
Title

Field of Application for:
The Panel Technologies 16 Range of
Un-insulating Steel Doorset designs

For up to 120 minutes Fire Resistance
(integrity only) if they were to be tested
in accordance with BS EN 1634-
1:2014 +A1: 2018

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WF501185 Revision A

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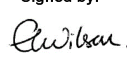
557618

Prepared for:

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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.

Signatories and Revision History

Rev. No.	Date	FM No.	Report scope and Signatures		
-	29/03/21	501185	Initial report issued to Panel Technologies Ltd		
A	16/04/26	557618	Revision and revalidation for 5 years.		
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*For and on behalf of Warringtonfire

Executive summary

This field of application report presents an assessment of the fire resistance performance of the specified proprietary un-insulating steel access panel doorset designs, as fire tested and described in the reports detailed within Appendix A when modified as detailed herein.

The proposed modifications include leaf and frame design options, doorset configurations and sizes, various hardware and installation parameters as discussed in the relevant sections below.

This assessment report is subject to the requirements and limitations described in Sections 2 and 12.

The findings of this report are that if un-insulating steel access panel doorsets are constructed in accordance with the specification documented in this field of application were to be tested in accordance with BSEN 1634: 2014 +A1: 2018, when fitted opening away from the furnace conditions and fitted to the unexposed face of the supporting wall construction, it is expected that they would be capable of providing a minimum of 120 minutes integrity fire resistance performance.

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.

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1. Introduction

This field of application report presents an assessment of the fire resistance performance of the specified proprietary un-insulating steel access panel doorset designs, as fire tested and described in the reports detailed within Appendix A when modified as detailed herein.

Analysis of specific construction details that require assessment are given within this report against the relevant element of construction, as appropriate.

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 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 the 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 Appendix A.

3. General requirements and assumptions

The specified proprietary un-insulating steel access panel doorset designs shall be constructed in a similar manner from materials and components of the same manufacturer and equivalent quality as those tested or otherwise assessed by Warringtonfire.

The following assumptions have been made in the preparation of this report:

- It is assumed that unless otherwise documented in the field of application sections of this report, the doorset subject to this report will be constructed in accordance with the test evidence referred to herein.
- All dimensions detailed herein may be varied by $\pm 2\%$ except where minimum, maximum or a range of dimensions are given.
- Where steel is referred to within this document it is assumed that the steel element is made from a continuous solid piece, unless specifically detailed otherwise.

It is assumed that the end user will have an understanding of the tested specification as defined in the relevant test report(s) summarised in Appendix A.

Whilst specific items are included within this Field of Application report that may be used to provide additional performance characteristics (such as acoustic or smoke control for example), it is beyond the remit of this Field of Application report to provide scope for performance characteristics other than fire resistance integrity performance. Any other performance requirement for the door designs contained herein is to be subject to a separate analysis.

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.

4. Technical Specification

4.1 General

The technical specification for the proposed door assembly is given in the following sections and is based on the test evidence for the door designs, summarised in Appendix A.

4.2 Intended Use

The intended use of the proposed door assembly is summarised below:

A pedestrian doorset including any frame, door leaf or leaves which is provided to give a fire resisting capability when used for the closing of permanent openings in fire resisting separating elements, which together with the building hardware and any seals (whether provided for the purpose of fire resistance or smoke control or for other purposes such as draught or acoustics) form the assembly.

4.3 Door Leaf

Specific sections within this assessment must be referred to for design limitations and construction requirements.

Section 5 gives the description of the leaf in terms of composition and construction etc.

4.3.1 Leaf 1 – Zintec steel – 24mm thick

The door designs can include:

1. Empty core only
2. Decorative finishes
3. Alternative galvanisation processes

4.4 Door Frames

Specific sections within this assessment must be referred to for design limitations and construction requirements.

Section 6 gives the description of the frame including composition and dimensions.

The construction of the door frame is mild steel.

4.5 Doorset Configurations & Maximum Leaf Sizes

4.5.1 General

The evaluation of the leaf size and doorset configuration is based on the test evidence listed in Appendix A and takes into account:

- Achieving a category B overrun as stated in BS EN 1634-1:2014 + A1: 2018
- The margin of over performance above the integrity performance for the specific design
- The characteristics exhibited tested
- The doorset configuration tested.

