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Title

The Fire Resistance Performance of Doorsets When Fitted Frelan Door Hardware if Tested in Accordance with BS EN 1634-1: 2014 + A1: 2018 or BS476: Part 22:1987

WF Assessment Report No.:

363741 Issue 4

Original Issue Date:

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7th Sept 2026

Valid Until:

7th Sept 2031

Prepared for:

Frelan Hardware Ltd.

Unit 10 Mitcham Ind Est,

Streatham Road,

Mitcham,

Surrey,

CR4 2AP United Kingdom

The issue/revision number stated on the front of this report supersedes all previous issues/revisions, if applicable. Previous issues/revisions of the report, if applicable, cannot be used once an updated report has been issued/revised under a new revision.

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

Signatories and Revision History

Issue No.	Date	FM No.	Report scope and Signatures
1	14/04/2016	363741	Initial report issued to Frelan Hardware Ltd.
2	02/08/2016	363741	Product references amended.
3	17/03/2021	437231	5 year revalidation including adding and alternative finishes.
4	07/09/2026	560531	5 year revalidation, addition of full scale BS EN 1634-1 test evidence.

Assessor	Reviewer
Name: * **A.Green-Morris**	Name: ***R.Anning**
Signature: Signed by: E988A69B8C424DA...	Signature: Signed by: 144229DE9F3343A...

*For and on behalf of Warringtonfire

The legal validity of this assessment report can only be claimed on the presentation of the complete assessment report.

Executive summary

This report presents an assessment of the fire resistance performance of the door hardware as fire tested and described in the report the Appendix when modified as detailed in Section 3 of this report.

This assessment report is subject to the requirements and limitations described in Sections 2 and 8.

The assessment in Section 5 of this report found that if the door hardware as tested and described in the Appendix had been modified as proposed, it is expected that it would have been capable of providing the required fire resistance performance as outlined in section 5 if tested in a similar manner to BS EN 1634-1:2014+A1:2018 or BS476: Part 22:1987.

This report represents our opinion as to the performance likely to be demonstrated on a test in accordance with the test standard specified above, 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.

The legal validity of this assessment report can only be claimed on the presentation of the complete assessment report.

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The legal validity of this assessment report can only be claimed on the presentation of the complete assessment report.

1. Introduction

This report presents an assessment of the fire resistance performance of the door hardware as fire tested and described in the Appendix and when modified as detailed in Section 3 of this report.

2. Assessment framework

An assessment is an opinion of the likely performance of a component or element of structure if it was subjected to a standard fire test.

This assessment report has been carried out in accordance with the Passive Fire Protection Forum (PFPF) 'Guide to Undertaking Technical Assessments of the Fire Performance of Construction Products Based on Fire Test Evidence - 2021' and has been written in accordance with the general principles outlined in BS EN 15725: 2023; *Extended application reports on the fire performance of construction products and building elements, as applicable.*

This scope document cannot be used as supporting documentation for either a CE or UKCA marking application or EXAP scope 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 element under the particular conditions of the test; they are not intended to be the sole criterion for considering the potential fire hazard of the door assembly in use.

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.

This report uses established empirical methods of extrapolation and experience of fire testing similar elements, 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 test standard specified.

This report has been written using appropriate test evidence generated at UKAS accredited laboratories, to the relevant test standard. The supporting test evidence has been deemed appropriate to support the stated design and is summarised in Section 3 and Appendix A.

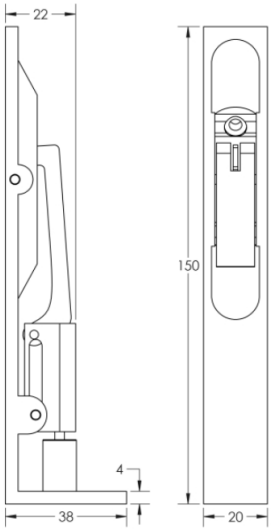
The legal validity of this assessment report can only be claimed on the presentation of the complete assessment report.

3. Description Of the Products

3.1 Flush Bolts

All flush bolts are a steel ‘skeleton’ design manufactured entirely from 304 grade stainless steel; the mechanism is exposed at the back. The flush bolts are recessed into the edge of the door leaf. The hardware is available in a variety of finishes, such as but not limited to AB, DB, SB, MB, GM, PVD and BRASS.





