

3.7.1 EM00-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Fire rated unmonitored mortice maglock
DIMENSIONS	FLANGE HOUSING	230mm long x 38mm wide
	BODY	190mm long x 27mm deep
	ARMATURE PLATE	180mm long x 38mm wide x 12mm thick
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 15mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.7.2 EM00R-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Fire rated monitored mortice maglock
DIMENSIONS	FLANGE HOUSING	230mm long x 38mm wide
	BODY	190mm long x 27mm deep
	ARMATURE PLATE	180mm long x 38mm wide x 12mm thick
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 15mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.8 Eco Maglock

3.8.1 EM02-ECO

ELEMENT		SPECIFICATION
SUMMARY		Slim monitored eco-friendly Maglock
DIMENSIONS	BODY	250mm long x 48mm wide x 26mm thick
	ARMATURE PLATE	180mm long x 38mm wide x 12mm thick
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 15mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.8.2 EM20-ECO

ELEMENT		SPECIFICATION
SUMMARY		Standard monitored eco-friendly Maglock
DIMENSIONS	BODY	268mm long x 76mm wide x 40mm thick
	ARMATURE PLATE	185mm long x 60mm wide x 16.5mm thick
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 15mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.9 Brackets and Armature

3.9.1 EM300ABP-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Fire rated armature mounting plate for slim maglock
DIMENSIONS		188mm long x 38mm wide x 6mm thick
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 15mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.9.2 EM320M-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Surface armature housing for slim fire rated maglocks
DIMENSIONS		193mm long x 45mm wide x 16mm thick
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 15mm from top edge of leaf Minimum 50mm from side of leaf
ADDITIONAL NOTES		If used with a 'DS' (door status) maglock, one of the end caps must be removed.
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.9.3 EM300L-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Adjustable 'L' bracket for slim fire rated maglock
DIMENSIONS		250mm long x 38mm wide x 38mm high
ADDITIONAL PROTECTION		None Required
POSITION		Position is determined by associated hardware mounted to door leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.9.4 EM300CL-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Adjustable covered 'L' bracket for slim maglock
DIMENSIONS		250mm long x 48mm wide x 30mm high
ADDITIONAL PROTECTION		None Required
POSITION		Position is determined by associated hardware mounted to door leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.9.5 EM300ZL-FIRE

ELEMENT		SPECIFICATION
SUMMARY		'Z' and 'L' bracket for slim fire rated maglock
DIMENSIONS	'Z' Bracket	180mm long x 50mm wide x 100m high
	'L' Bracket	250mm long x 47mm wide x 29mm thick
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 6mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.9.6 EM300AZLG-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Fire rated 'Z' and 'L' bracket with cover from slim maglock
DIMENSIONS	'Z' Bracket	250mm long x 48mm wide x 55m high
	'L' Bracket	250mm long x 48mm wide x 42mm high
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 6mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.9.7 EM300AZLG-DC-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Double covered 'Z' and 'L' bracket for slim maglock
DIMENSIONS	'Z' Bracket	255mm long x 97mm wide x 82m high
	'L' Bracket	250mm long x 30mm wide x 48mm high
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 6mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.9.8 EM500ABP-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Fire rated armature mounting plate for standard maglocks
DIMENSIONS		188mm long x 63mm wide x 9mm thick
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 15mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.9.9 EM520S-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Surface armature mounting plate for standard maglocks
DIMENSIONS		195mm long x 70mm wide x 20mm thick
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 15mm from top edge of leaf Minimum 50mm from side of leaf
ADDITIONAL NOTES		If used with a 'DS' maglock, one of the end caps must be removed
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.9.10 EM500L-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Adjustable 'L' bracket for standard fire rated maglock
DIMENSIONS		195mm long x 70mm wide x 20mm thick
ADDITIONAL PROTECTION		None Required
POSITION		Position is determined by associated hardware mounted to door leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.9.11 EM500CL-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Adjustable covered 'L' bracket for standard maglock
DIMENSIONS		268mm long x 76mm wide x 38mm high
ADDITIONAL PROTECTION		None Required
POSITION		Position is determined by associated hardware mounted to door leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.9.12 EM500ZL-FIRE

ELEMENT		SPECIFICATION
SUMMARY		'Z' and 'L' bracket for standard fire rated maglock
DIMENSIONS	'Z' Bracket	186mm long x 63mm wide x 140mm high
	'L' Bracket	267mm long x 72.5mm wide x 46.5mm high
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 6mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.9.13 EM500AZLG-FIRE

ELEMENT		SPECIFICATION
SUMMARY		'Z' and 'L' bracket with cover for standard maglock
DIMENSIONS	'Z' Bracket	268mm long x 64mm wide x 144mm high
	'L' Bracket	268mm long x 36mm wide x 76mm high
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 6mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.9.14 EM500AZLG-DC-FIRE

