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Title

Field of Application for:

The Range of Doorsets Using EGGER FD30 & FD30 Decor 44mm Door Blanks in Timber Based Door Frames

For 30 minutes Fire Resistance

Report No.:

Chilt/A13085 Revision G

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WF551950

Prepared for:

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1 Foreword

This Field of application report has been commissioned by Egger (UK) Ltd and relates to the fire resistance of 30 minute fire resisting doorset designs.

The report is for national application and has been written in accordance with the general principles outlined in BS EN 15725.

This Field of Application (scope) uses established empirical methods of extrapolation and experience of fire testing similar doorsets, in order to extend the scope of application by determining the limits for the designs based on the tested constructions and performances obtained. The scope is an evaluation of the potential fire resistance performance, if the variations specified herein were to be tested in accordance with 476-22: 1987.

This Field of Application has been written using appropriate test evidence generated at UKAS accredited laboratories[1], to the relevant test standard. The supporting test evidence has been deemed appropriate to support the manufacturers stated door design and is summarised in section 3.

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

This Field of Application has been prepared and checked by product assessors with the necessary competence, who subscribe to the principles outlined in the Passive Fire Protection Forum (PFPF) *'Guide to Undertaking Technical Assessments of the Fire Performance of Construction Products Based on Fire Test Evidence'.* The aim of the PFPF guidelines is to give confidence to end-users that assessments that exist in the UK are of a satisfactory standard to be used for building control and other purposes.

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

2 Proposal

It is proposed to consider the fire resistance performance of the specified proprietary Egger particleboard doorset designs, for 30 minutes fire resistance integrity performance (and where appropriate insulation performance), if the doorset designs were to be tested to the requirements of BS 476-22: 1987, *Methods for determination of the fire resistance of non-loadbearing elements of construction.*

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

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

2.1 Assumptions

- All densities referred to in this document are based upon an assumed moisture content of 12%.
- It is assumed that unless otherwise documented in the field of application sections of this report, the doorset subject to this report will be constructed in accordance with the test evidence referred to herein.
- For components created using solid timber sections referred to in this assessment, it is assumed that, for all timbers, they will be of a quality deemed to meet or exceed class J30 as specified in BS EN 942: 2007, subject to adequate repairs, other than glazing beads which must meet a minimum class J10. Note that areas under intumescent seals/gaskets are not considered to be concealed faces and defects must be repaired.
- Where timber is referred to within this document it is assumed that the timber element is made from a continuous solid piece, unless specifically detailed otherwise.
- All dimensions detailed herein may be varied by ±2% except where minimum, maximum or a range of dimensions are given.
- Where morticed items of hardware are used (within the leaf or frame) it is assumed that the preparation for such items are tight to the item (and where applicable intumescent protection) as tested with no excessive gaps, unless stated otherwise within a particular section of this report.

3 Test Data

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

Note:

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

The test evidence has been generated across a number of different doorset configurations, including single leaf, double leaf, latched and unlatched doorsets. as well as doorsets with overpanels.

Some of the test evidence used in the evaluation is over 5 years old. In accordance with industry guidance, the evidence has been reviewed to consider its suitability. Warringtonfire are satisfied that there have been no significant revisions to the relevant test standards which would render the evidence irrelevant.

The evidence has been generated to BS 476 Part 22: 1987 and EN 1634-1. The latter is known to be more onerous than the BS 476: Part 22: 1987 standard, primarily due to the use of plate thermocouples within the furnace to record the furnace temperature.

The same time temperature curve is used to control the temperature within the furnace for both test methods (the heating curve given within ISO 834-1). However, the plate thermocouple used to record the temperature within the furnace for the EN test method, requires a longer thermal exposure to read the same temperature as the probe thermocouple that is used for the BS 476: Part 22: 1987 test, particularly during the early stages of the test. Furthermore, the neutral pressure regime is positioned lower relative to the specimen height in a European fire door test, therefore resulting in greater relative positive pressure conditions than those expected in a BS 476-22: 1987 test, which has the potential to increase hot gases and flaming on the unexposed side. These factors result in more onerous test conditions for doorsets tested to the BS EN 1634-1 test standard compared with the BS 476: Part 22: 1987 test standard, which has been demonstrated by testing the same products to both standards.

It is therefore the opinion of Warringtonfire that the evidence citied in the following section, tested to both named standards referenced above can be utilised in this assessment which will conclude in terms of the fire resistance performance of the Egger particleboard doorset designs if tested in accordance with BS 476: Part 22: 1987.

3.1 Primary Test Evidence

The following summaries are provided to give the key details relevant to the tested specimen. Throughout this assessment report, relevant sections will reference the tests where they have been used to provide the scope of application.

3.1.1 Test Report RF09039

The referenced test report, the essential details of which are summarised below, is primary data for the door design being considered within this report, as such the integrity performance of specimen A, which represents the most onerous configuration considered herein, has been used in calculating the permitted leaf size envelopes.

Date of test	6th April 2009	
Identification of test body	Chiltern International Fire (now trading as Warringtonfire Testing) UKAS ref: 1762	
Sponsor	Egger (UK) Ltd, Anick Grange Road, Hexham, Northumberland, NE46 4JS.	
Tested Product	Specimen A: an unlatched, one and a half leaf single acting doorset with flush overpanel, specimen B: a latched, single leaf single acting doorset.	
Summary of test specimen	Leaf dimensions (mm): A: 2135 (h) x 935/545 (w) x 44 (t), OP 405 (h) B: 2135 (h) x 915 (w) x 44 (t). All leaves and the overpanel were formed from Egger particleboard and mounted in European Redwood doorframes. Specimen A had 1No. 15 x 4 Mann McGowan Pyrostrip 100P PVC encased intumescent strip fitted centrally into the meeting edge of one leaf and centrally in the frame head and frame jambs, with 1No 10 x 4 Mann McGowan Pyrostrip 100P seal fitted into bottom of the rebates in the leaf heads and bottom edge of the overpanel. Specimen B had 1No. 10 x 4 Pyroplex FO 8500 Rigid Box seal PVC encased intumescent strip fitted centrally into the reveals of the frame head and frame jambs. Leaves were hung on 3No. steel bearing, lift off type hinges per leaf, together with a lever operated mortice latch, disengaged on specimen A, engaged on specimen B. A surface mounted overhead door closer, was fitted to the exposed face of the leaves. The doors were oriented to open in towards the furnace.	
Test Standard	BS 476: Part 22: 1987	
Performance (minutes)	Specimen A	Specimen B
	Integrity: 31* Insulation: 31	Integrity: 42 Insulation: 42

3.1.2 Test Report RF09015

The referenced test report, the essential details of which are summarised below, is primary data for the door design being considered within this report, utilised primarily to demonstrate that the design is capable of tolerating glazed apertures, whilst providing a margin of over-performance.

Date of test	2nd March 2009	
Identification of test body	Chiltern International Fire (now trading as Warringtonfire Testing) UKAS ref: 1762	
Sponsor	Egger (UK) Ltd, Anick Grange Road, Hexham, Northumberland, NE46 4JS.	
Tested Product	Specimen A: an unlatched, single leaf single acting doorset. Specimen B: an unlatched, single leaf single acting doorset with glazing.	
Summary of test specimen	Leaf dimensions (mm): A: 2800 (h) x 915 (w) x 44 (t). B: 2440 (h) x 1220 (w) x 44 (t). Both leaves were formed from Egger particleboard and mounted in European Redwood doorframes. Specimen A had 1No. 20 x 4 Lorient Polyproducts Ltd Type 617 PVC encased intumescent strip fitted centrally into the reveal of the frame head and 1No. 15 x 4 Lorient Polyproducts Ltd Type 617 seal centrally fitted in the frame jambs. Specimen B had 1No. 15 x 4 Lorient Polyproducts Ltd Type 617 PVC encased intumescent strip fitted centrally in the frame head and frame jambs. A glazed aperture utilising 7mm thick Pilkington Pyroshield of dimensions 1350mm (h) x 960mm (w) was included, the glazing system comprised 2mm thick Sealmaster Fireglaze mastic with chamfered hardwood beads 19mm high with an integral bolection return. Specimen A was hung on 4No. steel bearing, lift off type hinges; specimen B was hung on 3No steel bearing, lift off type hinges, together with a lever operated mortice latch, disengaged on both specimens. A surface mounted overhead door closer, was fitted to the exposed face of the leaves. The doors were oriented to open in towards the furnace.	
Test Standard	BS 476: Part 22: 1987	
Performance (minutes) * In accordance with Section 8.6.1 of BS 476 Part 22: 1987, the specimen has not been evaluated for insulation.	Specimen A	Specimen B
	Integrity: 32 Insulation: 32	Integrity: 40 Insulation: 0*

3.1.3 Test Report RF09101

The referenced test report, the essential details of which are summarised below, is primary data for the door design being considered within this report, utilised primarily to demonstrate that the design is capable of being installed on pivots.

