

Field of Application Report

Kiwa Fire Safety Compliance Report PAR/25006/01

Fire Resistance Standard: BS 476-22: 1987



Prepared for:

G.S. Christopher & Co Ltd T/A Wadsworth
Security Products

Assessed Product/System:

Wadsworth Security Products FD30/60 Cylinders in FD30/60 Timber Door Assemblies

Assessed Performance:

30 & 60 minutes fire resistance

Issue Date

18 March 2025

Expiry Date

18 March 2030

Kiwa Fire Safety Compliance

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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.

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Report Reference Number:	Kiwa Fire Safety Compliance Report PAR/25006/01
Prepared on behalf of:	G.S. Christopher & Co Ltd T/A Wadsworth Security Products
Project:	1 Epsom Downs Metro Centre Tadworth Surrey KT20 5EZ
Issue Date:	18/03/2025
Expiry Date:	18/03/2030
Ref ID:	25006

Issue and Amendment Record

REV	DATE	AUTHOR	REVIEW	SECTION	AMENDMENTS
Draft	25/02/2025	BM/CS	WL		
-	18/03/2025	BM/CS	WL		

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1. Introduction

This report has been prepared by Kiwa Fire Safety Compliance, on the instruction of G.S. Christopher & Co. Ltd T/A Wadsworth Security Products, to define the Field of Application for cylinders within timber-based door assemblies, that are required to provide 30 or 60 minutes fire resistance performance (as applicable), when adjudged against BS 476-22: 1987.

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:

- [PD 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 reports on the fire performance of construction products and building elements'](#).

Where applicable, KFS have considered guidance from the following standards;

- [BS EN 15269-3: 2022: 'Extended application of test results for fire resistance and/or smoke control for doorsets, 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'](#).

It is proposed that variations to the tested specifications, as described in the following sections, may be accommodated into timber door assemblies, without reducing their potential to achieve a 30 or 60 minute integrity rating (as applicable), if tested in accordance with the method and criteria of BS 476-22: 1987. 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, all other aspects must otherwise be as proven in tests summarised herein.

It is more onerous to test timber door assemblies, hinged or pivoted (where the door leaf is symmetrical) with the specimen installed with the leaf opening in towards the furnace. The cylinders considered herein are proposed for use in door assemblies that are either successfully tested for fire resistance, or incorporated into a KFS Field of Application Report. This approval must demonstrate that door assemblies are proven with either the most onerous face, or both faces, opening toward the furnace. Unless stated herein, the approved cylinders are considered for inclusion within door assemblies where either face is exposed, subject to the relevant door type having appropriate documentation to demonstrate its bidirectionality.

2. Use of this Report

The approved scope detailed herein is specific to Wadsworth Security Products cylinders when incorporated into locking systems of door assemblies for 30 or 60 minutes fire resistance, and it must not be used either in part, or whole form, to support other door types/ranges/designs.

When the proposed cylinders are manufactured and installed into fire resisting door assemblies under the scope of this Field of Application Report, a full and complete copy of this document, along with any relevant supporting information, must be submitted to Building Control as part of the approval process, so as to demonstrate compliance with Regulatory guidance (i.e. Building Regulations)

In addition, a copy of this report, along with any relevant supporting information, must be included in the O&M manual and Fire Safety Information Files prior to project completion/building handover.

Assessments, certificates, or scope of approval documents issued by organisations other than Kiwa Fire Safety Compliance must not be used in conjunction with this report or in support of any element of the proposed door assemblies.

3. Test Evidence

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

4. Scope of Approval

4.1 Cylinder Configuration

The approved cylinders, manufactured by Wadsworth Security Products, comprise of various sizes and configurations. The tested and approved lock cylinders are listed below.

4.1.1 Euro Profile

The below euro profile cylinders are approved in the following sizes:

CYLINDER CONFIGURATION	MATERIAL	MINIMUM LENGTH	MAXIMUM LENGTH	FIXING METHOD	NOTES
Single Euro Profile (8E7E4)	Brass and Stainless Steel	53mm	73mm	Ø5mm x 60mm long mild steel machine screw	Where single profile cylinders are installed in a FD30 door, a minimum of 10.85mm of the door core must remain behind the cylinder. Where single profile cylinders are installed in a FD60 door, a minimum of 15.85mm of the door core must remain behind the cylinder.
Double Euro Profile (key/key) (8E7E5)	Brass and Stainless Steel	87mm	100mm	Ø5mm x 60mm long mild steel machine screw	-
Double Euro Profile (key/thumb) (8E7E6-360)	Brass and Stainless Steel	87mm	120mm	Ø5mm x 60mm long mild steel machine screw	-
Double Euro Profile (key/turnbar) (8E7E6-360-TB)	Brass and Stainless Steel	87mm	120mm	Ø5mm x 60mm long mild steel machine screw	-

Holes for all euro cylinders listed above should follow the shape of the cylinder profile and be a maximum 1mm larger than the cylinder itself.