ELEMENT		SPECIFICATION
SUMMARY		Double covered 'Z' and 'L' bracket for standard maglock
DIMENSIONS	'Z' Bracket	270mm long x 97mm wide x 105mm high
	'L' Bracket	270mm long x 30mm wide x 75mm high
ADDITIONAL PROTECTION		None Required
POSITION		Minimum 6mm from top edge of leaf Minimum 50mm from side of leaf
TEST REPORT	30 Minutes	TR20230502-005916A
	60 Minutes	TR20230502-006016A

3.10 Hardware Installation

Detailed constructional installation specifications of the approved hardware are given below. These are based upon the test evidence detailed in Appendix E, (and are, therefore, limited to the information available from these test reports), but also defines variations and tolerances, where it is considered that these will not adversely affect overall fire resistance.

3.10.1 Maglocks

All maglocks (including Eco) must be installed to the following specifications:

- Maglocks must be fixed with an 8mm diameter through bolt to door leaf.
- Maglocks to be provided with a 12.5mm through hole, centered to the maglock
- Any supporting cables or wires required for providing power to, or monitoring, the maglocks must not be contained within the door frame, and no door frame material shall be removed for this purpose. The cables must be surfaced mounted and secured with clips, or enclosed within suitable trunking.
- Where maglocks are fitting with corresponding brackets and armature, please refer to Section 3.9.3 for specific installation details.

3.10.2 Mortice Maglocks

Mortice maglocks must be installed to the following specifications:

- Maglocks must be fixed with an 8mm diameter through bolt to door leaf.
- Maglocks to be provided with a 12.5mm through hole, centered to the maglock.
- Any supporting cables or wires required for providing power to, or monitoring, the maglocks must not be contained within the door frame, and no door frame material shall be removed for this purpose. The cables must be surfaced mounted and secured with clips or enclosed within suitable trunking.
- The maglock body must not be morticed into the frame or leaf, but should be installed in the appropriate supporting aluminium box section housing, that is secured to the door frame with suitable fixings.

3.10.3 Brackets and Armature

The Brackets and Armature for the corrosponding hardware must be installed to the following specifications:

PRODUCT REFERENCE	COMPONENT	FIXING	FIXING LOCATION
EM320M-FIRE	Armature	1 No. 25mm long x 8mm diameter screw with rubber washer	Screwed to Armature Fixing Plate
	Armature Fixing Plate	8 No. 25mm long x 4mm diameter screws	Screwed to door leaf
EM300ABP-FIRE	Armature	1 No. 18mm long x 8mm diameter screw with rubber washer	Screwed to Armature Fixing Plate
	Armature Fixing Plate	8 No. 25mm long x 4mm diameter screws	Screwed to door leaf
EM500ABP-FIRE	Armature	1 No. 18mm long x 8mm diameter screw with rubber washer	Screwed to Armature Fixing Plate
	Armature Fixing Plate	6 No. 25mm long x 4mm diameter screws	Screwed to door leaf
EM520S-FIRE	Armature	1 no. 25mm long x 8mm diameter screw with rubber washer	Screwed to Armature Fixing Plate
	Armature Fixing Plate	8 No. 25mm long x 4mm diameter screws	Screwed to door leaf
EM300L-FIRE	Armature	1 No. 8mm diameter bolt	Through bolt into door leaf
	Covered 'L' bracket frame fixing	7 No. 25mm long x 4mm diameter screws	Through the bracket into door frame
EM300CL-FIRE	Armature	1 No. 8mm diameter bolt	Through bolt into door leaf
	Covered 'L' bracket frame fixing	5 No. 30mm long x 4mm diameter screws	Through the bracket into door frame
EM500L-FIRE	Armature	1 No. 8mm diameter bolt	Through bolt into door leaf