Date of test	8th July 2009
Identification of test body	Chiltern International Fire (now trading as Warringtonfire Testing) UKAS ref: 1762
Sponsor	Egger (UK) Ltd, Anick Grange Road, Hexham, Northumberland, NE46 4JS.
Tested Product	An unlatched double leaf, double acting doorset.
Summary of test specimen	Leaf dimensions (mm): 2216 (h) x 931/931 (w) x 44 (t). Both leaves were formed from Egger particleboard and mounted in European Redwood door frames. 1No. 15 x 4 Lorient Polyproducts Ltd Type 617 PVC encased intumescent strip was fitted 21mm from the exposed face of the leaf in the reveal of the frame head and jambs, with 1No. 15 x 4 Lorient Polyproducts Ltd Type 617 seal centrally fitted in the in one meeting edge. The specimen was mounted on Dorma floor springs and top pivots BTS80F & 8067. No latch or other hardware was installed. The doors were double acting, so symmetrical with respect to opening direction.
Test Standard	BS 476: Part 22: 1987
Performance (minutes)	Integrity: 47 Insulation: 47

3.1.4 Test Report RF10104

The referenced test report, the essential details of which are summarised below, is primary data for the door design being considered within this report, utilised primarily to demonstrate the application of laminate faces, whilst providing a margin of over-performance.

Date of test	5th August 2010
Identification of test body	Chiltern International Fire (now trading as Warringtonfire Testing) UKAS ref: 1762
Sponsor	Egger (UK) Ltd, Anick Grange Road, Hexham, Northumberland, NE46 4JS.
Tested Product	Specimen A: is not considered within this assessment. Specimen B: an unlatched, single leaf, single acting doorset.
Summary of test specimen	Leaf dimensions (mm): B: 2135 (h) x 915 (w) x 44 (t). The leaf was formed from Egger particleboard faced with laminate and lipped with 2mm thick ABS and mounted in a European Redwood doorframe. Specimen B had 1No. 15 x 4 Lorient Polyproducts Ltd Type 617 PVC encased intumescent strip fitted centrally in the reveals of the frame head and jambs. Specimen B was hung on 3No steel bearing, lift off type hinges, together with a lever operated mortice latch, disengaged for the test. A surface mounted overhead door closer, was fitted to the exposed face of the leaves. The doors were oriented to open in towards the furnace.
Test Standard	BS 476: Part 22: 1987
Performance (minutes)	Integrity: 44 Insulation: 44

3.1.5 Test Report RF13013

The referenced test report, the essential details of which are summarised below, is primary data for the door design being considered within this report, utilised primarily to demonstrate the inclusion of glazing and hardware.

Date of test	1st March 2013
Identification of test body	Chiltern International Fire (now trading as Warringtonfire Testing) UKAS ref: 1762
Sponsor	Egger (UK) Ltd, Anick Grange Road, Hexham, Northumberland, NE46 4JS.
Tested Product	An unlatched, equal pair with a flush over panel and separately framed sidepanel. The doors were oriented to open in towards the furnace.
Summary of test specimen	For the purposes of this field of application report only the following elements of the fire test have been considered. <u>Door Leaf Core:</u> EGGER FD30 graduated density chipboard, 44mm thick. <u>Glazing</u> Glass: Pyroguard EI 30, 15mm thick. Aperture Dimensions: Right Leaf: 725(h) x 590(w), 148mm from the leaf head and 188mm from the leaf hanging edge. Left Leaf: 175(h) x 175(w), 148mm from the leaf head and 395mm from the leaf hanging edge. Glazing Beads: 20(h) x 23(d) including a 12(d) x 5(h) bolection return and 20° chamfer. Bead Fixings: Steel Woodscrews Ø5 x 50mm long fitted 50mm from the internal corers of the bead and at maximum 150mm centres. Glazing System: Pyroplex 30049, 14.2(w) x 1.8(t) fitted between the bead and glass on both faces. <u>Hardware</u> Drop Seal: Hafele 950.07.546, 33.5(h) x 15(w Flush Bolt: Hafele 911.62.125, 200(l) x 24(w) x 30(d) fitted at the threshold only.
Test Standard	BS EN 1634-1:2008
Performance (minutes)	Integrity: 28 Insulation: 28
Reason For Use	The initial failure of the doorset at 28 minutes was observed at the top hinge position. A secondary failure was observed at 29 minutes above the lockset location at the meeting edges. It is the opinion of Warringtonfire that the test evidence can be used to support the performance of the glazing and hardware in the specimen summary as no failures were recorded that are attributable to these elements of the test specimen.

3.1.6 Test Report WF551082

The referenced test report, the essential details of which are summarised below, is primary data for the door design being considered within this report, supporting inclusion of large lockcases, drop seals, sub frame and environmental seals to the frame rebate upstand:

Date of Test:	15th April 2025
Identification of Test Body:	Warringtonfire Testing and Certification Ltd. UKAS No. 1762
Sponsor:	Egger UK Limited Anick Grange Road, Hexham, Northumberland, NE46 4JS.
Tested Product:	Doorset A: Latched Single leaf, single acting timber doorset Doorset B: Latched Single leaf, single acting timber doorset with subframe and glazing
Tested Orientation:	Both doorsets opening towards the heating conditions
Sampling information:	Doorset A was sampled by BM TRADA Approved Body ID: 1224 between the 21/02/2025 and 18/03/2025 under contract S25025T Doorset B was sampled by BM TRADA Approved Body ID: 1224 between the 21/02/2025 and 18/03/2025 under contract SC25026T
Summary of test Specimens	<u>Details of Doorset A</u> Leaf Dimensions: 2040 (h) x 926 (w) x 44 (t) Core Description: Particleboard 578Kg/m^3, Lippings: applied to all four edges – 7 (t) Sapele 752kg/m^3 adhered with PUR Technomelt glue. Frame: Engineered finger jointed Redwood 539kg/m^3 56 (w) x 92 (d) with a 17 (w) x 49 (d) rebate with a 20 (w) x 5.7 (d) groove to the rear of the frame. Intumescent: 15 (w) x 4 (t) Pyroplex graphite intumescent fitted centrally to the door frame head and jambs and a Schlegel AQ48 Polyurethane foam / Polyethylene film / Polypropylene insert seal inserted into the upstand of the stop. Hardware: 3No. AR8182-SSS Ball bearing butt hinges Door closer: Surface mounted AR1500 Lockset:AR8004 Thumbturn: Yale, KMT3030 Intumescent protection to the hardware: Hinges: None fitted Lockset: None fitted

	Details of Doorset B Leaf Dimensions: 2040 (h) x 926 (w) x 44 (t) Core Description: Particleboard 578Kg/m^3, Lippings: applied to all four edges – 7 (t) Sapele 752kg/m^3 adhered with PUR Technomelt glue. Frame: Engineered finger jointed Redwood 539kg/m^3 56 (w) x 92 (d) with a 17 (w) x 49 (d) rebate with a 20 (w) x 5.7 (d) groove to the rear of the frame. Intumescent: 15 (w) x 4 (t) Lorient 617 LP1504 intumescent fitted centrally to the door frame head and jambs and a Schlegel AQ48 Polyurethane foam / Polyethylene film / Polypropylene insert seal inserted into the upstand of the stop. Sub Frame: Hardwood (Sapele 692kg/m^3) 45 (t) x 92 (w) fixed to the rear of the door frame with 5Ø x 76 (l) screws 30mm from the top and a 200mm centres Glazing: 153mm from the top leaf edge and 383mm in from the closing edge Aperture size 162 (w) x 162 (h), 7mm Pyrobelite Glazing System: Sapele lining 5 (t) x 39 (w) fixed with 18g pins 40 (l) Beading 23.5 (h) x 23.5 (w), with a 9 (h) x 16.5 (w) rebate and a 7 (t) x 9 (h) bolection return, the top face has a 20° bevel sloping away from the glass face. Glazing System: Sealmaster G30 dry seal tape Hardware: 3No. AR8182-SSS Ball bearing butt hinges Door closer: Surface mounted AR1500 Drop Down Seal: NOR810 Lockset:AR8004 Thumbturn: Yale, KMT3030 Escutcheon: Hoppe AR961/60-3-SR-SS Intumescent protection to the hardware: Hinges: NOR910 graphite intumescent under each hinge blade Lockset: 1mm Interdens bedded/encasing the lockcase, forend and keep	
Test Standard:	BS 476-20:1987 and BS 476-22:1987 Clause 6	
Performance (minutes)	**Doorset A** Integrity: 39 Insulation: 39	**Doorset B** Integrity: 34 Insulation: 34

4 Technical Specification

4.1 General

The technical specification for the proposed door assemblies is given in the following sections and is based on the test evidence for the door designs, summarised in section 3.

4.2 Intended Use

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

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

4.3 Door Leaf

The Egger particleboard door design can include various design features:

1. Glazing
2. Various hardware options
3. Decorative facings

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

Section 5 gives the description of leaf type in terms of composition and density etc

4.4 Door Frames

Doorsets constructed using different frame options can include various design features as summarised below.

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

4.4.1 Frame 1 – Softwood, Finger Jointed Softwood or Hardwood Timber

The construction of the door frame is from softwood or hardwood with minimum frame dimensions. For further information on the specification and construction of the door frames see section 7.