4.1.2 Oval Profile

The below oval profile cylinders are approved in the following sizes:

CYLINDER CONFIGURATION	MATERIAL	MINIMUM LENGTH	MAXIMUM LENGTH	FIXING METHOD	NOTES
Single Oval Profile (8E7H5)	Brass and Stainless Steel	52mm	52mm	Ø5mm x 60mm long mild steel machine screw	Where single profile cylinders are installed in a FD30 door, a minimum of 10.85mm of the door core must remain behind the cylinder, Where single profile cylinders are installed in a FD60 door, a minimum of 15.85mm of the door core must remain behind the cylinder.
Double Oval Profile (key/key) (8E7H6)	Brass and Stainless Steel	85mm	85mm	Ø5mm x 60mm long mild steel machine screw	-
Double Euro Profile (key/thumb) (8E7H7)	Brass and Stainless Steel	85mm	85mm	Ø5mm x 60mm long mild steel machine screw	-
Double Euro Profile (key/turnbar) (8E7H8)	Brass and Stainless Steel	85mm	85mm	Ø5mm x 60mm long mild steel machine screw	-

Holes for all oval cylinders listed above should follow the shape of the cylinder profile and be a maximum size of 33mm high x 18mm wide.

4.1.3 Scandinavian Oval Profile

The below Scandinavian oval profile cylinders are approved in the following sizes:

CYLINDER CONFIGURATION	MATERIAL	MINIMUM LENGTH	MAXIMUM LENGTH	FIXING METHOD	NOTES
Single Scandinavian Oval Profile (8E7A5)	Brass and Stainless Steel	39mm	39mm	2no Ø5mm x 30mm long mild steel machine screws	Where single profile cylinders are installed in a FD30 door, a minimum of 10.85mm of the door core must remain behind the cylinder. Where single profile cylinders are installed in a FD60 door, a minimum of 15.85mm of the door core must remain behind the cylinder.
Double Scandinavian Profile (key/key) (8E7A6)	Brass and Stainless Steel	78mm	78mm	2no Ø5mm x 30mm long mild steel machine screws	The cylinder consists of 2no 39mm cylinder bodies

Holes for all Scandinavian oval cylinders listed above should follow the shape of the cylinder profile and be a maximum size of 35mm high x 20mm wide.

4.1.4 Rim & Mortice Cylinders

The below rim and mortice cylinders are approved in the following sizes:

CYLINDER CONFIGURATION	MATERIAL	OVERALL SIZE	FIXING METHOD	NOTES
Rim (1E72)	Brass	Ø33m x 35mm long	2no Ø5mm x 60mm long mild steel machine screws	Screws have snap off segments at 10mm intervals. The minimum length for FD30 doors is 30mm. The minimum length for FD60 doors is 40mm.
Mortice (1E74/IC7M)	Brass	Ø33m x 38mm long	Screwed in with body, held with 10mm grub screw machine screw	-
Fixed Collar Mortice (1E76)	Brass	Ø33m x 38mm long	Screwed in with body, held with 10mm grub screw machine screw	-

Holes for all rim and mortice cylinders listed above should be circular and be a maximum size of Ø34mm.

4.2 Door Assembly Specification

The approved cylinder types listed within Section 4.1 may be installed within systems as described below, and as detailed in Section 4.3, based directly upon the test evidence summarised in Section 3. The cylinder types approved herein may only be installed within door assemblies with supporting fire test evidence (see Section 4.2.3), or which are approved within a KFS assessment (and are subject to the parameters defined in Section 4.2.3). Alternative door assemblies must comply fully with the relevant test evidence or KFS assessment. Where the specification differs between the scope of approval defined herein (which is based upon the provided test evidence summarised in Appendix C), and the scope approval for the relevant door assembly, the higher specification must be followed.

Where appropriate, a minimum door assembly specification has been stipulated (based upon the test data summarised in Appendix C). All other aspects of the timber door assemblies, including glazed apertures, overpanels and door frames, must be manufactured and installed as per the specifications of the door assembly manufacturer, based upon appropriate test evidence, or KFS assessment.

The approved cylinder types are subject to the following minimum door assembly specification.

4.2.1 FD30

The cylinders described herein are approved within FD30 timber door assemblies with the following minimum requirements:

COMPONENT		MATERIAL	MINIMUM DENSITY	DIMENSIONS
CORE		3-Layer Particle Board	620kg/m ³	Minimum 44mm thick
LIPPINGS	SQUARE EDGES	Hardwood	700kg/m ³	Minimum 3mm thick
MINIMUM LEAF THICKNESS		-	-	44mm

If the door assembly test evidence or KFS assessment requires a higher minimum density or lipping thickness, then that specification must be followed.

4.2.2 FD60

The cylinders described herein are approved within FD60 timber door assemblies with the following minimum requirements:

COMPONENT		MATERIAL	MINIMUM DENSITY	DIMENSIONS
CORE		3-Layer Particle Board	620kg/m ³	Minimum 54mm thick
LIPPINGS	SQUARE EDGES	Hardwood	700kg/m ³	Minimum 3mm thick
MINIMUM LEAF THICKNESS		-	-	54mm

If the door assembly test evidence or KFS assessment requires a higher minimum density or lipping thickness, then that specification must be followed.

4.2.3 Alternative Door Assemblies

As listed above, it is permitted to incorporate the proposed cylinders into alternative door assemblies. Further, in accordance with Section C.23.3 of BS EN 15269-3: 2022, it is permitted to use cylinders with alternative profiles on the basis that the alternative cylinder has the same or smaller cross-sectional area as the tested cylinder, and is made from a metal with a melting point equal to, or greater than 800°C. On this basis, the cylinders listed in Section 4.1 may be interchanged with cylinders tested with alternative tested door types, on the basis that these minimum parameters are met.

4.3 Frame Specification

The cylinder types approved herein are subject to the following minimum door frame specification.