PRODUCT REFERENCE	COMPONENT	FIXING	FIXING LOCATION
EM500CL-FIRE	Covered 'L' bracket frame fixing	4 No. 25mm long x 4mm diameter screws	Through the bracket into door frame
EM300AZLG-FIRE EM300AZLG-DC-FIRE	Armature	1 No. 25mm long x 8mm diameter long screw, nut and rubber washer	Screwed to Covered 'Z' bracket – armature fixing plate
	'L' bracket frame fixing	5 No. 30mm long x 4mm diameter screws	Screwed into door frame
	Covered 'Z' bracket – door fixing plate	4 No. 30mm long x 4mm diameter screws	Screwed into door leaf
	Covered 'Z' bracket – armature fixing plate	2 No . 20mm long x 5.8mm diameter screws.	Screwed to Covered 'Z' bracket – door fixing plate
EM500AZLG-FIRE EM500AZLG-DC-FIRE	Armature	1 No. 25mm long x 8mm diameter long screw, nut and rubber washer	Screwed to Covered 'Z' bracket – armature fixing plate
	'L' bracket frame fixing	10 No. 25mm long x 4mm diameter screws	Screwed into door frame
	Covered 'Z' bracket – door fixing plate	7 No. 25mm long x 4mm diameter screws	Screwed into door leaf
	Covered 'Z' bracket – armature fixing plate	2 No . 20mm long x 5.8mm diameter screws.	Screwed to Covered 'Z' bracket – door fixing plate
EM300ZL-FIRE	Armature	1 No. 25mm long x 8mm diameter screw, nut and rubber washer	Screwed to 'Z' bracket – armature fixing plate
	'L' bracket - frame fixing	7 No. 25mm long x 4mm diameter	Screwed into door frame
	'Z' bracket – door fixing plate	6 No. 25mm long x 4mm diameter	Screwed into door leaf
	'Z' bracket – armature fixing plate	8 No. 9.5mm long x 5mm diameter screws	Screwed to 'Z' bracket – door fixing plate
EM500ZL-FIRE	Armature	1 No. 25mm long x 8mm diameter screw, nut and rubber washer	Screwed to 'Z' bracket – armature fixing plate

PRODUCT REFERENCE	COMPONENT	FIXING	FIXING LOCATION
	'L' bracket - frame fixing	10 No. 25mm long x 4mm diameter	Screwed into door frame
	'Z' bracket – door fixing plate	5 No. 25mm long x 4mm diameter	Screwed into door leaf
	'Z' bracket – armature fixing plate	8 No. 9.5mm long x 5mm diameter screws	Screwed to 'Z' bracket – door fixing plate

3.11 Directionality

The hardware approved in this report has been tested on the unexposed face of timber door leaves that have been installed opening towards the heating conditions of the furnace.

When undertaking the fire testing of a hinged or pivoted timber door assembly, it is generally considered that the most onerous configuration for the test specimen is with the door leaf/leaves opening in towards the furnace. This is formalised in Section 13.4.2 of BS EN 1634-1: 2014+A1: 2018.

Unless stated otherwise herein, where a door configuration/construction has been fire tested with the door leaf/leaves opening in towards the test furnace, the approval within this Field of Application Report permits the door configuration/construction to be installed with the door leaf/leaves opening in the opposite direction (i.e. away from the furnace/risk side).

This report considers that face fixed hardware installed on the exposed face of the leaf will not have an adverse impact on its fire resistance performance due to the fact that it will fall away from the face during exposure to the heating conditions of the fire resistance test.

Therefore approval of the hardware items within this report is for their inclusion on assemblies with possible direction of exposure from either face.

3.12 Supporting Construction

REQUIREMENTS/NOTES		
• The structure above the proposed timber door assemblies must be self-supporting and must not impose any load upon the timber door assemblies under cold-state or fire conditions • The supporting construction must have been fire tested or assessed to provide in excess of 30 or 60 minutes fire resistance, as applicable, at the required size, when incorporating door openings • If fitted into timber or steel stud partitions, the method of forming the door assembly opening must be as tested by the partition and/or door assembly manufacturer • When fitted into steel stud partitions, KFS recommends that the steel studs and steel head profile at the perimeter of the proposed timber door assemblies are reinforced with lengths of timber which are a minimum of 38mm thick, and which are adjusted in width to completely fill the steel profiles *Note* *Any reference to steel stud partitions is in the context of permanent elements, such as those designed and proven by the plasterboard manufacturers – this report does not approve use of the proposed timber door assemblies in proprietary 'demountable' partitions*		
ELEMENT	**SPECIFICATION/QUANTITY/DIMENSIONS**	
SUPPORTING CONSTRUCTION OPTIONS	Option 1	Timber stud plasterboard partition
	Option 2	Steel stud plasterboard partition
	Option 3	Masonry walls (Blockwork, brickwork & concrete)

3.13 Door Edge Gaps

ELEMENT	SPECIFICATION/QUANTITY/DIMENSIONS
GAP BETWEEN LEAF & FRAME JAMBS/HEAD	1.5mm to 4mm
GAP BETWEEN BOTTOM EDGE OF DOOR LEAF AND FINISHED FLOOR (FIRE ONLY)	Maximum 6mm
GAP BETWEEN BOTTOM EDGE OF DOOR LEAF AND FINISHED FLOOR (FIRE AND SMOKE)	Maximum 3mm*
** Gaps in excess of 3mm are permissible provided a suitable smoke seal is included*	