4.4.2 Frame 2 – Medium Density Fibreboard

The construction of the door frame is from Medium Density Fibreboard (MDF) with minimum frame dimensions. For further information on the specification and construction of the door frames see section 7

4.5 Doorset Configurations & Maximum Leaf Sizes

4.5.1 General

The evaluation of the leaf size for each door leaf option and frame option and doorset configuration is based on the tests listed in Section 3 and takes into account:

1. The margin of over performance above 30 minutes integrity for the design
2. The characteristics exhibited during test and
3. The doorset configuration tested

The evaluation of the permitted configurations included in this field of application is based on the configuration(s) tested. The principle is that the more components included in testing, the harder it becomes to pass a test. This approach leads to the following statements:

1. A test on a double doorset is more onerous than a test on a single doorset
2. A test on a doorset with a flush overpanel is more onerous than a test on a doorset without an overpanel. A flush overpanel has the same thickness as the door leaf and is flush with the leaf/leaves.
3. A test on an unlatched doorset is more onerous than a test on a latched doorset as the leading edge is unrestrained and will deflect more in fire test conditions
4. A test on an unlatched single acting doorset is considered to be equivalent to a double acting doorset, due to the known deflection of an unlatched single acting doorset towards the furnace conditions i.e. away from the door stop. However, this does not cover doorsets with flush overpanels
5. A doorset with transomed overpanel is considered to perform comparably to a similar doorset without an overpanel. This is because the transom structurally separates the overpanel from the doorset.

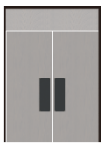
The leaf size for each door leaf option and configuration is linked to the perimeter intumescent specification and frame option. The following section details the maximum leaf size for each door leaf option and configuration based on the intumescent specification and frame details tested.

Doorsets with reduced height and width dimensions from those tested are deemed to be less onerous. Therefore, doors with dimensions less than those given in the leaf size envelopes (for the relevant intumescent specification) in the following sections are covered and may be manufactured.

4.5.2 Configuration

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

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

Doorset Configurations			
Ref	Depiction	Abbreviation	Description
A		LSASD	Latched Single Acting Single Doorset
B		ULSASD	Unlatched Single Acting Single Doorset
C		DASD	Double Acting Single Doorset
D		LSASD+OP	Latched Single Acting Single Doorset + Flush Overpanel
E		ULSASD+OP	Unlatched Single Acting Single Doorset + Flush Overpanel
G		LSADD	Latched Single Acting Double Doorset
H		ULSADD	Unlatched Single Acting Double Doorset
I		DADD	Double Acting Double Doorset
J		LSADD+OP	Latched Single Acting Double Doorset + Flush Overpanel
K		ULSADD+OP	Unlatched Single Acting Double Doorset + Flush Overpanel

4.5.3 Orientation

The majority of primary fire resistance tests for these designs were conducted with the doorset hung such that the door leaf opened towards the fire, which is considered the most onerous orientation in terms of fire resistance performance. Based on this testing, assessment is made that the doorsets to this design may be hung either away from or towards the fire risk side of the doorset. The rationale behind the direction of fire testing timber based doorsets opening towards the fire test conditions is further explained in Annex C of BS EN 1634-1:2014 +A1:2018.

4.5.4 Envelopes for each Configurations

The following sections detail the door leaf envelopes which indicate the permitted leaf sizes for the listed configurations based on the perimeter intumescent, door leaf option and door frame.

Unequal leaf double doorsets are covered by this assessment provided that all the following criteria are met:

- The relevant door leaf envelopes are not exceeded.
- Door leaf widths are no smaller than 300mm.

For equal double doorsets both leaves must comply with the door leaf envelope size limitations.

Single acting double doorsets are only considered acceptable when the leaves are hung to open in the same direction.

A table of essential hardware is given in section 10.3 for each doorset configuration, as a minimum requirement for the doorset described. Changes to hardware can affect the intumescent specification and frame details which are subsequently considered for each specific hardware component, where required.

4.5.4.1 General Note on Intumescent Seals

- Intumescent seals are to be fitted centrally to the thickness of the leaf unless stated otherwise.
- Intumescent seals are fully interrupted at hardware locations unless stated otherwise.
- Intumescent seals must run the full length of the leaf edge or frame reveals, with tightly formed abutting corner joints, unless stated otherwise.
- Vertical perimeter intumescent seals may include one tight butt joint in their length if needed.
    - Where two seals are fitted, the joints must be offset by a minimum of 100mm and may not be coincident.
    - Where one seal is fitted the joint must be in the lower half of the doorset.
- Intumescent seals are not to be concealed below lippings.
- While intumescent seals are not specified to be applied at the bottom edge of the leaf, their application may be a requirement for certain elements of building hardware. It is the opinion of Warringtonfire that the application of intumescent seals across the bottom edge of the leaf will not detract from the fire resistance performance under test conditions, when applied the intumescent may consist of either:
    - 1No. Intumescent seal no greater than 20mm wide centrally fitted or
    - 2No. Intumescent seals, each no greater than 10mm wide no greater than 10mm apart.

4.5.4.2 Explanation for following sections

The performance of a doorset in terms of configuration and size is dependent on the leaf type, perimeter intumescent used and frame type. These elements are not automatically interchangeable. The following sections present the envelopes for the leaf type and two frame types. Each envelope is linked to a specific perimeter intumescent which is given a unique reference and is based directly on test evidence.

The envelopes are presented as follows:-

- for LSASD increasing in configuration complexity up to ULSADD+OP.
- for each configuration, each leaf type is considered separately.
- for each configuration and leaf type, each frame type is considered separately.
- for each configuration, leaf type, frame type and intumescent specification is considered separately and a unique envelope of permitted leaf sizes is presented based on the configuration, leaf type, frame type and intumescent and the envelope is directly linked to a unique test.

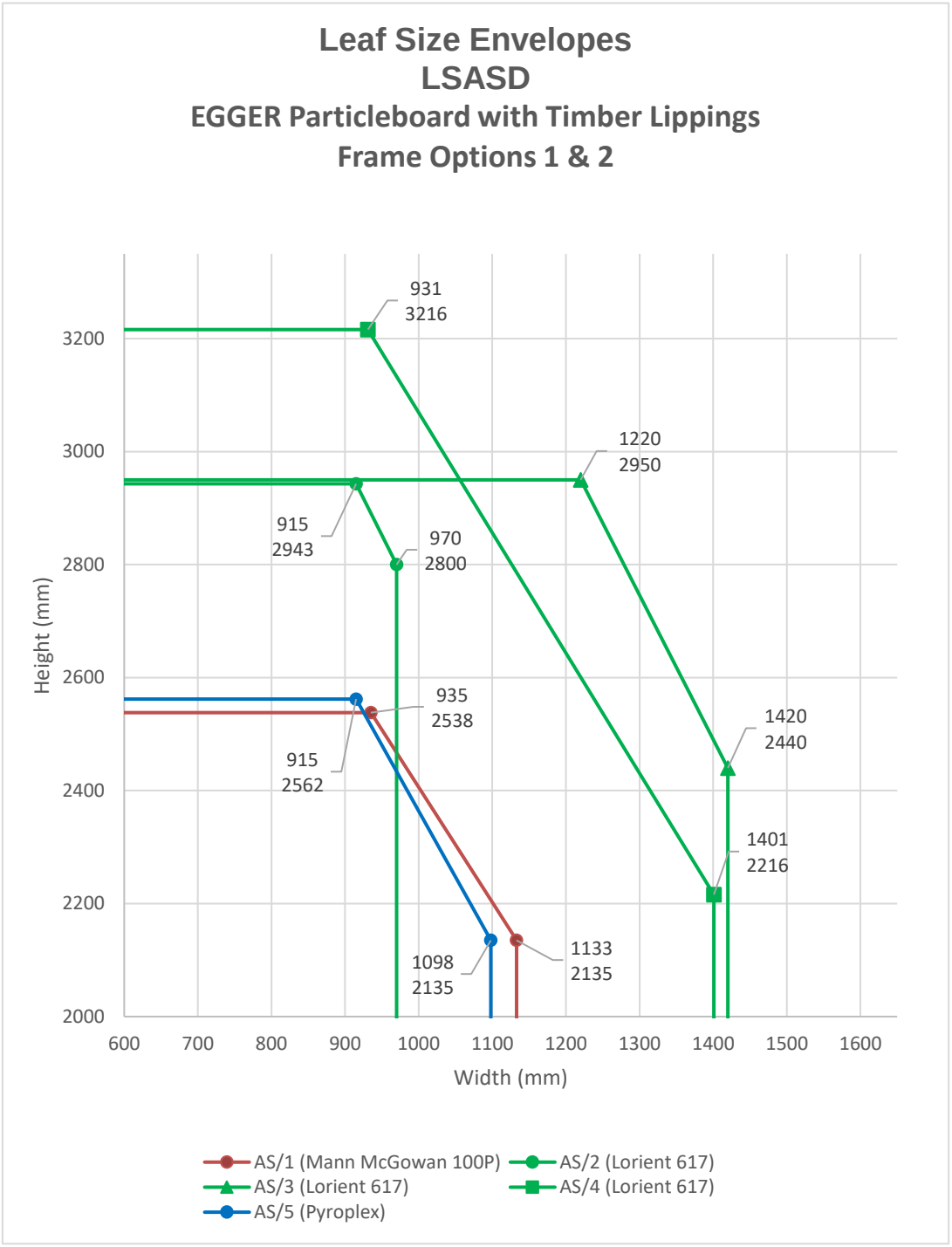
Summary of Permitted Configurations for the Egger particleboard core doorset design & Frame Options

Permitted Configurations with frame types 1-2 with the Egger particleboard core doorset design											
		Configuration									
		LSASD	ULSASD	DASD	LSASD OP	ULSASD OP	LSADD	ULSADD	DADD	LSADD OP	ULSADD OP
Frame	1 – Softwood or Hardwood frame*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	2 – MDF frame*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