For steel doorsets dimension modifications can result in different performance, including both increases and reductions in leaf height and width dimensions from those tested. This has been taken into consideration and therefore steel doorsets of the assessed design, with dimensions as shown in section 4.5.4, are covered and may be manufactured.

Inclusion of specific design details may require restrictions to maximum or minimum leaf sizes.

4.5.2 Configuration

The table below shows the permitted configurations for the doorset design, with the abbreviation and full description of the configuration.

The following sections details the assessed maximum leaf size envelopes for each permitted configuration based on the door frame tested.

Depiction	Abbreviation	Description
	LSASD	Locked Single Acting Single Doorset

4.5.3 Orientation

The doorset design was tested with the leaf opening away from the furnace and the frame fitted to the unexposed face of the supporting wall construction.

Based on this testing, the leaf design may be installed opening away from the fire exposed conditions and fitted to the unexposed face of the supporting wall construction.

Consideration has been made of guidance within Annex C of BS EN 1634-1:2014 +A1:2018.

4.5.4 Leaf Sizes

The permitted leaf size is based on the demonstrated performance in test reference WF435047, with tested leaf size of 1198mm high x 695mm wide, tested opening away from the furnace test conditions. Test WF435047 achieved a Category B overrun at 120 minutes integrity performance and did not achieve an insulation performance.

It is assessed, that on the basis of the methodology adopted within BS EN 15269-2: 2024 (Annex A clause A.2.1 to A.2.4), leaf size reduction and increase from that tested, for single leaf doorsets, are permitted as follows:

Unlimited leaf size reduction (height and width) has been assessed as permitted (using direct field principles of Annex B, Table B.1 of BS EN 1634-1: 2014 + A1: 2018).

Based on the tested specimen achieving Category B overrun leaf size increase is assessed as permitted (using the direct field principles of Annex B, Table B.1 of BS EN 1634-1: 2014+A1: 2018) to apply up to 15% height, 15% width and up to 20% area increase.

4.5.4.1 Leaf Sizes – Leaf 1

For single doorsets required to provide up to 120 minutes integrity performance, leaf size may be varied within the following range as specified in the table below for rectangular leaves

Single leaf Doorset

Leaf Dimensions ⁴	Height (mm) (length of hinged and locked edge)	Width (mm) (length of other edge)
Minimum	No Limit ³	No Limit ³
Maximum	1377	799

Note:

1. In all cases the maximum permitted area of the leaf is 0.99m²
2. It is required that for rectangular doorsets that one of the longer leaf edges is fitted with the lock(s). The longer leaf edge must be vertical.
3. The fitting of hardware with required positioning stated in section 8 of this report and complying with the leaf and frame design will result in a practical minimum leaf dimension.
4. Based on test reference WF435047, with a high leaf distortion assumed due to an incomplete distortion reading given in the referenced test report.

5. General Description of Construction

5.1 Tested Leaf Construction

Fabrication of the access panel leaf must be as tested. The table in the following section summarises the main components of the tested access panel leaf design. For full construction details reference should be made to the full test report which is summarised in Appendix A.

The tested access panel leaf thickness is 24mm.

