



INTERNATIONAL FIRE
CONSULTANTS LIMITED

PRIVATE & CONFIDENTIAL

IFC FIELD OF APPLICATION REPORT

Field of Application of FD20 and FD30 Single and Double Leaf Sliding Doors Installed in Timber Frames within Fire Resisting Partition Walls

Fire Resistance Standard: BS476: Part 22: 1987

IFC Report PAR/10057/01 REVISION C

Prepared on behalf of: Eclisse UK
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ISSUE AND AMENDMENT RECORD

Rev	Date	Project No	Author	Review	Amendments
-	March 2010	#10057	DC	DJI	-
A	March 2015	#14870	DC	MB	Review and revalidation of document. Minor typographical edits, but scope remains unaffected.
B	May 2018	#14523	WL/DC	PNB	Inclusion of additional fire test evidence for double doors and associated changes.
C	May 2019	#19607	SP/WL	DC	Addition of new closing edge detail

1. INTRODUCTION

This report has been prepared by International Fire Consultants Ltd (IFC), on the instruction of Eclisse UK, to define the field of application for timber based door assemblies, comprising horizontally sliding door leaves installed in timber frames within Fire Resisting Partition Walls, that are required to provide 20 and 30 minute fire resistance performance, when adjudged against BS476: Part 22: 1987.

The methodologies used in preparing this document are based upon the guidance in 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'*.

It is proposed that variations to the tested specifications, as described in the following sections, may be accommodated into assemblies, without reducing their potential to achieve a 20 or 30 minute performance, as applicable, if tested in accordance with the method and criteria of BS476: Part 22: 1987. 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, and all other aspects must otherwise be as proven in tests summarised herein.

2. TEST EVIDENCE

The test evidence used to support this Field of Application Report is summarised in Appendix C of this report.


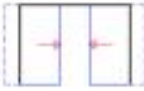
3. SCOPE OF APPROVAL

3.1 Specimen Overview

The Eclisse sliding door assemblies include a sliding leaf arrangement installed within an exposed timber frame construction which fixes back to a steel subframe within a plasterboard-lined fire resisting partition wall. Details of the specimen construction and installation are held on file by IFC.

3.2 Door Assembly Configuration

The approved leaf sizes and configurations of door assemblies comprising Eclisse FD20 and FD30 sliding door leaves are outlined below:

Configuration	Envelope of Approved Leaf Size
 <ul style="list-style-type: none"> • Unlatched • Horizontally Sliding • Single Door 	Figure PAR/10057/01C:B01 in Appendix B
 <ul style="list-style-type: none"> • Unlatched • Horizontally Sliding • Double Doors 	Figure PAR/10057/01C:B02 in Appendix B

3.3 Supporting Construction

The supporting construction may be timber or steel stud plasterboard clad partitioning of the following configurations.

Stud Thickness	Door Configuration	Plasterboard (No. and thickness of layers to each face of studwork)
70mm	Single Door	1no 12.5mm thick
70mm	Single Door	1no 15mm thick
70mm	Single or Double Door	2no 12.5mm thick
75mm	Single Door	1no 12.5mm thick
75mm	Single or Double Door	2no 12.5mm thick
95mm	Single or Double Door	2no 12.5mm thick
100mm	Single or Double Door	2no 12.5mm thick

Table 1 – Supporting Construction Configurations

The construction must be of a type that has been tested or assessed to provide in excess of 30 minutes fire resistance to BS476: Part 22: 1987 at the required size when incorporating door assembly openings. The method of forming the aperture must be as tested by the partition manufacturer.

Reference to partitioning is in the context of permanent elements, such as those designed and proven by the plasterboard manufacturers – this report does not approve use of the proposed door assemblies in proprietary 'demountable' partitions, which must be subject to a full and independent appraisal of the particular system and door assemblies therein.

3.4 Steel Subframe

The Eclisse steel subframe consists of horizontal and vertical steel channels and sections, as listed in Table 1, below.

Item	Component
1	Rear vertical
2	Pocket entrance verticals
3	Track holder 1
4	Pocket horizontal
5	Metal door post
6	Track holder 2
7	Floor bracket
8	Frame for self-closing mechanism
9	Self-closing mechanism
10	Fixing plate ^{Note 1}

Table 2 – Steel Subframe Components

Note 1 The fixing plate is present in double door assemblies only and is required in fixing of the self-closing system.