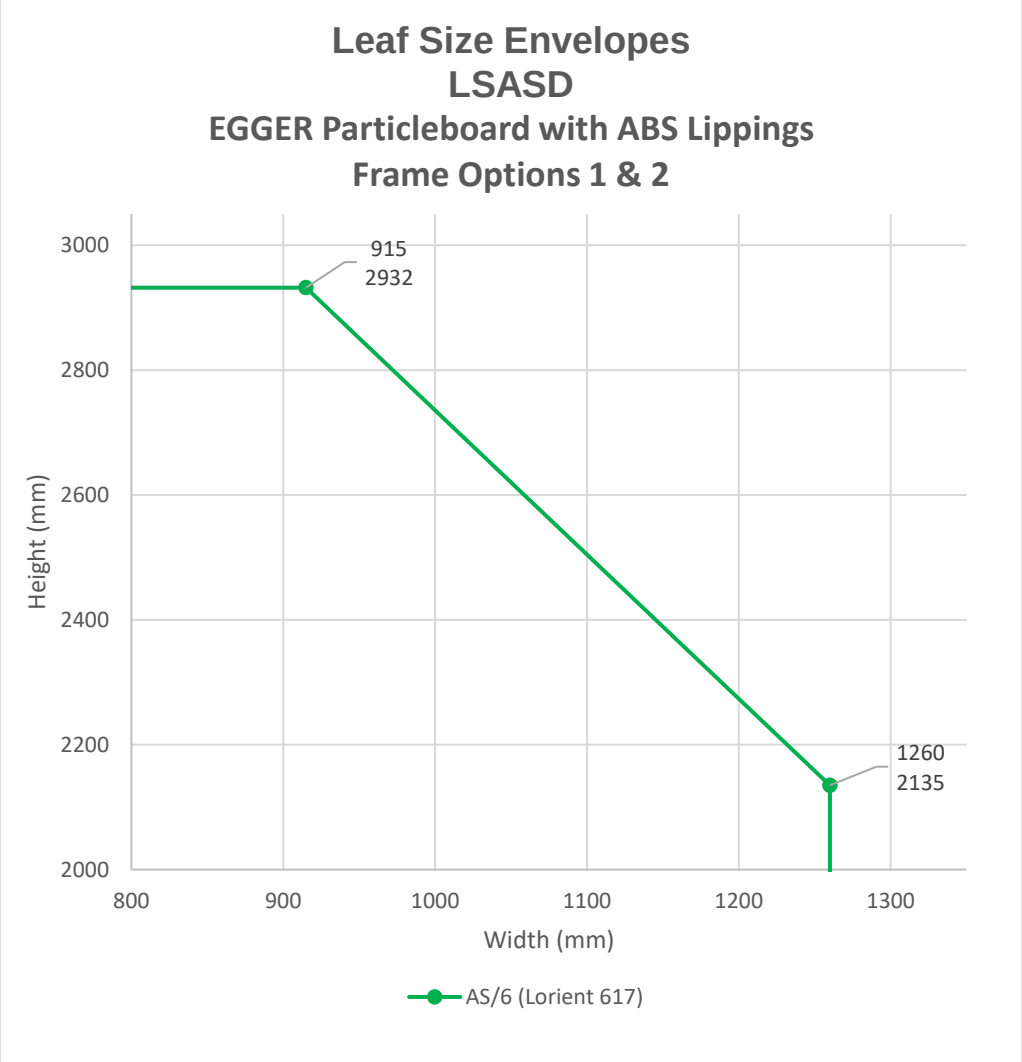
* See Section 7 for specific limitations with respect to the framing types

4.5.5 Door Leaf Envelope Graphs

4.5.5.1 LSASD Configuration: Leaf Sizes & Intumescent Specification



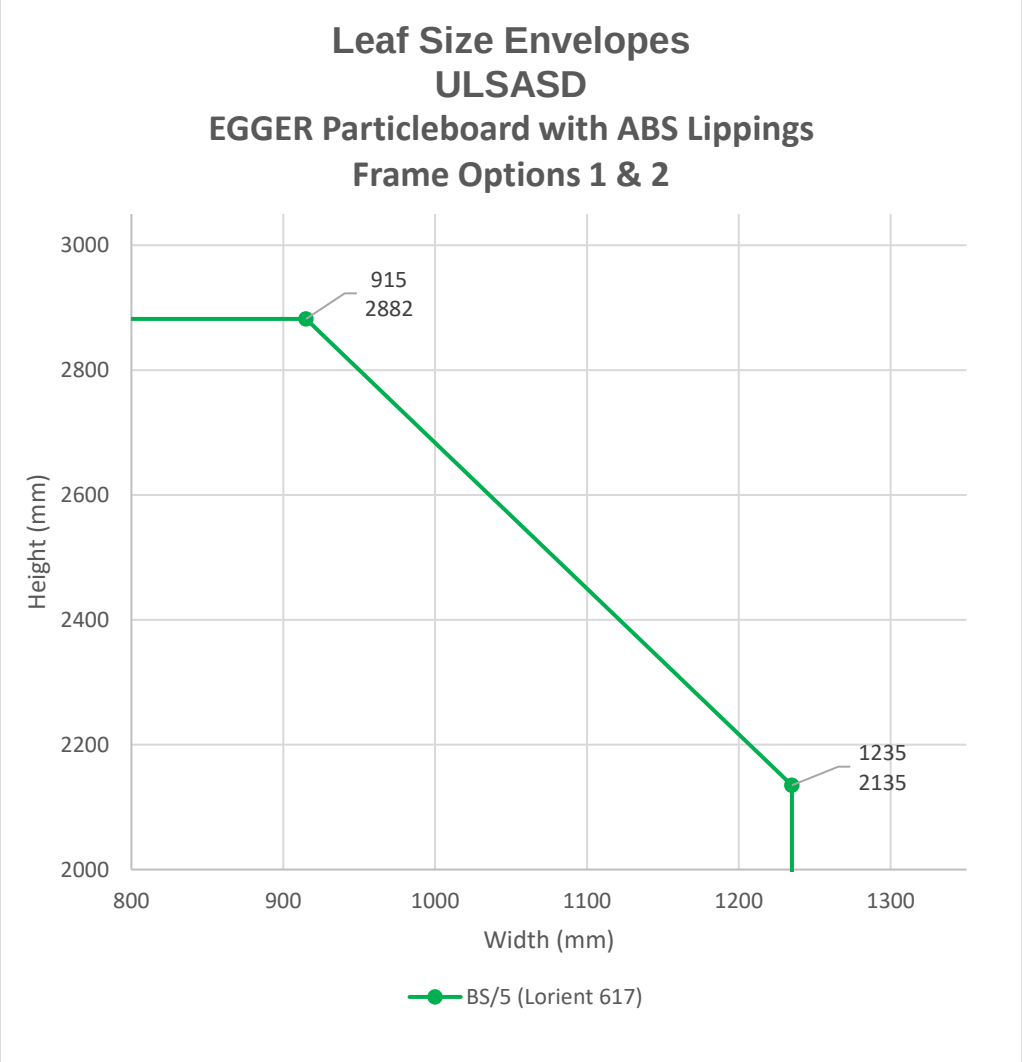
Intumescent Specification for LSASD EGGER Particleboard with Timber Lippings - Frame Options 1 & 2			
Intumescent Spec. Reference & (Test Reference)	Make / Type	Manufacturer / Supplier	Location & Size
AS/1 (RF09039 Specimen A)	Pyrostrip 100P	Mann McGowan	**Head:** 1no 20x4mm fitted centrally in frame reveal or leaf head **Jambs:** 1no 15x4mm fitted centrally in frame reveal or leaf edges
AS/2 (RF9015 Specimen A)	Type 617	Lorient Polyproducts	**Head:** 1no 20x4mm fitted centrally in frame reveal or leaf edges **Jambs:** 1no 15x4mm fitted centrally in frame reveal or leaf edges
AS/3 (RF9015 Specimen B)	Type 617	Lorient Polyproducts	**Head:** <u>Up to 2440mm high:</u> 1no 15x4mm fitted centrally in frame reveal or leaf head <u>Above 2440mm high:</u> 1no 20x4mm fitted centrally in frame reveal or leaf head **Jambs:** 1no 15x4mm fitted centrally in frame reveal or leaf edges
AS/4 (RF09101)			
AS/5 (RF09039 Specimen B)	Pyroplex 8600 Rigid Box Seal	Reddiplex Ltd	**Head:** <u>Up to 2300mm high:</u> 1no 10x4mm fitted centrally in frame reveal or leaf head <u>Above 2300mm high:</u> 1no 20x4mm fitted centrally in frame reveal or leaf head **Jambs:** 1no 10x4mm fitted centrally in frame reveal or leaf edges



Intumescent Specification for LSASD EGGER Particleboard Core with ABS Lippings - Frame Options 1 & 2			
Intumescent Spec. Reference & (Test Reference)	Make / Type	Manufacturer / Supplier	Location & Size
AS/6 (RF10104 Specimen B)	Type 617	Lorient Polyproducts	**Head:** Up to 2440mm high: 1no 15x4mm fitted centrally in frame reveal or leaf head Above 2440mm high: 1no 20x4mm fitted centrally in frame reveal or leaf head **Jambs:** 1no 15x4mm fitted centrally in frame reveal or leaf edges

