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Title:

Field of Application:

For the TCB/Cavity Barrier linear joint seal

For up to 60 minutes fire resistance performance if tested in line with the principles outlined in BS 476-20: 1987

Report No.:

WF316443 Revision A

Issue Date:

28th February 2023

Valid Until:

28th February 2028

Job Reference:

521441

Prepared for:

ARC Lancaster Ltd T/A MC Resources
34 Port Royal,
Lune Industrial Estate,
Lancaster LA1 5QP
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The version/revision stated on the front of this Field of Application supersedes all previous versions/revisions and must be used to manufacture doorsets from the stated validity date on this front cover. Previous revisions of the Field of Application cannot be used once an updated Field of Application has been issued under a new revision.

Contents

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1 Foreword

This field of application report has been commissioned by ARC Lancaster Ltd. and relates to the fire resistance performance of cavity fire barriers for up to 60 minutes integrity and insulation.

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 field of application uses established empirical methods of extrapolation and experience of fire testing similar cavity barrier systems, 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 to the principles of BS 476: Part 20: 1987.

This field of application 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 manufacturer's stated cavity barriers and is summarised in section 3.

The scope presented in this report relates to the behaviour of the proposed cavity barrier variations under the particular conditions of the test; they are not intended to be the sole criterion for considering the potential fire hazard of the cavity barrier in use.

This field of application 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'. 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.

The drawings provided in this report are for guidance and illustrative purposes only. Please note that the written scope of application takes precedence.

2 Proposal

It is proposed to consider the fire resistance performance of proprietary cavity fire barrier when installed between two masonry leaves or between a masonry leaf and a masonry leaf with timber facing, for up to 60 minutes integrity and insulation performance, if the barriers were to be tested to the principles of BS 476: Part 20: 1987 – *Methods for determination of the fire resistance of elements of construction (general principles),* with additional methodology from EN1366-4 for elements of the construction such as unexposed thermocouple placement.

The field of application defined in this report is based on the fire resistance test evidence for the cavity fire barriers, which is summarised in section 3. Analysis of specific construction details that require assessment are given in section 5 of this report against the relevant element of construction, as appropriate.

2.1 Assumptions

It is assumed that the installation of the cavity barriers in use will be in accordance with the tested installation method, and that the compression achieved at the butt joint between cavity barriers will be similar to that achieved when installing the tested specimens.

3 Test data

The test evidence summarised below has been generated to support the fire resistance performance of the cavity barriers that are the subject of this report. The summary details are considered to be the key aspects of the system tested.

There is not at present any published British Standard relating to the testing of cavity fire barriers, used to reinstate the integrity and insulation performance of the elements they are installed into. The current test methodology, therefore, adopts the general principles of testing given within BS 476: Part 20: 1987, which forms the basis of the test methods used to evaluate the performance of elements of construction.

Due to the relatively small area occupied by a cavity fire barrier only the maximum temperature rise criterion is used for evaluation of the insulation performance.

Some 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.

The test evidence has been generated to general principles given within BS 476: Part 20: 1987, EN 1366-4 and EN1363-1:2012. The EN standard is known to be more onerous than the BS standard, primarily due to the use of plate thermocouples within the furnace to record the furnace temperature.

The same time temperature curve is used to control the temperature within the furnace for both test methods (the heating curve given within ISO 834-1). However, the plate thermocouple used to record the temperature within the furnace for the EN test method, requires a longer thermal exposure to read the same temperature as the probe thermocouple that is used for the BS test method, particularly during the early stages of the test. Furthermore, the neutral pressure regime is positioned lower relative to the specimen height in a EN test method, therefore resulting in greater relative positive pressure conditions than those expected in a BS test method, which has the potential to increase hot gases and flaming on the unexposed side. These factors result in more onerous test conditions for specimens tested to the BS test standard compared with the BS test standard, which has been demonstrated by testing the same products to both standards.

It is therefore the opinion of Warringtonfire that the evidence citied in the following section, tested to both named standards referenced above can be utilised in this assessment which will conclude in terms of the fire resistance performance of the TCB/Cavity Barrier if tested to the principles of BS 476: Part 20: 1987.

