

IFC FIELD OF APPLICATION REPORT

PAR/23152/02

Fire Resistance Standard: EN 1363-1: 2012 and ASFP TGD19 (2017)

PREPARED FOR:

Arc Building Solutions Limited

ASSESSED PRODUCT/SYSTEM:

**Field of Application for ARC Building Solutions 'OSCBPLUS25' Ventilated Cavity
Barriers which form Horizontal Fire-Separating Elements in Cavities within
Walls**

ISSUE DATE:

March 2022

EXPIRY DATE:

November 2026

Confidence in fire safety

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Report Reference Number: **IFC Report PAR/23152/02**

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Issue Date: **March 2022**

Valid Until: **November 2026**

Ref ID: **#23152 and #22672**

ISSUE RECORD

REV	DATE	AUTHOR	REVIEW	SECTION	AMENDMENTS
-	March 2022	KW/CS	DC	-	-

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1. INTRODUCTION

This Engineering Assessment Report has been prepared by International Fire Consultants Ltd (IFC), on the instruction of Arc Building Solutions, to define the Field of Application for the OSCBPLUS25 range of ventilated cavity barriers (hereafter also called cavity barrier), that are required to provide up to 120 minutes fire resistance performance, when installed as a horizontal fire-separating element in the concealed cavity within a composite wall ^{Note 1}. The cavity barriers will be adjudged against the test conditions of EN 1363-1: 2012 and the additional criteria defined in Technical Guidance Document TGD19, issued by ASFP ^{Note 2}.

This assessment has been produced using the principles outlined in the Passive Fire Protection Forum (PFPF): *'Guide to Undertaking Technical Assessments of Fire Performance of Construction Products Based on Fire Test Evidence, 2021, Industry Standard Procedure'*.

When establishing the variations in the construction that can achieve the required fire resistance performance, IFC complies with the principles found in the following documents:

- BS ISO/TR 12470-2: 2017 *'Fire resistance tests - Guidance on the application and extension of results from tests conducted on fire containment assemblies and products. Part 2: Non-load bearing elements'*
- EN 15725: 2010 *'Extended application reports on the fire performance of construction products and building elements'*

The assessment is based upon the information supplied to us, (detailed in Section 2), and upon the fire resistance test evidence for parts of the constructions (detailed in Section 3). An analysis of the fire resistance performance of the cavity barriers is presented in Section 4, herein; which also defines the scope of approval by IFC. The omission of information on any components or manufacturing methods does not imply a lack of approval of those details, but these would need to be the subject of a separate analysis. Only variations specifically mentioned are supported by this assessment document, all other aspects must otherwise be as proven in tests summarised in Section 3, herein. Refer to Section 6 for recommendations with respect to audit and verification of the manufactured/installed assembly.

^{Note 1} It is acknowledged that ventilated cavity barriers, such as that under consideration herein, are designed for use in the cavity between the inner and outer constructions forming the 'external wall' of a building. However, this report by IFC considers the fire resistance of such products using the test arrangement described in Technical Guidance Document TGD19, published by Association for Specialist Fire Protection (ASFP). TGD19 does not refer to an 'external' wall and so this report, by IFC, does not use the term 'external' in relation to the test constructions. The typical test specimens shown in TGD19 do not attribute terms of reference for the construction elements forming each face of the cavity. For the purposes of this report, by IFC, the two construction elements will be referenced as 'inner' and 'outer', respectively. The cavity barrier is fitted to the inner wall, facing the cavity.

^{Note 2} There is no BS or EN standard for fire testing of ventilated cavity barriers, such as that under consideration herein. Ad-hoc testing of such products is usually employed by the test laboratory; using the arrangement described in Technical Guidance Document TGD19, published by ASFP; and the furnace conditions of BS EN 1363-1: 2012. (All references to ASFP TGD19, herein, apply to the edition dated November 2017).

2. PROPOSAL

2.1 General Overview

The test reports summarised in Section 3, herein, demonstrate the efficacy of OSCBPLUS25 ventilated cavity barriers when installed as a horizontal 'open-state cavity barrier', (using the arrangement described in TGD19); and tested to the furnace conditions of BS EN 1363-1: 2012 ^{Note 2}. The specimens were tested with a variety of cavity widths and it is proposed that these barriers will also provide certain levels of fire resistance, with intermediate cavity widths.