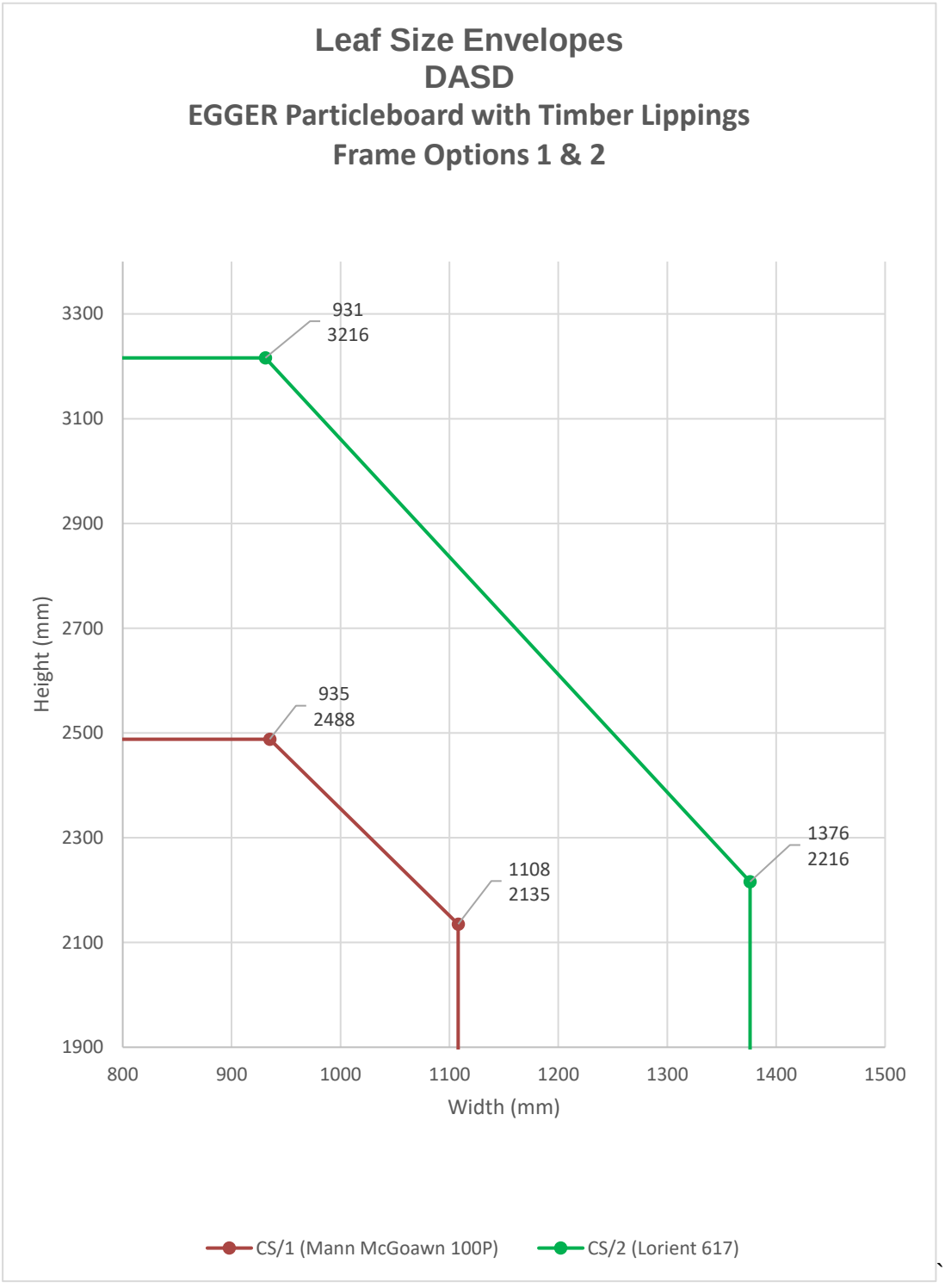
4.5.5.2 ULSASD Configuration: Leaf Sizes & Intumescent Specification

<table>
<tr><th colspan="4">Intumescent Specification for
ULSASD
EGGER Particleboard with Timber Lippings - Frame Options 1 & 2</th></tr>
<tr><td>Intumescent Spec. Reference
&
(Test Reference)</td><td>Make / Type</td><td>Manufacturer / Supplier</td><td>Location & Size</td></tr>
<tr><td>BS/1
(RF9039 Specimen A)</td><td>Pyrostrip 100P</td><td>Mann McGowan</td><td>Head:
1no 20x4mm fitted centrally in frame reveal or leaf head
Jambs:
1no 15x4mm fitted centrally in frame reveal or leaf edges</td></tr>
<tr><td>BS/2
(RF9015 Specimen A)</td><td>Type 617</td><td>Lorient Polyproducts</td><td>Head:
1no 20x4mm fitted centrally in frame reveal or leaf edges
Jambs:
1no 15x4mm fitted centrally in frame reveal or leaf edges</td></tr>
<tr><td>BS/3
(RF9015 Specimen B)</td><td rowspan="2">Type 617</td><td rowspan="2">Lorient Polyproducts</td><td rowspan="2">Head:
<u>Up to 2440mm high:</u>
1no 15x4mm fitted centrally in frame reveal or leaf head
<u>Above 2440mm high:</u>
1no 20x4mm fitted centrally in frame reveal or leaf head
Jambs:
1no 15x4mm fitted centrally in frame reveal or leaf edges</td></tr>
<tr><td>BS/4
(RF09101)</td></tr>
</table>



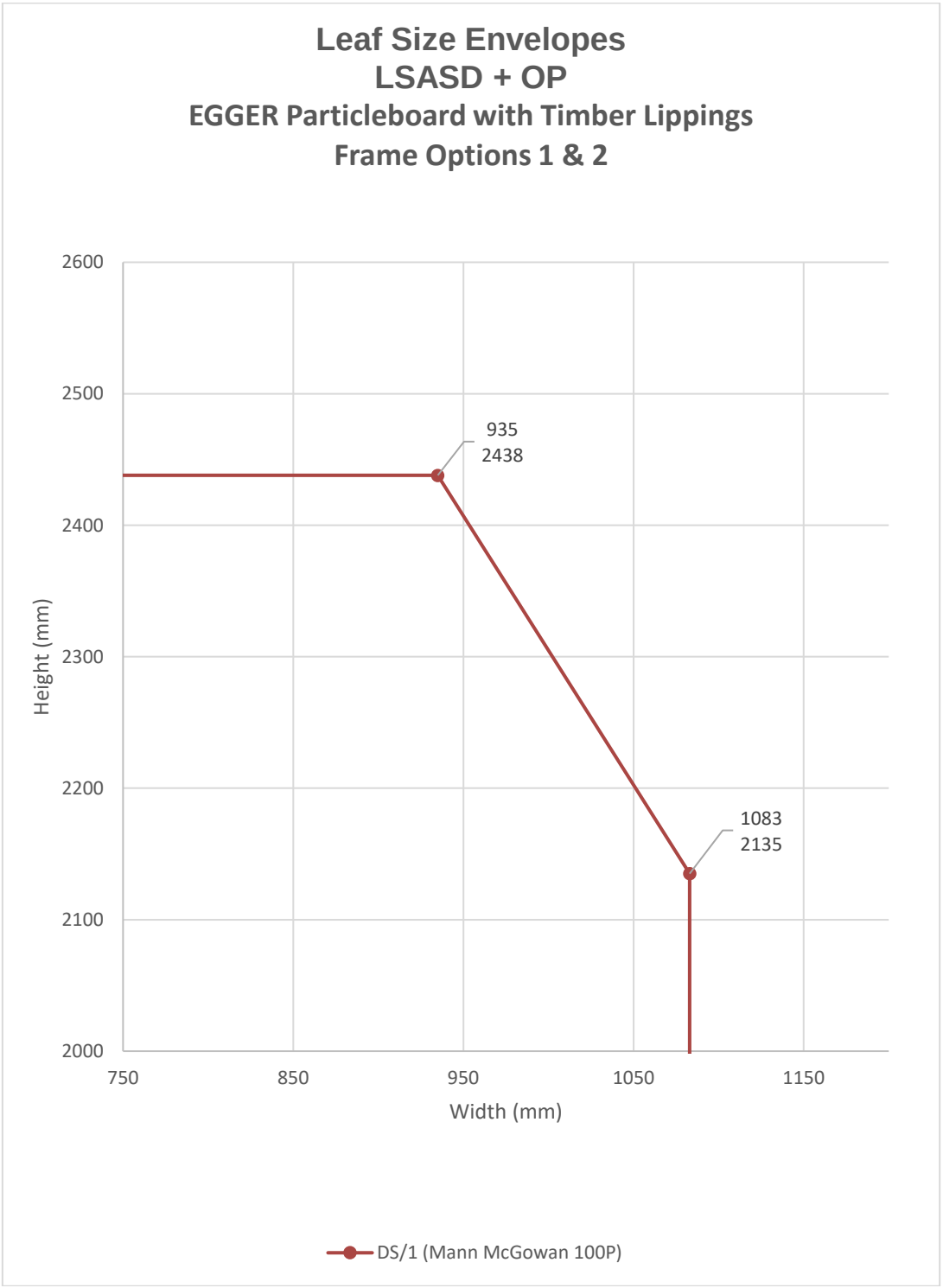
Intumescent Specification for ULSASD EGGER Particleboard with ABS Lippings - Frame Options 1 & 2			
Intumescent Spec. Reference & (Test Reference)	Make / Type	Manufacturer / Supplier	Location & Size
BS/5 (RF10104 Specimen B)	Type 617	Lorient Polyproducts	**Head & Jambs:** Up to 2440mm high: 1no 15x4mm fitted centrally in frame reveal or leaf head Above 2440mm high: 1no 20x4mm fitted centrally in frame reveal or leaf head