4. Perimeter Intumescent/Smoke/Acoustic Seals

4.1.1 Perimeter Intumescent Seals

ELEMENT	SPECIFICATION/QUANTITY/DIMENSIONS					
INTUMESCENT SEAL TYPE/S	1	Graphite	2	Palusol	3	Lorient 617
APPROVED MANUFACTURERS/SUPPLIERS	It is recommended that the intumescent seals are manufactured or supplied by members of the Intumescent Fire Seals Association (IFSA) or that the product is included in a Third-Party Certification scheme, such as that provided by IFC Certification, to ensure product quality and consistency.					
	1	Sealed Tight Solutions	4	Mann McGowan Fabrications		
	2	Lorient Polyproducts	5	Sealmaster		
	3	Pyroplex				
INTUMESCENT SEAL SIZE/POSITION	Refer to relevant tables in Appendix B for the proposed configuration					
ADDITIONAL REQUIREMENTS/NOTES	All perimeter intumescent seals in a door assembly must be of the same type/manufacturer					

4.1.2 Perimeter Ambient Temperature Smoke Seals

REQUIREMENTS/NOTES
• Smoke seals or combined intumescent/smoke seals (using the specification approved in Appendix B), that have been tested in accordance with BS EN 1634-3: 2004 (ambient temperature) or BS476: Part 31: Section 31.1: 1983 and shown not to leak by more than $3m^3/m/hr$ at 25Pa may be used in conjunction with the proposed door assemblies to provide smoke control.
• The orientation of the seals, door edge gaps, degree of hardware interruption, and leaf configuration, will need to be as tested in accordance with BS EN 1634-3: 2004 (ambient temperature) or BS476: Part 31: Section 31.1: 1983 to achieve the desired level of smoke control, unless these conflict with the intumescent seal widths and positions as described in Appendix B, in which case, the latter shall take precedence.
• Test evidence to BS476: Part 22: 1987 shall be available to demonstrate that the smoke seals will not adversely affect the overall fire resistance of 30 or 60 minute timber door assemblies, when fitted in configurations similar to that proposed.

4.1.3 Perimeter Acoustic Seals

REQUIREMENTS/NOTES
• Acoustic seals or combined intumescent/acoustic seals which have been successfully fire tested in accordance with BS476: Part 22: 1987 or BS EN 1634-1 may be used in conjunction with the 30 and 60 minute timber door types approved herein
• Leaf thickness, leaf/frame construction and perimeter intumescent seal specification must remain as tested with the proposed acoustic seal or be in accordance with that detailed herein, whichever is greater
• Acoustic seals must be located as fire tested, or in a less onerous position, unless these conflict with the intumescent seal widths and positions as described in Appendix B, in which case, the latter shall take precedence

5. Conclusion

Based upon the available test evidence, and subsequent analysis performed by Kiwa Fire Safety Compliance, if the proposed items of hardware were installed onto door assemblies utilising timber door leaves and installed within the limitations of this Field of Application Report and tested for fire resistance, they would satisfy the integrity and insulation criteria of BS EN 1634-1: 2014+A1: 2018 for 30 and 60 minutes.

This Field of Application Report considers that the door assemblies within the scope approval, herein, may be installed in either orientation and so be exposed to fire conditions from either face.

6. Declaration by the Applicant

KFS Engineering Assessment Report	PAR/24810/01
Client	Specialized Security Products Ltd
Project Address	Camfield House Ave One Letchworth Garden City SG6 2WW

We the undersigned confirm that we have read and complied with the obligations placed on us by the

Passive Fire Protection Forum (PFPF) - Industry Standard Procedure 2021

'Guide to Undertaking Technical Assessments of Fire Performance of Construction Products Based on Fire Test Evidence'

- We confirm that any changes which are subject of this assessment have not to our knowledge been tested to the standard against which this assessment has been made.
- We agree to withdraw this assessment from circulation should the component or element of structure, or any of its component parts be the subject of a failed fire resistance test to the standard against which this assessment is being made.
- We understand that this assessment is based on test evidence and will be withdrawn should evidence become available that causes the conclusion to be questioned. In that case, we accept that new test evidence may be required.
- We are not aware of any information that could affect the conclusions of this assessment. If we subsequently become aware of any such information, we agree to ask the assessing authority to withdraw the assessment.

Signature	Duncan Easley Digitally signed by Duncan Easley DN: cn=Duncan Easley gn=Duncan Easley c=GB United Kingdom l=GB United Kingdom e=duncan@specialized-security.co.uk Reason: I have reviewed this document Location: Date: 2024-09-24 16:07+01:00
Name	Duncan Easley
Position	Managing Director of SSP & Central Operations
Company Name	Specialized Security Products Ltd
Date	24/09/2024

7. Limitations

This report addresses itself solely to the ability of the proposed assemblies described to satisfy the criteria of the fire resistance test and does not imply any suitability for use with respect to other unspecified criteria.

It is the responsibility of others to establish whether the proposed product meets any other relevant requirements, including any other requirements for fire performance and life safety, as defined in documents such as the Building Regulations, and the Fire Strategy/Risk Assessment for the project.

This document only considers the door assemblies described, herein, and assumes that the surrounding construction will provide no less restraint than the tested assembly and that it will remain in place and be substantially intact for the full fire resistance period.

