warringtonfire
Proud to be part of element

Warringtonfire
Suite 302
The Genesis Centre
Birchwood
Warrington
WA3 7BH

T: +44 (0)1925 655 116
info.warrington@warringtonfire.com
warringtonfire.com

Title:

The Fire Resistance Performance Of Timber-Based Doorsets When Fitted With Various Hardware

Report No:

WF No. 400128 Issue 2

Prepared for:

ICS Security Solutions Ltd

Unit 1
JBJ Business Park
Northampton Road
Blisworth
Northampton
NN7 3DW
United Kingdom

Date:

29th June 2018

Warringtonfire Testing and Certification Limited
Registered in England and Wales
Registered Office: 3rd Floor, Davidson Building, 5 Southampton Street, London, United Kingdom, WC2E 7HA
Company Registration No: 11371436

TABLE OF CONTENTS

Foreword

This assessment report has been commissioned by ICS Security Solutions Ltd and relates to the fire resistance of various ICS door hardware.

The report is for National Application and has been written in accordance with the general principles outlined in BS EN 15725: 2010; *Extended application reports on the fire performance of construction products and building elements.*

This report uses established empirical methods of extrapolation and experience of fire testing similar products, in order to extend the scope of application by determining the limits for the designs based on the tested constructions and performances obtained. The scope is an evaluation of the potential fire resistance performance, if the variations specified herein were to be tested in accordance with EN 1634-1:2014+ A1:2018.

This scope document cannot be used as supporting documentation for either a CE marking application for doorsets, nor can the conclusion be used to establish a formal classification against EN13501-2.

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

This report has been prepared and checked by product assessors with the necessary competence, who subscribe to the principles outlined in the Passive Fire Protection Forum (PFPF) 'Guide to Undertaking Technical Assessments of the Fire Performance of Construction Products Based on Fire Test Evidence - 2021'. The aim of the PFPF guidelines is to give confidence to end-users that assessments that exist in the UK are of a satisfactory standard to be used for building control and other purposes.

Executive Summary

Objective

This report considers the fire resistance performance of doorsets, when fitted with ICS Security Solutions door hardware, as referenced in Annex A.

Report Sponsor

ICS Security Solutions Ltd

Address

Unit 1,
JBJ Business Park,
Northampton Road,
Blisworth,
Northampton,
NN7 3DW.
United Kingdom.

Summary of Conclusions

Should the recommendations given in this report be followed, it can be concluded that previously fire tested timber doorsets which have achieved up to 60 minutes integrity in accordance with BS EN 1634-1:2014 + A1:2018, as discussed in this report, may be fitted with ICS Security Solutions door hardware as detailed in Annex A, without detracting from the overall integrity performance of the doorset.

This assessment represents our opinion as to the performance likely to be demonstrated on a test in accordance with EN 1634-1:2014 + A1:2018, based on the evidence referred to herein. We express no opinion as to whether that evidence, and/or this assessment, would be regarded by any Building Control authority as sufficient for that or any other purpose. This assessment is provided to the client for its own purposes, and we cannot opine on whether it will be accepted by Building Control authorities or any other third parties for any purpose.

Valid until

10th August 2028

Introduction

This report considers the fire resistance performance of doorsets, when fitted with ICS Security Solutions door hardware, as referenced in the Annex of this report.

For the various ICS door hardware, it is proposed timber based doorsets are required to provide a fire resistance performance of up to 60 minutes integrity and insulation, with respect to or BS EN 1634-1:2014 + A1:2018.

FTSG/PFPF

The data referred to in the supporting data section has been considered for the purpose of this appraisal which has been prepared in accordance with the Fire Test Study Group Resolution No. 82: 2001 and the Passive Fire Protection Federation (PFPF) Guide to Undertaking Technical Assessments of Fire Performance of Construction Products Based on Fire Test Evidence - 2021.

Assumptions

It is assumed that the proposed architectural hardware will be fitted to timber based doorsets which have previously been shown to be capable of providing up to 60 minutes.

Supporting wall

It is also assumed that the construction of the wall, which supports the proposed doorsets, will have been the subject of a separate test and the performance of the wall is such that it will not influence the performance of the doorset for the required period.