4.5.5.3 DASD Configuration: Leaf Sizes & Intumescent Specification



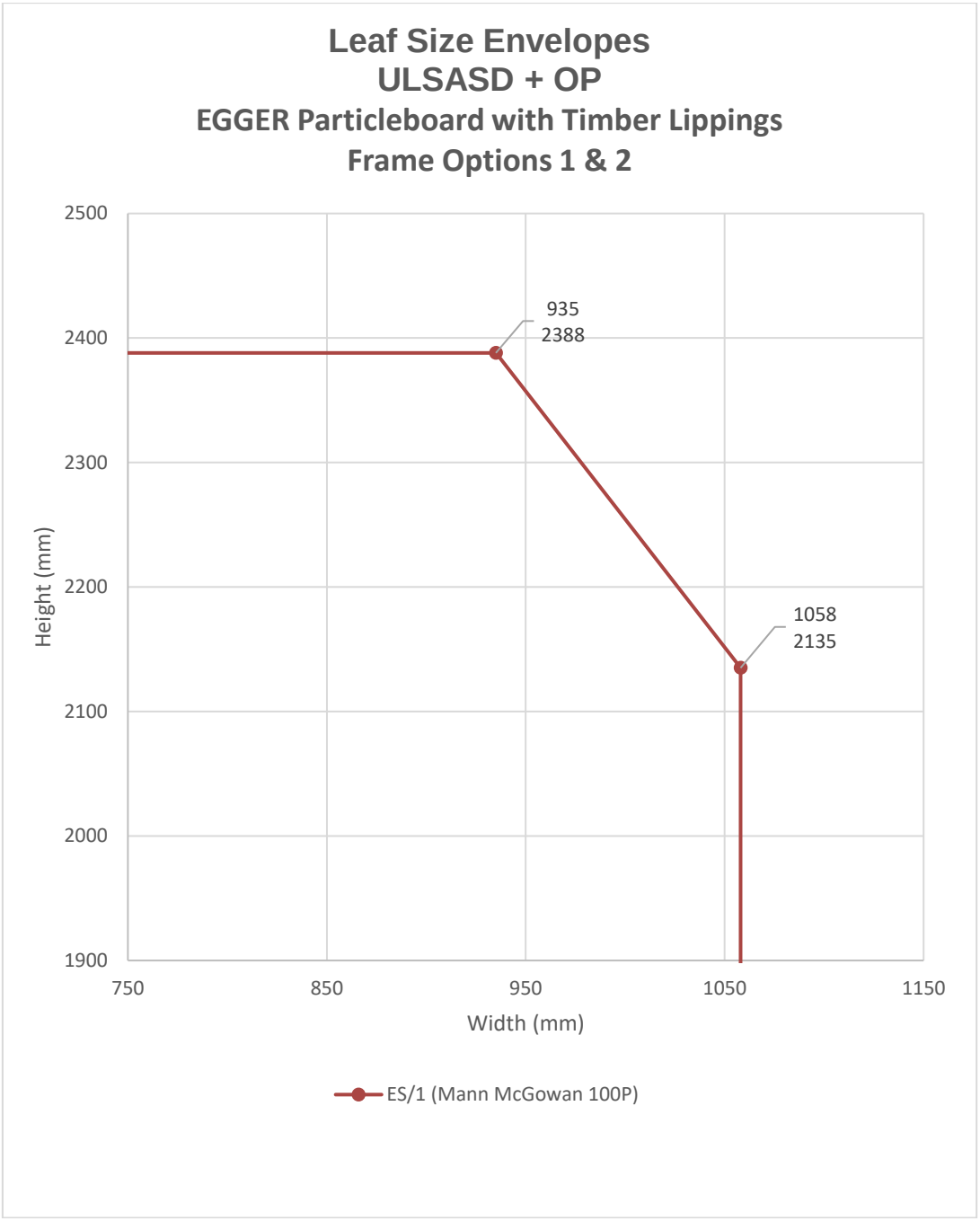
Intumescent Specification for DASD EGGER Particleboard with Timber Lippings - Frame Options 1 & 2			
Intumescent Spec. Reference & (Test Reference)	Make / Type	Manufacturer / Supplier	Location & Size
CS/1 (RF9039 Specimen A)	Pyrostrip 100P	Mann McGowan	**Head:** 1no 20x4mm fitted centrally in frame reveal or leaf head **Jambs:** 1no 15x4mm fitted centrally in frame reveal or leaf edges
CS/2 (RF09101)	Type 617	Lorient Polyproducts	**Head:** Up to 2440mm high: 1no 15x4mm fitted centrally in frame reveal or leaf head Above 2440mm high: 1no 20x4mm fitted centrally in frame reveal or leaf head **Jambs:** 1no 15x4mm fitted centrally in frame reveal or leaf edges

4.5.5.4 LSASD + OP Configuration: Leaf Sizes & Intumescent Specification



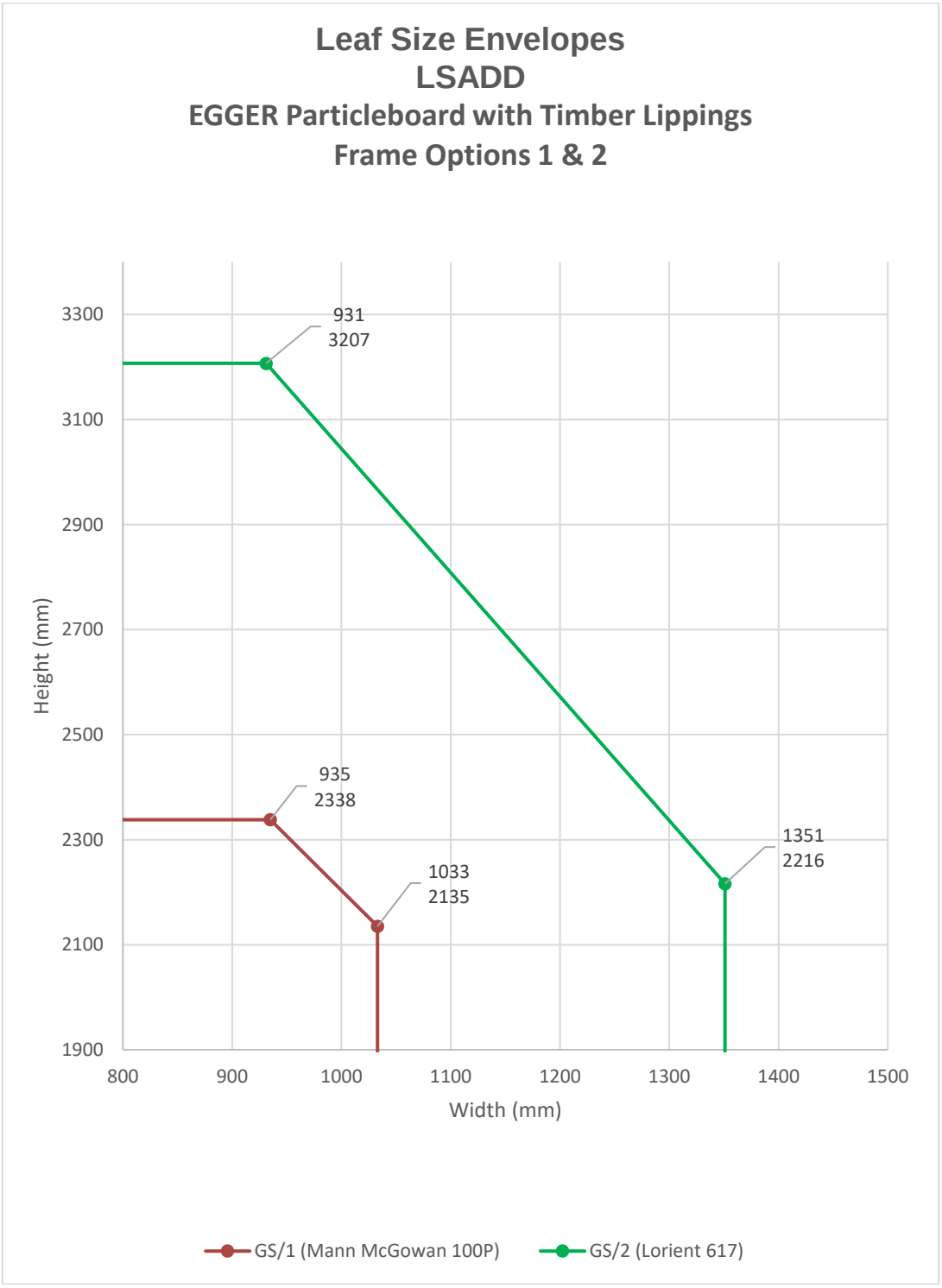
Intumescent Specification for LSASD+OP EGGER Particleboard with Timber Lippings - Frame Options 1 & 2			
Intumescent Spec. Reference & (Test Reference)	Make / Type	Manufacturer / Supplier	Location & Size
DS/1 (RF9039 Specimen A)	Pyrostrip 100P	Mann McGowan	**Head & Jambs** 1no 15x4mm fitted centrally in frame reveal **Overpanel / Head** **Square Junction** 2No. 10x4mm spaced 10mm apart and centrally fitted in the bottom of the overpanel. **Overpanel / Head** **Rebated Junction** 2No. 10x4mm with one seal centrally fitted in the bottom of the leaf rebate and one seal in the opposite (overpanel) rebate.