This assessment is issued on the basis of test data and information to hand at the time of issue. If contradictory evidence becomes available to Kiwa Fire Safety Compliance the assessment will be unconditionally withdrawn and the applicant will be notified in writing. Similarly, the assessment evaluation is invalidated if the assessed construction is subsequently tested since actual test data is deemed to take precedence.

As per the guidance outlined in the Passive Fire Protection Forum (PFPF): *'Guide to Undertaking Technical Assessments of Fire Performance of Construction Products Based on Fire Test Evidence, 2021, Industry Standard Procedure'*, appropriate action has been taken to mitigate the risk of a conflict of interest arising during the preparation of this report. All individuals involved in the production, or subsequent review, of this assessment have declared any perceived conflicts of interest, with regards to the sponsor or subject(s) of this report, prior to working on this project.

The assessor and reviewer have been deemed suitable for involvement in the production of this assessment in accordance with the guidance outlined in the Passive Fire Protection Forum (PFPF): *'Guide to Undertaking Technical Assessments of Fire Performance of Construction Products Based on Fire Test Evidence, 2021, Industry Standard Procedure'*.

Where the constructional information in this report is taken from details provided to Kiwa Fire Safety Compliance and/or from fire resistance test reports referenced herein, it is, therefore, limited to the information given in those documents. It is necessarily dependent upon the accuracy and completeness of that information. Where constructional or manufacturing details are not specified, or discussed, herein, it should not, therefore, be taken to infer approval of variation in such details from those tested or otherwise approved.

The analysis and conclusions within this report are based upon the likely fire resisting performance of a complete door assembly that is manufactured and installed in accordance with this document, and offered for fire resistance testing in 'perfect' condition. In practice, management procedures must be in place in any building where the door assemblies are installed, to ensure that no parts of the assembly are damaged or faulty. Further, the doors must open and close without the use of undue force. The edge gaps/alignment of door leaves must be in accordance with the tolerances defined, herein, when the doors are closed. Any such shortfalls in respect to the condition of the assemblies will invalidate the approval by KFS, and may seriously affect the ability of the assemblies to provide the required level of fire resistance performance. Determination of what constitutes wear or damage, and any corrective actions in order to return assemblies to the required condition, should only be carried out following consultation with the manufacturer and KFS.

This report is not intended to be a complete specification for the proposed products and it is the responsibility of others to ensure that the products are suitable for the intended purpose; whilst incorporating the requirements of this report. Further, the products must be manufactured/installed by experienced/trained personnel using appropriate and established working practices/techniques.

Where the assessed constructions have not been subject to an on-site audit by Kiwa Fire Safety Compliance, it is the responsibility of anyone using this report to confirm that all aspects of the assemblies fully comply with the descriptions and limitations, herein.

Any materials specified in this report have been selected and judged primarily on their fire performance. KFS do not claim expertise in areas other than fire safety. Whilst observing all possible care in the specification of solutions, we would draw the reader's attention to the fact that during the construction and procurement process, the materials used should be subjected to more general examination regarding the wider Health and Safety, and CoSHH Regulations. Designers, manufacturers and installers are reminded of their responsibilities under the CDM Regulations; but particularly with regard to installation and maintenance of heavy or inaccessible items.

This assessment considers the fire resistance performance of the door assemblies when tested with the leaves in the closed position, within the frame reveal; either retained by the latch, or self-closing device, or locked shut, as applicable. The door assemblies will only provide the assessed fire performance when in a similar configuration; and it is the responsibility of the building occupants/owner to ensure that this is the case.

This Report is provided to the sponsor on the basis that it is a professional independent engineering evaluation as to what the fire performance of the construction/system would be should it to be tested to the named standard. It is KFS's experience that such an evaluation is normally acceptable in support of an application for building approvals, certainly throughout the UK and in many parts of Europe and the rest of the world.

However, unless KFS have been commissioned to liaise with the Authorities that have jurisdiction for the building in question for the purpose of obtaining the necessary approvals, KFS cannot assure that the document will satisfy the requirements of the particular building regulations for any building being constructed.

It is, therefore, the responsibility of the sponsor to establish whether this evidence is appropriate for the application for which it is being supplied and KFS cannot take responsibility for any costs incurred as a result of any rejection of the document for reasons outside of our control. Early submittal of the Report to the Authorities will minimise any risks in this respect.

8. Validity

This Field of Application Report has been prepared based on Kiwa Fire Safety Compliance's present knowledge of the products described, the stated testing regime and the submitted test evidence.

The assessment is valid initially for a period of five years after which time it is recommended that it be submitted to Kiwa Fire Safety Compliance for re-evaluation. For this reason, anyone using this document after June 2029 should confirm its ongoing validity.

This assessment report is not valid unless it incorporates the declaration, in Section 5, duly signed by the applicant.

