



DPC: 25/30499932 DC

BSI Group Headquarters

389 Chiswick High Road London W4 4AL

Tel: +44 (0)20 8996 9000

Fax: +44 (0)20 8996 7400

www.bsigroup.com

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Interested committees:

Title: Draft BS EN 15269-12 Extended application of test results for fire resistance and/or smoke control for door, shutter and openable window assemblies, including their elements of building hardware. Part 12: Fire resistance of composite doors.

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Responsible Committee Secretary: Mr Christopher Smith-Wong (BSI)

Direct tel: 020 8996 7086

E-mail: christopher.smith-wong@bsigroup.com

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

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Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

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- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

ICS

English Version

**Extended application of test results for fire resistance
and/or smoke control for door, shutter and openable
window assemblies, including their elements of building
hardware - Part 12: Fire resistance of composite doors**

Erweiterte Anwendung von Prüfergebnissen zur
Feuerwiderstandsfähigkeit und/oder Rauchdichtigkeit
von Türen, Toren und zu öffnenden Fenstern
einschließlich ihrer Baubeschläge - Teil 12:
Feuerwiderstandsfähigkeit von Verbundtüren

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 127.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (prEN 15269-12:2025) has been prepared by Technical Committee CEN/TC 127 “Fire safety in buildings”, the secretariat of which is held by BSI.

This document is currently submitted to the CEN Enquiry.

1 Scope

This document covers hinged or pivoted doorsets and door assemblies with composite/polymeric based leaves and / or composite/polymeric door frames. This document also covers timber-based door leaves hung within composite / polymeric door frames. Composite doorsets with both or either the leaf or the frame manufactured from a composite/polymeric material are covered by this document. It prescribes the methodology for extending the application of test results obtained from fire resistance test(s) conducted in accordance with EN 1634-1 and / or EN 1634-3. This document covers doorsets with elements which are comprised of composite / polymeric material.

Subject to the completion of the appropriate test or tests, the extended application can cover all or some of the following examples:

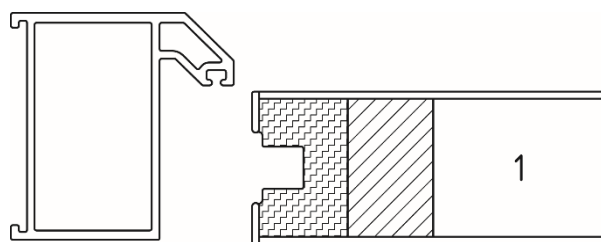
- integrity (E), integrity & radiation (EW) or integrity & insulation (EI₁ or EI₂) & Sa (S_{a3} or S_{a4}) ambient temperature smoke control classifications;
- Glazed elements including vision panels and framed glazed doorsets;
- Glazed sidepanel or fanlight connected by transom/mullion or coupled frames;
- Solid (Non vision) sidepanel, or overpanel connected by transom/mullion or coupled frames;
- Items of building hardware;
- Decorative finishes;
- Intumescent, smoke, draught or acoustic seals;
- Alternative supporting construction(s) and fixing techniques.

The effect on the Classification 'C' for the doorsets following an extended application process is not addressed in this document.

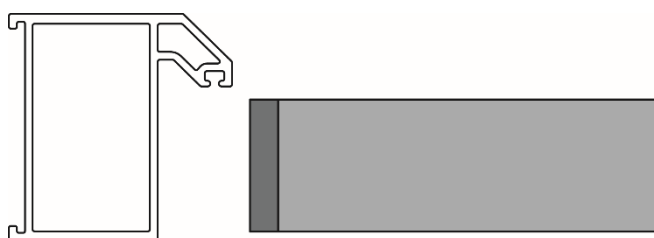
This document does not cover horizontal doorsets.

Refer to figure A.1 for example illustrations of composite doorsets covered by this document.

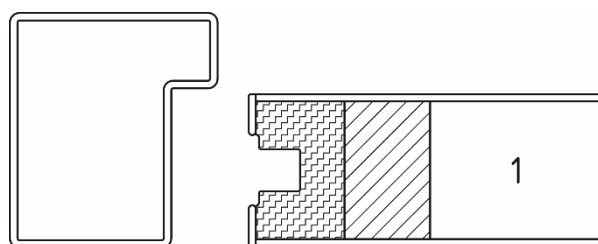
Composite door frame with composite door leaf:



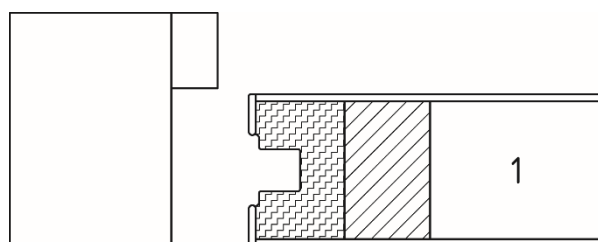
Composite door frame with timber based door leaf:



Timber door frame with composite door leaf:



Metal door frame with composite door leaf:



Key

- 1 A composite door leaf as defined in section 3.

Figure A.1 — Composite doorsets covered by this document

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1363-1, *Fire resistance tests — Part 1: General requirements*

EN 1634-1, *Fire resistance and smoke control tests for door, shutter and openable window assemblies and elements of building hardware — Part 1: Fire resistance test for doors, shutters and openable windows*

EN 1634-3, *Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware — Part 3: Smoke control test for door and shutter assemblies.*

EN 12519, *Windows and pedestrian doors — Terminology*

EN 15269-1, *Extended application of test results for fire resistance and/or smoke control for door, shutter and openable window assemblies, including their elements of building hardware — Part 1: General Requirements*

EN 15725, *Extended application reports on the fire performance of construction products and building elements*

EN ISO 13943, *Fire safety — Vocabulary (ISO 13943)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1363-1, EN 12519, EN ISO 13943, EN 1634-1, EN 1634-3 and EN 15269-1, EN 15725 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp/>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

door frame

part of the doorset or door assembly from which the door leaf is supported and to which the door leaf is hinged

Note 1 to entry: The door frame may also be used to support glazed sidepanels or fanlights or overpanels

3.2

door leaf

hinged or pivoted part within the door frame of a door assembly or doorset

3.3

glazing cassette

glass retention components used as a glazing system to secure and position a glass in a composite door leaf or panel

3.4

composite doorset

hinged or pivoted doorset with non-cellulosic polymeric based leaf, with or without glazing in the leaf, and/or a non-cellulosic polymeric door frame