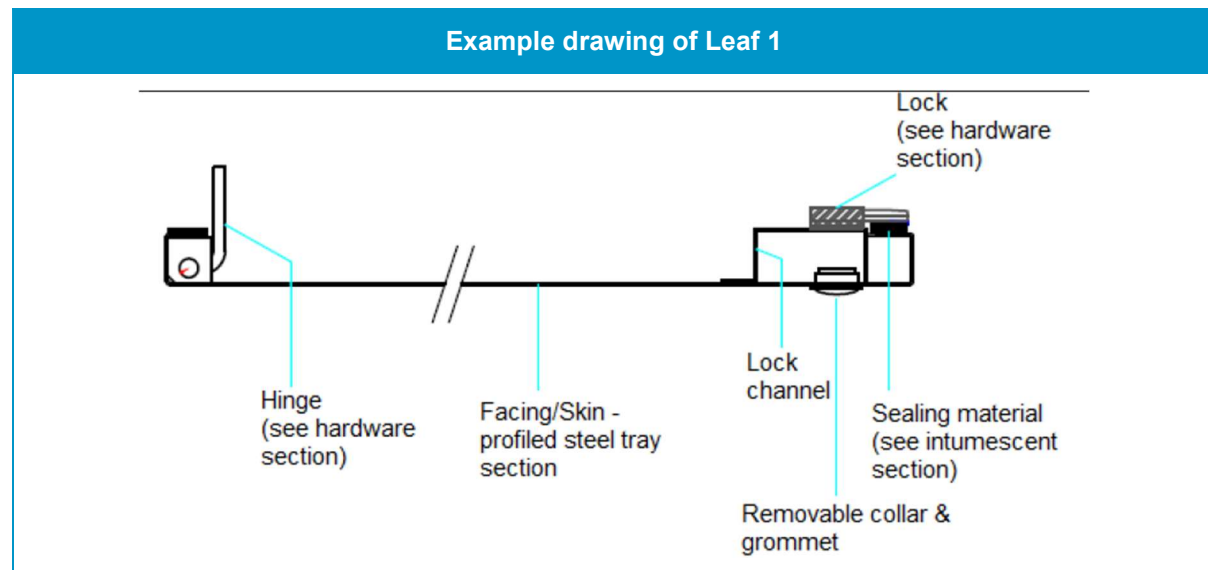
See section 5.2 for assessed variations to the tested leaf construction.

5.1.1 Leaf 1 – For up to 120 Minutes Integrity Performance

The basic tested construction of this door leaf design comprises the following:

Element	Material	Dimensions (mm)
Facing/Skin	Zintec coated mild steel tray profile	0.9 thick x 24 deep x 20 wide return (see section 5.2 for assessed maximum & minimum thicknesses) 
Core	None	-
Lock Channel	Zintec coated mild steel 'U' profile	0.9 thick x 23 high x 48 wide 'U' channel with 15 wide flange welded to the leaf face 

The figure below shows an example detail of leaf 1. For full construction details reference should be made to the full test report which is summarised in Appendix A.



5.2 Variations to Tested Leaf Construction

Variations to size or materials of leaf construction are not permitted unless specifically detailed in the following sections.

5.2.1 Leaf Thickness

Based on the test evidence it is assessed that increase in the tested leaf thickness is not permitted.

It is the opinion of Warringtonfire that a reduction by up to 10% in the tested leaf thickness only would not be expected to negatively influence the performance of the doorset if tested and is therefore permitted. This is based upon the fire resistance performance and overrun observed in the test evidence cited in Appendix A, as well as the requirements for hardware resulting in restraint between the leaf edge and frame at multiple positions around the leaf perimeter.

The permitted leaf thickness is therefore as follows:

Maximum leaf thickness (without finishes) = 24mm

Minimum leaf thickness (without finishes) = 21.6mm

5.2.2 Leaf Facing/skin

Whilst the testing conducted on this design evaluated nominally 0.9mm thick Zintec coated mild steel finish, it is considered (in accordance with A.3.21 of BS EN 15269-2: 2024) that a maximum 10% increase in the thickness of the steel sheet is permitted.

It is the opinion of Warringtonfire that the thickness may not be reduced any further than the tested thickness.

The permitted thickness of leaf facing/skin is therefore, as follows:

Maximum finish thickness = 0.99mm

Minimum finish thickness = 0.9mm

5.2.2.1 Alternative Leaf Facing/skin Material

Alternative leaf facing/skin material is not permitted. Leaf facing/skin material must remain as tested.

5.2.3 Decorative and protective finishes

The following additional finishes are permitted for this leaf design since they would either degrade rapidly or remain inert under test conditions without significant effect to the fire resistance performance of the access panel.