4.3.1 FD30

MATERIAL	MINIMUM DENSITY	MINIMUM FACE WIDTH		MINIMUM FRAME DEPTH	MINIMUM STOP DEPTH
		Single Acting	Double Acting		
Hardwood	510kg/m ³	45mm, excluding stop	45mm	102mm	12mm

If the door assembly test evidence or KFS assessment requires a higher specification, then that specification must be followed.

In accordance with Section 4.2.3, where subject to the Extended Application requirements within BS EN 15269-3: 2022, it is permitted to incorporate the cylinders into alternative door assemblies that do not meet the specification listed above, subject to the parameters detailed in Section 4.2.3.

4.3.2 FD60

MATERIAL	MINIMUM DENSITY	MINIMUM FACE WIDTH		MINIMUM FRAME DEPTH	MINIMUM STOP DEPTH
		Single Acting	Double Acting		
Hardwood	510kg/m ³	55mm, excluding stop	55mm	102mm	12mm

If the door assembly test evidence or KFS assessment requires a higher specification, then that specification must be followed.

In accordance with Section 4.2.3, where subject to the Extended Application requirements within BS EN 15269-3: 2022, it is permitted to incorporate the cylinders into alternative door assemblies that do not meet the specification listed above, subject to the parameters detailed in Section 4.2.3.

4.4 Glazed Apertures

All aspects of glazing, including glass types, systems and aperture sizes must be in accordance with the specifications of the door assembly manufacturer, based upon appropriate test evidence, or KFS assessment.

Where glazed apertures are incorporated, and are positioned such that locks/latches are included in the margin between the aperture and door edge, care must be taken to ensure that the effective door 'stile' is not weakened by the mortice. It is a condition of this assessment that, except where tubular latches are employed, the margin must be at least 75mm wider than the lock/latch mortice. If the mortice latch/lock is fitted in line with a 'rail' between two apertures, no part of the lock mortice shall be closer than 50mm to the edge of any aperture.

4.5 Hardware

The hardware installed to door assemblies tested within TR20240604-005911 was as follows:

HARDWARE COMPONENT	PRODUCT REFERENCE
Hinges	Hoppe (Arrone) AR8182-SSS Stainless Steel Butt Hinge
Door Closer	Arrone AR6409G-BX
Lock	Alpro 5218
Lock	Imperial Locks G7054
Lock	Assa Abloy 2788
Lock	Imperial Locks G7004

The approved specification for locks and latches is listed in Appendix B. For the specification requirements for all other hardware, please refer to the relevant hardware items fire test evidence, or KFS assessment.

See also Section 4.2.3 in relation to the use of alternative door assemblies and the use of alternative cylinders.

4.6 Installation, Supporting Construction and Door Edge Gaps

The FD30 door assembly tested within TR20240604-005911 was fixed back to the supporting construction with Ø4.5mm x 80mm long steel fixings at centres not exceeding 500mm on the vertical edges (150mm from the top and bottom), 25mm in from the frame reveal. 10mm thick Rockwool RWA45 mineral fibre was compression fitted to the full depth gap between the door frame and wall and capped with Ceritek Fire rated mastic.

The FD60 door assembly tested within TR20240604-005911 was fixed back to the supporting construction with Ø4.5mm x 80mm long steel fixings at centres not exceeding 500mm on the vertical edges (150mm from the top and bottom), 25mm in from the frame reveal. 10mm thick Rockwool RWA45 mineral fibre was compression fitted to the full depth gap between the door frame and wall and capped with Ceritek fire rated mastic.

The supporting construction consisted of a nominally 75mm thick plasterboard wall assembly, comprising of 52mm steel frame system and 1no layer of 12.5mm type F plasterboard to each face.

All aspects of the installation, supporting construction and door edge gaps, including the junction between the door assembly and its frame, must comply with the specifications of the door assembly manufacturer, based upon appropriate test evidence or KFS assessment.

4.7 Intumescent Seals

The FD30 door assembly tested within TR20240604-005911 contained 1no 15mm wide x 3mm thick Pyroplex Fire and Smoke Seal with Pile Fin intumescent seals, installed to the frame rebate, with the seal 15mm inset from the front of the frame.

The FD60 door assembly tested within TR20240604-005911 contained 2no 15mm wide x 3mm thick Pyroplex Fire and Smoke Seal with Pile Fin intumescent seal, installed to the frame rebate, with the first seal 10mm inset from the front of the frame and the second seal 30mm inset from the front of the frame.

Where using door assemblies that are not as tested with the approved cylinders, the intumescent seal specification should be as the test evidence, or KFS assessment for the perimeter intumescent seals.

Intumescent protection is required for lock cases, and this is detailed in Appendix B based upon details tested.

Where the door assembly test evidence or KFS assessment requires an increased quantity or size of intumescent seals, then that specification must be followed.

5. Conclusion

Based upon the available test evidence, and subsequent analysis performed by Kiwa Fire Safety Compliance, if the proposed cylinder types were manufactured and installed within timber door assemblies, utilising timber door leaves installed in timber frames, within the limitations of this Field of Application Report and tested for fire resistance, they would not reduce the ability of the door assemblies to achieve 30 or 60 minutes (as applicable) should they be tested in accordance with BS 476-22: 1987.

This Field of Application Report considers that the cylinder types within the scope approval, herein, may be installed in timber door assemblies in either orientation and so be exposed to fire conditions from either face (subject to approval of the relevant door assembly allowing exposure to test conditions from either face).

The timber door assemblies must have appropriate test evidence or KFS assessment for the cylinder types listed herein to be approved.