Note 1 to entry: A timber/cellulosic-based door leaf hung within a non-cellulosic polymeric door frame is also considered a composite doorset within this document

Note 2 to entry: A doorset with a non-cellulosic polymeric based door leaf hung within a timber/cellulosic or metal door frame is also considered a composite doorset within this document

Note 3 to entry: A composite doorset may be either over-rebated or flush fit construction

3.5

composite leaf with trimmable sub-frame

door leaf typically of sandwich construction formed from a core material surrounded by a perimeter sub-frame bonded between facings or skins, where adjusting the height and width of the door is by trimming the leaf resulting in a change of sectional dimensions of the sub-frame

Note 1 to entry: The perimeter sub-frame forming the stiles and rails may be of the same or differing materials

3.6

composite leaf with fixed size sub-frame

door leaf typically of sandwich construction formed from a core material surrounded by a perimeter sub-frame bonded between facings or skins, where adjusting the height and width of the door does not result in any change to the sectional dimensions of the sub-frame

Note 1 to entry: The perimeter sub-frame forming the stiles and rails may be of the same or differing materials

3.7

timber door leaf

door leaf constructed from timber/cellulosic-based components which falls within the scope of EN 15269-3

Note 1 to entry: Used in this document only when hung within polymeric framing material

3.8

composite leaf – PVC-U

door leaf made using unplasticized poly(vinyl chloride) (PVC-U) profiles in accordance with EN 12608, with or without reinforcement

3.9

sub-frame

structural element of the door leaf which form the rails and stiles of the door leaf, bonded/fixed between the door facings

3.10

facing

non-cellulosic composite/polymeric, or steel material layer bonded / fixed to the core and/or sub-frame to form the visible surface of the door leaf and are used for structural purposes

Note 1 to entry: Only steel facings with less than 1mm thickness are included in this document

Note 2 to entry: The visible face of the material may have a cosmetic appearance

3.11

lip

edge piece added to the door leaf for structural purpose

3.12

decorative finish

outer layer of paint or material on the visible surface of the door leaf only used for decorative not for structural or fire resistance purposes

3.13 core

material fitted central within the thickness of a door leaf or panel which may consist of a single sheet of non-cellulosic material or a combination either of sheets of the same material or layers of different materials or a non-cellulosic polymeric based insulating foam or mineral wool fibre

3.14 composite door frame

non-cellulosic or polymeric hollow or solid profile to which the leaf is hung

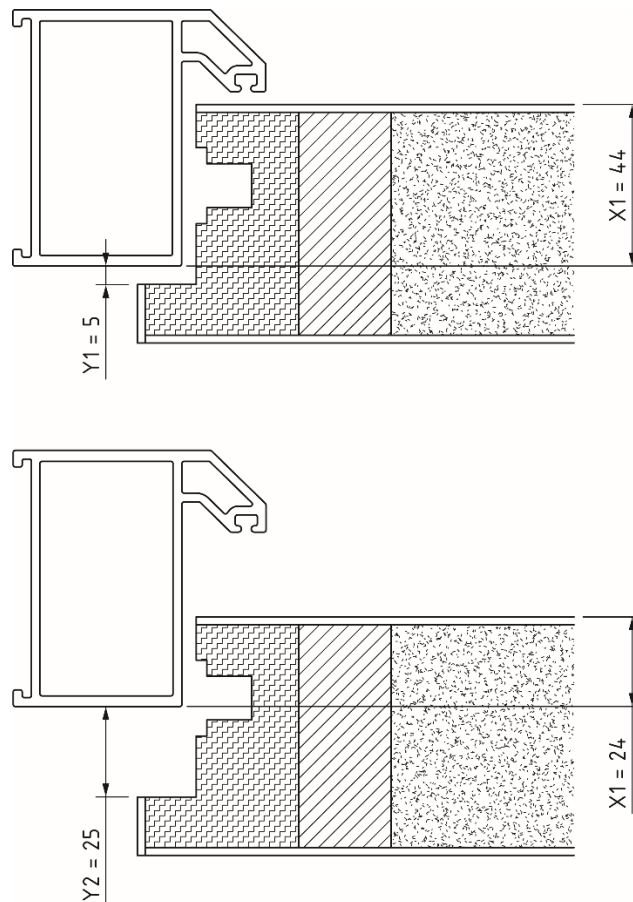
Note 1 to entry: This definition does not include frames constructed completely from metal

3.15 effective rebate depth

dimension of the door leaf thickness of overlapping adjacent edges of door leaf relative to the door frame, transom or sidepanel or flush overpanel

Note 1 to entry: See Figure A.2 & Figure A.3

Dimensions in millimetres



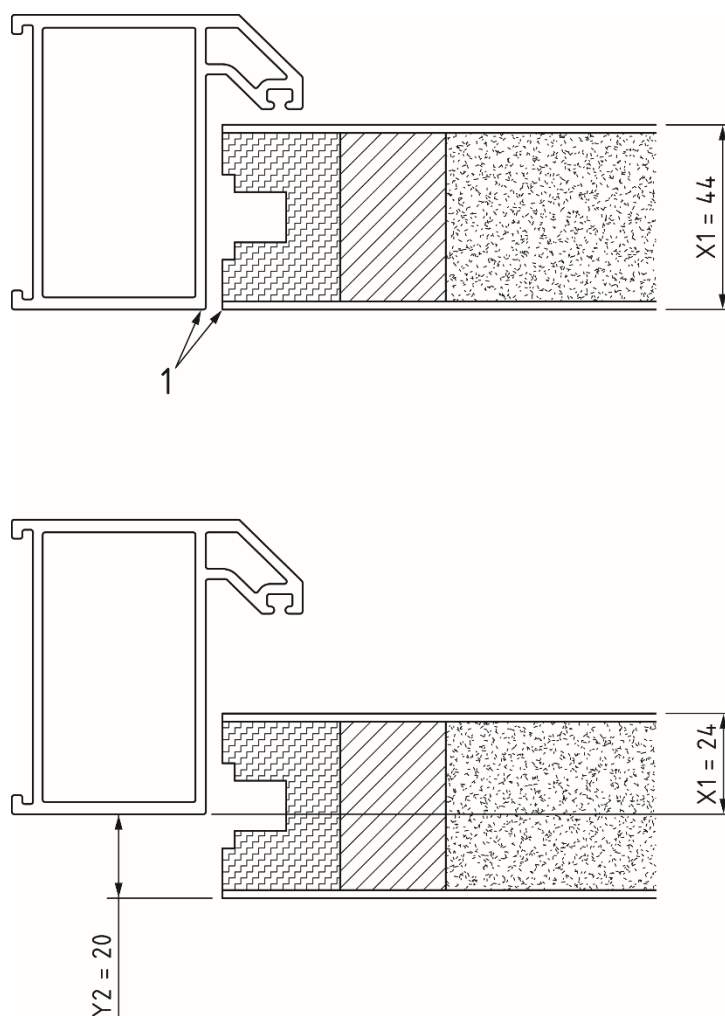
Key

- X1 Example of effective rebate depth in doorset to be tested.
- X2 Example of resulting effective rebate depth during testing after movement of 20mm.
- Y1 Example of over rebate to frame face clearance in doorset to be tested.
- Y2 Example of resulting over rebate to frame face clearance during testing after movement of 20mm.