The subframe must be fixed back to the supporting construction with steel fixings and clad with plasterboard, as per Section 3.3.

3.5 Door Leaf Specification

Timber door leaf constructions shall be utilised that have been tested, assessed or Third Party Certificated. 44mm thick timber based door leaves, in sliding, hinged or pivoted door assembly configuration are also to be considered as part of this assessment. The generic door core types are listed below:

- Graduated density or three layered particle board
- Laminated timber core with outer timber based facings
- Particleboard, flaxboard or laminated timber core with perimeter timber stiles and rails and outer timber based facings
- Particleboard, flaxboard or laminated timber core with perimeter timber stiles and rails and outer timber based facings and non-combustible sub-faces
- Timber joinery door with infill panels or glass

The door leaves shall incorporate a 17mm deep x 10mm wide routed channel in the bottom edges to within 5mm of the leading edge. The door guide, aluminium profile ref:8, is inserted in the slot and fixed with an intumescent silicone;

As well as the above, the following conditions must be met when using one of the generic door cores listed above with the Eclisse sliding door system;

1. The door core being considered for use must have test evidence to BS476: Part 22: 1987 or BS EN 1634-1, which has been generated at a UKAS accredited test laboratory. The test evidence must demonstrate that the door design is capable of a minimum of 20 or 30 minutes fire resistance performance, as required, in the proposed configuration. Other than mounting the door into the Eclisse sliding door frame in accordance with the specification given in Section 3 of this report no other changes to the tested specimen are covered by this assessment (e.g. door leaf sizes, glazing, leaf size adjustment).

or

2. The door being considered for use must have been assessed by International Fire Consultants Ltd to BS476: 22: 1987 or BS EN 1634-1 as capable of a minimum of 20 or 30 minutes fire resistance, as required, in the proposed configuration. Other than mounting the door into the Eclisse sliding door frame in accordance with the specification given in Section 3 of this report no other changes to the assessed specimen are covered by this assessment.

or

3. The door being considered for use must have been manufactured under the auspices of a recognised UKAS accredited Third Party Certification scheme. The door must be certified for a minimum of 20 or 30 minutes fire resistance, as required, to BS476: 22: 1987 or BS EN 1634-1 in the proposed configuration. Other than mounting the door into the Eclisse sliding door frame in accordance with the specification given in Section 3 of this report no other changes to the certified specimen are covered by this assessment.

Note 2 Use of this Field of Application Report with a certificated door design does not automatically maintain the chain of certification of the door. It is strongly recommended that the door manufacturer and/or the certification provider are contacted to understand the limitations of using this assessment in conjunction with a specific Third Party Certified door design. Any identifying certification labels or markings must be removed from the door design unless instructed otherwise by the certification provider.

The calculated envelopes of assessed leaf dimensions for the configuration covered by this Field of Application Report is given in **Appendix B**, based upon use of the intumescent seal specification given in Section 3.6. If the test evidence/assessment for the selected door type only approves a leaf size smaller than that shown on the envelope in **Appendix B**, the smaller size shall take precedence.

Each door leaf is to be installed fully within the timber frame members within the fire resisting partition wall, using the components given in Table 3.

Item	Component
11	Hardware runner kit
12	Under door anti-warp profile
13	Closer clevis limiter bracket

Table 3 – Door Leaf Installation Components

A single door leaf, installed in Frame Option 1 (Section 3.6.1), must be wider than the opening size between vertical framing sections. An overlap of 33.7mm is required behind the pocket and 22mm behind the door post. The leaf shall be taller than the maximum opening size between finished floor level and the head frame, so that there is a 38mm overlap at the head of the frame.

A single door leaf, installed in Frame Option 2 (Section 3.6.1), must be wider than the opening size between vertical framing sections. An overlap of 24.8mm is required behind the pocket and 22mm behind the door post. The leaf shall be taller than the maximum opening size between finished floor level and the head frame, so that there is a 25.5mm overlap at the head of the frame.

A double door assembly must have a minimum 35mm overlap of each leaf with the timber frame at the training edge, when in the fully closed position. This overlap shall result in the trailing edge of each leaf being flush with the aperture reveal in the supporting construction. The head of the leaf shall overlap 25.5mm with the timber frame.