Satin Stainless Steel		Polished Stainless Steel	
Reference	**Size**	**Reference**	**Size**
Square Corners			
JSS50	150 x 20 mm	JPS50	150 x 20 mm
JSS51	203 x 20 mm	JPS51	203 x 20 mm
JSS52	305 x 20 mm	JPS52	305 x 20 mm
JSS53	457 x 20 mm	JPS53	457 x 20 mm
JSS56	609 x 20 mm	JPS56	609 x 20 mm
JSS57	914 x 20 mm	JPS57	914 x 20 mm
Radiused Corners			
JSS50R	150 x 20 mm	JPS50R	150 x 20 mm
JSS51R	203 x 20 mm	JPS51R	203 x 20 mm
JSS52R	305 x 20 mm	JPS52R	305 x 20 mm
JSS53R	457 x 20 mm	JPS53R	457 x 20 mm
JSS56R	609 x 20 mm	JPS56R	609 x 20 mm
JSS57R	914 x 20 mm	JPS57R	914 x 20 mm

The legal validity of this assessment report can only be claimed on the presentation of the complete assessment report.

4. General requirements and assumptions

- 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.
- It is also assumed that the doorsets will fully comply with any certification scope or assessed modifications, apart from the modifications specified in this report.
- 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. The application of increased perimeter gaps in accordance with the Field of Direct application of test results, in accordance with BS EN 1634-1: 2014 + A1: 2018 is therefore not permitted in conjunction with this assessment report. It is assumed that the door leaves will be in the closed position.
- It is assumed that the doorsets will be installed in a similar manner to that of the previously tested assembly by competent installers.
- Recessing of any type that may be required for any of the specified hardware shall result in a tight fit, allowing for any intumescent protection where required.
- 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 (e.g. forend, case size, latchbolt, strikeplate, fixing specification, etc.), 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.
- 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.
- 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.
- It is assumed that the end user will have a full understanding of the tested specification as defined in the relevant test report(s) summarised in the Appendix.
- If a design variation or extension to scope is not explicitly detailed within the assessment it should not be assumed to be acceptable by omission.

The legal validity of this assessment report can only be claimed on the presentation of the complete assessment report.

5. Assessment of proposed modifications

5.1 Proposal

It is further proposed to consider the fire resistance performance of timber-based door assemblies, when fitted with flush bolts, for up to 60 minutes fire resistance integrity performance only (and where appropriate insulation performance), if the hardware was to be tested to the requirements of BS EN 1634-1:2014 + A1:2018 or BS476: Part 22:1987.

Detail of the proposed ranges are identified in section 3.

5.1.1 Flush Bolts

Timber based doorsets – 30 minutes

The doorset within WF Report No. 556317 was of overall dimensions 2080 mm high by 1926 mm wide. Both door leaves have overall dimensions of 2040 mm high by 927 mm wide by 44 mm thick both door leaves comprised of graduated density chipboard core and 6 mm thick hardwood lippings to the vertical and horizontal edges. The leaves were hung within a softwood frame on three brass hinges, such that they opened towards the heating conditions of the test. The doorset was unlatched and unbolted for the duration of the test.

The 914 mm high JSS57R was fitted in the door meeting edge at the top of the secondary leaf, with the strikeplate fitted in the frame head rebate. The 300 mm high JSS52R flushbolt was fitted in the door meeting edge at the bottom of the secondary leaf, the strike plate was not present at the base of the secondary leaf.

Both flushbolts had 1 mm graphite Therm-A-Flex intumescent sheet material fitted full length in the base of the recess behind the flushbolt and behind the forend and behind strike plate, the kits were referenced “GRA17” and “GRA 8” correspondingly which were supplied by Vanquish. The perimeter intumescent fire seals in the leading edge of the primary leaf were uninterrupted at the flushbolt locations, the fire seal along the secondary leaf was fully interrupted at the flushbolt locations and the strikeplate plate within the frame rebate was fully interrupted.

On reviewing the observations taken from the test report, a cotton pad flaming integrity failure was recorded at the bottom hinged corner of the primary leaf at 30 minutes, additionally there was a sustained flaming failure recorded at the top of the meeting edge and in the top right corner of the secondary leaf at 32 minutes, there were no other failures prior to the test being discontinued at 36 minutes.