Decorative & Protective Finish Specification	
Facing Material	Maximum Permitted Thickness (mm)
Paint	0.2
Vitreous Enamel	1.0
Stove Enamelling	0.1
Epoxy Powder Coating	0.4

Notes:

1. Intumescent paints are not permitted.

5.2.4 Galvanisation Process

It is opinion of Warringtonfire, that the effect the use of a particular galvanisation process will have on the doorset design tested, will be insignificant. Therefore, any of the galvanisation processes listed below are acceptable for the leaf:

- Hot dip
- Electro-galvanisation
- Aluzinc

6. Door Frame Construction

6.1 Tested Frame Construction

The frame design detailed below is approved by this assessment.

The fabrication of the access panel frame must be as tested in WF435047.

The following section details the main components of the tested frame design. For full construction details, reference should be made to the full test report which is summarised in Appendix A.

The tested construction is detailed in section 6.1. See section 6.2 for assessed variations to the tested frame construction.

This is a four-sided single rebate frame construction based on the referenced test evidence

Element	Material or product	Dimensions(mm)
Head & Threshold	Zintec coated profiled steel section, featuring an integral stop	150 deep x 90 wide x 1 thick overall
Jambs	Zintec coated profiled steel section, featuring an integral stop	150 deep x 50 wide x 1 thick overall
Stop	Integral	20 deep

The figure below is an example detail of the tested frame profile.

Head & Threshold profile of tested Frame (Frame 1)	Jamb Profile of tested Frame (Frame 1)

6.2 Variations to Tested Frame

The frame must remain as tested in WF435047 except for the variations specifically detailed in the following sections.

6.2.1 Frame projection

The frame projection from the supporting construction may be varied within the maximum and minimum sizes specified in the table below. All other dimensions of the frame profile must remain as tested.

Parameter	Minimum Dimension (mm)	Maximum Dimension (mm)
Frame Projection	60	150 (as tested)

Note: The tested frame was installed projecting from the supporting construction by 150mm, which may be reduced to 60mm. This construction is considered structurally less onerous than the 150mm projection tested due to a lesser moment at the fixings exerted by the weight of the access panel and this will be expected to result in a lower distortion along the depth of the frame. The reduced projection size will also produce lower thermal strain along the length of the frame and hence lower thermally induced distortions reducing the likelihood of gaps occurring between the frame and the leaf during a fire resistance test.

6.2.2 Frame material thickness

The testing conducted on this design evaluated a nominally **1.0mm** thick Zintec coated mild steel frame, it is considered (clause 13.2.2.2 of BS EN 1634-1: 2014+A1: 2018) that a maximum 25% increase in the thickness of the steel sheet is permitted.

It is the opinion of Warringtonfire that the thickness may not be reduced any further than the tested thickness.

The permitted thickness of the frame material (picture frame) is therefore, as follows:

Maximum frame material thickness (without finishes) = **1.25mm**.

Minimum frame material thickness (without finishes) = **1.0mm** (as tested)

6.2.3 Galvanisation Process

It is opinion of Warringtonfire, that the effect the use of a particular galvanisation process will have on the doorset design tested, will be insignificant. Therefore, any of the galvanisation processes listed below are acceptable for the frame:

- Hot dip
- Electro-galvanisation
- Aluzinc

6.3 Frame Joint

The head to jambs and threshold to jambs jointing must be a welded type construction as tested. Joints must be tight and secure with no gaps. For further details reference should be made to the full test report summarised in Appendix A.

7. Perimeter Seals

The intumescent seal that has been tested and assessed for this doorset design is detailed below. When fitted, the seal must be fitted as tested and must not interfere with the ability of the leaves to be closed into the frame meeting the requirements of section 9.5.

Seals must run the full length of the required location, with tightly formed abutting corner joints, and fitted as tested. Apart from at corners, joints are not permitted.

Sealing materials tested and assessed for this steel access panel design are as follows:

Application	Product and Manufacturer	Location
Frame Reveal	Norseal Ltd, 15mm x 4.5mm FS1000 Foam buffer seal	Fitted on the upstand of the stop to all four edges of the frame to contact with the leaf face.

8. Hardware

8.1 General

The following sections detail the permitted scope and constraints for fitting hardware to this door design and consider what tested items of essential hardware can be used.

Each section will consider the named item of hardware and detail if there are any limitations.