For the sake of clarity, this Engineering Assessment Report, by IFC, only considers the cavity barriers when installed as a horizontal ventilated cavity barrier; because this is the only arrangement described in ASFP TGD19. It is not appropriate to use evidence for a horizontal cavity barrier to evaluate the same cavity barrier in a vertical application.

The specification of the cavity barrier is briefly summarised in Section 2.2, below; based upon the details in the test reports. Further details of the parameters for the proposed application are described in Section 4 herein.

2.2 General Product Description

The OSCBPLUS25 cavity barrier comprises a graphite-based intumescent strip (details of which are held on confidential file by IFC), 75mm high x 4mm thick) pre-fixed to one long edge of a mineral stone wool slab. The OSCBPLUS25 is supplied in individual lengths, 1000mm long; and each length is shrink wrapped in polythene. Where the barrier width is >76mm, the intumescent strip is fixed to the stone wool – after application of the polythene wrap – using min. 65mm long pig tail screws. Alternatively, the intumescent strip can be fixed to the stone wool – prior to the application of the polythene wrap - using stainless steel screws 5mm in diameter x 50mm in length). The stone wool is 75mm thick and has a nominal density of 110kg/m³.

Where the barrier width is <76mm, it must be fixed directly to the inner wall using screws. Where the barrier width is >76mm, it must be fixed to the 'inner wall' with L-shaped stainless-steel brackets; details of which vary, depending upon cavity width. See Section 4.2 for full details.

The proposed scope is summarised in Table 1, below, but refer to Section 4.2, herein, for primary parameters and limitations that must be adopted.

Maximum Air Gap (mm)	Void Width (mm) Including Air-Gap <i>Note 4 and 5</i>	Integrity (minutes)	Insulation (minutes)	Construction of Inner Wall <i>Note 3</i>	Fixings or L-Bracket Requirement
25	40	180	180	12.5mm thick Weather Defence board on steel frame systems, or concrete (refer to section 4.3 for further details)	Direct screw fix; See Section 4.2
	60	120	120	12.5mm thick Weather Defence board on steel frame systems, or concrete (refer to section 4.3 for further details)	
	300	120	120	12.5mm thick Weather Defence board on steel frame system or concrete (refer to section 4.3 for further details)	L-brackets; See Section 4.2
	450	90	90	12.5mm thick Weather Defence board on steel frame system or concrete (refer to section 4.3 for further details)	

Table 1. Scope of Approval for OSCBPLUS25

Note 3 The outer wall must be concrete or other non-combustible substrates that do not deform or deflect in such a way that would adversely affect the performance of the cavity barrier. If concrete is not used, then the performance of the cavity barrier will be dependent on the outer wall remaining in place and not deforming or deflecting for the same period of time as the cavity barrier.

Note 4 OSCBPLUS25 for a 40mm void is not tested or approved for scenarios where insulation material is fitted to the face of the 'inner wall'. Conversely, OSCBPLUS25 for larger void sizes is ONLY approved in scenarios where insulation material is fitted to the face of the 'inner wall'. (Refer also to Note 5, below; and to Section 4.2 for approved insulation types and other parameters)

Note 5 Table 1 states approved widths of the cavity void. However, where the void is wider than 40mm, the actual width of the cavity void must be designed to consider the thickness of 'insulation' on the inner wall; and the fact that the width of the 'stone wool' element of the OSCBPLUS25 barrier must never be less than the thickness of the 'insulation' on the inner wall. i.e. the minimum width of the cavity barrier must be 54mm if 50mm thick insulation is employed on the face of the inner wall, necessitating in a 79mm wide void. The void may be less than 40mm if the air gap is reduced below 25mm. See Figures overleaf for clarity.

3. TEST EVIDENCE

The test evidence used to support this Field of Application Report is summarised in Table 2, below. Full specifications of the tested product are recorded in the test report; copies of which are held on confidential file by IFC.