3.1 Primary test evidence

3.1.1 Summary of test report WF506851

This report describes a fire resistance test utilising the general principles of EN 1366-4: 2009/EN 1363-1: 2012, which was conducted on 8No specimens of cavity fire barrier seal, 4No wall specimens and 4No floor specimens.

<table>
<tr><td>Date of Test:</td><td colspan="4">27th August 2021</td></tr>
<tr><td>Identification of Test Body:</td><td colspan="4">Warringtonfire Testing and Certification Ltd. (UKAS No. 1762)</td></tr>
<tr><td>Sponsor:</td><td colspan="4">ARC Lancaster Ltd
34 Port Royal, Lune Industrial Estate, Lancaster LA1 5QP</td></tr>
<tr><td>Summary of Test Specimen:</td><td colspan="4">The test construction comprised four specimens (referenced A, B, C and D for the purpose of the test) in a wall and floor orientation, which were installed into simulated cavities comprising a plywood timber face to aerated concrete face and aerated concrete face to aerated concrete face.
The cavities were sealed using a single length of polyethylene sleeved rock fibre cavity barriers which were butt jointed at their mid-span.
The sections were each of nominal length of 1100 mm and were compressed to fit the cavity. The specimens were staple fixed to the plywood face – where fitted.
Specimen A:
Barrier size: 165 mm wide x 110 mm deep.
Cavity size: 150 mm wide
Cavity facing: AAC to AAC
Specimen B:
Barrier size: 130 mm wide x 75 mm deep.
Cavity size: 115 mm wide
Cavity facing: AAC to AAC
Specimen C:
Barrier size: 155 mm wide x 165 mm deep.
Cavity size: 140 mm wide
Cavity facing: AAC to 18mm thick plywood fitted onto AAC
Specimen D:
Barrier size: 135 mm wide x 145 mm deep.
Cavity size: 120 mm wide
Cavity facing: AAC to 18mm thick plywood fitted onto AAC</td></tr>
<tr><td>Test Standard:</td><td colspan="4">Based on the general principles of BS EN1366-4</td></tr>
<tr><td rowspan="2">Performance (minutes):</td><td>Specimen A</td><td>Specimen B</td><td>Specimen C</td><td>Specimen D</td></tr>
<tr><td>Wall:
Integrity: 73
Insulation: 73
Floor:
Integrity: 73
Insulation: 73</td><td>Wall:
Integrity: 73
Insulation: 73
Floor:
Integrity: 73
Insulation: 73</td><td>Wall:
Integrity: 73
Insulation: 73
Floor:
Integrity: 73
Insulation: 73</td><td>Wall:
Integrity: 73
Insulation: 73
Floor:
Integrity: 73
Insulation: 73</td></tr>
</table>

3.1.2 Summary of test report WARRES 71581

This report describes a fire resistance test utilising the general principles of BS 476: Part 20: 1987, which was conducted on a single specimen of cavity fire barrier seal.

Date of Test:	1st May 1997
Identification of Test Body:	Warringtonfire Research Centre Ltd. (UKAS No. 1269)
Sponsor:	Superglass Insulation Ltd Thistle Industrial Estate, Kerse Road, Stirling, Scotland, FK7 7RW
Summary of Test Specimen:	The test construction comprised a simulated cavity between a plywood timber face and an aerated concrete face of nominal dimensions 50 mm wide by 1000 mm long. The cavity was sealed using two lengths of polyethylene sleeved rock fibre cavity barrier, which were butt jointed at mid-span. The sections were each of nominal width 65 mm and were compressed to fit the cavity. The two sections were staple fixed to the plywood face.
Test Standard:	Based on the general principles of BS 476: Part 20: 1987
Performance (minutes):	Integrity: 58 Insulation: 22

3.1.3 Summary of test report WARRES 129200 Issue 2

This report describes a fire resistance test utilising the general principles of BS 476: Part 20: 1987, which was conducted on two specimens of cavity fire barrier seal.