6. Declaration by the Applicant

Kiwa Fire Safety Compliance Field of Application Report	PAR/25006/01
Client	G.S. Christopher & Co Ltd T/A Wadsworth Security Products
Client Address	1 Epsom Downs Metro Centre Tadworth Surrey KT20 5EZ
<p>We the undersigned confirm that we have read and complied with the obligations placed on us by the</p>	
<p>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’</p>	
<ul style="list-style-type: none"> 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	
Name	
Position	
Company Name	G.S. Christopher & Co Ltd T/A Wadsworth Security Products
Date	

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.

At the time of this report's issue it is understood that references to the use of British Standards for evaluating the fire resistance of products and structures will be removed from Approved Document B in amendments due to take effect on 2 September 2029, and will apply to any projects where the building control application is on or after that date, or where the project has not "sufficiently progressed" on site within 6 months of that date. It is noted that the validity of this report extends beyond this date. KFS stand by the conclusions of this report in relation to the performance of the construction when tested to the relevant British Standard. However, because of this expected change to Approved Document B, KFS cannot make any guarantees as to whether or not testing against British Standards will be an acceptable route for compliance with Building Regulations as that would be dependent on the timescales of the specific project.

This document only considers door assemblies that have been tested, or assessed by KFS 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.

This report applies to fire door assemblies that are evaluated to BS 476-22: 1987; which is an applicable test method currently referenced within guidance to Building Regulations in the United Kingdom, and in building codes in some other countries. However, KFS have a duty of care to advise that introduction of CE Marking may become compulsory for fire resisting doorsets marketed in the EU, during the validity period of this report; in which case, users should contact KFS for further details/advice.

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 18 March 2025 should confirm its ongoing validity.

This assessment report is not valid unless it incorporates the declaration, in Section 6, duly signed by the applicant.

Prepared by:



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Kiwa Fire Safety Compliance.

(part of the Kiwa UK Group)

and by:



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Appendix A

Figures PAR/25006/01:01 to 12

Cylinder Profile Drawings

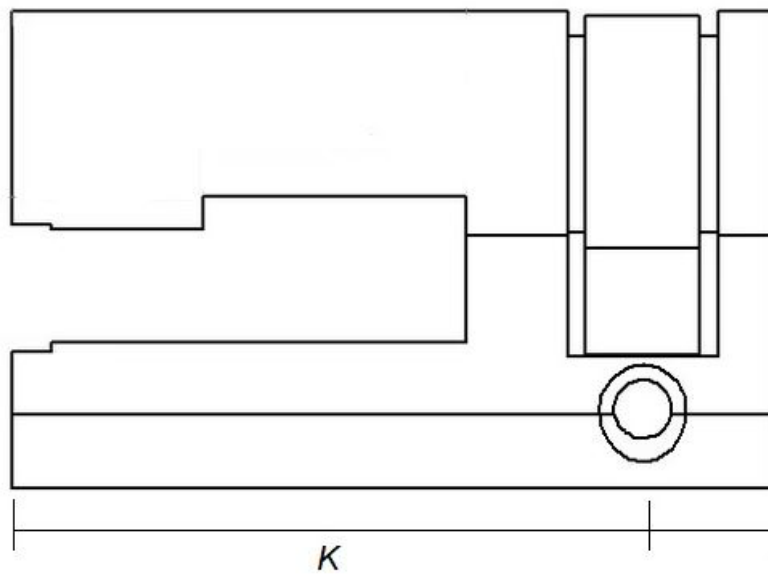


Figure 01 – 8E7E4 Single Euro Profile Cylinder

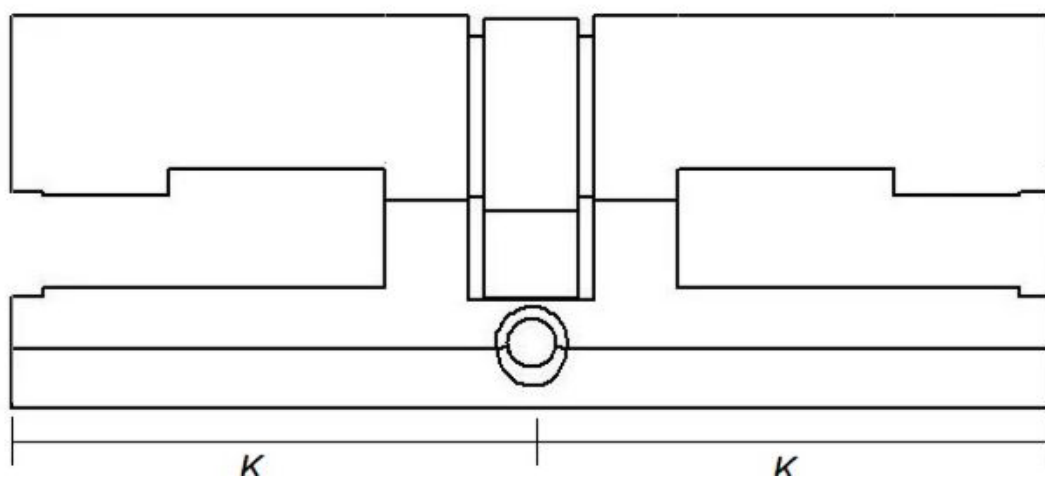


Figure 02 - 8E7E5 Double Euro Profile Cylinder (key/key)