NOTE The dimensions 5mm, 44mm, 25mm and 24mm are examples only.

Figure A.2 — Effective rebate depth - Over rebated composite doors

Dimensions in millimetres

**Key**

- 1 Leaf flush with door frame
- X1 Example of effective rebate depth in doorset to be tested.
- X2 Example of resulting effective rebate depth during testing after movement of 20mm.
- Y1 Example of leaf edge flush with frame face clearance in doorset to be tested.
- Y2 Example of resulting leaf edge to frame face difference during testing after movement of 20mm.

NOTE The dimensions 44mm, 20mm and 24mm are examples only.

Figure A.3 — Effective rebate depth – Flush fit composite doors

3.16**exposed intumescent seal**

intumescent strip which is fitted in the perimeter of the leaf or in the door frame and is visible when the leaf is in the open position

3.17**concealed intumescent seal**

intumescent strip which is fitted in the perimeter of the leaf or in the door frame and is not visible when the leaf is in the open position, including seals behind lipping, veneers and laminates and / or within the frame profile

3.18

witness groove

groove applied to the facing of polymeric sheet material which constitutes the facing of the leaf to give an impression of a traditional stile and rail joinery doorset

4 Determination of the field of extended application

4.1 General

4.1.1 Before there can be any consideration for extended application, a representative doorset shall have been tested in accordance with EN 1634-1 and / or EN 1634-3 to achieve a test result which could generate a classification in accordance with EN 13501-2 at least equal to the classification subsequently required from extended application considerations.

4.1.2 A review of the doorset construction parameters can indicate that one or more characteristics may be improved by a particular parameter variation. All evaluations shall be made on the basis of retaining the classifications obtainable from testing to EN 1634-1 and / or EN 1634-3, including those lower than the test duration. However, this shall never lead to an increased classification for any specific parameter beyond that achieved during any one test.

4.1.3 If no extended application rule exists for a particular parameter variation, then no extension or change of this particular parameter is possible without further testing.

4.2 How to use the extended application rules in Annex A

4.2.1 Identify which of the specific sections of Annex A apply for the specific door leaf under evaluation.

- Annex A – Table A.2 – Section AA – Composite Door Leaf – Trimmable sub-frame
- Annex A – Table A.2 – Section AB – Composite Door Leaf – Fixed Size sub-frame
- Annex A – Table A.2 – Section AC – Timber Door Leaf – Made from a single sheet of material without a sub-frame.
- Annex A – Table A.2 – Section AD – PVC-U Door Leaf

Only one of the above Sections of Annex A will apply to any particular product family based on the constructional details of the door leaf. Refer to the definitions to define the particular section which would be applicable.

4.2.2 The following table applies to all the above door leaf types:

- Annex A – Table A.2 – Section B – F – Common Sections

4.2.3 In order to utilise the hierarchy detailed within Annex's B – D the product under evaluation shall have:

- For all configurations two identical doorsets shall have been tested opening into and away from the furnace for fire resistance and achieved the required performance relevant to the required classification.
- Where glass is utilised, the glass configuration shall include at least one pane of insulated glass (EW – glass with intumescent or ablative interlayer and EI – glass).

4.2.4 Identify the variations from the original test specimen(s) which are required to be covered by an extended application report.

4.2.5 Locate the variations in the appropriate parameter variation by reference to columns (1) and (2) of Annex A.

4.2.6 Review the contents of column (3) of Annex A whether any extended application is available beyond the direct application rules in EN 1634-1 and / or EN 1634-3 without the need for further testing.

4.2.7 Where this is deemed to be possible, it can be recorded in the extended application report together with any appropriate restrictions and the stated rules from column (3) of Annex A.

4.2.8 Where the variations required can only be achieved from additional testing, the additional test can be made on a specimen type identified based on the detailed instruction given in column (4) of Annex A.

4.2.9 Additional test requirement statements used in column (4):

The test requirements indicated below shall be conducted in both directions in all instances.

Table 1

S.0	A test on a single doorset within the product family range.
S.1 ^a	Test must replicate the most onerous relevant previous test result within the current tested product range.
S.2 ^b	Test must be carried out reproducing the primary test condition and achieve an equal or improved performance relative to the classification required. (consisting of a single doorset without sidelights)
S.3	Annex D gives the test protocol and hierarchy for various options on leaf configurations including sidepanels, overpanels and fanlights.
^a Most onerous result must be the lowest relevant performance in terms of mode of failure and/or highest distortion but must also be evaluated taking the intended construction parameter variation into account. For example, if the construction parameter variation involves a change to glazing or sidepanel and overpanel configurations then the previous result where these have been tested would need to be used to make the evaluation of most onerous. The result for a single unglazed doorset would not be suitable and can therefore be discounted when making the evaluation. ^b When deciding if the additional test type S.1 or S.2 may be carried out consideration must always be given to decide if the construction parameter variation would result in the product becoming a different product family and therefore requiring a new product evaluation and an S.3 test programme being conducted.	

4.3 Procedure for maximum field of extended application

4.3.1 It is possible to provide an extended field of application from a single test. However, where a manufacturer envisages to produce a range of doors incorporating single doors with or without sidepanels, overpanels or fanlights, with or without glazing, with alternative elements of building hardware, etc., it is recommended that careful consideration is given to the complete range of doorset designs and options. This helps to minimise the testing required before testing commences.

4.3.2 Establish all the parameter variations which are required to be part of the product range.

4.3.3 Determine which are the most important specification requirements and incorporate as many as possible into the specimen(s) for the first tests in the series.