On this basis the flushbolts are therefore deemed acceptable for use with 30 minute timber-based doorsets.

For timber doorsets, the critical factor when changing from one bolt to another is the size of the bolt body. A larger flushbolts may require more cellulosic material to be removed from the leaf and frame and therefore may provide an easier route for the passage of flames and/or hot gases leading to premature integrity failure. Similarly, the reduction in flushbolt material present will reduce the level of heat transfer from the flushbolt into the core of the door leaf.

Additionally, the amount of interruption to the intumescent seal specification at the door leaf to frame perimeter clearance gaps should be replicated and not reduced from that originally specified for the tested doorset, ensuring that the amount or perimeter intumescent by-passing the flushbolt originally is retained.

The flushbolts are identical to the tested flushbolts, only varying in height or radiused corners. These flushbolts fall below the heights of the flushbolts tested, radiused corners require less timber material to be removed from the door and frame and represent a slight reduction in metal, this reduces the potential for transferring heat into the door and frame and consequently the risk of flaming and erosion is also slightly reduced. The flushbolts mentioned above are consequently their use is also approved for use with 30 timber-based doorsets.

All flush bolts for 30 minute applications shall have 1 mm graphite Therm-A-Flex intumescent sheet material fitted full length in the base of the recess behind of flushbolt and behind the forend and behind strike plate.

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Additionally, the perimeter intumescent fire seals in the leading edge of the primary leaf (two 15 x 4 mm) shall remain uninterrupted, the seal along the secondary leaf may be interrupted (one 15 x 4 mm), and the strikeplate plate within the frame rebate may be fully interrupted on 30 minute applications.

The hardware is supplied in a range of applied finishes e.g., Satin Stainless Steel, Brushed Stainless Steel and PVD. The change of finish is not considered to have any negative influence on the performance of the hardware when used in the proposed applications because the fundamental material does not change. The proposed hardware with an alternative finished are positively appraised.

Timber based doorsets – 60 minutes

The performances of the doorset during the test referenced WF No. 556314 is cited to display the ability of the flushbolts to contribute towards the required fire resistance performance for 60 rated timber based doorsets when fitted in the leading edge of the secondary leaf.

The doorset within WF Report No. 556314 was of overall dimensions 2080 mm high by 1926 mm wide. Each door leaf had overall dimensions of 2040 mm high by 927 mm wide by 54 mm thick door leaves comprised of graduated density chipboard core and 6 mm thick hardwood lippings to the vertical and horizontal edges. The leaves were hung within a hardwood frame on three steel hinges, such that they opened towards the heating conditions of the test. The doorset was unlatched and unbolted for the duration of the test.

The 914 mm high JSS57R was fitted in the door meeting edge at the top of the secondary leaf, with the strikeplate fitted in the frame head rebate. The 300 mm high JSS52R flushbolt was fitted in the door meeting edge at the bottom of the secondary leaf, the strike plate was not present at the base of the secondary leaf.

Both flushbolts had 2 mm Therm-A-Flex intumescent sheet material fitted full length in the base of the recess behind of flushbolt and behind the forend and behind strike plate. The kits were referenced “GRA17.2” and “GRA 8.2” correspondingly which were supplied by Vanquish. The perimeter intumescent fire seals in the leading edge of the primary leaf were uninterrupted at the flushbolt locations, the fire seal along the secondary leaf was fully interrupted at the flushbolt locations, and the strikeplate plate within the frame rebate was by-passed by the perimeter intumescent fire seals 10.5 mm on both sides.

On reviewing the observations taken from the test report, a sustained flaming integrity failure was recorded at the cylinder position on the primary leaf 60 minutes, additionally there was a sustained flaming failure recorded at the top of the meeting edge 61 minutes, which was extinguished at 62 minutes, the was discontinued at 67 minutes.

On this basis the flushbolts are therefore deemed acceptable for use with 60 minute timber-based doorsets.

For timber doorsets, the critical factor when changing from one bolt to another is the size of the bolt body. A larger flushbolts may require more cellulosic material to be removed from the leaf and frame and therefore may provide an easier route for the passage of flames and/or hot gases leading to premature integrity failure. Similarly, the reduction in flushbolt material present will reduce the level of heat transfer from the flushbolt into the core of the door leaf.