Clearance gaps

Door leaf to frame clearance gaps can have a significant effect on the overall fire performance of a doorset. It is therefore assumed that the leaf to leaf and leaf to frame clearance gaps will not exceed those measured for the relevant fire tested doorset. In addition, it is assumed that the door leaves will be in the closed position.

Installation

It is assumed that the doorsets will be installed in a similar manner to that of the previously tested assembly by competent installers.

Hardware Approval

All door hardware is subject to the acceptance by the chosen door assembly supplier's tested, assessed, or certificated scope, which generally identifies the types of hardware approved, the required specification/design based on the key materials/ maximum size, and the application of any additional intumescent protection.

On this basis approval should be sought from the specific door assembly supplier to ensure compliance based on this assessed/certificated scope.

EN1634-1

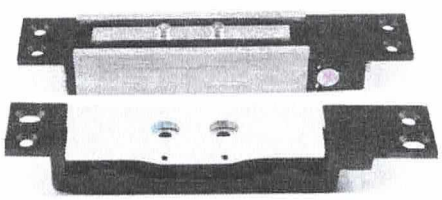
EN1634-1 was issued originally in 2000, with amended versions issued in 2008, 2014 and 2018. The differences between each version are mainly procedural and are not considered to have a practical impact on the performance of the samples under test. On this basis this evaluation is consider applicable to all versions of EN1634-1 issued prior to the issue of this assessment.

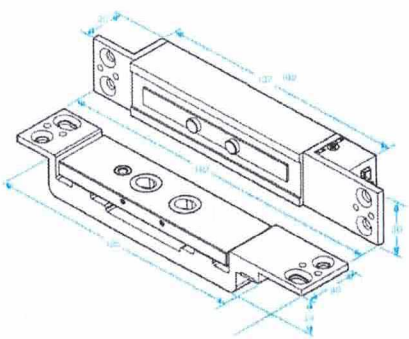
Proposals

A full list of components included in this report are included within the Annex.

Shearlock

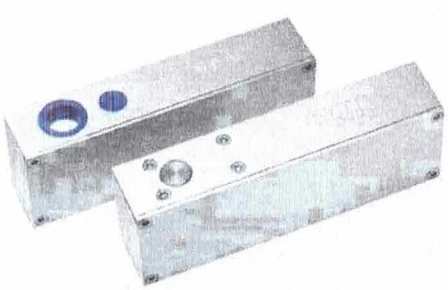
The FR-SL500 shearlock is a steel based edge mounted morticed shearlock, which is required to have the main body be fitted in the frame head/jamb, whilst the armature is located in the top/lock edge of the door leaves. As the unit is an electromagnet it is not required to retain the door in the closed position.

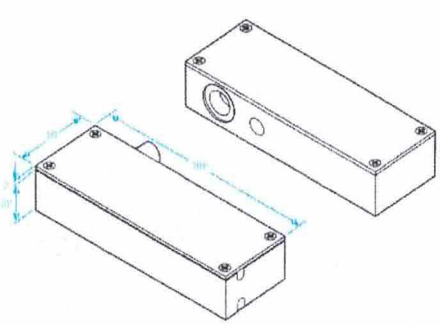




Electric Bolt

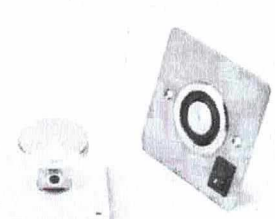
The FR-EB300 electric bolt is an aluminium wholly surface mounted electrically controlled lock which is not required to retain the door in the closed position.

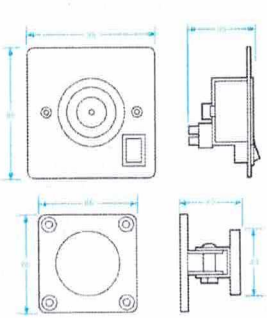


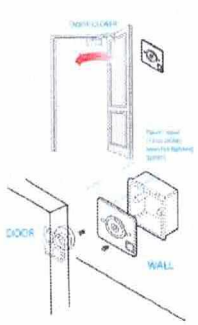


Door Holder

The FR-GD-Series electromagnetic door holder consists of two elements – an armature which is wholly surface mounted to the face of the door leaf, and an electromechanical element that is fixed to the wall. As the fire door is required to be closed when acting as a fire barrier the wall-mounted element is not relevant to this appraisal.