4.3.4 Conduct the first fire resistance and / or ambient temperature smoke control test or a series of tests and then establish which of the original desired parameter variations have not been covered by the fire resistance and / or ambient temperature smoke control tests, including direct application possibilities where applicable (as identified within the tables herein).

4.3.5 Identify these parameter variations utilising Annex's A – E and establish if any extended application is possible without further testing.

4.3.6 Record this for the extended application report together with any restrictions and rules given in column (3) in Annex A or Annex's B-E.

4.3.7 Evaluate which, if any, of the desired parameter variations have not been covered by the field of direct application or the initial field of extended application derived from 4.5.

4.3.8 Select the required outstanding parameter variations from column (1) and column (2) of Annex A and observe from column (4) in Annex A which are the most appropriate, weakest specimen options for further testing.

4.3.9 If the complete selection of required parameter variations has not been covered by the tests completed in accordance with the above procedure, then an appropriate test or tests may be repeated with the additional product variations incorporated.

4.4 Analysis of test results

4.4.1 In order to maximise the field of extended application, it is important that the test reports shall record details of any failure throughout the duration of the test, as well as details of any significant distortion where applicable.

4.4.2 Where a series of tests forms the basis for the extended application, the field of extended application shall be based on the lowest performance achieved from the complete series of tests unless premature failure has been attributed to one or more specific construction parameter variation.

4.4.3 Where it has been possible to identify specific parameter failures, the extended application for all other construction parameter variations can be based on the performance achieved after isolating the premature failure(s).

5 Extended application report

Prepare an extended application report in line with EN 15725 and in accordance with the requirements of EN 15269-1, based on the results of evaluations in accordance with the above.

When additional test data based on representative specimens are used to extend the field of application, the rationale for using the test data shall be mentioned in the EXAP report.

If the results of the testing being evaluated to generate an extended application led to a classification that only covers one side (opening or closing) of the doorset, the rules defined within Annex A-E shall not be used.

6 Classification report

The classification report shall be determined from the results of the extended application report and presented in accordance with EN 13501-2.

Annex A (normative)

Construction parameter variations

This table is designed to be used by experts competent in the field of fire resistance and ambient temperature smoke control testing of products covered by the scope of this document. Where ambient temperature smoke control is referred to within this document the leakage shall include leakage which could occur at the threshold / bottom edge of the door leaf.

This table shall only be used to assess a field of extended application when at least one positive fire resistance test to EN 1634-1 and / or ambient temperature smoke control test to EN 1634-3 has generated a fire resistance and / or ambient temperature smoke control classification according to EN 13501-2 without the requirement to isolate any failure attributed to a particular element of the assembly tested. Only results from fire resistance tests and / or ambient temperature smoke control tests in accordance with the referenced European Standards may be used as basis for extended application.

The following sections detail the potential variation of elements of the tested construction permitted by this extended field of application. This extended field of application as expressed deals with both the fire resistance and ambient smoke control performance of the doorset design and therefore the following table shall address both the fire and smoke evidence required to make such amendments.

The first two columns identify possible variations to the construction details of the specimen tested.

For some parameters, it is necessary to evaluate whether the specimen displayed a low level of distortion during the fire resistance test. Where this is the case, the following level shall be used to establish low distortion doorsets as measured using the maximum relative movement at any position between the edge of the door leaf and door frame or the relative movement of the framing members for side and over panels. The measurements shall be taken from the start of the fire resistance test at any time during the complete required classification period. The deflections shall be measured at the positions given in EN 1634-1:

— Low: < 40 % of effective rebate depth;

The evaluation of the influence of a parameter variation on performance characteristics (E/EW/EI₁/EI₂/Sa) lead to the judgement of the possibility of the extension of the field of application, the results of which are given in column (3) of the following tables.

If the conditions specified in column (3) is not fulfilled, additional fire resistance and or ambient temperature smoke control tests are deemed to be necessary. In this case, the type of specimen approved for incorporation of the changed parameter is defined in column (4).

In order to maximize the possible field of extended application from a minimum number of fire resistance and / or ambient temperature smoke control tests, the parameter changes have been spread over a series of test specimens. The recommended tests for each parameter are dependent on the classification required and the preferred options.

Where more than a single parameter variation is required, the influence on other variations shall also be taken into account.

Some parameter variations may result in a door leaf with increased weight. For all design variations contained within this EXAP document, the total weight of any design shall not exceed the loadbearing capacity of the supporting items of building hardware.

Table A.1 – Timber groupings

Solid timber may be replaced by other solid timber of the same group of equal or higher nominal density or solid timber of a higher group, where Group 4 is the highest group.		
Group No.	Type of timber	Nominal density Kg/m ³
1	Softwood	> 350 < 450
2	Hardwood	> 350 < 450
3	Softwood	≥ 450
3a	Beech (<i>Fagus sylvatica</i>)	All
4	Hardwood	≥ 450
NOTE The density is nominally declared at a moisture level of 12% according to EN 350		

The above table shall be used in the following way:

- If the tested timber was a softwood as identified in EN 350 and has a nominal density as defined within group 1 (> 350 < 450), however the actual density of the timber element sampled and tested was greater. 510kg/m³ for example. The tested timber and alternative timbers within the same group shall be no less dense than the recorded tested density.
- When moving down the hierarchy to group No.2 (Hardwood) the nominal density permitted shall fall within the range as identified in the table above. This rationale shall be followed down the table.

A.1 Table A.2 – Construction parameter variation – Section AA – Composite leaf – trimmable sub-frame

Construction Parameter	Variation	Possibility of Extension	Additional Evidence Required.
(1)	(2)	(3)	(4)
Section AA – Composite Leaf – Trimmable Sub-frame			
AA.1 General			
AA.1.1 Change of opening direction	Change of tested opening direction for unglazed or glazed (including glazing retention system) door leaf, where applicable.	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Possible, providing the smoke leakage test is performed under positive and negative pressure. Otherwise not possible without additional test.	Test to include change opening directions. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.1 in both instances
AA.1.2 Replacing type or changing location of any intumescent seal on the door leaf or frame.	Any modification to the tested intumescent seals or their location	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Not possible without additional test	Additional bi-directional test to include modified seal or positioning. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3

Construction Parameter	Variation	Possibility of Extension	Additional Evidence Required.
(1)	(2)	(3)	(4)
			Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.1.3 Non intumescent seals (draught / smoke / acoustic etc.) fitted to the leaf, frame or threshold	Add, remove or repositioning	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Possible to add a further non intumescent seal within the frame edge providing it does not require the removal or repositioning of any other material. Otherwise not possible without additional test	Additional bi-directional test to include modified seal or positioning. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.1 in both instances.
AA.1.4 Leaf edge rebate	Add, remove or modify rebate detail to the leaf edge	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Not possible without additional test	Additional bi-directional test to include modified leaf edge detail. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3

Construction Parameter	Variation	Possibility of Extension	Additional Evidence Required.
(1)	(2)	(3)	(4)
			Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.1.5 Latching condition	Change in latching condition. (See Section C of this Annex for hardware variation)	Fire Resistance: Possible to change the latching condition from unlatched to latched but not vice versa. Otherwise not possible without additional test. Ambient Temperature Smoke Control: Possible to change the latching condition from unlatched to latched but not vice versa. Otherwise not possible without additional test.	Additional bi-directional test to include required latch condition. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.