Hardware items should generally be fitted in accordance with the manufacturer's instructions. However, the parameters and requirements of this assessment always take precedence.

8.2 Intumescent to Hardware

Intumescent materials were not used to protect hardware during the tests and are not required or permitted.

8.3 Essential Hardware

The following table details the essential hardware for the various doorset configurations that are referenced in this assessment.

Configuration	Hardware
LSASD	• Latch • Pivot hinge • Door retaining Bolts • Fire door keep locked shut sign

Note:

1. Closer – the doorsets do not require self-closing devices since they must be kept locked shut. A metal 'Fire Door Keep Locked Shut' sign must therefore be fixed to the leaf face.
2. Lock(s) must be engaged when the doorset is in the closed position to maintain its fire resistance performance.
3. Only the hardware detailed herein is approved for use with this steel doorset design.

8.4 Lock – Single Point Engagement

When fitted the lock body shall be installed within the closing edge of the leaf. For rectangular leaves this must be the longer edge of the leaf and also be a vertical edge of the door leaf, at a height as detailed within the relevant section below.

Based on the test evidence the number and locations of single point engagement locks must be as follows:

Leaf Height	Number of single point locks required	Location
Up to 600mm	1No.	Fitted at mid-height of the leaf
More than 600mm and up to 700mm	2No.	Fitted at 250mm from leaf head and threshold,
More than 700mm	2No.	Fitted at 300mm from leaf head and threshold,

The following tested item is approved, fitted in the locations as detailed above. The permitted lock must be the same as tested in WF435047.

Element	Make/Type	Size (mm)
Lock – engaged over the frame profile as tested	Single point budget lock welded to leaf lock channel (as tested in WF435047)	54 high x 25 wide (case)

All lock positions must be engaged when the doorset is in the closed position.

Assessment has been made to reduce the required quantity of locks for reduced size leaves on the basis that the restraint is provided at the same or smaller distance to the leaf corners. This, in the opinion of Warringtonfire, would not be expected to result in a reduction in fire resistance if the doorset were to be tested.

8.5 Pivot Hinges

The table below details the tested hinges that are approved when fitted as tested in WF435047.

Type	Size (mm)	Location
Pivot pin type hinges (one sprung and one screwed) – as tested	Ø8 (pin size)	Fitted at the top & bottom of the leaf

8.6 Door retaining Bolts

Door retaining bolts were included in tests WF435047, fitted to the hanging edge of the leaf.

The table below details the tested and assessed door retaining bolt arrangements:

Type	Size (mm)	Location
Door retaining bolt	M5 x 12mm bright zinc plated (BZP) Pan Pozi Head Cross recess machine screw.	Fitted through hanging edge of leaf tray to engage in frame.

In all instances, it is assessed that the required number of door retaining bolts and their positioning must be as follows:

Specification	
Leaf height and hinged side having a dimension of 1190mm or less	1No. door retaining bolt is required, central to hanging edge of leaf.
Leaf height and hinged side having a dimension of greater than 1198mm	Fitted equispaced along the hanging edge of the leaf at maximum of 572mm centres, and at 313mm from the top and bottom of the leaf.

Note:

1. For permitted leaf heights see section 4.5.4.

8.7 Fire Door Identification Plates

A metal 'Fire Door Keep Locked Shut' sign is required to be fixed to the leaf face.

Surface mounted components with the following specification are deemed acceptable as in the opinion of Warringtonfire they will not significantly affect the fire resistance performance of the design being considered. This is on the basis of the items being surface mounted away from the edge of the leaf, therefore unlikely to influence the junction between leaf and frame. Furthermore, they are generally of lightweight construction, meaning that they are unlikely to destabilise the steel doorset assembly and therefore cause adverse deflection under test conditions.

Approved specification:

- Steel, stainless steel, aluminium or bronze signage may be fitted to the steel face of the leaf providing they are fitted no closer than 75mm from the leaf edge and are no greater than 80mm diameter. A maximum of 2No. signs may be fitted and must be positioned at least 100mm apart.
- Permitted fixing methods are as follows:
 - Surface-fixed with adhesive.
 - Steel signage of the above specification may be welded to the face of the leaf.
 - Signage may be bolted to the face of the leaf, with the holes for the bolts kept to a minimum and backed with steel or stainless steel washer and nut or flanged rivet nut.