Prepared by:

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Appendix A

General Guidance on Installation of Hardware

A.1 Hinges

A variety hinges have been successfully tested with Specialized Security Products hardware but other hinges may be used, subject to compliance with the specifications below:

All hinges shall comply with the following specifications:

ELEMENT		SPECIFICATION	
HINGE TYPE		Fixed pin, washered butt, ball bearing butt, lift-off type or journal supported.	
BLADE HEIGHT		89 - 115mm	
BLADE WIDTH		30 - 36mm	
BLADE THICKNESS		2.5 - 3.5mm	
MATERIAL		Brass, Phosphor Bronze, Steel or Stainless Steel. (No combustible or thermally softening materials to be included).	
FIXINGS		Steel screws, as recommended by the hinge manufacturer, but no smaller than 32mm long x 3.8mm diameter (No.8)	
MINIMUM NUMBER		3no. hinges per leaf for leaves up to 2040mm high	
POSITIONS	3NO.	TOP	120 - 200mm down from the leaf head to the top of the hinge
		MIDDLE	Either equi-spaced between the top and bottom hinges or positioned 200 – 250mm below the top hinge
		BOTTOM	150 - 225mm up from the bottom of the leaf to the bottom of the hinge blade
INTUMESCENT PROTECTION		None Required	

Rising butt, non-cranked butts and spring hinges (single or double action) are not suitable for use on doors approved within the scope of this Field of Application Report, although they may be suitable on the basis of an individual and specific fire engineering evaluation.

A.2 Mortice Latches/locks

Where mortice latches or locks are fitted, they shall be centred at 1000mm (± 200m), above the bottom of the door leaf, and should comply with the following specifications:

ELEMENT	SPECIFICATION
LATCH/LOCK TYPE	Mortice latches, tubular mortice latches, sashlocks and deadlocks
MAXIMUM FOREND HEIGHT	60mm long x 25mm wide
MAXIMUM STRIKE PLATE HEIGHT	60mm high x 25mm wide
MAXIMUM LATCH/LOCK BODY DIMENSIONS	19mm high x 11mm wide
MATERIAL	Steel based with no essential part of the lock/latch to comprise polymeric or other low melting point (<800°C) materials and should not contain any flammable materials
POSITIONS	Centred at 1000mm (± 200mm) above the bottom of the door leaf
INTUMESCENT PROTECTION	The strike plate and forend must be bedded on 1mm thick non-pressure forming intumescent material.

Over-morticing is to be avoided; mortices shall be as tight as possible to the latch. If gaps occur around the case (not exceeding 2mm), then these must be made good with intumescent mastic or sheet material. Holes for spindles or cylinders should be kept as small as is compatible with the operation of the hardware.

A.3 Door Closers

Where required by regulatory guidance or specific fire strategy, each hinged door leaf must be fitted with a self-closing device; unless they are normally kept locked shut and labelled as such with an appropriate sign which complies with the BS 5499 series of standards.

Overhead surface mounted closers are recommended. Concealed overhead and concealed jamb mounted closers are not approved by this Report.

It is essential that all closers fulfil the requirements of BS EN 1154: 1997 and are of the correct power rating for the width and weight of the doors (minimum power size 3). They must be fitted according to the manufacturer's instructions, and be adjusted so that they are capable of fully closing the door leaf, against any friction imposed by the latch (and smoke seals, if fitted), from any position of opening.

Face-fixed overhead door closers (and accessories such as soffit brackets) that have been tested, assessed or otherwise approved for use on unlatched FD30 cellulosic door leaves in timber frames may be used.

Any accessory that is located within the door reveal must have appropriate test or assessment evidence.

A.4 Non-Essential Hardware Items

A.4.1 Push plates, Kicks plates etc.

Plastic, pvc or metal plates may be surface-mounted to the doors, but, if more than 800mm in length by nominally 200mm wide, they must be attached in a way that would prevent them distorting the door leaf, e.g. glued with thermally softening adhesive or screwed with short aluminium screws and fitted in such a way so they will not be prevented from falling away by being trapped under door stops, glazing beads or handle escutcheons etc.

Overhead surface mounted closers are recommended. Concealed overhead and concealed jamb mounted closers are not approved by this Report.

It is essential that all closers fulfil the requirements of BS EN 1154: 1997 and are of the correct power rating for the width and weight of the doors (minimum power size 3). They must be fitted according to the manufacturer's instructions, and be adjusted so that they are capable of fully closing the door leaf, against any friction imposed by the latch (and smoke seals, if fitted), from any position of opening.

A.4.2 Pull Handles

These may be fixed to the face of door assemblies, provided that the fixing points are no greater than 800mm apart. Pull handles that are fixed through the leaf should use clearance holes as close fitting as possible to the bolt, and fixings passing through the lead shall be steel. Handles/fixings shall be at least 40mm away from the door age, and from any aperture.