AA.2 Size or Composition Variation of the Door Leaf			
Leaf height and widths must be established as outlined in AA.2.1 & AA.2.2. Once testing has been established to demonstrate the maximum leaf size in an untrimmed condition (AA.2.1) an additional test is to be performed to establish the maximum trimmed dimension from the sub framing (AA.2.2). The range between the AA.2.1 and AA.2.2 is considered permitted based on testing the limits of the range. AA.2.3 shall be constructed with the sub-frame as demonstrated within the test which supports AA.2.1 and may be trimmed up to the same amount as established within AA.2.2.			
AA.2.1 Variation of leaf size, width height	Increase in leaf size, height or width	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Not possible without additional test	Additional bi-directional test to include largest leaf size required. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.2 Variation of leaf size, width height	Decrease in leaf size, height or width (achieved by trimming)	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Possible providing the sealing system is unaffected and the sub-frame is not completely removed. Otherwise not possible without additional test.	Additional bi-directional test to include maximum leaf size fully trimmed (to achieve minimum sub-frame dimensions at the maximum width and height required). Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3

			Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.3 Variation of leaf size, width height	Decrease in leaf size, height or width (achieved by constructing the door leaf at reduced dimension while maintaining the tested sub-frame dimensions established by rules AA.2.1 & AA.2.2)	Fire Resistance: Possible providing the range of trimming remains as demonstrated within A.2.1 & A.2.2 and providing the reduction in leaf dimensions does not reduce the quantity of restraining hardware, i.e. latching positions or hinges. Otherwise not possible without additional test. Ambient Temperature Smoke Control: Possible providing the reduction in leaf dimensions does not reduce the quantity of restraining hardware, i.e. latching positions or hinges and the sealing system is unaffected. Otherwise not possible without additional test.	Additional bi-directional test to include reduced leaf size. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.4 Variation of overall leaf thickness	Increase in overall leaf thickness	Fire Resistance: Possible in line with rule for the application of decorative facings AA.3.1. Otherwise not possible without additional test	Additional bi-directional test to include reduced leaf thickness. Fire Resistance: S.3

		Ambient Temperature Smoke Control: Possible in line with rule for the application of decorative facings AA.3.1. and providing that the sealing system is not affected. Otherwise not possible without additional test	Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.5 Variation of overall leaf thickness	Decrease in overall leaf thickness	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Not possible without additional test	Additional bi-directional test to include reduced leaf thickness. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.6 Polymeric material composition	Alternative	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Not possible without additional test	Additional bi-directional test to include alternative plastic composition. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3

			Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.7 Recycled material content	Alternative	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Not possible without additional test	Additional bi-directional test to include alternative quantity of recycled material content. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.8 Variation of density of non-cellulosic components within the leaf construction	AA.2.8.1 Increase	Fire Resistance: Possible up to a maximum of 20%. Otherwise not possible without additional test Ambient Temperature Smoke Control: Possible	Additional bi-directional test to include alternative density materials. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.

	AA.2.8.2 Decrease	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Possible up to a maximum of 20%. Otherwise not possible without additional test	Additional bi-directional test to include alternative density materials. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.9 Number of pieces of core material	Increase or Decrease number of pieces of core material within the leaf	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Possible to increase or decrease the number of pieces of core material in the core providing the joints are not exposed and do not allow for further leakage to occur. Otherwise not possible without additional test.	Additional bi-directional test to include alternative number of pieces of core material. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.10 Number of joints within core material	Increase or Decrease number of joints in core material within the leaf	Fire Resistance: Not possible without additional test	Additional bi-directional test to include required number of joints within core material. Fire Resistance:

		Ambient Temperature Smoke Control: Possible to increase or decrease the number of joints in the core material providing the joints are not exposed and do not allow for further leakage to occur. Otherwise not possible without additional test.	S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.11 Jointing technique between pieces of core material	Change to jointing technique	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Possible to change the jointing technique in the core material providing the joints are not exposed and do not allow for further leakage to occur. Otherwise not possible without additional test.	Additional bi-directional test to include alternative jointing technique. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.12 Number of layers of core material	Increase or Decrease number of layers of core material within the leaf	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control:	Additional bi-directional test to include required number of layers of core material. Fire Resistance: S.3

		Possible to increase or decrease the number of layers of core material in providing the joints are not exposed and do not allow for further leakage to occur. Otherwise not possible without additional test.	Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.13 Type of core material within leaf	Variation to type of core material within the leaf	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Possible to vary the type of core material providing the variation does not allow for further leakage to occur. Otherwise not possible without additional test.	Additional bi-directional test to include alternative type of core material. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.14 Facing material	Change in material or thickness	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Not possible without additional test	Additional bi-directional test to include alternative material or thickness of facing material. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3

			Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.15 Facing material	Increase in area of depression moulding	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Not possible without additional test	Additional bi-directional test to include maximum area of depression moulding as detailed within Annex B. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.16 Facing material	Decrease in area and / or depth of depression moulding	Fire Resistance: Possible to reduce the area or depth of the door leaf facing which has been depression moulded from the maximum area or depth tested, this may result in	Additional bi-directional test to include maximum area of depression moulding as detailed within Annex B. Fire Resistance:

		modification to the general shapes which have previously been tested as illustrated in Annex B only. Providing this does not influence the presence of materials within the core design. Otherwise not possible without additional test. Ambient Temperature Smoke Control: Possible providing the sealing system remains unaffected. Otherwise not possible without additional test.	S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.17 Facing material	Increase distance between depression moulding within the leaf facing and adjacent depression moulding and / or the edge of the leaf.	Fire Resistance: Possible to increase the distance between depression mouldings within the leaf facing and the distance between the depression moulding and the edge of the leaf providing the repositioning of depression moulding does not reduce the distance between other depression mouldings. Otherwise not possible without additional test. Ambient Temperature Smoke Control: Possible providing the sealing system remains unaffected.	Additional bi-directional test to include desired distance between depression moulding. Fire Resistance: S.1 Ambient Temperature Smoke Control: S.1