4.5.5.5 ULSASD + OP Configuration: Leaf Sizes & Intumescent Specification



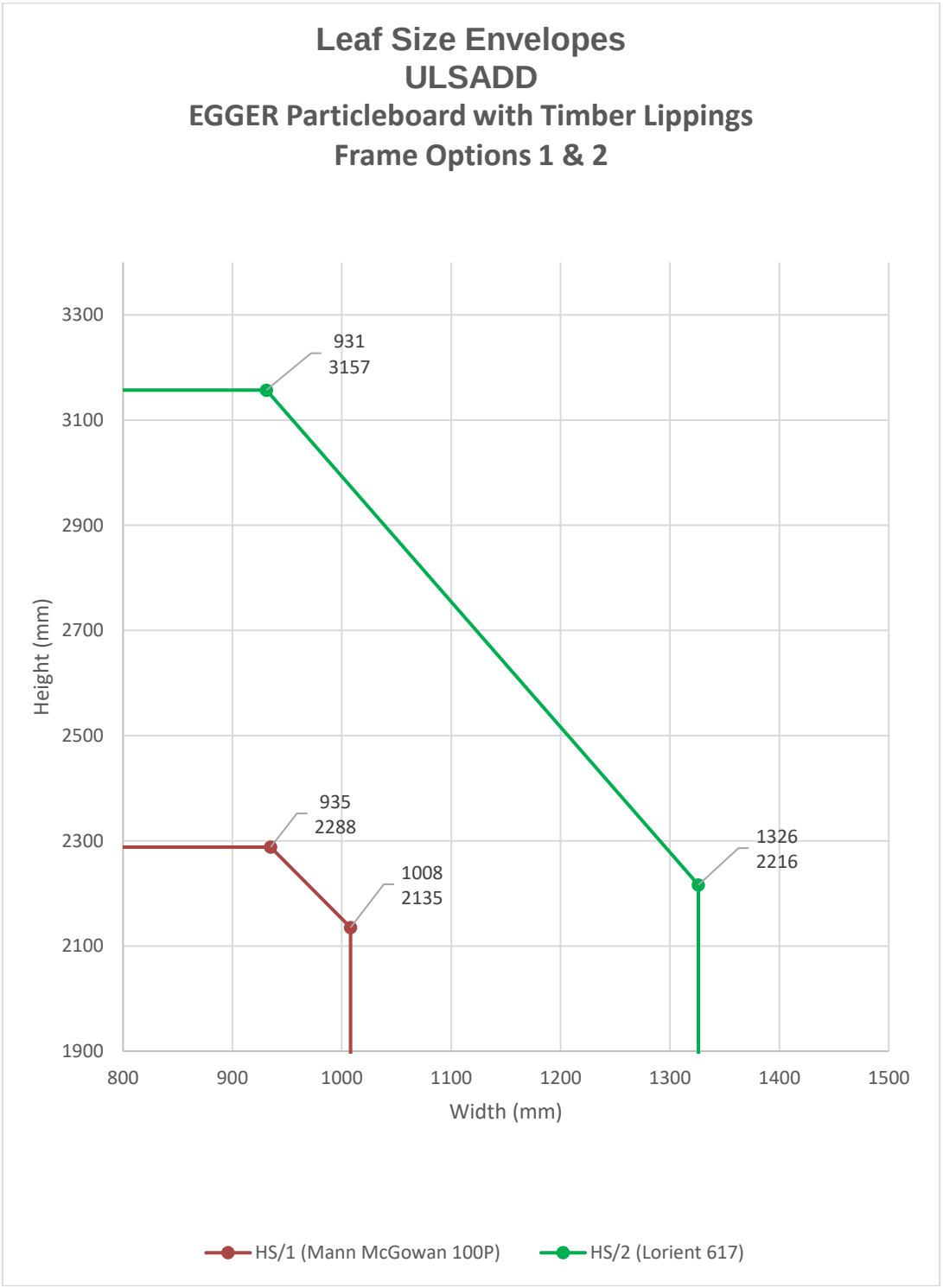
Intumescent Specification for ULSASD+OP EGGER Particleboard with Timber Lippings - Frame Options 1 & 2			
Intumescent Spec. Reference & (Test Reference)	Make / Type	Manufacturer / Supplier	Location & Size
ES/1 (RF9039 Specimen A)	Pyrostrip 100P	Mann McGowan	**Head & Jambs** 1no 15x4mm fitted centrally in frame reveal **Overpanel / Head** **Square Junction** 2No. 10x4mm spaced 10mm apart and centrally fitted in the bottom of the overpanel **Overpanel / Head** **Rebated Junction** 2No. 10x4mm with one seal centrally fitted in the bottom of the leaf rebate and one seal in the opposite (overpanel) rebate.

4.5.5.6 LSADD Configuration: Leaf Sizes & Intumescent Specification



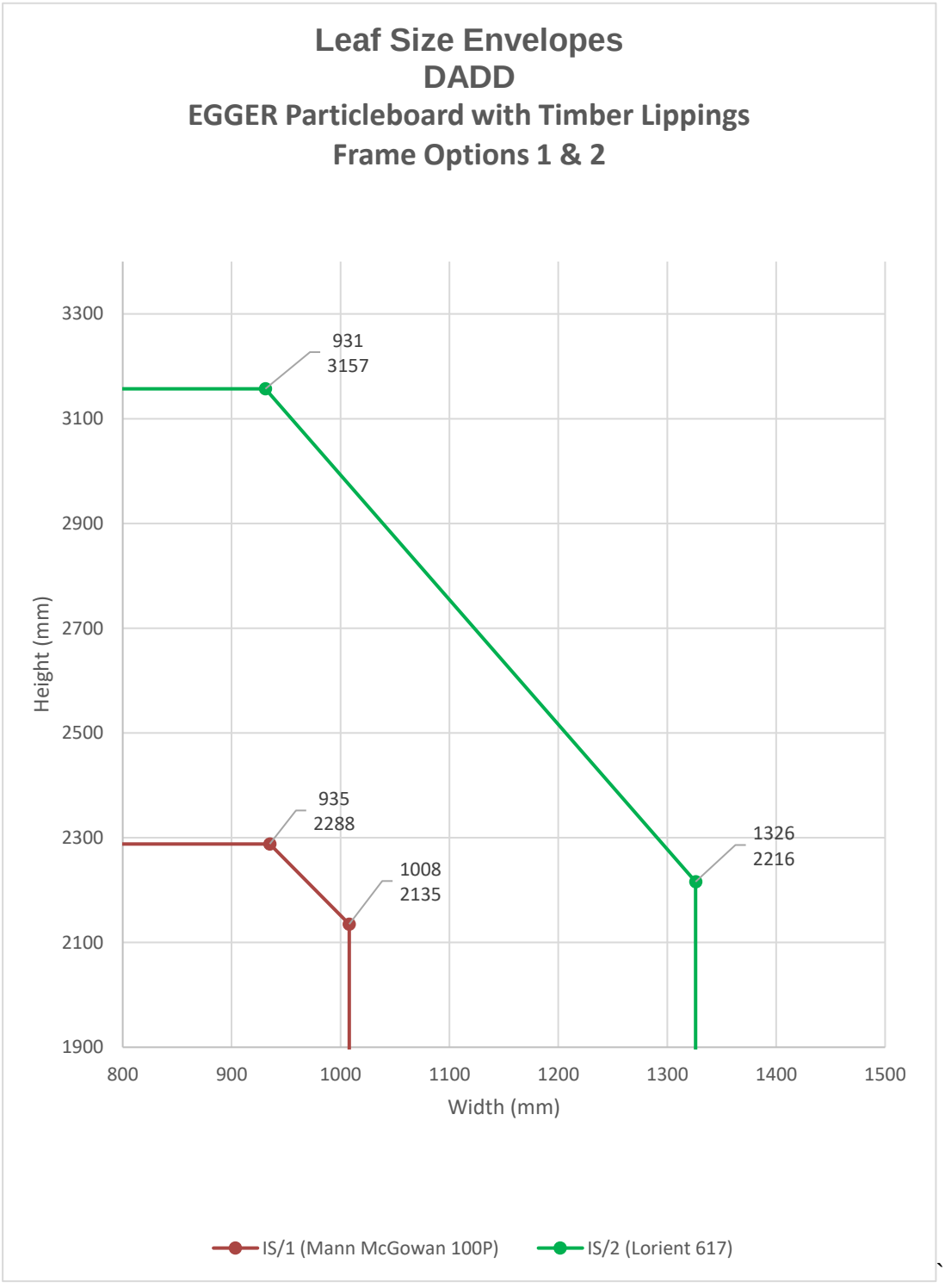
Intumescent Specification for LSADD EGGER Particleboard with Timber Lippings - Frame Options 1 & 2			
Intumescent Spec. Reference & (Test Reference)	Make / Type	Manufacturer / Supplier	Location & Size
GS/1 (RF9039 Specimen A)	Pyrostrip 100P	Mann McGowan	**Head:** 1no 20x4mm fitted centrally in frame reveal or leaf head **Jambs:** 1no 15x4mm fitted centrally in frame reveal or leaf edges **Meeting Edges:.** 1No. 15x4mm centrally fitted in the meeting edge of one leaf only.
GS/2 (RF09101)	Type 617	Lorient Polyproducts	**Head:** Up to 2440mm high: 1no 15x4mm fitted centrally in frame reveal or leaf head Above 2440mm high: 1no 20x4mm fitted centrally in frame reveal or leaf head **Jambs:** 1no 15x4mm fitted centrally in frame reveal or leaf edges **Meeting Edges:.** 1No. 15x4mm centrally fitted in the meeting edge of one leaf only.