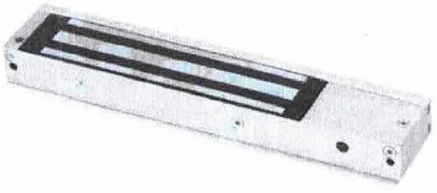


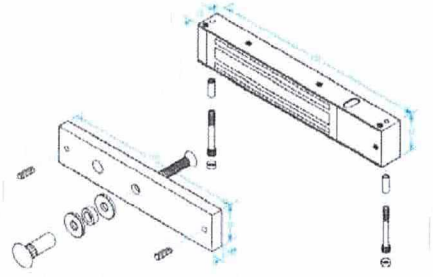




Surface Magnet

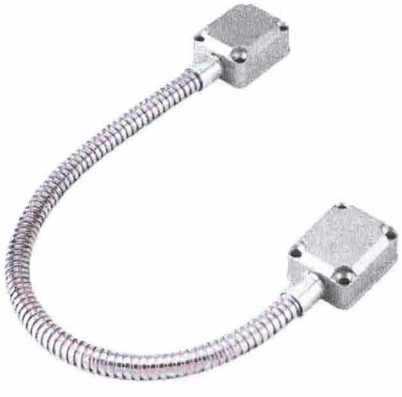
The FR-A & FR-U series surface magnets consists of two elements – an armature which is bolted-through the face of the door leaf, and an electromagnetic element that is wholly surface mounted to the frame.

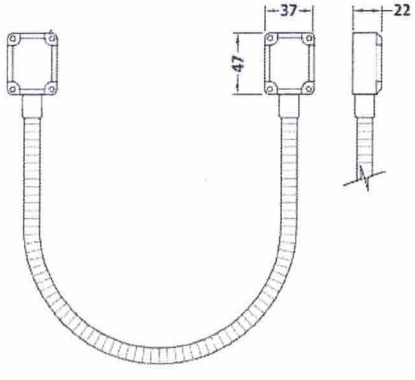




Door Loop

The FR-DL series door loops are a wholly surface mounted, and area available in a range of conduit lengths. All the materials are the same (predominately steel).





Basic Test Evidence

WF No. 399805

The test report referenced WF report No. 399805 and described briefly in the supporting data section of this report describes a fire resistance test in accordance with BS EN 1634-1: 2014 on two specimens of single-leaf, timber-based doorset assembly.

The specimens comprised of a 30 minute and 60 minute, single-acting, single-leaf doorsets. The door leaves, which were unlatched, incorporated a range of hardware.

The test demonstrated the ability of Doorset A and B to provide 36 minutes and 62 minutes integrity and insulation performance respectively.

Test report review

The original test reports used in support of this assessment have been reviewed and it has been concluded that the test data remains acceptable, and the final result would be unchanged on the following basis:

- A comparison of the test procedures and performance criteria with the current standard has identified that any variations would have no detrimental impact on the performance of the doorset and hardware under test.

- The client has confirmed that there has been no change to the design or material specification of the hardware tested originally.

- The reports are available in their entirety, the products are adequately referenced and linked to the products being considered for assessment, and the ownership of the test data has been confirmed as the assessment report holder.

Assessed Performance

Hardware Variant Specifications

An appraisal of the hardware variants detailed in this report is based upon product information supplied by the hardware manufacturer, which is retained in the confidential file relating to this report. Warringtonfire have not inspected the devices being appraised and cannot be held responsible for the accuracy of the information provided.

Timber 30 and 60 minute doorsets

It is proposed that previously fire tested timber based doorsets may be fitted with the ICS hardware identified in Annex A, without detracting from the performance of the doorset.

The performances of both Doorsets A and B during the test referenced WF No. 399805 is cited to display the ability of the ICS hardware to contribute towards the required fire resistance performance for 30 minute and 60 minute insulated timber based doorsets.

Doorset A included in test WF Report No. 399805 was a simulated single acting, single leaf doorset with a 44 mm thick graduated density chipboard core and 8 mm thick hardwood lippings. The leaf was hung within a softwood frame.

Doorset B included in test WF Report No. 399805 was a single acting, single leaf doorset with a 54 mm thick graduated density chipboard core and 8 mm thick hardwood lippings. The leaf was hung within a hardwood frame.