		Otherwise not possible without additional test.	
AA.2.18 Facing material	Decrease distance between depression moulding within the leaf facing and adjacent depression moulding and / or the edge of the leaf.	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Possible providing the sealing system remains unaffected. Otherwise not possible without additional test.	Additional bi-directional test to include desired distance between depression moulding. Fire Resistance: S.1 Ambient Temperature Smoke Control: S.1
AA.2.19 Facing material	AA.2.19.1 Depression mouldings which intersect with apertures within the leaf (i.e. glazing apertures or apertures for hardware). Add	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Not possible without additional test	Additional bi-directional test to include depression moulding intersecting with apertures. Fire Resistance: S.0 Ambient Temperature Smoke Control: S.1
	AA.2.19.2 Depression mouldings which run to the leaf edges. Add	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control:	Additional bi-directional test to include depression moulding running to the leaf edges. Fire Resistance: S.2 Ambient Temperature Smoke Control:

		Not possible without additional test	S.1
AA.2.20 Facing material	Depression mouldings which intersect with apertures within the leaf (i.e. glazing apertures or apertures for hardware) or run to the leaf edges. Remove	Fire Resistance: Possible providing the facing material remains at the same thickness as tested. Otherwise not possible without additional test. Ambient Temperature Smoke Control: Possible providing the facing material remains at the same thickness as tested and the sealing arrangement has equal or greater contact with the leaf face. Otherwise not possible without additional test.	Additional bi-directional test see AA.2.14.
AA.2.21 Facing material	Textured surface, Add	Fire Resistance: Possible to add a woodgrain or sand blasted effect to the visible surface of the facing up to 0.3mm deep. Also, possible to add witness grooves at stile and rail junctions up to 1mm wide x 0.5mm deep with no more than 4No. intersections with the leaf edge perimeter. Otherwise not permitted without additional test.	Additional bi-directional test to include doorset with desired facing textured surface. Fire Resistance: S.0 Ambient Temperature Smoke Control: S.1

		Ambient Temperature Smoke Control: Possible to add a woodgrain or sand blasted effect to the visible surface of the facing up to 0.3mm deep. Also, possible to add witness grooves at stile and rail junctions up to 1mm wide x 0.5mm deep with no more than 4No. intersections with the leaf edge perimeter. Otherwise not permitted without additional test.	
AA.2.22 Facing material	Textured surface, Remove	Fire Resistance: Possible to remove a woodgrain or sand blasted effect to the visible surface of the facing up to 0.3mm deep providing the finished facing thickness is no thinner than tested. Also, possible to remove witness grooves at stile and rail junctions up to 1mm wide x 0.5mm deep with no more than 4No. intersections with the leaf edge perimeter providing the finished facing thickness is no thinner than tested. Otherwise not permitted without additional test.	Additional bi-directional test see AA.2.14.

		Ambient Temperature Smoke Control: Possible to remove a woodgrain or sand blasted effect to the visible surface of the facing up to 0.3mm deep providing the finished facing thickness is no thinner than tested. Also, possible to remove witness grooves at stile and rail junctions up to 1mm wide x 0.5mm deep with no more than 4No. intersections with the leaf edge perimeter providing the finished facing thickness is no thinner than tested. Otherwise not permitted without additional test.	
AA.2.23 Security board, composition, size, location, and fixing method	AA.2.23.1 Change in material type	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Possible providing the sealing system remains unaffected. Otherwise not possible without additional test.	Additional bi-directional test to include alternative security board type, location or fixing method. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.1 in both instances.

	AA.2.23.2 Change in size, location or fixing method	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Possible providing the sealing system remains unaffected. Otherwise not possible without additional test.	Additional bi-directional test to include alternative security board type, location or fixing method. Fire Resistance: S.1 Ambient Temperature Smoke Control: S.1
AA.2.24 Amount of adhesives g/m ² .	Increase or decrease	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Possible providing the sealing system remains unaffected. Otherwise not possible without additional test.	Additional bi-directional test to include alternative quantity of adhesive. Fire Resistance: S.2 Ambient Temperature Smoke Control: S.2
AA.2.25 Type of adhesives used in leaf construction.	Change of supplier/manufacturer/distributor for identical physical and chemical composition	Fire Resistance: Possible providing the physical and chemical composition is confirmed identical. Otherwise not possible without additional test.	Additional bi-directional test to include desired adhesive within the leaf construction. Fire Resistance: S.2 Ambient Temperature Smoke Control:

		Ambient Temperature Smoke Control: Possible providing the physical and chemical composition is confirmed identical. Otherwise not possible without additional test.	S.2
AA.2.26 Type of adhesives used in leaf construction.	Alternative composition	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Possible providing the sealing system remains unaffected and the bond between items will not affect the doorset under test conditions. Otherwise not possible without additional test.	Additional bi-directional test to include desired adhesive within the leaf construction. Fire Resistance: S.2 Ambient Temperature Smoke Control: S.2
AA.2.27 Jointing technique door leaf sub-frame.	Alternative jointing technique.	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Possible providing the sealing system remains unaffected. Otherwise not possible without additional test.	Additional bi-directional test to include alternative sub-frame jointing technique. Fire Resistance: S.2 Ambient Temperature Smoke Control: S.2

AA.2.29 Dimension of intumescent seals (fitted in leaf or frame).	Increase or decrease.	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Possible providing the sealing system remains unaffected. Otherwise not possible without additional test.	Additional bi-directional test to include alternative intumescent seal dimensions. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.30 Exposed intumescent seal (fitted within leaf or frame).	Change to concealed intumescent seal.	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Possible providing the sealing system remains unaffected. Otherwise not possible without additional test.	Additional bi-directional test to include alternative intumescent seal arrangement. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.31 Concealed intumescent seal (fitted within leaf or frame).	Change to exposed intumescent seal.	Fire Resistance: Not possible without additional test	Additional bi-directional test to include alternative intumescent seal arrangement.