When applied to a door leaf the plate shall be surface mounted to the face without removing material from the leaf.

9. Installation

9.1 General

The steel access panel must be installed on the unexposed face of the supporting construction with the leaf opening away from the fire risk side as tested.

This section considers the installation of doorsets. This section considers:

- the door frame installation
- the requirements for the supporting construction
- the fire stopping between the frame and the supporting construction
- the fixing requirements
- the requirements for door edge gaps

9.2 Door Frame Installation and sealing to structural opening

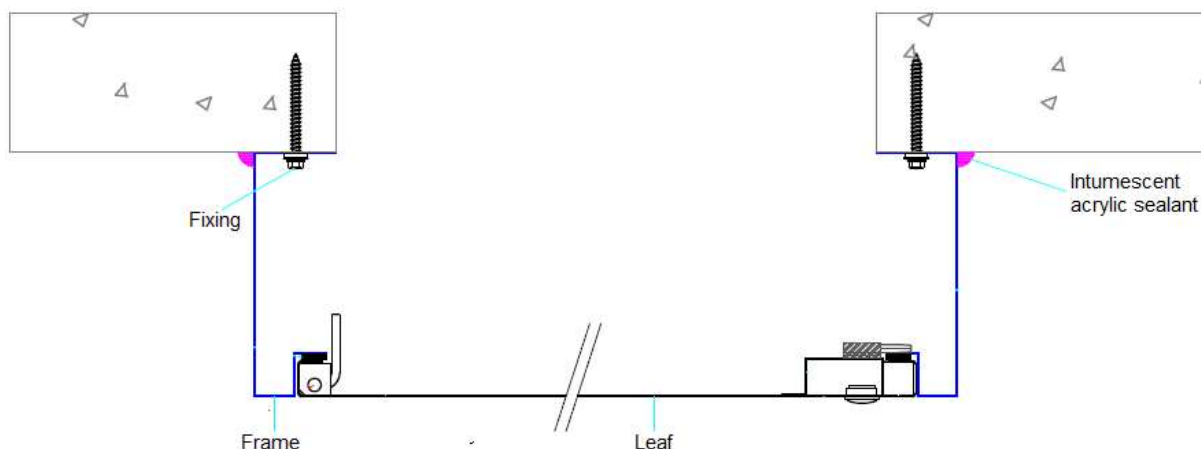
The fitting of the frame to the structural opening and the frame installation must be as tested in WF435047.