On reviewing the observations taken from the tests report, it's clear that there were no integrity failures associated with any of the hardware fitted to Doorset A (E30), for a duration of 38 minutes; sections of the door were sealed off after 40 minutes to allow the testing of the Doorset B (E60) to continue.

It is also clear that there was no integrity failure of Doorset B (E60). The test was discontinued after 62 minutes.

Alternative hardware

In terms of the hardware that is recessed into the edge or face of the door or frame, it is critical that materials which are combustible or have a lower melting point are not utilised since materials which melt or ignite may advance the burn through of the leaf and therefore lead to a premature integrity failure.

It is critical that the dimensions of any recessed items are not increased since the increased mortice required for a large bodies may lead to an earlier burn through of the leaf or increased dimensions may lead to the penetration of flames/hot gases at the leaf edge due to further interruption of intumescent seals and an increase in conducted heat.

In terms of the intumescent protection, it is critical that this is not reduced from that tested, as the reaction of this material when subjected to the heating conditions of the test is essential in limiting the burn through of the leaf and at the leaf to frame gap at the hardware position.

Substitution of alternative hardware from the tested range may therefore be considered in terms of the critical aspects discussed and where such hardware falls within the scope of the tested hardware, it is considered reasonable to assume that no reduction in the performance of the doorset would be expected as a consequence of their substitution.

All of the proposed hardware required are of identical materials to the examples tested and will utilise the same level of intumescent protection and all are of the same or smaller dimensions and therefore they may be positively appraised.

Where the hardware is wholly surface mounted, with no element recessed into the face/edge of the door, no fixing penetrating the total door thickness, and the hardware is not required to restrain the door for fire resistance reasons, there is no risk associated with the use of these products on fully insulated timber based doorsets of 30 or 60 minutes performance.

In these applications any hardware on the exposed face is likely to fall away early in the test, and hardware on the unexposed face will be insulated from the effects of the heating conditions by the timber based doors and frames.

Shearlock

The FR-SL500 shearlock was successfully tested in both the 30 minute and 60 minute doorset within WF Report No. 399805 in the top of the doorsets.

The body incorporated Interdens Mono Ammonium Phosphate intumescent sheet material to all faces of the recesses in the door and frame of 1 mm in thickness for 30 minutes and 2 mm in thickness for 60 minutes. A nominal amount of perimeter intumescent fire seal by-passed the lock body on the 60 minute doorset (1.5 mm each sides).

Testing the unit in the top edge is considered to represent the most onerous application as it is subject to increase positive pressure from within the furnace which can result in increased erosion of the timber elements around the hardware.

Should the shearlocks be fitted on the lock edge of a single-action, single-leaf doorset this is not expected to have a detrimental effect on the fire resistance performance providing the lock is set a minimum of 1000 mm from the bottom edge of the door to the centre-line of the shearlock body and the intumescent specification identified above is maintained. There is no requirement for the perimeter intumescent fire seals to by-pass the shearlock body or armature.

The shearlocks shall not be fitted at the vertical meeting edges of double-leaf doorsets.

Where the shearlocks are fitted in the top edge of the door, the armature shall be fitted a minimum of 75 mm from the leading edge of the door to the edge of the armature.

The use of the FR-SL500 morticed shearlock is therefore positively appraised for use on 30 minute and 60 minute timber based doorsets.

Electric Bolt

The FR-EB300 electric bolt is a wholly surface mounted electrically controlled lock which is not required to retain the door in the closed position during the fire testing.

The unit was successfully tested on the exposed face on both the 30 minute and 60 minute doorset within WF Report No. 399805.

As the proposal is for these units to be fitted to fully insulated 30 and 60 minute doorsets, if installed to the unexposed face they will be insulated from the effects of the heating conditions by the timber based doors and frames. The above testing is considered suitable justification to permit the use of the FR-EB300 electric bolt on either face of the doorsets.

The use of the FR-EB300 electric bolt is therefore positively appraised for use on 30 minute and 60 minute timber based doorsets.

Door Holder

The FR-GD-Series electromagnetic door holder consists of two elements – an armature which is wholly surface mounted to the face of the door leaf, and an electromechanical element that is fixed to the wall. As the fire door is required to be closed when acting as a fire barrier the wall-mounted element is not relevant to this appraisal.

A GD650S electromagnetic door holder armature was successfully tested on the exposed face on both the 30 minute and 60 minute doorset within WF Report No. 399805.