		Ambient Temperature Smoke Control: Possible providing the sealing system remains unaffected. Otherwise not possible without additional test.	Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.32 Type of intumescent seals (fitted in leaf or frame).	Change of supplier/manufacturer/distributor for identical physical and chemical composition.	Fire Resistance: Possible for the active component providing the physical and chemical composition are identical, and the seal profile is also identical. Otherwise not possible without additional test. Ambient Temperature Smoke Control: Possible providing the sealing system remains unaffected. Otherwise not possible without additional test.	Additional bi-directional test to include alternative intumescent seal. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.33 Type of intumescent seals (fitted in leaf or frame)	Alternative material.	Fire Resistance: Not possible without additional test	Additional bi-directional test to include alternative intumescent seal. Fire Resistance:

		Ambient Temperature Smoke Control: Possible providing the sealing system remains unaffected. Otherwise not possible without additional test.	S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.2 in both instances.
AA.2.34 Dimension of non-intumescent seals (fitted in leaf or frame)	Increase or decrease.	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Not possible without additional test.	Additional bi-directional test to include alternative non-intumescent seals. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.1 in both instances.
AA.2.35 Type of non-intumescent seals (fitted in leaf or frame).	Change of supplier/manufacturer/distributor for identical physical and chemical composition.	Fire Resistance: Possible providing the physical and chemical composition are identical, and the seal profile is also identical. Otherwise not possible without additional test.	Additional bi-directional test to include desired alternative non-intumescent seals. Fire Resistance: S.3 Ambient Temperature Smoke Control:

		Ambient Temperature Smoke Control: Possible providing the physical and chemical composition are identical, and the seal profile is also identical. Otherwise not possible without additional test.	S.3 Whereby side or overpanels have not been tested revert to S.1 in both instances.
AA.2.34 Type of non-intumescent seals (fitted in leaf or frame).	Alternative material	Fire Resistance: Not possible without additional test Ambient Temperature Smoke Control: Not possible without additional test.	Additional bi-directional test to include alternative non-intumescent seals. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.1 in both instances.
AA.3 Decorative and / or protective finishes			
AA.3.1 Decorative facings on the face of the leaf or panel such as timber veneer, laminate, plastic, foil etc.	Add.	Fire Resistance: Possible for doorsets which satisfy EI ₂ or EI ₁ classification performance only. Application of decorative laminate material or timber veneer up to 0.5mm thick on each face but not the edges, provided the edge conditions remain as the tested design and the facing material is	Additional bi-directional test to include desired decorative facing material. Fire Resistance: S.1 Ambient Temperature Smoke Control: S.1

		applied with adhesive, otherwise additional test required. Otherwise not possible without additional test. Ambient Temperature Smoke Control: Possible providing the sealing system remains unaffected. Otherwise not possible without additional test.	
AA.3.2 Decorative facings on the face of the leaf or panel. such as timber veneer, laminate, plastic, foil etc.	Remove.	Fire Resistance: Not possible without additional test. Ambient Temperature Smoke Control: Possible providing the sealing system remains unaffected. Otherwise not possible without additional test.	Additional bi-directional test to include desired decorative facing arrangement. Fire Resistance: S.1 Ambient Temperature Smoke Control: S.1
AA.3.3 Decorative facings on the edges of the leaf, panel and/or frame. such as laminate, plastic, foil etc.	Add.	Fire Resistance: Possible for doorsets which satisfy EI₂ or EI₁ classification performance only. Application of decorative laminate material up to 0.3 mm thick on each edge, provided the edge conditions remain as the tested	Additional bi-directional test to include desired decorative facing arrangement. Fire Resistance: S.1 Ambient Temperature Smoke Control:

		design and provided the facing material is applied with adhesive. Otherwise not possible without additional test. Ambient Temperature Smoke Control: Possible providing the sealing system and door gaps remain unaffected. Otherwise not possible without additional test.	S.1
AA.3.4 Decorative facings on the edges of the leaf, panel and/or frame. such as timber veneer, laminate, plastic, foil etc.	Remove.	Fire Resistance: Not possible without additional test. Ambient Temperature Smoke Control: Possible providing the sealing system and door gaps remain unaffected. Otherwise not possible without additional test.	Additional bi-directional test to include desired decorative facing arrangement. Fire Resistance: S.1 Ambient Temperature Smoke Control: S.1
AA.3.5 Decorative facings on the face of the leaf or panel such as timber veneer, laminate, plastic, foil etc.	Change of material.	Fire Resistance: Possible to substitute tested arrangement for identical composition in a variation of colours or supplier. Timber veneers may be substituted in line with Table A.1.	Additional bi-directional test to include desired decorative facing arrangement. Fire Resistance: S.1 Ambient Temperature Smoke Control: S.1

		Otherwise not possible without additional test. Ambient Temperature Smoke Control: Possible providing the sealing system and door gaps remain unaffected. Otherwise not possible without additional test.	
AA.3.6 Decorative facings on the edges of the leaf, panel and/or frame. such as timber veneer, laminate, plastic, foil etc.	Change of material.	Fire Resistance: Possible to substitute tested arrangement for identical composition in a variation of colours or supplier. Timber veneers may be substituted in line with Table A.1. Otherwise not possible without additional test. Ambient Temperature Smoke Control: Possible providing the sealing system and door gaps remain unaffected. Otherwise not possible without additional test.	Additional bi-directional test to include desired decorative facing arrangement. Fire Resistance: S.1 Ambient Temperature Smoke Control: S.1
AA.3.7 Decorative paint finish on the door leaf, panel and/or frame. (inert paint finish)	Add, remove, or modify	Fire Resistance: Possible to add, remove or modify an inert paint finish to a door leaf, panel or frame to a maximum DFT	Additional bi-directional test to include desired decorative paint finish.