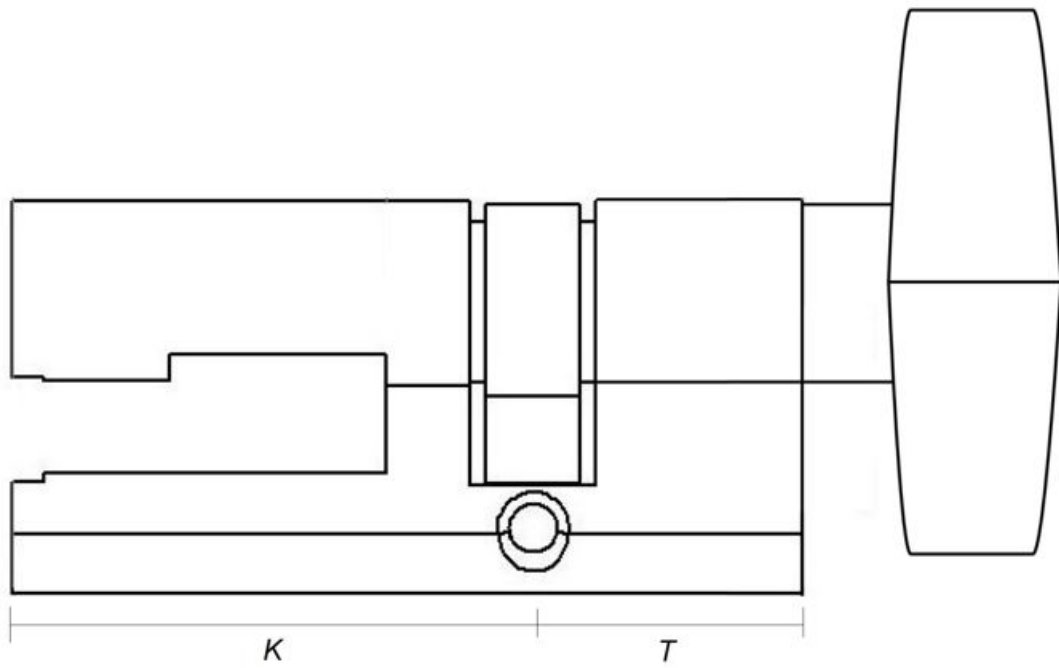


Figure 03 - 8E7E6 Double Euro Profile Cylinder (key/thumb)