Additionally, the amount of interruption to the intumescent seal specification at the door leaf to frame perimeter clearance gaps should be replicated and not reduced from that originally specified for the tested doorset, ensuring that the amount or perimeter intumescent by-passing the flushbolt originally is retained.

The flushbolts are identical to the tested flushbolts, only varying in height or radiused corners. These flushbolts fall within or below the heights of the flushbolts tested, radiused corners require less timber material to be removed from the door and frame and represent a slight reduction in metal, this reduces the potential for transferring heat into the door and frame and consequently the risk of flaming and erosion is also slightly reduced. The flushbolts mentioned above are consequently their use is also approved for use with 60 minute timber-based doorsets.

For 60 minute applications all flush bolts shall have 2 mm Therm-A-Flex intumescent sheet material fitted full length in the base of the recess behind of flushbolt and behind the forend and behind strike plate.

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Additionally, the perimeter intumescent fire seals in the leading edge of the primary leaf (two 15 x 4 mm) shall remain uninterrupted, the seal along the secondary leaf may be interrupted (one 15 x 4 mm) and shall be by-passed 10.5 mm on both sides by the perimeter intumescent fire seals on 60 minute applications, further to this the strikeplate plate within the frame rebate was by-passed by the perimeter intumescent fire seals 10.5 mm on both sides.

The hardware is supplied in a range of applied finishes e.g., Satin Stainless Steel, Brushed Stainless Steel and PVD. The change of finish is not considered to have any negative influence on the performance of the hardware when used in the proposed applications because the fundamental material does not change. The proposed hardware with an alternative finished are positively appraised.

5.1.2 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 (e.g. hinge blade size, cut out dimensions), 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.

The hardware is supplied in a range of applied finishes e.g., Satin Stainless Steel, Brushed Stainless Steel and PVD. The change of finish is not considered to have any negative influence on the performance of the hardware when used in the proposed applications because the fundamental material does not change. The proposed hardware with an alternative finished are positively appraised.

5.1.3 Alternative Doorsets

As this appraisal is intended to be used on a general basis and not restricted to any particular manufacturer of fire doors, the following points are given to enable the hinges to be used safely:

The timber based doorset, including door frame, intumescent seals and associated ironmongery should have achieved up to 60 minutes integrity and, where applicable, insulation when tested by a UKAS approved laboratory to BS EN 1634-1:2014 +A1:2018 or BS476: Part 22:1987.

The critical aspects of the doorset construction are considered to be the material of the door frame, the leaf to frame clearance gaps and the lipping material. Attention should be paid to these details, and these should not be amended from that previously fire tested. Where this information is not known the following minimum specification will be followed:

- 30 Minute timber-based doorsets
    - Door frame minimum density - 460 kg/m^3
    - Door leaves shall have a minimum thickness of 44 mm for 30 minute applications.
    - Leaf to frame clearance gaps not to exceed 3 mm maximum.
    - Lipping density - 640 kg/m^3.

- 60 Minute timber-based doorsets
    - Door frame minimum density - 640 kg/m^3
    - Door leaves shall have a minimum thickness of 54 mm for 60 minute applications.
    - Leaf to frame clearance gaps not to exceed 3 mm maximum.
    - Lipping density - 640 kg/m^3.

The legal validity of this assessment report can only be claimed on the presentation of the complete assessment report.

6. Conclusions

Should the recommendations given in this report be followed, it can be concluded that timber doorsets, which have previously been successfully fire tested to EN 1634-1 or BS476: Part 22 by a laboratory accredited to IS/IEC 17025 (under International Laboratory accreditation Cooperation (ILAC) membership), and have achieved up to 60 minutes, as discussed in this report, may be fitted with the flushbolts, without detracting from the overall integrity performance (and insulation where relevant) of the doorset.

The legal validity of this assessment report can only be claimed on the presentation of the complete assessment report.

7. Declaration

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 No. 82: 2001)

Signed: Signed by: 6C98FA8938184BE...

Name: Andy McMeechan

Position: Product development

Date: 09-Sep-2026 | 01:05 PDT

For and on behalf of: Frelan Hardware Ltd

The legal validity of this assessment report can only be claimed on the presentation of the complete assessment report.