Test No/ Specimen Ref	Cavity Width (mm)	Air Gap (mm)	Inner wall surface/ Construction <i>Note 6</i>	Insulation on Inner Wall	Fixed with Screws/ Brackets	Integrity Cotton Pad/ Sustained Flaming (minutes)	Insulation Surface/ Suspended (minutes)
WF433220 Specimen C	40	25	Concrete	None	Screws	190 <i>Note 7</i>	190 <i>Note 7</i>
WF436593 Specimen A	60	25	12.5mm thick Weather Defence board on steel frame system	25mm thick phenolic	Screws	120	120
WF416466 Specimen D	300	25	12.5mm thick Weather Defence Board on steel frame system	100mm thick PIR	3no <i>Note 8</i> MP Brackets	120	120
WF403555 Specimen C	450	25	Concrete	100mm thick PIR	3no <i>Note 8</i> MP Brackets	90	90

Table 2. Summary of test evidence for OSCBPLUS25

Note 6 All test specimens included a concrete slab as the outer wall.

Note 7 Test terminated without failure of this criteria

Note 8 All specimens had a total length of 1000mm, with a butt-joint between an 800mm length and a 200mm length. 2no brackets were used in the 800mm length (500mm apart) and a central bracket in the 200mm length. HP brackets are high performance brackets and MP brackets are multipurpose brackets (See section 4.2 for more details).

None of the test evidence referenced in this Engineering Assessment Report is more than 5 years old. In accordance with industry practice, the evidence is still valid, in that respect; but IFC have still performed a review of the test evidence, to check that the levels of accuracy and detailing are suitable to form the basis of this approval.

The test standard ASFP TGD19 has been revised since some of the earlier testing was performed. The current version is dated 2017; but the revisions to the test standard do not affect the outcome of the tests; nor the analysis in this Engineering Assessment Report.

In all specimens, the time taken for ‘closure’ of the air-gap, by the activating intumescent material, met the requirement defined in ASFP Technical Guidance Document - TGD-19 Fire Resistance Test for ‘Open-State’ Cavity Barriers.

4. ANALYSIS AND APPROVED SCOPE

4.1 Analysis

The test reports summarised in Section 3, herein, demonstrate the efficacy of the proposed OSCBPLUS25 ventilated cavity barriers when installed as a horizontal 'open-state cavity barrier', (using the arrangement described in ASFP TGD19); and tested to the furnace conditions of BS EN 1363-1: 2012 ^{Note 2}. The specimens were tested with a variety of cavity widths and it is reasonable to expect that identical barriers will also provide certain levels of fire resistance, as shown in Table 1, with intermediate cavity widths.

4.2 Installation Details and Parameters for Approval

1. Where the width of the OSCBPLUS25 is >76mm, the intumescent strip is fixed to the 'front edge' of the stone wool carrier, using 4 no 65mm long pig tail screws. Alternatively, the OSCBPLUS25 can be supplied with the intumescent strip fixed to the 'front edge', prior to the application of the polythene wrap, using 4no 5mm diameter x 50mm long stainless steel screws. In both cases the screws must not be removed or adjusted.
2. Where cut lengths of barrier are necessary, (see also other bullet points in this clause), at least one screw must remain in the cut length.
3. Each length of OSCBPLUS25 barrier shall be fixed to the 'inner wall'. The barrier must be installed with the intumescent strip next to the air-gap.
4. Where the width of the OSCBPLUS25 is 76mm, or less, the OSCBPLUS25 shall be fixed directly to the inner wall, using screws with a maximum 11.5mm diameter head, fitted through the centre-line of the 75mm thickness of the OSCBPLUS25. Screws shall be fitted at maximum 250mm centres and a maximum 125mm from both ends of each length of OSCBPLUS25; i.e. 4 screws for a 1000mm length. (Cut lengths of barrier must always include at least 2no screws.) Screws shall not be over-torqued, to avoid damage to the face of the intumescent strip. The type and length of screw depends upon the construction of the inner wall; see later clauses.
5. Where the width of the OSCBPLUS25 is greater than 76mm, it must be fitted using L-shaped **MP** brackets, (supplied by Arc Building Solutions). These are formed from minimum 1.2mm thick galvanised steel or stainless-steel and have asymmetric legs. Where the width of OSCBPLUS25 is 76-90mm, **MP** brackets shall be installed with the 65mm long leg horizontally. Where the width of OSCBPLUS25 is 91-275mm, **MP** brackets shall be installed with the 160mm long leg horizontally.
6. Where the width of OSCBPLUS25 is >275mm, **HP** brackets shall be employed; which have a 328mm long leg. The bracket length may be cut down as required (see number 12 below). The test reports WF 416466 Specimen D and WF 403555 Specimen C stated that MP brackets were used in cavity barriers of this width, however, in practice HP brackets should be used to ensure sufficient penetration into the cavity barrier. This is to ensure that at least 75% of the cavity barrier is penetrated by a bracket (see number 11 below).
7. ALL L-shaped brackets shall be fitted at maximum 500mm centres and a maximum 150mm from both ends of each length of OSCBPLUS25; i.e. 3 brackets for a 1000mm length. (NOTE: Positioning of the brackets should consider any potential clash with the rear end of screws that retain the intumescent strip).
8. Cut lengths of barrier >200mm long must always include at least 2no L-shaped brackets, or to comply with fixing centres/positions as described in item 7, above; whichever is the greater requirement for the brackets.