As the proposal is for these units to be fitted to fully insulated 30 and 60 minute doorsets, if installed to the unexposed face they will be insulated from the effects of the heating conditions by the timber based doors and frames. The above testing is considered suitable justification to permit the use of the FR-GD-Series electromagnetic door holders on either face of the doorsets.

The use of the FR-GD-Series electromagnetic door holders is therefore positively appraised for use on 30 minute and 60 minute timber based doorsets.

Surface Magnet

10010 armatures were successfully tested on the exposed and unexposed faces on both the 30 minute and 60 minute doorset within WF Report No. 399805.

The 10010 armature was considered to represent the most onerous variant being the largest/heaviest from the range. It was considered necessary to test the armature in both directions as the bolt through element creates a thermal bridge through the face of the door. No additional intumescent was included.

As the proposal is for these units to be fitted to fully insulated 30 and 60 minute doorsets, it was not considered necessary to test the actual electromagnet element as it will be insulated from the effects of the heating conditions by the timber based doors and frames.

The use of the FR-A-10000 & FR-U-10000 series surface magnets are therefore positively appraised for use on 30 minute and 60 minute timber based doorsets.

Door Loops

The FR-DL series door loops are a wholly surface mounted, and area available in a range of conduit lengths. All materials and the basic design remain as tested.

The unit was successfully tested on the exposed face on both the 30 minute and 60 minute doorset within WF Report No. 399805.

As the proposal is for these units to be fitted to fully insulated 30 and 60 minute doorsets, if installed to the unexposed face they will be insulated from the effects of the heating conditions by the timber based doors and frames. The above testing is considered suitable justification to permit the use of the FR-DL-series door loops on either face of the doorsets.

The door loops would typically be used in conjunction with doors/frames that incorporate a conduit/mortice to accommodate electrical cables. This appraisal does not considered this conduit/mortice as this is the wholly responsibility of the doorset manufacturer to provide suitable test data.

The use of the FR-DL-series door loops are therefore positively appraised for use on 30 minute and 60 minute timber based doorsets.

Intumescent Protection

It is a requirement of this appraisal that the mortice items must be installed within the doorsets such that the same level of intumescent protection is tested. With reference to the hardware tested this relates specifically to the Shearlocks incorporated on the test samples.

With these products this shall be such that Interdens Mono Ammonium Phosphate intumescent sheet material shall be included to all faces of the recesses in the door and frame of 1 mm in thickness for 30 minutes and 2 mm in thickness for 60 minutes. There is no requirement for the perimeter intumescent fire seals to by-pass the shearlock body or armature.

Proposed Doorsets

As stated in this report, the doorset, in the required configuration, will be previously tested and its performance is therefore not in doubt.

All door hardware is subject to the acceptance by the chosen door assembly supplier's tested, assessed or certificated scope, which generally identifies the types of hardware approved, the required specification/design based on the key materials/ maximum size and the application of any additional intumescent protection.

On this basis approval should be sought from the specific door assembly supplier to ensure compliance based on this assessed/certificated scope.

To enable the use of the ICS hardware discussed on a range of doorsets, it is necessary to address the available information on the proposed doorset. As this appraisal is intended to be used on a general basis and not restricted to any particular manufacturer of fire resisting doorsets, the following minimum specification is given to enable the locks to be used safely:

a) The doorset shall carry valid certification or the doorset, including the door frame and associated ironmongery should have achieved 30 or 60 minutes integrity and where applicable insulation, when tested by a UKAS approved laboratory BS EN 1634-1:2014 + A1:2018.

a) If the proposed doorset is to be used in double-leaf configuration the test or assessment evidence should be applicable to double-leaf configuration.

b) The leaves of the proposed doorset shall be of a minimum thickness of 44 mm for 30 minute doorsets and 54 mm for 60 minute doorsets.

c) The leaves should incorporate hardwood lippings of a minimum thickness of 6 mm and minimum density 640kg/m^3.

d) Door frame minimum density - 450 kg/m^3 for 30 minute doorsets and 640 kg/m^3 for 60 minute doorsets.

Additionally, the amount of interruption to the intumescent seal specification at the door leaf to frame perimeter clearance gaps should be replicated, or greater than that that originally specified for the tested doorset.