3.9 Non-Essential Hardware Items

Push plates, kick plates, etc:	Maximum 2mm thick plastic, pvc or metal plates may be recessed into the face of door leaves by maximum 1mm thick by 200mm wide. Plates must be installed such that there is a minimum of 100mm from the leaf edges.
Surface mounted pull handles:	These may be fixed to the door assemblies, provided that the fixing points are no greater than 500mm apart. Pull handles that are fixed through the leaf should use clearance holes as close fitting as possible to the bolt.
Recessed pull handles:	Recessed pull handles of maximum size 250 x 250mm may be recessed into the leaf by maximum 12mm as long as they are bedded on minimum 1mm thick non-pressure forming intumescent material and that handles are minimum 100mm from leaf edges. They must not be fitted with 100mm of a handle on the reverse face of the leaf. This assumes that the selected leaf construction is 'solid'; i.e. without voids.

4. CONCLUSION

It is the opinion of International Fire Consultants Ltd that, if the proposed Eclisse single and double leaf sliding doors installed in timber frames within fire resisting partition walls were manufactured and installed in accordance with the requirements of this Field of Application Report; the leaf sizes are within the envelope of approved dimensions/sizes given for the configuration outlined in Appendix B; and the hardware and intumescent seal specification are in accordance with the recommendations of this report, then the assemblies, as described, would satisfy the integrity criteria for 20 or 30 minutes, as applicable, when tested for fire resistance to the conditions of BS476: Part 22: 1987.

5. DECLARATION BY THE APPLICANT

We the undersigned, confirm that, except for that information declared to International Fire Consultants Ltd previously during the original engineering evaluation process, the components, products, and/or assemblies evaluated within IFC Field of Application Report PAR/10057/01 Revision C have not been altered in any way; and have not subsequently, to our knowledge, been included in a fire test to BS476: Part 22: 1987 in the form and/or configurations proposed.

We also confirm that we have supplied all information and assurances requested of us, for the purpose of writing this Field of Application Report, and are not aware of any other information that would adversely influence or affect the conclusions of this report.

We agree that if fire test evidence or other information subsequently becomes available, to supply this to IFC in full and seek immediate review of the continuing validity of the original report from IFC. If after review IFC conclude that the original evaluation and report is no longer appropriate, we agree to withdraw it and any references to it from circulation and advise clients and agents accordingly.

Signature:



Position:

MANAGING DIRECTOR

Company:

Eclisse UK

6. LIMITATIONS

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

This document only considers the door assemblies 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 report is issued on the basis of test data and information to hand at the time of issue. If contradictory evidence becomes available, IFC reserves the right to withdraw the report unconditionally but not retrospectively.

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 complete door assembly 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 door assemblies are installed, to ensure that no parts of the assembly are damaged or faulty. Further, the doors must open and close without the use of undue force. The edge gaps/alignment of door leaves must be in accordance with the tolerances defined, herein, when the doors are closed. Any such shortfalls in respect to the condition of the assemblies 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 applies to fire door assemblies that are evaluated to BS476: Part 22: 1987; which is an applicable test method currently referenced within guidance to Building Regulations in the United Kingdom, and in building codes in some other countries. However, IFC have a duty of care to advise that introduction of CE Marking may become compulsory for fire resisting doorsets marketed in the EU, during the validity period of this report; in which case, users should contact IFC for further details/advice

Where the assessed constructions 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.

This assessment considers the fire resistance performance of the door assemblies when tested with the leaves in the closed position, within the frame reveal; either retained by the latch, or self-closing device, or locked shut, as applicable. The door assemblies will only provide the assessed fire performance when in a similar configuration; and it is the responsibility of the building occupants/owner to ensure that this is the case.

This Report is provided to the sponsor on the basis that it is a professional independent engineering opinion 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 opinion 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.

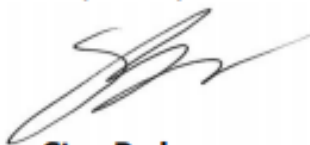
It is, therefore, the responsibility of the sponsor to establish whether this evidence is appropriate for the application for which it is being supplied and IFC cannot take responsibility for any costs incurred as a result of any rejection of the document for reasons outside of our control. Early submittal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

7. 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. For this reason, anyone using this document after May 2023 should confirm its ongoing validity.

This Field of Application Report is not valid unless it incorporates the declaration by the applicant given in Section 5 duly signed by the applicant.

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