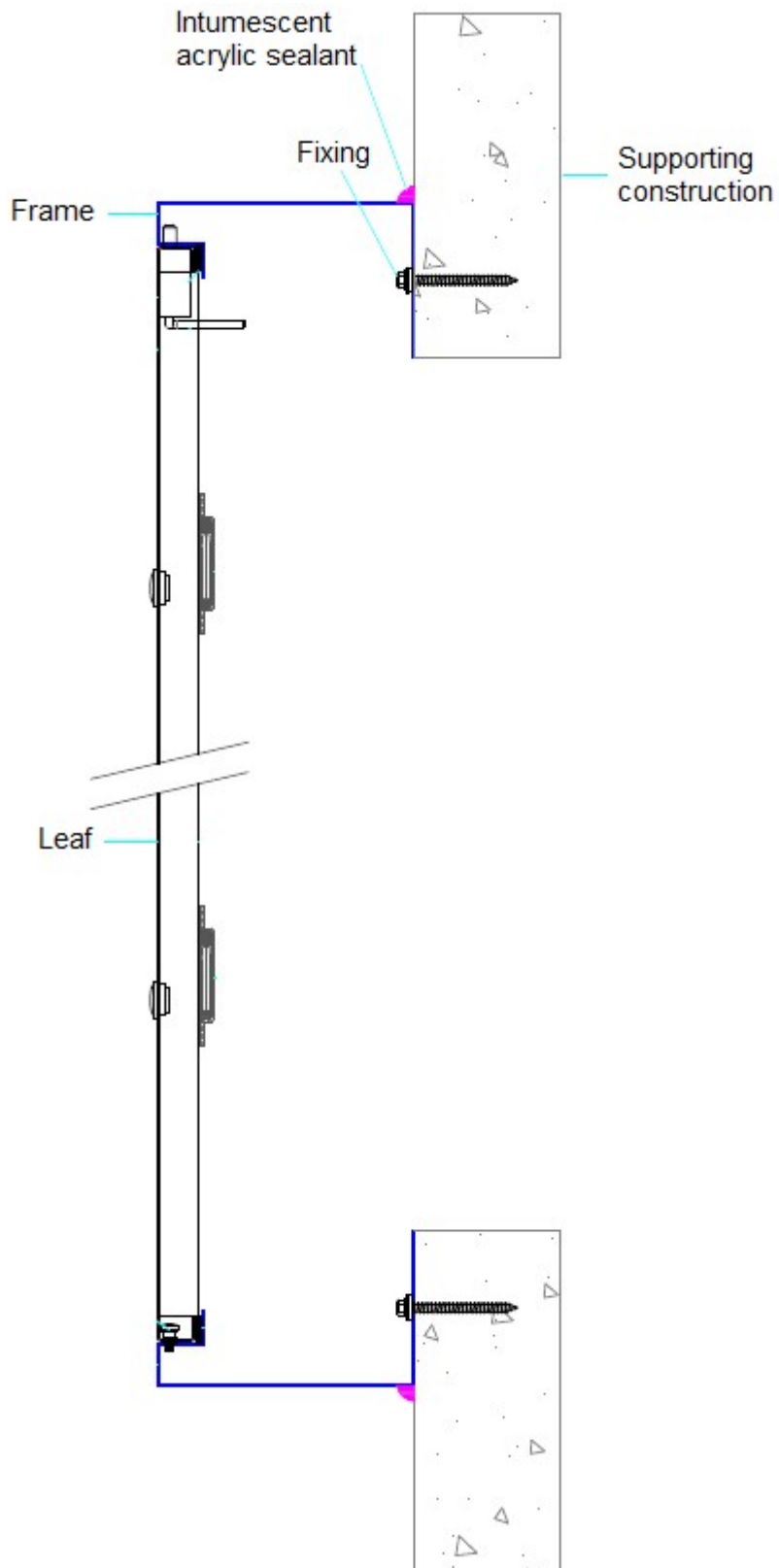
The sealant applied must be applied as a nominally 3mm continuous bead at the outer perimeter of all 4 frame sides to the face of the supporting construction. (see installation drawing below)

The sealant must be either Mann McGowan Pyromas A, as tested, or alternatively must have been previously fire tested to BS EN 1363-1 or BS EN 1634-1 for the required period of fire resistance and between the required substrates in this application. In all cases the fire stopping solution must be able to be applied as tested, otherwise, if the solution cannot be applied as tested, the gap size is not covered by this assessment.

The frame is screwed to the face of the supporting construction and the bead of sealant is subsequently applied at the perimeter of the frame to the supporting construction. The gap would be tight at the majority of positions. Where the wall is not completely flat (such as at mortar joints – as tested in WF435047), the gaps must be kept to a minimum, within a permitted gap range of 0 to 3mm, and the gap must be filled with the tested sealant.

The following figures are section drawings showing the tested installation.





9.3 Wall Types, Structural Opening & Fixity

9.3.1 Wall Types

The following wall type is approved for this doorset design:

- a) Blockwork, masonry or homogenous concrete constructions.

Wall type a above must be determined to be able to provide at least the same level of fire resistance of the access panel design and should be a suitable medium to permit adequate fixity.

The wall type shall provide a suitable medium to permit adequate fixity, it is anticipated that for:

- Blockwork, masonry or homogenous concrete constructions are anticipated to be solid to receive the fixings.

Note: Other tested solutions to achieve adequate fixity may be detailed within the above noted supporting fire resistance test evidence.

9.3.2 Structural Opening

For this wall type the structural opening shall be square, plumb and provide a flat surface for installation of the doorset.

The size of the structural opening in the supporting construction for the doorset design must be determined such that the frame returns adjacent to the face of the supporting construction do not project within the structural opening in the supporting construction.