A.4.3 Security Viewers

These may be fixed into the proposed doors, subject to the following limitations, unless specific fire test evidence exists to the contrary;

- Viewers must not exceed 15mm outer diameter, and be made from brass or steel;
- Holes bored through the door must be no greater than 1mm larger than the bore of the viewer and must be lined with a non-pressure forming intumescent mastic/sheet;
- The viewer must include an effective shutter/cover plate.
- Where door design is approved with recessed panels, the viewer must be fitted through the full door thickness.
- Viewers shall be at least 40mm away from the door edge, and from any aperture.

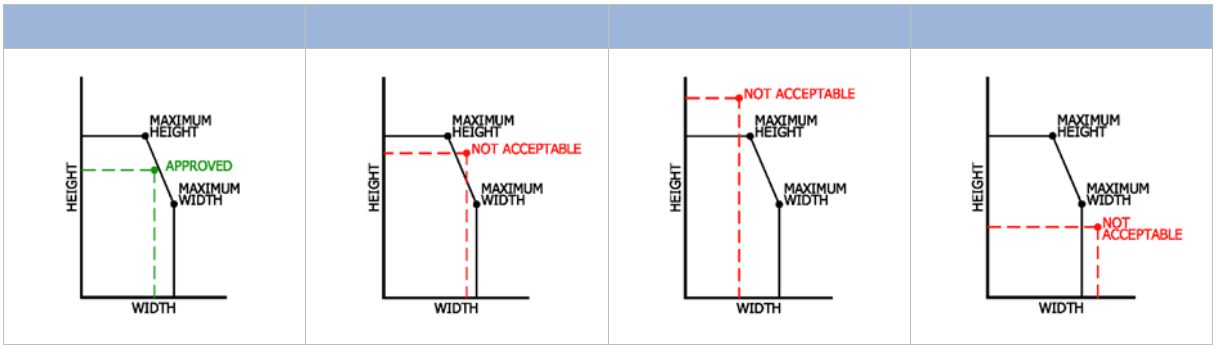
A.4.4 Lever Handles

ELEMENT	SPECIFICATION
MATERIAL	Metal/alloy – should not contain any flammable materials
SPECIFIC INSTALLATION REQUIREMENTS	Holes through the leaf shall be as close fitting as possible to the spindles and/or fixing screws; which must be steel.
INTUMESCENT PROTECTION	None required
ADDITIONAL NOTES	This generic approval only applies to traditional 'mechanical' lever handles and does not apply to electro-mechanical handlesets (with security functions); which must be the subject of independent fire testing, and further analysis by KFS