Conclusions

Should the recommendations given in this report be followed, it can be concluded that previously fire tested, timber based doorsets which have achieved up to 60 minutes integrity and insulation performance in accordance with BS EN 1634-1, as discussed in this report, may be fitted with ICS Security Solutions door hardware as detailed in Annex A, without detracting from the overall integrity performance of the doorset.

This report represents our opinion as to the performance likely to be demonstrated on a test in accordance with BS EN 1634-1:2014+A1:2018, on the basis of the test evidence referred to in this report. We express no opinion as to whether that evidence, and/or this report would be regarded by any Building Control authorities or any other third parties as sufficient for that or any other purpose.

Review

It has been confirmed by ICS Security Solutions Ltd that there have been no changes to the specification, materials or manufacturing location of the door hardware considered in the original appraisal referenced WF Assessment Report No. 400128.

The original assessment has been written using appropriate test evidence generated at accredited test laboratories. The supporting test evidence has been deemed appropriate to support the manufacturers stated design.

The defined scope presented in the original assessment report relates to the behaviour of the proposed design under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the various ICS door hardware in use.

This revalidation has been prepared and checked by product assessors with the necessary competence, who subscribe to the principles outlined in the PFPF guidelines to undertaking assessments in lieu of fire tests. The aim of the PFPF guidelines is to give confidence to end-users that assessments that exist in the UK are of a satisfactory standard to be used in lieu of fire tests for building control and other purposes.

The PFPF guidelines are produced by the UK Fire Test Study Group (FTSG) an association of the major fire testing laboratories in the UK and are published by the PFPF, the representative body for the passive fire protection industry in the UK.

The data used for the original appraisal has been re-examined and found to be satisfactory. The procedures adopted for the original assessment have also been re-examined and are similar to those currently in use.

Therefore, with respect to the assessment of performance given in WF Assessment Report No. 400128, the contents should remain valid for a further 5 years.

This review is based on information used to formulate the original assessment. No other information or data has been provided by ICS Security Solutions which could affect this review.

The original appraisal report was performed in accordance with the principles of the UK Fire Test Study Group Resolution 82: 2001. This review has therefore also been conducted using the principles of Resolution 82: 2001.

Validity

The assessment is initially valid for five years after which time it is recommended to be submitted to Warringtonfire for re-appraisal.

This assessment report is not valid unless it incorporates the declaration given below duly signed by the applicant.

Summary of Primary Supporting Data

WF No. 399805

For the purpose of the test the doorsets were referenced Doorset A and B.

Doorset A had overall nominal dimensions 2080 mm high by 1002 mm wide incorporating a leaf with overall dimensions of 2040 mm high by 933 mm wide by 44 mm thick. The door leaf was of a solid graduated density chipboard construction, with 8 mm hardwood lippings to the vertical edges and was hung within a softwood frame on three steel hinges, opening towards the heating conditions of the test. The doorset was retained by surface mounted barrel bolts on the unexposed face for the test duration.

Doorset B had overall nominal dimensions 2080 mm high by 1001 mm wide incorporating a leaf with overall dimensions of 2040 mm high by 933 mm wide by 54 mm thick. The door leaf was of a solid graduated density chipboard construction, with 8 mm hardwood lippings to the vertical edges and was hung within a hardwood frame on three steel hinges, opening towards the heating conditions of the test. The doorset was retained by surface mounted barrel bolts on the unexposed face for the test duration.

Both doorsets incorporated the following hardware:

Item Number	Description	Reference
7	Electromagnetic Door Lock	FR – SL500
8	Electromagnetic Door Armature	FR – SL500
9	Electromagnetic Door Lock Body	FR – EB 300
10	Electromagnetic Door Lock Armature	FR – EB 300
11	Steel Armature Plate	10010
12	Electromagnetic Door Holder Armature	GD650S
13	Door Cable Loop	DL 350

The doorset satisfied the test requirements for the following periods:

		Doorset A	Doorset B
Integrity	Sustained Flames	38 minutes	62 minutes
	Gap Gauge	40 minutes#	66 minutes*
	Cotton Pad	36 minutes	62 minutes
Insulation		41 minutes	36 minutes

*The test was discontinued after a period of 66 minutes.
Sections of the doorset sealed, allowing the test to continue.