Date of Test:	8th January 2003	
Identification of Test Body:	Warringtonfire Research Centre Ltd. (UKAS No. 1269)	
Sponsor:	Central Convertors Ltd Unit 3, Bandheath Industrial Estate, Throsk, Sterling, FK7 7NP	
Summary of Test Specimen:	The test construction comprised two specimens (referenced A and B for the purpose of the test), which were installed into simulated cavities comprising a plywood timber face and an aerated concrete face of nominal dimensions 85 mm wide by 1250 mm long. The cavities were sealed using two lengths of polyethylene sleeved rock fibre cavity barriers that were butt jointed at their mid-span. Both specimens were fitted flush with the unexposed face and staple fixed to the plywood face. Specimen A: Barrier size: 100 mm wide x 150 mm deep. Specimen B: Barrier size: 100 mm wide x 110 mm deep.	
Test Standard:	Based on the general principles of BS 476: Part 20: 1987	
Performance (minutes):	Specimen A*	Specimen B
	Integrity: 96 Insulation: 91	Integrity: 64 Insulation: 40

* Test specimen ‘A’ has been summarised for reference purpose only. It is superseded by a more onerous specimen referenced ‘D’ in the test report referenced WF506851 which is also summarised herein.

3.1.4 Summary of test report WARRES 135027

This report describes a fire resistance test utilising the general principles of BS 476: Part 20: 1987, which was conducted on two specimens of cavity fire barrier seal.

Date of Test:	16th October 2003	
Identification of Test Body:	Warringtonfire Research Centre Ltd. (UKAS No. 1269)	
Sponsor:	Central Convertors Ltd Unit 3, Bandheath Industrial Estate, Throsk, Sterling, FK7 7NP	
Summary of Test Specimen:	The test construction comprised two specimens (referenced A and B for the purpose of the test), which were installed into simulated cavities between a plywood timber face and an aerated concrete face. The cavities were sealed using two lengths of polyethylene sleeved rock fibre cavity barriers that were butt jointed at their mid-span. Both specimens were fitted flush with the unexposed face and staple fixed to the plywood face. Specimen A: Barrier size: 90 mm wide x 75 mm deep. Cavity size: 80 mm wide x 1000 mm long nominal Cavity facing: AAC to 18 mm thick Plywood Specimen B: Barrier size: 150 mm wide x 100 mm deep nominal. Cavity size: 140 mm wide x 1000 mm long nominal Cavity facing: AAC to 18 mm thick Plywood	
Test Standard:	Based on the general principles of BS 476: Part 20: 1987	
Performance (minutes):	Specimen A	Specimen B
	Integrity: 59 Insulation: 53	Integrity: 35 Insulation: 31

4 Description of the cavity barrier & Application method

The cavity barrier and the method of application/installation is to remain as tested, as detailed below.

4.1 Cavity barrier details

The tested cavity barrier comprises the following elements.

Element	Description
Insulation material	Mineral rock fibre
Insulation sleeve	Polyethylene encapsulating the insulation
Density of rock fibre	33 kg/m^3
Size	See section 5 for barrier and cavity sizes as applicable
Length of rock fibre	620 mm minimum length per barrier section

4.2 Application method

The cavity barrier may be used within the following leaf type/substrate specifications, unless otherwise stated, for example, in section 5.5, where only option 1 is approved.

Leaf type & Facing material:

1. Cavity between masonry and masonry leaves of minimum 150 mm thickness and 670 kg/m^3 density.
2. Cavity between masonry (of minimum 150 mm thickness and 670 kg/m^3 density) and a masonry leaf with solid timber or plywood timber facing (of minimum 18 mm thickness and 680 kg/m^3 density)

Fixing of timber facing to masonry leaf:

To be screw fixed to the masonry leaf using 5 mm diameter steel screws with plastic plugs, located at 300 mm maximum centres. The screw must be of suitable length to achieve a minimum 40 mm penetration into the masonry leaf.

Fitting & Fixing of cavity barrier:

1. To be compressed into the cavity with minimum compression as detailed in section 5 as appropriate, fitted flush with the non-fire risk side of the supporting construction.
2. Additionally, for cavities between masonry and timber leaves, the tailed end of the polyethylene sleeve is fixed with staples to the timber using 10 mm long staples at nominal 100 mm centres.
3. Barrier sections must be butted tightly together with no gaps.