9.3.3 Fixity

In all instances the fixing position must be such that it provides adequate restraint to the element of construction throughout the exposure to fire. This may therefore sometimes necessitate a twin line of fixings.

The frame jambs are to be fixed to the supporting construction using steel fixings at 300mm maximum centres and maximum of 150mm from corner.

The frame head and threshold are to be fixed to the supporting construction using steel fixings at 300mm maximum centres and with a fixing at a maximum of 100mm from corners.

The fixings must be of steel or stainless steel, the appropriate type for the supporting construction and must be a minimum of 60mm long.

9.4 Post Production (Onsite) Leaf Size Adjustment

Post production adjustment of the steel doorset assembly is not permitted.

9.5 Leaf Gaps

Based on the test evidence, the leaf edge to frame gaps on all edges must be controlled within the following limits:

Door Gap & Alignment Tolerance Specification		
Location	Dimension (mm)	Tolerance (mm)
Jambs	2.0	±0.5
Head	2.0	±0.5
Threshold	2.0	±1.0

If substantially different gaps are employed, the fire resistance performance of these doorset designs may change.

Notes:

- 1) Leaf must not be proud of the frame by more than 1mm.
- 2) If the leaf thickness is reduced (as detailed in section 5.2.1), then the face of the leaf must be positioned the same distance as tested relative to the stop.
- 3) The leaf must be flat (unbowed) and in contact with the frame all around the perimeter.

10. Conclusions

If the un-insulating steel access panel designs, constructed in accordance with the specification documented in this field of application were to be tested in accordance with BS EN 1634: 2014 +A1: 2018, it is expected that they would provide a minimum of 120 minutes of integrity fire performance, subject to the doorset being fitted on the unexposed face of the supporting construction and opening away from the furnace conditions.

In all cases the lock(s) must be engaged with the door leaf in the closed position.

11. 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.

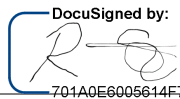
We agree to withdraw this assessment from circulation should the component or element of structure, or any of its component parts be the subject of a failed fire resistance test to the standard against which this assessment is being made.

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:

DocuSigned by:

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Name: Ross Stokes

Position: Technical Manager

Date: 17-Apr-2026

For and on behalf of: **Panel Technologies Ltd**

12. 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 herein.
- 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.

13. 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 11 duly signed by the applicant.

The assessment validity is as stated on the front cover of this report, after which time it is recommended that it be submitted to the assessing authority for re-evaluation.

Appendix A

Summary of supporting data

The test evidence summarised below has been generated to support the fire resistance performance of the door designs that are the subject of this field of application. The summary details are considered to be the key aspects of the design tested. These test summaries are not intended to be a definitive guide to constructing a doorset. The details for the construction of a doorset must be taken from other sections within this Field of Application.

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.

Note:

1. Dimensions are in mm unless otherwise stated.
2. Abbreviations: (h) = height; (w) = width; (t) = thickness; (d) = deep; (l) = long.
3. Latches fitted but disengaged for the test, are reported as 'unlatched'.

A.1 Primary Evidence

Test Report Reference WF435047		
Report sponsor	Panel Technologies Ltd	
Test laboratory	Warringtonfire Testing and Certification Ltd. UKAS No 1762	
Test date	11 th January 2021	
Test standard	BS EN 1643-1: 2014 + A1: 2018	
Sampling information	No samples taken	
Tested Orientation	Opening away from heating condition and fitted to the unexposed face of the supporting wall construction	
Specimen summary & tested configuration	LSASD – Latched, Single Acting Single Doorset Leaf size: 1198mm high x 695mm wide Zintec coated steel tray (22 x 0.9) with Zintec coated steel lock channel (0.9 x 23 high x 48 wide U channel) with a 15 flange welded to leaf face 1mm thick Zintec steel frame with integral stop (20mm) Vertical edges: 150 x 50 overall Top & bottom edges: 150 x 90 overall Frame intumescent: Norseal FS1000 15mm x 4.5mm	
Test results	Integrity:	132 minutes
	Insulation:	1 minute