Appendix B

Figure PAR/28410/01:B01

Assessed Leaf Size Envelope for Timber Door Leaves

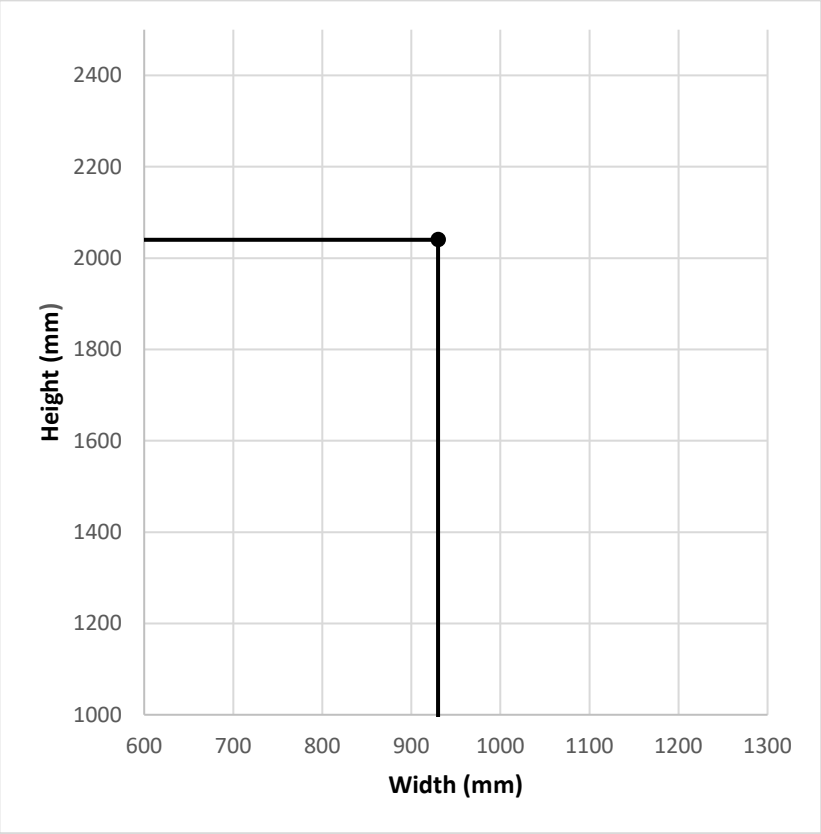


B.1 Approved Leaf Size Envelope B1

LATCHED SINGLE ACTING, SINGLE DOOR ASSEMBLIES - 30 MINUTES SPECIFICATION	TIMBER FRAMES

DOOR CONSTRUCTION OPTIONS
LSASD

HEIGHT	WIDTH
2040mm	930mm

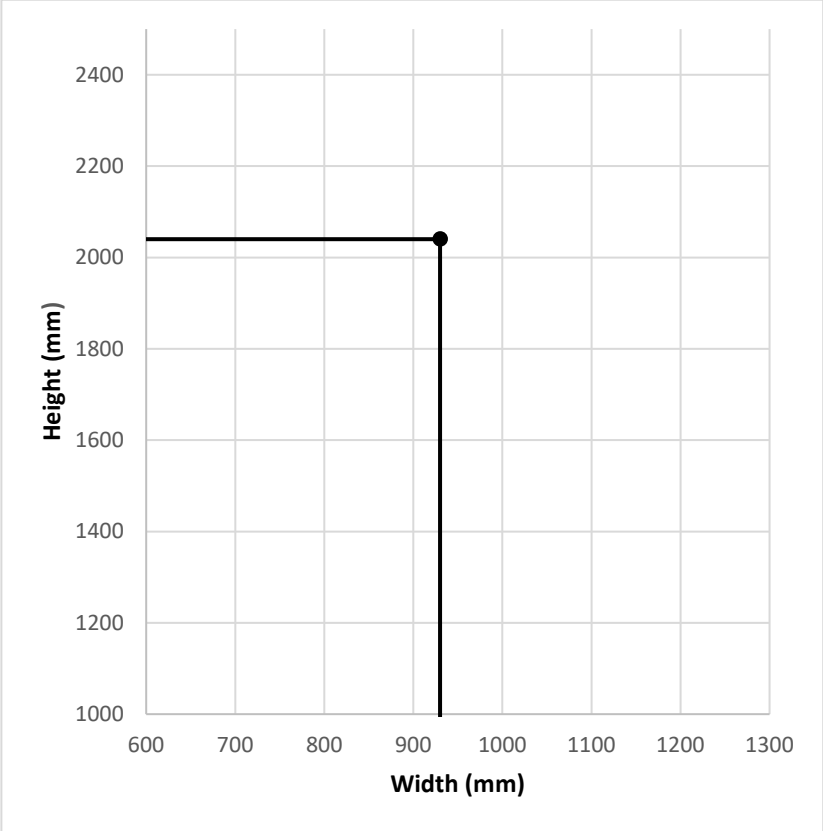


INTUMESCENT SPECIFICATION	
FRAME HEAD	1no. 15x4mm intumescent seal fitted centrally in the frame reveal or leaf edge
FRAME JAMBS	1no. 15x4mm intumescent seal fitted centrally in the frame reveal or leaf edge

LATCHED SINGLE ACTING, SINGLE DOOR ASSEMBLIES – 60 MINUTES SPECIFICATION	TIMBER FRAMES

DOOR CONSTRUCTION OPTIONS
LSASD

HEIGHT	WIDTH
2040mm	930mm



INTUMESCENT SPECIFICATION	
FRAME HEAD	2no. 15x4mm intumescent seal fitted centrally in the frame reveal or leaf edge
FRAME JAMBS	2no. 15x4mm intumescent seal fitted centrally in the frame reveal or leaf edge

Appendix C

C.1 Summary of Fire Test Evidence

Summary of Primary Fire Test Evidence

TEST LABORATORY AND REPORT NO.	TEST DATE	CONFIGURATION TESTED	LEAF SIZE TEST	TEST STANDARD	INTEGRITY
UKTC TR20230502-005916A	02/10/2023	LSASD	2040mm x 930mm x 44mm	BS EN 1634-1:2014+A1:2018	32 minutes
UKTC TR20230502-006016A	02/10/2023	LSASD	2040mm x 930mm x 55mm	BS EN 1634-1:2014+A1:2018	62 minutes

Summary of Secondary Fire Test Evidence

TEST LABORATORY AND REPORT NO.	TEST DATE	CONFIGURATION TESTED	LEAF SIZE TEST	TEST STANDARD	INTEGRITY
UKTC TR20230502-005916A	02/10/2023	LSASD	2040mm x 930mm x 44mm	BS EN 1634-1:2014+A1:2018	32 minutes
UKTC TR20230502-006016A	02/10/2023	LSASD	2040mm x 930mm x 55mm	BS EN 1634-1:2014+A1:2018	62 minutes

LSASD = Latched, Single Acting Single Leaf Door assembly