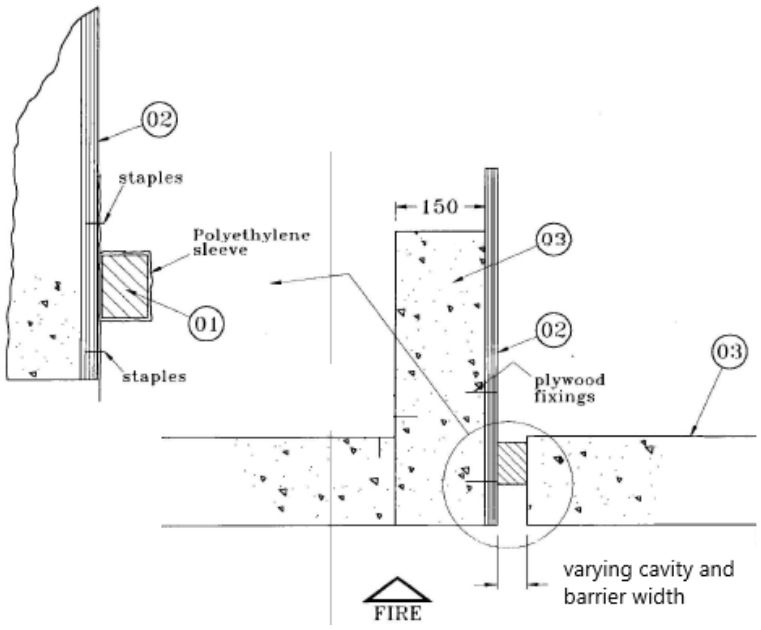


Figure 1 – example cross-sectional detail showing the installation of the cavity barrier between masonry leaf and a masonry leaf with timber facing. See key below.

Key to figure:

01: Cavity barrier

02: Timber leaf

03: Masonry leaf

5 Assessed performance

5.1 30 minutes integrity performance only

The test referenced WARRES No. 71581 demonstrated the ability of a single barrier of uncompressed dimensions 65 mm by 65 mm to provide 58 minutes integrity performance and 22 minutes insulation performance within a 50 mm wide cavity. The ability of this configuration to provide in excess of 30 minutes integrity performance is therefore not in question.

If the cavity is of reduced width, then it is reasonable to assume that the barrier width may be reduced by the same amount with no reduction in performance (subject to the depth remaining constant), as this will actually constitute a slight increase in the percentage compression.

On this basis it is considered that barriers with a minimum depth of 65 mm and a minimum 15 mm compression will provide at least 30 minutes integrity and 15 minutes insulation performance in cavities up to 50 mm wide.

The table below details the acceptable barrier and cavity sizes based on the supporting test evidence referenced above.

Cavity Width	Barrier Width	Barrier Depth
Up to 40 mm	55 mm	65 mm
Up to 50 mm	65 mm	65 mm

All further barriers may be taken from the table in section 5.2, as no further reductions of barrier width for integrity only is possible.

5.2 30 minutes integrity and insulation performance

In the test referenced WARRES No. 135027, the specimen referenced ‘A’ demonstrated the ability of a single barrier of uncompressed dimensions 90 mm wide by 75 mm deep to provide 59 minutes integrity performance and 53 minutes insulation performance within an 80 mm wide cavity. The ability of this configuration to provide in excess of 30 minutes integrity and insulation performance is therefore not in question.

If the cavity is of reduced width, then it is reasonable to assume that the barrier width may be reduced by the same amount with no reduction in performance (subject to the depth remaining constant), as this will actually constitute a slight increase in the percentage compression.

On this basis it is considered that barriers with a minimum depth of 75 mm and a minimum 10 mm compression will provide at least 30 minutes integrity and insulation performance in cavities up to 80 mm wide.

The table below details the acceptable barrier and cavity sizes based on the supporting test evidence referenced above.

In the test referenced WARRES No. 135027, the specimen referenced ‘B’ also demonstrated the ability of a single barrier of uncompressed dimensions 150 mm wide by 100 mm deep to provide 35 minutes integrity performance and 31 minutes insulation performance within a 140 mm wide cavity. The ability of this configuration to provide in excess of 30 minutes integrity and insulation performance is therefore not in question.

If the cavity is of reduced width, then it is reasonable to assume that the barrier width may be reduced by the same amount with no reduction in performance (subject to the depth remaining constant), as this will actually constitute a slight increase in the percentage compression.

On this basis it is considered that barriers with a minimum depth of 100 mm and a minimum 10 mm compression will provide at least 30 minutes integrity and insulation performance in cavities up to 140 mm wide.

The table below details the acceptable barrier and cavity sizes based on the supporting test evidence referenced above.