		(dry film thickness) of 0.3mm. Otherwise not possible without additional test. Ambient Temperature Smoke Control: Possible providing the sealing system and door gaps remain unaffected. Otherwise not possible without additional test.	Fire Resistance: S.1 Ambient Temperature Smoke Control: S.1
AA.3.8 Decorative Paint Finish on the door leaf, panel and/or frame. (intumescent paint finish)	Add, remove, or modify	Fire Resistance: Not possible without additional test. Ambient Temperature Smoke Control: Possible providing the sealing system and door gaps remain unaffected. Otherwise not possible without additional test.	Additional bi-directional test to include desired decorative paint finish. Fire Resistance: S.1 Ambient Temperature Smoke Control: S.1
AA.3.9 Lippings on leaf or panel.	Change in dimensions.	Fire Resistance: Not possible without additional test. Ambient Temperature Smoke Control: Possible providing the sealing system and door gaps remain	Additional bi-directional test to include desired lipping dimensions. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3

		unaffected. Otherwise not possible without additional test.	Whereby side or overpanels have not been tested revert to S.1 in both instances.
AA.3.10 Lippings on leaf or panel.	Add.	Fire Resistance: Not possible without additional test. Ambient Temperature Smoke Control: Possible providing the sealing system and door gaps remain unaffected. Otherwise not possible without additional test.	Additional bi-directional test to include desired lipping arrangement. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3 Whereby side or overpanels have not been tested revert to S.1 in both instances.
AA.3.11 Lippings on leaf or panel.	Remove.	Fire Resistance: Not possible without additional test. Ambient Temperature Smoke Control: Possible providing the sealing system and door gaps remain unaffected. Otherwise not possible without additional test.	Additional bi-directional test to include desired lipping arrangement. Fire Resistance: S.3 Ambient Temperature Smoke Control: S.3

			Whereby side or overpanels have not been tested revert to S.1 in both instances.
AA.3.12 Change application method or change in adhesive used to apply lippings	Alternative application method or adhesive	Fire Resistance: Not possible without additional test. Ambient Temperature Smoke Control: Possible providing the sealing system and door gaps remain unaffected. Otherwise not possible without additional test.	Additional bi-directional test to include desired lipping application method and/or lipping adhesive. Fire Resistance: S.1 Ambient Temperature Smoke Control: S.1
AA.3.13 Change in material of lipping including composition of polymeric materials	Alternative lipping material or material composition	Fire Resistance: Not possible without additional test. Ambient Temperature Smoke Control: Possible providing the sealing system and door gaps remain unaffected. Otherwise not possible without additional test.	Additional bi-directional test to include desired lipping material. Fire Resistance: S.1 Ambient Temperature Smoke Control: S.1
AA.3.14 Protective plates of any material – face fixed (kick plates / push plates / protective plates) on leaf or panel	Recessed to unrecessed.	Fire Resistance: Possible to change recessed plates to unrecessed plates. Material to remain as tested. Providing the protective plate does not interfere with the leaf edge sealing detail.	Additional bi-directional test to include desired protective plate. Fire Resistance: S.0

		Otherwise not possible without additional test. Ambient Temperature Smoke Control: Possible providing the sealing system and door gaps remain unaffected. Otherwise not possible without additional test.	Ambient Temperature Smoke Control: S.0
AA.3.15 Protective plates of any material– face fixed (kick plates / push plates / protective plates) on leaf or panel.	Unrecessed to recessed.	Fire Resistance: Not possible without additional test. Ambient Temperature Smoke Control: Possible providing the sealing system, door gaps remain unaffected and there are no greater through holes which could be exploited under test conditions. Otherwise not possible without additional test.	Additional bi-directional test to include desired protective plate detail. Fire Resistance: S.1 Ambient Temperature Smoke Control: S.1
AA.3.16 Protective plates of any material – face fixed (kick plates / push plates / protective plates) on leaf or panel	Add (screw fixed).	Fire Resistance: Possible providing the protective plate does not interfere with the sealing detail at the leaf perimeter (i.e. does not extend behind door stops to leaf to frame rebates) or	Additional bi-directional test to include desired protective plate detail. Fire Resistance: S.0

		glazed areas, up to a maximum of 25% of the leaf area. Plate thickness is limited to 2mm and fixed with screws with a maximum length of half of the thickness of the door leaf. Otherwise not possible without additional test. Ambient Temperature Smoke Control: Possible providing the sealing system, door gaps remain unaffected and there are no greater through holes which could be exploited under test conditions. Otherwise not possible without additional test.	Ambient Temperature Smoke Control: S.0
AA.3.17 Protective plates of any material – face fixed (kick plates / push plates / protective plates) on leaf or panel	Add (glued).	Fire Resistance: Possible providing the protective plate does not interfere with the sealing detail at the leaf perimeter (i.e. does not extend behind door stops to leaf to frame rebates) or glazed areas, up to a maximum of 25% of the leaf area. Plate thickness is limited to 2mm and fixed with thermo softening adhesive. Otherwise not possible without additional test.	Additional bi-directional test to include desired protective plate detail. Fire Resistance: S.0 Ambient Temperature Smoke Control: S.0

		Ambient Temperature Smoke Control: Possible providing the sealing system and door gaps remain unaffected. Otherwise not possible without additional test.	
AA.3.18 Protective plates of any material – face fixed (kick plates / push plates / protective plates) on leaf or panel	Remove (screw fixed or glued).	Fire Resistance: Possible providing the protective plate does not cover more than 25% of the leaf area and providing the removal does not expose any areas of potential weakness beneath the plates. (i.e. the door leaf remains full thickness including facing material no through holes are present). Otherwise not possible without additional test. Ambient Temperature Smoke Control: Possible providing the removal does not expose any areas of potential weakness beneath the plates. (i.e. the door leaf remains full thickness including facing material no through holes are present) the sealing system and door gaps remain unaffected.	Additional bi-directional test to include desired protective plate detail. Fire Resistance: S.1 Ambient Temperature Smoke Control: S.1

		Otherwise not possible without additional test.	
AA.3.19 Protective metal edge protectors.	Remove.	Fire Resistance: Not possible without additional test. Ambient Temperature Smoke Control: Not possible without additional test.	Additional bi-directional test to include desired protective plate edge detail. Fire Resistance: S.1 Ambient Temperature Smoke Control: S.1
AA.3.20 Protective metal edge protectors.	Add.	Fire Resistance: Not possible without additional test. Ambient Temperature Smoke Control: Not possible without additional test.	Additional bi-directional test to include desired protective plate edge detail. Fire Resistance: S.1 Ambient Temperature Smoke Control: S.1
AA.3.21 Mouldings (planted on the face of the leaf or panel).	Add.	Fire Resistance: Possible for doorsets which satisfy EI₂ or EI₁ classification performance only. Addition of mouldings is permitted providing any one face of the leaf is covered by not more than 25 % and the mass of the leaf is not increased by more than 25 %. Mouldings are to be applied	Additional bi-directional test to include desired moulding detail. Fire Resistance: S.1 Ambient Temperature Smoke Control: S.1