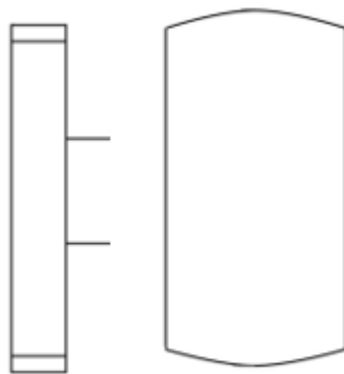


Figure 04 – Turnbar option for 8E7E6 Double Euro Profile Cylinder

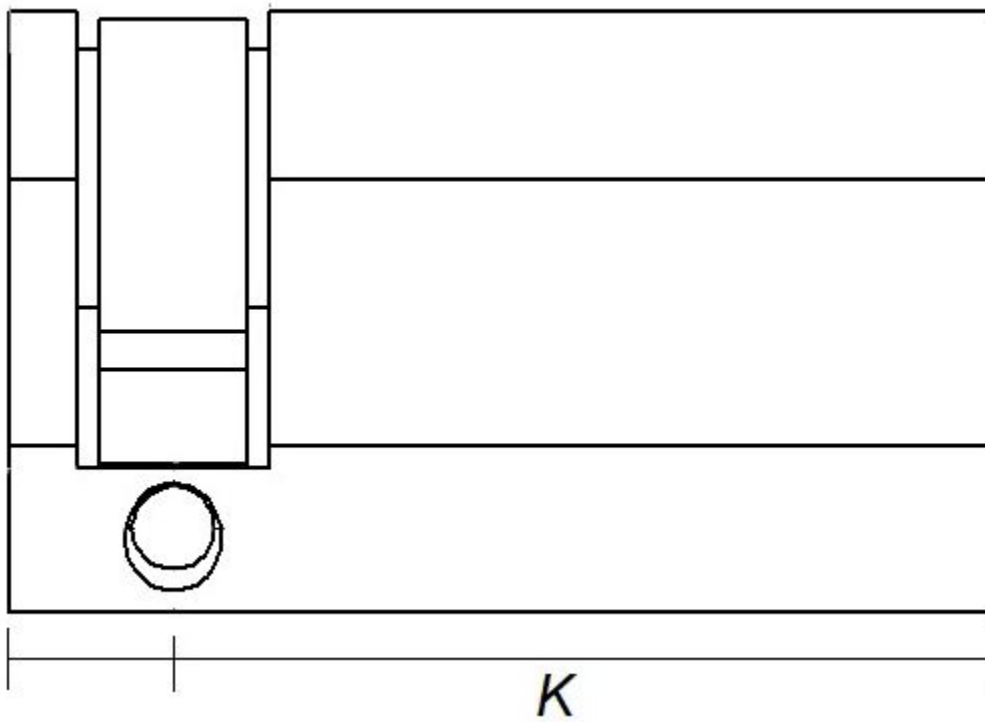


Figure 05 - 8E7H5 Single Oval Profile Cylinder

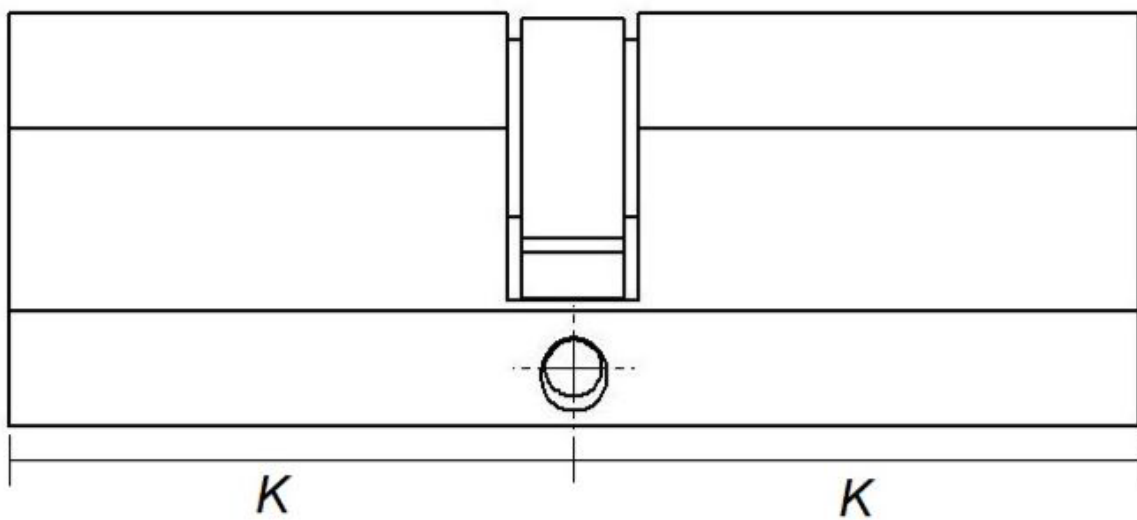


Figure 06 - 8E7H6 Double Oval Profile Cylinder (key/key)

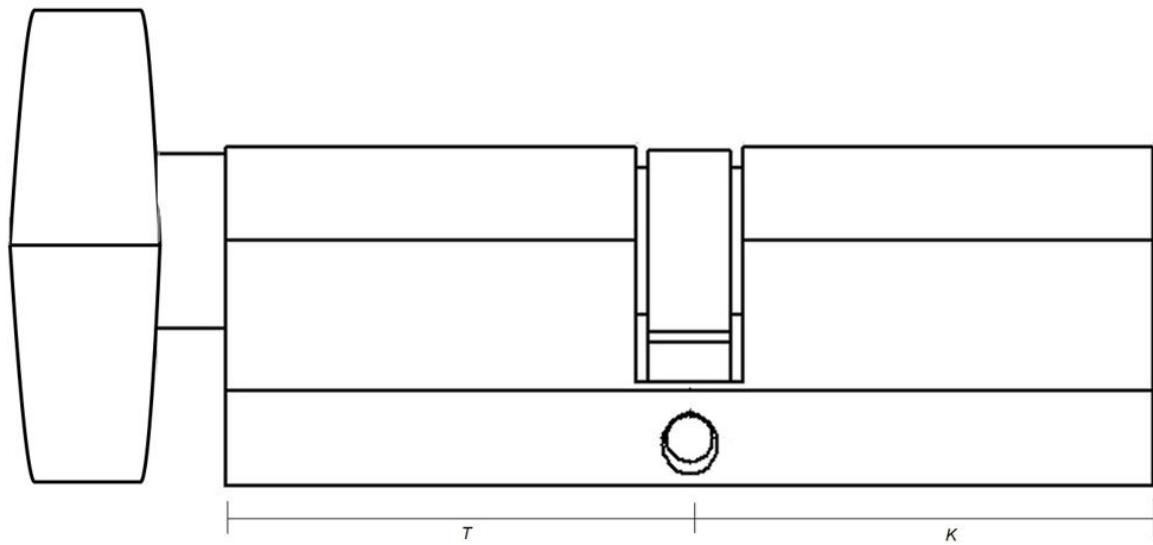


Figure 07 - 8E7H7 Double Oval Profile Cylinder (key/thumb)