Cavity Width	Barrier Width	Barrier Depth
Up to 40 mm	50 mm	75 mm
Up to 50 mm	60 mm	75 mm
Up to 60 mm	70 mm	75 mm
Up to 70 mm	80 mm	75 mm
Up to 80 mm	90 mm	75 mm
Up to 90 mm	100 mm	100 mm
Up to 100 mm	110 mm	100 mm
Up to 110 mm	120 mm	100 mm
Up to 120 mm	130 mm	100 mm
Up to 130 mm	140 mm	100 mm
Up to 140 mm	150 mm	100 mm

5.3 60 minutes integrity performance only

In the test referenced WARRES No. 129200, the specimen referenced ‘B’ demonstrated the ability of a single barrier of uncompressed dimensions 100 mm wide by 110 mm deep to provide 64 minutes integrity and 40 minutes insulation performance within an 85 mm wide cavity.

If the cavity is of reduced width, then it is reasonable to assume that the barrier width may be reduced by the same amount with no reduction in performance (subject to the depth remaining constant), as this will actually constitute a slight increase in the percentage compression.

On this basis it is considered that barriers with a minimum depth of 110 mm and a minimum 15 mm compression will provide at least 60 minutes integrity and 30 minutes insulation performance in cavities up to 85 mm wide.

The table below details the acceptable barrier and cavity sizes based on the supporting test evidence referenced above.

Cavity Width	Barrier Width	Barrier Depth
Up to 40 mm	55 mm	110 mm
Up to 50 mm	65 mm	110 mm
Up to 60 mm	75 mm	110 mm
Up to 70 mm	85 mm	110 mm
Up to 80 mm	95 mm	110 mm
Up to 85 mm	100 mm	110 mm

All further barriers may be taken from the table in section 5.4, as no further reductions for integrity only are possible.

5.4 60 minutes integrity and insulation performance

In the test referenced WF506851, the specimen referenced ‘D’ demonstrated the ability of a single barrier of uncompressed dimensions 135 mm wide by 145 mm deep to provide 73 minutes integrity and 73 minutes insulation performance within a 120 mm wide cavity.

If the cavity is of reduced width, then it is reasonable to assume that the barrier width may be reduced by the same amount with no reduction in performance (subject to the depth remaining constant), as this will actually constitute a slight increase in the percentage compression.

On this basis it is considered that barriers with a minimum depth of 145 mm and a minimum 15 mm compression will provide at least 60 minutes integrity and 60 minutes insulation performance in cavities up to 120 mm wide.

The table below details the acceptable barrier and cavity sizes based on the supporting test evidence referenced above.

In the test referenced WF506851, the specimen referenced 'C' demonstrated the ability of a single barrier of uncompressed dimensions 155 mm wide by 165 mm deep to provide 73 minutes integrity and 73 minutes insulation performance within a 140 mm wide cavity.

If the cavity is of reduced width, then it is reasonable to assume that the barrier width may be reduced by the same amount with no reduction in performance (subject to the depth remaining constant), as this will actually constitute a slight increase in the percentage compression.

On this basis it is considered that barriers with a minimum depth of 165 mm and a minimum 15 mm compression will provide at least 60 minutes integrity and 60 minutes insulation performance in cavities up to 140 mm wide.

The table below details the acceptable barrier and cavity sizes based on the supporting test evidence referenced above.

Cavity Width	Barrier Width	Barrier Depth
Up to 40 mm	55 mm	145 mm
Up to 50 mm	65 mm	145 mm
Up to 60 mm	75 mm	145 mm
Up to 70 mm	85 mm	145 mm
Up to 80 mm	95 mm	145 mm
Up to 90 mm	105 mm	145 mm
Up to 100 mm	115 mm	145 mm
Up to 110 mm	125 mm	145 mm
Up to 120 mm	135 mm	145 mm
Up to 130 mm	145 mm	165 mm
Up to 140 mm	155 mm	165 mm

5.5 60 minutes integrity and insulation performance – for masonry to masonry leaf type only

The cavity and barrier sizes detailed below are only applicable to masonry and masonry leaf construction, as defined in section 4.2.

In the test referenced WF506851, the specimen referenced 'B' demonstrated the ability of a single barrier of uncompressed dimensions 130 mm wide by 75 mm deep to provide 73 minutes integrity and 73 minutes insulation performance within a 115 mm wide cavity.