8. Limitations

This assessment report:

- Does not provide an endorsement by Warringtonfire of actual products supplied.
- Has been prepared based on information provided by the Applicant. Warringtonfire has not verified the accuracy or completeness of that information and will not be responsible for any errors or omissions that might be incorporated into this report as a result.
- Any figures included in this report are provided for illustrative purposes only and may not fully reflect the actual scope being assessed. Warringtonfire cannot guarantee the accuracy of the drawings against the scope being assessed. The scope of this report is limited to assessments of the modifications to the tested systems as described in Section 3.
- 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.
- 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 should be re-evaluated if the assessed construction is subsequently tested since actual test data is deemed to take precedence.
- This assessment has been carried out in accordance with Fire Test Study Group Resolution No. 82: 2001.
- Opinions and interpretation expressed herein are outside the scope of UKAS accreditation.
- This assessment report relates only to those aspects of design, materials and construction that influence the performance of the element(s) under fire resistance test conditions that are 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 assessment, the element is suitable for its intended purpose.
- This report represents our opinion as to the performance likely to be demonstrated on a test in accordance with the standard to which this assessment concludes, 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.
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- Previous versions of the report(s), if applicable, are withdrawn from the date of the up-issued assessment report with immediate effect. That means that they may no longer be relied upon in support of any products being placed on the market (or for the stated project/address where applicable) from the issue date stated on the front cover of this report. The withdrawal of an assessment report does not affect any reliance placed on the report up to the issue date stated on the front cover of this assessment; however, going forward, the up-issued report must be referenced in any literature or product specifications in place of the previous versions of the assessment.

9. Validity

This assessment report is not valid unless signed by all signatories identified within the Signatories and Revision History section of this report.

This assessment report is not valid unless it incorporates the declaration given in Section 7 duly signed by the applicant.

The assessment is valid initially for a period of five years after which time it is recommended that it be submitted to the assessing authority for re-evaluation.

The legal validity of this assessment report can only be claimed on the presentation of the complete assessment report.

Appendix A
Summary of supporting data

The summaries in this section are for information only. It is assumed that the end user will have a full understanding of the tested specification as defined in the relevant test report.

Where of the test evidence used in the evaluation is over 5 years old. In accordance with industry guidance, the evidence has been reviewed to consider its suitability. Warringtonfire are satisfied that there have been no significant revisions to the relevant test standards which would render the evidence irrelevant.

A.1 Primary Evidence

<table>
<tr><th colspan="2">Test Report Reference WF 556314</th></tr>
<tr><td>Report sponsor</td><td>Frelan Hardware Ltd</td></tr>
<tr><td>Test laboratory</td><td>Warringtonfire
Holmesfield Road
Warrington
WA1 2DS
United Kingdom</td></tr>
<tr><td>Test date</td><td>28th January 2026</td></tr>
<tr><td>Test standard</td><td>BS EN 1634-1:2014+A1:2018</td></tr>
<tr><td>Specimen summary</td><td>The doorset had overall nominal dimensions of 2080 mm high by 1926 mm wide, which was installed within a low-density blockwork construction. The doorset incorporated two leaves with overall dimensions of 2040 mm high by 927 mm wide by 54 mm thick. The leaves were referenced passive Door Leaf A and active Door Leaf B. The door leaves were hung within a hardwood FD60 frame by six steel hinges (three per leaf), such that the leaves opened towards the heating conditions.

Both door leaves were formed a 54 mm thick unfinished particle board referenced ‘Prima FD60’ with 6mm lipping adhered to all edges. Both leaves had closing devices referenced “TS.5204BC (JD200SN)” installed on the exposed face. The doorset incorporated a Euro deadlock on the active leaf and also incorporated flush bolts on the meeting edge on both the head and base of the passive leaf; both the dead lock and flush bolts were disengaged for the duration of the test.

The test was discontinued after a period of 67 minutes.