9. Cut lengths of barrier <200mm long must always include 1no L-shaped bracket, central in its length. It is the responsibility of the installer to ensure that such short pieces fit 'securely' on the single bracket; and that both ends of such pieces should be a friction-fit against the adjacent surface. A short piece with a single bracket must always be fitted next to a piece (or pieces) with multiple brackets; i.e. a number of small pieces must not be fitted next to each other.
10. The vertical leg of each L-shaped bracket shall extend above the barrier and shall be fixed to the inner wall with 2no non-combustible fixings; of a type suitable for the inner wall construction (see later clauses). It is the responsibility of the installer to ensure that the fixings are adequate and robust to support the weight of the barrier.
11. The horizontal leg of each L-shaped bracket shall penetrate the OSCBPLUS25 product on the centre-line of its thickness (75mm), so that the leg penetrates to a depth equal to at least 75% of the cavity barrier width. Except where the barrier is up to 255mm, as the leg of the bracket is 160mm. In this case, the entirety of the bracket should penetrate the barrier.
12. The horizontal leg may need to be trimmed in length, depending upon the width of barrier, and the leg must be at least 25mm away from the intumescent strip fixed to the front face; and must not interfere with screws retaining the intumescent strip. (See also NOTE in item 7, above).
13. The brackets and fixings must be installed so that the rear face of the stone wool element of the OSCBPLUS25 fits closely against the inner wall, without gaps; and the surface of the inner wall must be true and even. (This applies for all barriers, not just those on L-brackets).
14. Any butt joints between individual lengths of OSCBPLUS25 barrier shall be closely fitting; and aligned horizontally. (This applies for all barriers, not just those on L-brackets).
15. At the extreme end of each 'run' of cavity barrier, the end of the individual pieces shall be a friction-fit against the adjacent structure/element. (This applies for all barriers, not just those on L-brackets).
16. The air-gap width may be less than 25mm, without affecting the efficacy of the barrier under fire resistance test conditions; but it is the responsibility of other parties to determine whether a smaller air-gap is suitable for other performance criteria.
17. Where the cavity is greater than 40mm wide, an approved insulation must be fitted to the wall forming the 'inner' face of the cavity; but the insulation must not be continuous through the plane of the cavity barrier (see drawings). The insulation on the inner wall must be at least 25mm thick; and shall be fixed with steel proprietary insulation fixings. *Note 9*
18. Tested/approved types of insulation, for fitting to the inner wall, are 100mm thick Celotex "RS5000" PIR, or 25mm thick Kingspan "Kooltherm" foil-faced phenolic, or Stonewool insulation of at least the same thickness is also approved as per the hierarchy of insulation from TGD 19. *Note 9*
19. The width of the 'stone wool' element of the OSCBPLUS25 barrier must never be less than the thickness of the 'insulation' on the inner wall; i.e. the minimum width of the cavity barrier must be 54mm if 50mm thick insulation is employed on the face of the inner wall – necessitating a maximum 79mm wide cavity void. See drawings for clarity.

Note 9 Several differing types of insulation material were fitted to the inner wall in the fire tests and the insulation did not adversely affect the fire resistance of the barriers in the tests. However, there is no evidence to support the use of the proposed barrier without any insulation. This report, by IFC, needs to define a minimum thickness and density for the insulation on the inner wall, in terms of the contribution provided by the inclusion of such insulation material but it is inappropriate for IFC to comment about the influence/contribution of alternative insulation products within the voids of a wall construction. It is the responsibility of other parties to ensure that any insulation material complies with all requirements of the Building Regulations. This report does not imply that the tested details for a particular wall construction should be modified to suit any of the clauses/parameters listed herein; and the specifications of the tested wall construction shall already comply with these clauses.