If the cavity is of reduced width, then it is reasonable to assume that the barrier width may be reduced by the same amount with no reduction in performance (subject to the depth remaining constant), as this will actually constitute a slight increase in the percentage compression.

On this basis it is considered that barriers with a minimum depth of 75 mm and a minimum 15 mm compression will provide at least 60 minutes integrity and 60 minutes insulation performance in cavities up to 115 mm wide.

The table below details the acceptable barrier and cavity sizes based on the supporting test evidence referenced above.

In the test referenced WF506851, the specimen referenced 'A' demonstrated the ability of a single barrier of uncompressed dimensions 165 mm wide by 110 mm deep to provide 73 minutes integrity and 73 minutes insulation performance within a 150 mm wide cavity.

If the cavity is of reduced width, then it is reasonable to assume that the barrier width may be reduced by the same amount with no reduction in performance (subject to the depth remaining constant), as this will actually constitute a slight increase in the percentage compression.

On this basis it is considered that barriers with a minimum depth of 110 mm and a minimum 15 mm compression will provide at least 60 minutes integrity and 60 minutes insulation performance in cavities up to 150 mm wide.

The table below details the acceptable barrier and cavity sizes based on the supporting test evidence referenced above.

Cavity Width	Barrier Width	Barrier Depth
Up to 40 mm	55 mm	75 mm
Up to 50 mm	65 mm	75 mm
Up to 60 mm	75 mm	75 mm
Up to 70 mm	85 mm	75 mm
Up to 80 mm	95 mm	75 mm
Up to 90 mm	105 mm	75 mm
Up to 100 mm	115 mm	75 mm
Up to 110 mm	125 mm	75 mm
Up to 115 mm	130 mm	75 mm
Up to 120 mm	135 mm	110 mm
Up to 130 mm	145 mm	110 mm
Up to 140 mm	155 mm	110 mm
Up to 150 mm	165 mm	110 mm

6 Conclusion

If cavity fire barriers constructed in accordance with the specification documented in this field of application were to be tested to the principles of BS 476: Part 20: 1987 with relevant adopted methodology from EN 1366-4, it is our opinion that they would provide a minimum of 30 and 60 minutes integrity only, or integrity and insulation performance, as applicable.

7 Declaration by the Applicant

1) 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

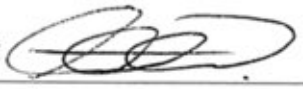
2) We confirm that any changes to a component or element of structure which are the subject of this assessment have not to our knowledge been tested to the standard against which this assessment has been made.

3) 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.

4) 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.

5) 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: 

Name: BEN WHITAKER

Position: DIRECTOR

Date: 23/2/23

For and on behalf of: ARC Lancaster Ltd
(also trading as MC Resources Ltd)

8 Limitations

The following limitations apply to this assessment:

1) This field of application 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 field of application 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 field of application report represents our opinion as to the performance likely to be demonstrated on a test to the principles of BS 476: Part 20: 1987, on the basis of the test evidence referred to in this report. We express no opinion as to whether that evidence, and/or this field of application 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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8) The version/revision stated on the front of this field of application supersedes all previous versions/revisions and must be used to manufacture doorsets from the stated validity date on this front cover. Previous revisions of the Field of Application cannot be used once an updated Field of Application has been issued under a new revision.

9 Validity

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

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

Position:	Assessor	Co-author	Reviewer
Signature:			
Name:	***Bob Freeman**	***Rob Axe**	***Eliot Power**
Title:	Product Assessor	Technical Manager	Product Assessor

* For and on behalf of Warringtonfire

10 Appendix A – Revisions

Rev.	WF Job No.	Date	Description
A	521441	28.02.2022	Review and revalidation of report for another 5 years. Summary of changes: (1). Addition of new test evidence referenced WF506851 to support previously assessed performance for 60 minutes integrity and 30 minutes insulation, and 60 minutes integrity and insulation. (2). Re-specification of previously assessed performances in line with updated standard. (3). Change of client's name to ARC Lancaster Ltd (4). Change of company name and brand from Exova Warringtonfire to Warringtonfire Testing & Certification Ltd. (5). Change of report layout to new Warringtonfire style and format.