Warrington Fire Research Centre was not involved in any selection or sampling procedures of the specimen or any of the components.</td></tr>
<tr><td>Test results</td><td>
<table>
<tr><th></th><th>Doorset</th></tr>
<tr><td>Integrity</td><td>60 minutes</td></tr>
<tr><td>Insulation</td><td>60 minutes</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th colspan="2">Test Report Reference 556317</th></tr>
<tr><td>Report sponsor</td><td>Frelan Hardware Ltd</td></tr>
<tr><td>Test laboratory</td><td>Warringtonfire
Holmesfield Road
Warrington
WA1 2DS
United Kingdom</td></tr>
<tr><td>Test date</td><td>28th January 2026</td></tr>
<tr><td>Test standard</td><td>BS EN 1634-1:2014+A1:2018</td></tr>
<tr><td>Specimen summary</td><td>The doorset had overall nominal dimensions of 2080 mm high by 1926 mm wide, which was installed within a low-density blockwork construction. The doorset incorporated two leaves with overall dimensions of 2040 mm high by 927 mm wide by 44 mm thick. The leaves were referenced passive Door Leaf A and active Door Leaf B. The door leaves were hung in a softwood FD30 frame by six brass hinges (three per leaf), such that the leaves opened towards the heating conditions.

Both door leaves were formed from a 44 mm thick unfinished particle board referenced ‘Prima FD30’ with 6mm thick lipping adhered to all edges. Both leaves had closing devices referenced “TS.5204BC (JD200SN)” installed on the exposed face. The doorset incorporated a Euro deadlock on the active leaf and also incorporated flush bolts at the meeting edge on both the head and base of the passive leaf; both the dead lock and flush bolts were disengaged for the duration of the test.

The test was discontinued after a period of 36 minutes.

Warringtonfire was not involved in any selection or sampling procedures of the specimen or any of the components.</td></tr>
<tr><td>Test results</td><td>
<table>
<tr><th></th><th>Doorset</th></tr>
<tr><td>Integrity</td><td>30 minutes</td></tr>
<tr><td>Insulation</td><td>30 minutes</td></tr>
</table>
</td></tr>
</table>

The legal validity of this assessment report can only be claimed on the presentation of the complete assessment report.

A.2 Secondary Evidence

Test Report Reference WF 363166	
Report sponsor	Frelan Hardware Ltd.
Test laboratory	Warringtonfire Holmesfield Road Warrington WA1 2DS United Kingdom
Test date	29th March 2016
Test standard	Utilised the heating and pressure conditions given in BS EN 1363-1:2012
Specimen summary	For the purpose of the test the simulated doorsets were referenced Specimen A and Specimen B. Specimen A briefly had overall nominal dimensions 1490 mm high by 735 mm wide incorporating two sections of door leaf, each with overall dimensions 1458 mm high by 366 mm wide by 44 mm thick. The door leaves were of a solid graduated density chipboard construction, with 8 mm hardwood lippings to the vertical edges. Both leaves were butted together to simulate a double leaf doorset and included a section of softwood timber at the head of the leaves to simulate an upper frame member. The right side leaf (Leaf B) incorporated two flush bolts, one fitted at the head referenced “JSSS57SSS” which was engaged for the test and had overall dimensions 914 mm by 20 mm, the other fitted at the bottom of the leaf referenced “JSSS50SSS” which was disengaged and had overall dimensions 150 mm by 20 mm. Both flush bolts were protected with 1 mm Interdens intumescent lining around the aperture and behind the face plate. Specimen B briefly had overall nominal dimensions 1490 mm high by 735 mm wide incorporating two sections of door leaves each with overall dimensions 1458 mm high by 366 mm wide by 54 mm thick. The door leaves were of a solid graduated density chipboard construction, with 8 mm hardwood lippings to the vertical edges. Both leaves were butted together to simulate a double leaf doorset and included a section of hardwood timber at the head of both leaves to simulate an upper frame member. The right side leaf (Leaf B) incorporated two flush bolts, one fitted at the head referenced “JSSS57SSS” which was engaged for the test and had overall dimensions 914 mm by 20 mm, the other fitted at the bottom of the leaf referenced “JSSS50SSS” which was disengaged and had overall dimensions 150 mm by 20 mm. Both flush bolts were protected with 2 mm Interdens intumescent lining around the aperture and behind the face plate. The specimens were orientated to simulate a full doorset that would open towards the heating conditions of the test.

The legal validity of this assessment report can only be claimed on the presentation of the complete assessment report.