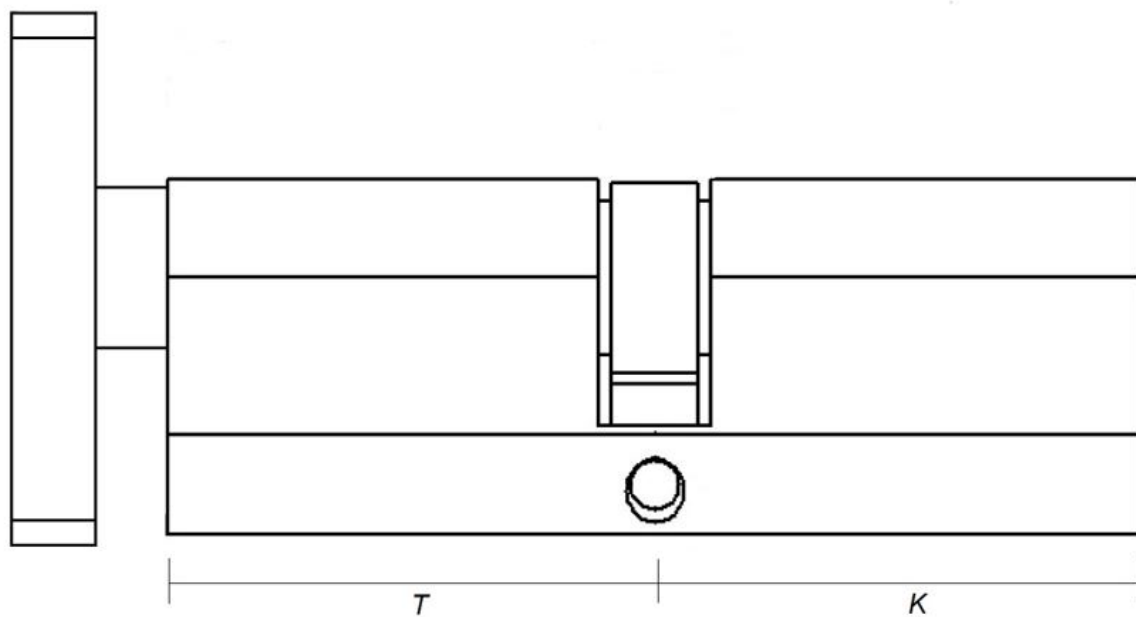


Figure 08 - 8E7H8 Double Oval Profile Cylinder (key/turnbar)