Warringtonfire was not involved in any selection or sampling procedures of the specimen or any of the components

Test date : 19th May 2018

Test sponsor : ICS Security Solutions Ltd.

Declaration by ICS Security Solutions Ltd

We the undersigned confirm that we have read and comply with obligations placed on us by the Passive Fire Protection Forum (PFPF) Guide to undertaking technical assessments and engineering evaluations based on fire test evidence 2021 Industry Standard Procedure

We confirm that any changes to a component or element of structure, which are the 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.

(In accordance with the principles of FTSG Resolution 82:2001)

Signature:

Name:

ALAN GOODY

Position:

MD

Date:

22-9-2024

For and on behalf of:

ICS Security Solutions LTD

Limitations

The following limitations apply to this assessment:

We confirm that any changes to a component or element of structure which are the 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.

1. This report addresses itself solely to the elements and subjects discussed and do not cover any other criteria or modifications. All other details not specifically referred to should remain as tested or assessed.

2. This report is issued on the basis of test data and information to hand at the time of issue. If contradictory evidence becomes available to Warringtonfire, 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.

3. This field of application has been carried out in accordance with Fire Test Study Group Resolution No. 82: 2001.

4. Opinions and interpretation expressed herein are outside the scope of UKAS accreditation.

5. This field of application relates only to those aspects of design, materials and construction that influence the performance of the element(s) under fire resistance test conditions against the ISO 834 time/temperature curve that is stipulated in the standard this assessment concludes to. It does not purport to be a complete specification ensuring fitness for purpose and long-term serviceability. It is the responsibility of the client to ensure that the element conforms to recognised good practice in all other respects and that, with the incorporation of the guidance given in this field of application, the element is suitable for its intended purpose.

6. This report represents our opinion as to the performance likely to be demonstrated on a test in accordance with EN1634-1, on the basis of the test evidence referred to in this report. We express no opinion as to whether that evidence, and/or this report would be regarded by any Building Control authorities or any other third parties as sufficient for that or any other purpose.

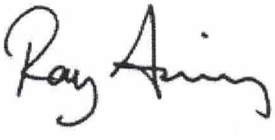
7. This report may only be reproduced in full. Extracts or abridgements of reports shall not be published without permission of Warringtonfire. All work and services carried out by Warringtonfire Testing and Certification Limited are subject to, and conducted in accordance with, the Standard Terms and Conditions of Warringtonfire Testing and Certification Limited, which are available at https://www.element.com/terms/terms-and-conditions or upon request.

8. The version/revision stated on the front of this report supersedes all previous versions/revisions and must be used to manufacture the assessed systems from the stated validity date on this front cover. Previous revisions of the report cannot be used once an updated report has been issued under a new revision.

Signatories

Responsible Officer

A. Green-Morris* - Product Assessor



Approved

R. Anning* - Principal Product Assessor

* For and on behalf of Warringtonfire

Report Issued: 29th June 2018

The assessment report is not valid unless it incorporates the declaration duly signed by the applicant.

Revision History

Issue No: 1	Issue Date: 29th June 2018
Written By: R. Anning	Approved By: M.Tolan

Issue No: 2	Re-issue Date: 11th August 2023
Revised By: A. Green-Morris	Approved By: R. Anning
Reason for Revision: Revalidation	

Annex A

Reference	Description
FR-SL500	Shearlock

FR-EB300	Electric Bolt

FR-GD-Series	Door Holder

FR-A-10000 Series	
A10001	Surface magnet
A10002	Surface magnet
A10004	Surface magnet
A10005	Surface magnet
A10010	Surface magnet
A10020	Surface magnet
A10040	Surface magnet
A10060	Surface magnet

FR-U-10000 Series	
U10001	Surface magnet
U10002	Surface magnet
U10004	Surface magnet
U10005	Surface magnet
U10010	Surface magnet
U10020	Surface magnet
U10040	Surface magnet
U10060	Surface magnet
U10001DSU	Surface magnet
U10002DSU	Surface magnet
U10004DSU	Surface magnet
U10005DSU	Surface magnet
U10010DSU	Surface magnet
U10020DSU	Surface magnet
U10040DSU	Surface magnet
U10060DSU	Surface magnet

FR-DL-Series	
DL350	Door Loop
DL350N	Door Loop
DJ700	Door Loop
DL850	Door Loop
DL350S	Door Loop