4.3 Parameters of the Inner and Outer Walls

The inner wall/floor shall be constructed from either concrete, or a proprietary steel framed construction, with direct and applicable fire test evidence to demonstrate that it can provide the required level of fire resistance, as applicable, when tested to EN 1364-1 or EN 1365-2 with the selected facing material. The test evidence should demonstrate that the system does not deform or deflect in such a way that it would adversely affect the performance of the cavity barrier. *Note 10* (If the wall construction is asymmetric, successful test evidence must be available for specimens with furnace exposure on each face).

The outer wall (i.e., the wall against which the intumescent strip will react against) shall comprise of concrete or other non-combustible substrates that do not deform or deflect in such a way that would adversely affect the performance of the cavity barrier. If concrete is not used, then the performance of the cavity barrier will be dependent on the outer wall remaining in place and not deforming or deflecting for the same period of time as the cavity barrier.

In some specimens, the fixings that supported the OSCBPLUS25 passed through the board and engaged into the underlying steel frame system. For other specimens, the fixings were only engaged into the board material. These fixing details did not appear to adversely affect the overall fire performance of the specimens in the quoted fire tests. Where the OSCBPLUS25 is installed in conjunction with a proprietary board/steel frame system, (using one of the options defined in Table 1), it is the responsibility of others to ensure that the positioning of the steel frame system coincides with the necessary positions for fixings for the OSCBPLUS25, where applicable; and/or that the selected board material is capable of accepting fixings for the OSCBPLUS25. *Note 10*

Note 10 This report does not imply that the tested/assessed details for a particular wall construction should be modified to suit any of the clauses listed herein; and the specifications of the tested wall construction shall already comply with these clauses.

4.4 General Comment – Cavity Barriers

This Engineering Assessment Report evaluates the fire resistance of a cavity barrier as if a 'representative specimen' of the proposed products were installed between two concrete constructions, which do not exhibit any significant degradation or deflection under heating, as was the case with type-testing of the proposed products; and when evaluated against the criteria of the prescribed fire test standard (BS EN 1363-1: 2012 and ASFP TGD19: 2017).

It is the responsibility of others to establish whether the proposed product (and the prescribed test method) meets the requirements for fire spread and life safety, as defined in documents such as the Building Regulations, and the Fire Strategy Strategy/Fire Risk Assessment for the project.

Users of this report are also reminded that performance under the prescribed fire resistance test conditions should not be used as the sole means of determining the potential fire performance of the element in use; and whether they reflect the actual behaviour in fires. The above principles apply to all cavity barriers; and not just those specific examples proposed herein.

The performance of any cavity barrier is dependent upon the void width and the air-gap; which are both reliant upon accurate and consistent alignment of the walls forming the cavity. It is the responsibility of others to ensure that construction tolerances do not result in a cavity width and/or air-gap that is greater than that prescribed herein. It is also the responsibility of other parties to ensure that the width of the cavity will not vary in service, under all conditions.

5. LIMITATIONS

This report addresses itself solely to the ability of the proposed cavity barrier to satisfy the criteria of the fire resistance test and does not imply any suitability for use with respect to other unspecified criteria.

It is the responsibility of others to establish whether the proposed product meets any other relevant requirements, including any other requirements for fire performance and life safety, as defined in documents such as the Building Regulations, and the Fire Strategy/Risk Assessment for the project.

This document only considers the cavity barriers described, herein, and assumes that the surrounding construction will provide no less restraint than the tested assembly and that it will remain in place and be substantially intact for the full fire resistance period.

This assessment is issued on the basis of test data and information to hand at the time of issue. If contradictory evidence becomes available to International Fire Consultants Ltd (IFC) the assessment will be unconditionally withdrawn and the applicant will be notified in writing. Similarly, the assessment evaluation is invalidated if the assessed construction is subsequently tested since actual test data is deemed to take precedence.

As per the guidance outlined in the Passive Fire Protection Forum (PFPF): *'Guide to Undertaking Technical Assessments of Fire Performance of Construction Products Based on Fire Test Evidence, 2021, Industry Standard Procedure'*, appropriate action has been taken to mitigate the risk of a conflict of interest arising during the preparation of this report. All individuals involved in the production, or subsequent review, of this assessment have declared any perceived conflicts of interest, with regards to the sponsor or subject(s) of this report, prior to working on this project.