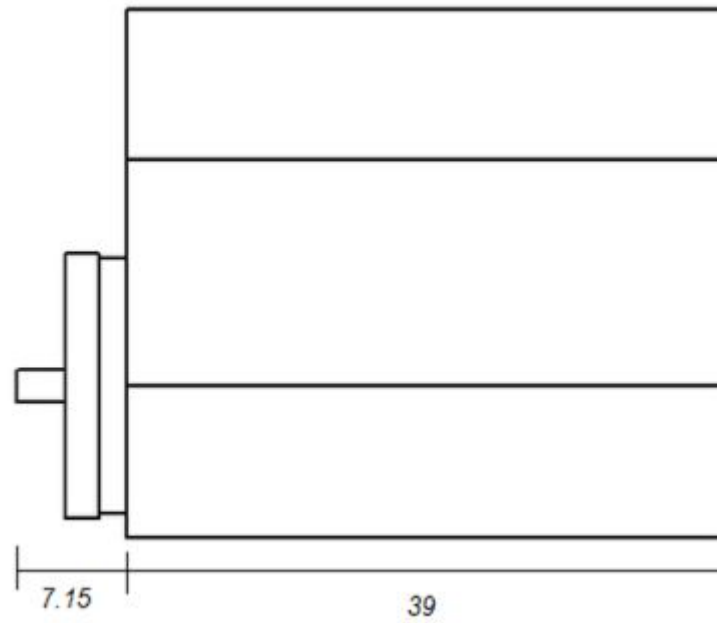


Figure 09 – 8E7A5 Single Scandinavian Oval Profile Cylinder

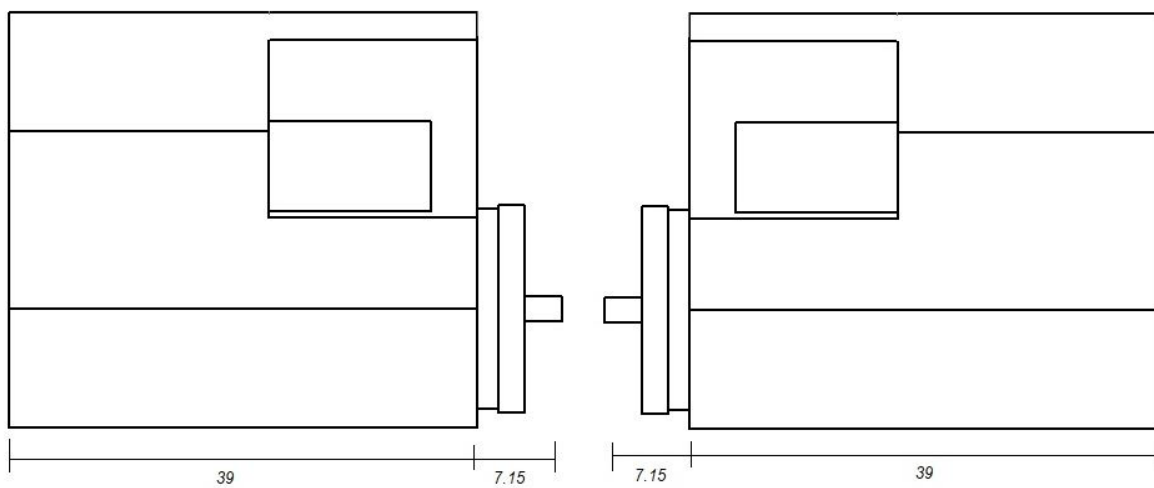


Figure 10 - 8E7A6 Double Scandinavian Oval Profile Cylinder

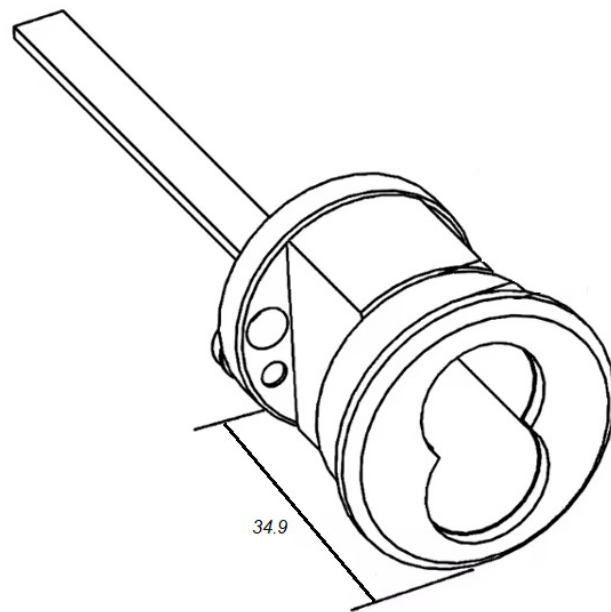


Figure 11 - 1E72 Rim Cylinder

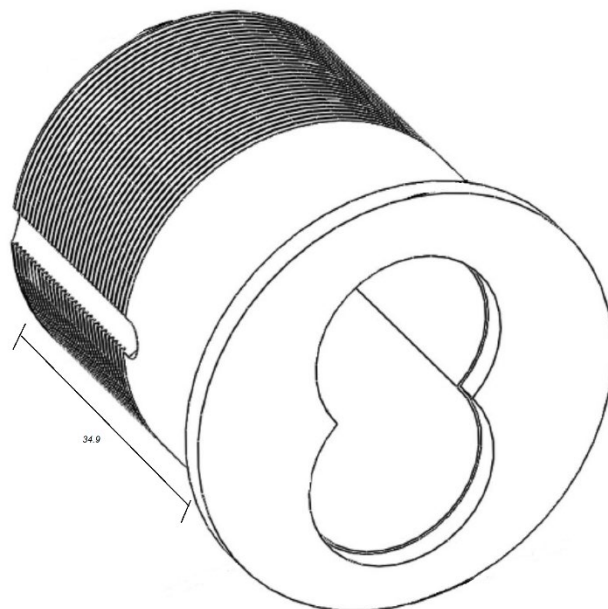


Figure 12 - IC7M Mortice Cylinder

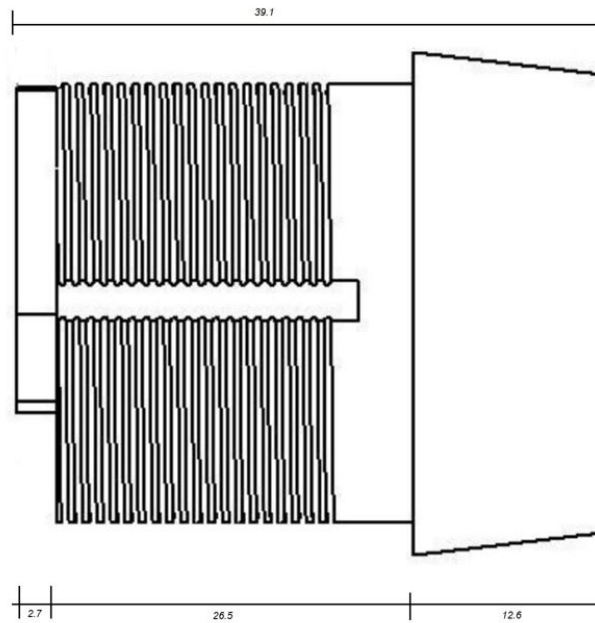


Figure 13 - 1E76 Fixed Collar Mortice

The cylinder profile drawings contained within this appendix have been provided by the client for indicative purposes.

Appendix B

General Guidance on Installation of Hardware

Guidance on the installation of hardware should be provided within the timber door assemblies own fire test evidence or KFS assessment report. However, there are some minimum requirements for the installation of hardware when utilising the approved cylinder types herein, which are listed below.

B.1 Mortice Latches/Locks

Where mortice latches or locks are fitted, they shall be centred at 1000mm (\pm 200mm), 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	225mm high x 25mm wide
MAXIMUM STRIKE PLATE HEIGHT	The test data referenced within this report did not include strike plates within the door frame adjacent to the associated locking mechanism. Therefore, a strike plate is only permitted to be used where there is supporting test evidence/KFS assessment to demonstrate the performance with the alternative door type, the specification of which will be contained within the test evidence/KFS assessment (including maximum size, intumescent protection etc).
MAXIMUM LATCH/LOCK BODY DIMENSIONS	173mm high x 76mm wide x 22mm thick
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 (\pm 200mm) above the bottom of the door leaf
INTUMESCENT PROTECTION	1mm monoammonium phosphate intumescent wrap must be applied to the lock body. Where Imperial locks are installed on FD60 doors, 2mm monoammonium phosphate intumescent wrap must be applied to the lock body.

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 should be kept as small as is compatible with the operation of the hardware.

Where glazing apertures and/or recessed areas are also incorporated, and are positioned such that locks/latches are included in the margin between the aperture and door edge, care must be taken to ensure that the effective door 'stile' is not weakened by the mortice. It is a condition of this assessment that, except where tubular latches are employed, the margin must be at least 75mm wider than the lock/latch mortice. If the mortice latch/lock is fitted in line with a 'rail' between two apertures, no part of the lock mortice shall be closer than 50mm to the edge of any aperture.

All lock types must have appropriate test evidence or KFS assessment within the door type proposed to be used for the system to be approved. Where smaller forend, strike plate, latch/lock body dimensions are specified within the door assemblies test evidence or KFS assessment than is listed above, it is the smallest dimension that takes precedence and must be followed.

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
United Kingdom Testing and Certification – TR20240604-005911 – Specimen A	15/10/24	ULSASD	926mm x 2040mm x 54mm	BS EN 1634-1:2014+A1:2018	65 minutes
United Kingdom Testing and Certification – TR20240604-005911 – Specimen B			926mm x 2040mm x 44mm		37 minutes

ULSASD = Unlatched, Single Acting, Single Leaf Door Assembly