The assessor and reviewer have been deemed suitable for involvement in the production of this assessment in accordance with the guidance outlined in the Passive Fire Protection Forum (PFPF): *'Guide to Undertaking Technical Assessments of Fire Performance of Construction Products Based on Fire Test Evidence, 2021, Industry Standard Procedure'*.

Where the constructional information in this report is taken from details provided to International Fire Consultants Ltd (IFC) and/or from fire resistance test reports referenced herein, it is, therefore, limited to the information given in those documents. It is necessarily dependent upon the accuracy and completeness of that information. Where constructional or manufacturing details are not specified, or discussed, herein, it should not, therefore, be taken to infer approval of variation in such details from those tested or otherwise approved.

The analysis and conclusions within this report are based upon the likely fire resisting performance of a cavity barrier that is manufactured and installed in accordance with this document; and offered for fire resistance testing in 'perfect' condition. In practice, management procedures must be in place in any building where the cavity barrier is installed, to ensure that no parts of the cavity barrier, or the adjacent walls, are damaged or faulty.

Any such shortfalls in respect to the condition of the cavity barrier/walls will invalidate the approval by IFC; and may seriously affect the ability of the assemblies to provide the required level of fire resistance performance. Determination of what constitutes wear or damage, and any corrective actions in order to return assemblies to the required condition, should only be carried out following consultation with the manufacturer and IFC.

This report is not intended to be a complete specification for the proposed cavity barrier and it is the responsibility of others to ensure that the products/assemblies are suitable for the intended purpose; whilst incorporating the requirements of this report. Further, the products/assemblies must be manufactured/installed by experienced/trained personnel using appropriate and established working practices/techniques.

The assessed products/installations have not been subject to an on-site audit by International Fire Consultants Ltd. It is the responsibility of anyone using this report to confirm that all aspects of the assemblies fully comply with the descriptions and limitations, herein.

Any materials specified in this report have been selected and judged primarily on their fire performance. IFC do not claim expertise in areas other than fire safety. Whilst observing all possible care in the specification of solutions, we would draw the reader's attention to the fact that during the construction and procurement process, the materials used should be subjected to more general examination regarding the wider Health and Safety, and CoSHH Regulations. Designers, manufacturers and installers are reminded of their responsibilities under the CDM Regulations; but particularly with regard to installation and maintenance of heavy or inaccessible items.

The primary test evidence was undertaken to BS EN 1363-1:2012. Whilst this report follows the general guidance for extension of test results, as outlined in EN 15725, this report does not purport to follow the guidance regarding direct or extended application of test results outlined in EN product standards. The approval, herein, shall not be used as supporting evidence for CE marking.

This Report is provided to the sponsor on the basis that it is a professional independent engineering evaluation as to what the fire performance of the construction/system would be should it to be tested to the named standard. It is IFC's experience that such an evaluation is normally acceptable in support of an application for building approvals, certainly throughout the UK and in many parts of Europe and the rest of the world.

However, unless IFC have been commissioned to liaise with the Authorities that have jurisdiction for the building in question for the purpose of obtaining the necessary approvals, IFC cannot assure that the document will satisfy the requirements of the particular building regulations for any building being constructed.

It is, therefore, the responsibility of the sponsor to establish whether this evidence is appropriate for the application for which it is being supplied and IFC cannot take responsibility for any costs incurred as a result of any rejection of the document for reasons outside of our control. Early submittal of the Report to the Authorities will minimise any risks in this respect.

6. CONCLUSION

Based upon the offered test evidence, and the analysis above, if a representative sample of an Arc Building Solutions OSCBPLUS25 Ventilated Cavity Barrier, as described in Section 2 herein, were manufactured and installed in accordance with the requirements of this Field of Application Report, and tested for fire resistance using the furnace conditions of BS EN 1363-1: 2012, (together with additional criteria defined in ASFP TGD19 (2017)), it is reasonable to expect that the sample would satisfy the integrity and insulation criteria of the standard for the relevant periods defined in Table 1.

Since the proposed cavity barrier includes a 'ventilated air-gap', the integrity and insulation of the barrier will not be monitored until after the time at which the intumescent material reacts to seal the gap; as defined in ASFP TGD19 (2017).

For the sake of clarity, this Engineering Assessment Report, by IFC, only considers the ventilated cavity barriers when installed as a horizontal ventilated cavity barrier; because this is the only arrangement described in ASFP TGD19 (2017).

7. DECLARATION BY THE APPLICANT

IFC Engineering Assessment Report

PAR/23152/02

Client

Arc Building Solutions Limited

We the undersigned confirm that we have read and complied with the obligations placed on us by the

Passive Fire Protection Forum (PFPF) - Industry Standard Procedure 2021

‘Guide to Undertaking Technical Assessments of Fire Performance of Construction Products Based on Fire Test Evidence’

- We confirm that any changes which are subject of this assessment have not to our knowledge been tested to the standard against which this assessment has been made.
- We agree to withdraw this assessment from circulation should the component or element of structure, or any of its component parts be the subject of a failed fire resistance test to the standard against which this assessment is being made.
- We understand that this assessment is based on test evidence and will be withdrawn should evidence become available that causes the conclusion to be questioned. In that case, we accept that new test evidence may be required.
- We are not aware of any information that could affect the conclusions of this assessment. If we subsequently become aware of any such information, we agree to ask the assessing authority to withdraw the assessment.

Signature



Name

George Danzey-Smith

Position

Commercial Manager

Company name

Arc Building Solutions Limited

Date

29/03/2022

8. VALIDITY

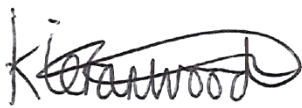
This Field of Application Report has been prepared based on International Fire Consultants Ltd's present knowledge of the products described, the stated testing regime and the submitted test evidence.

The assessment is valid initially for a period of five years after which time it is recommended that it be submitted to International Fire Consultants Ltd for re-evaluation. For this reason, anyone using this document after November 2026 should confirm its ongoing validity.

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

Prepared by:

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APPENDIX A

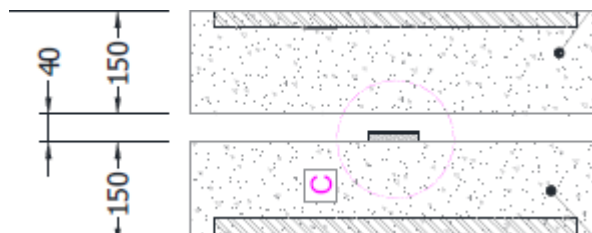


Figure 1 – Typical installation of OSCBPLUS25 (circled) without insulation on the inner wall (Drawing taken from Warringtonfire WF 433220)

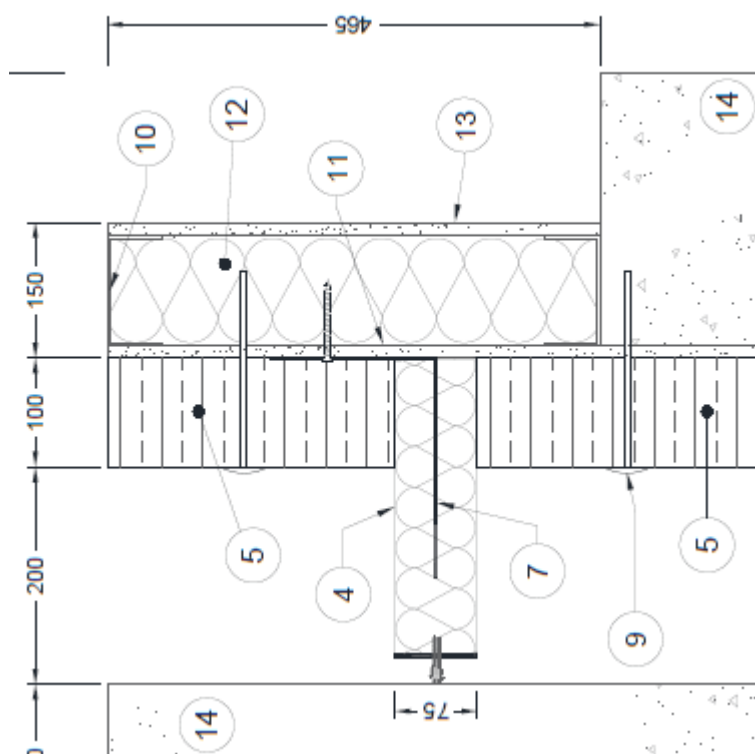


Figure 2 – Typical installation of OSCBPLUS25 cavity barrier with insulation on the inner wall (Drawing taken from Warringtonfire WF 433220)