4.5.5.7 ULSADD Configuration: Leaf Sizes & Intumescent Specification



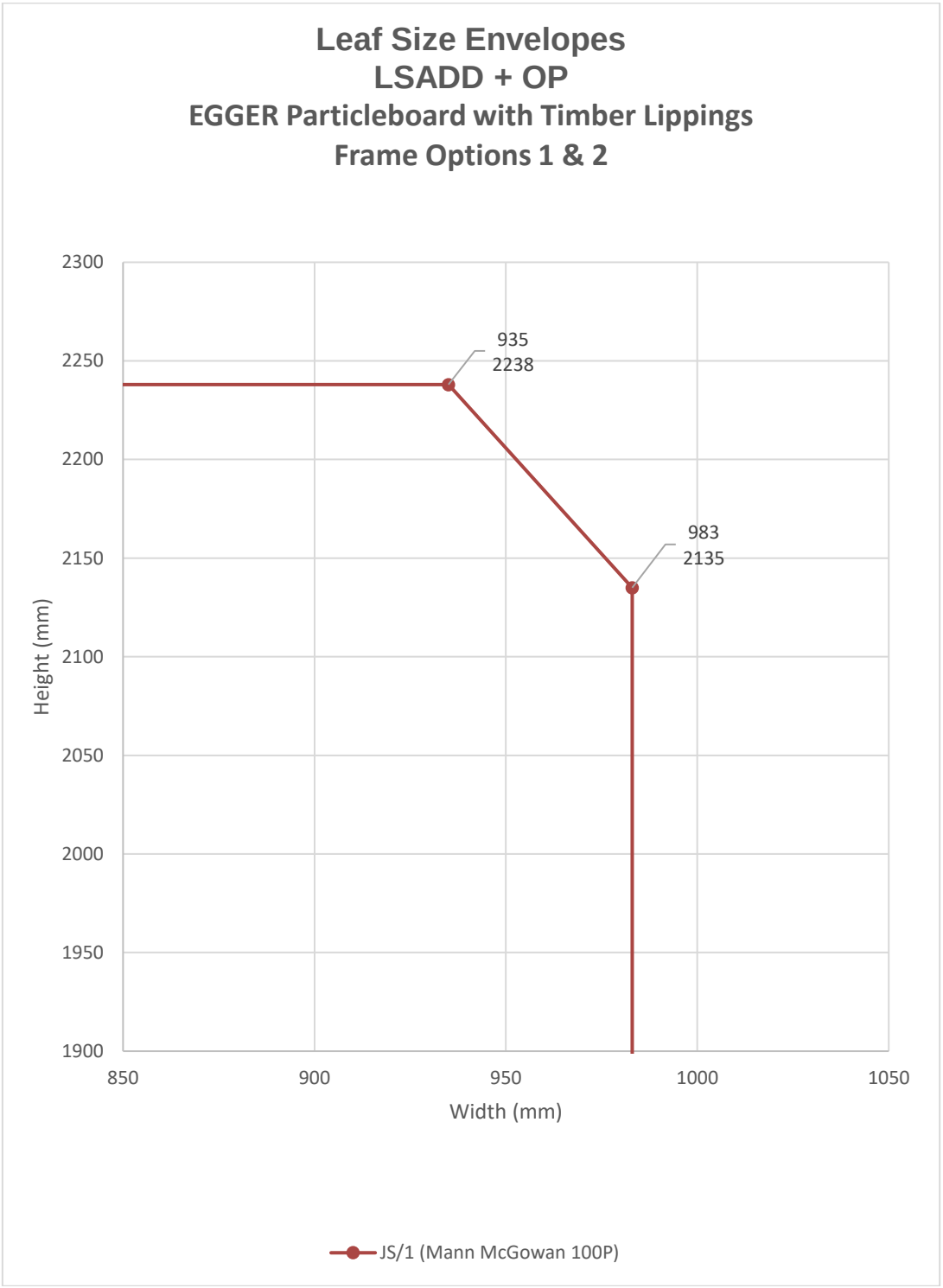
Intumescent Specification for ULSADD EGGER Particleboard with Timber Lippings - Frame Options 1 & 2			
Intumescent Spec. Reference & (Test Reference)	Make / Type	Manufacturer / Supplier	Location & Size
HS/1 (RF9039 Specimen A)	Pyrostrip 100P	Mann McGowan	**Head:** 1no 20x4mm fitted centrally in frame reveal or leaf head **Jambs:** 1no 15x4mm fitted centrally in frame reveal or leaf edges **Meeting Edges:** 1No. 15x4mm centrally fitted in the meeting edge of one leaf only.
HS/2 (RF09101)	Type 617	Lorient Polyproducts	**Head:** Up to 2440mm high: 1no 15x4mm fitted centrally in frame reveal or leaf head Above 2440mm high: 1no 20x4mm fitted centrally in frame reveal or leaf head **Jambs:** 1no 15x4mm fitted centrally in frame reveal or leaf edges **Meeting Edges:** 1No. 15x4mm centrally fitted in the meeting edge of one leaf only.

4.5.5.8 DADD Configuration: Leaf Sizes & Intumescent Specification



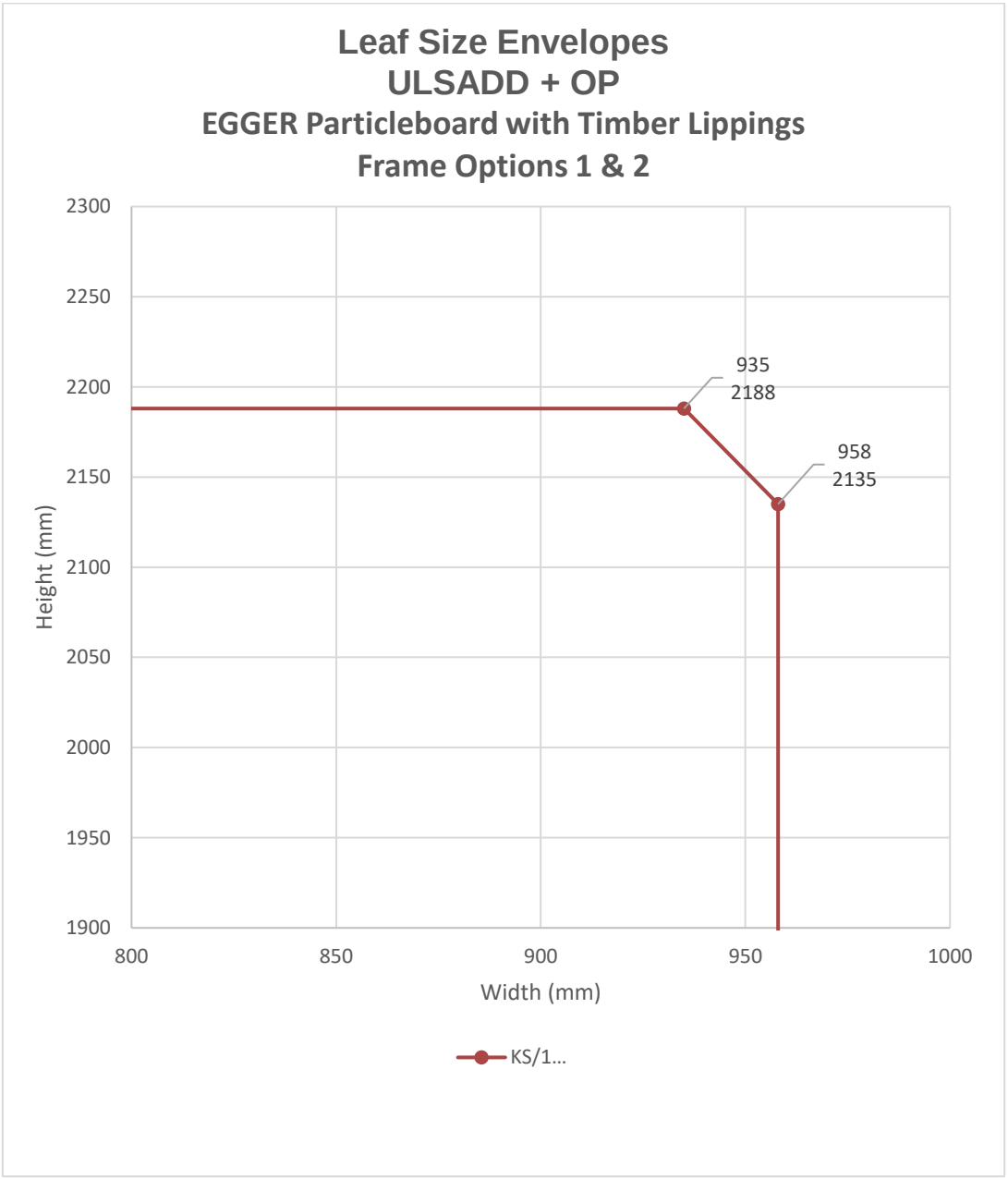
Intumescent Specification for DADD EGGER Particleboard with Timber Lippings - Frame Options 1 & 2			
Intumescent Spec. Reference & (Test Reference)	Make / Type	Manufacturer / Supplier	Location & Size
IS/1 (RF9039 Specimen A)	Pyrostrip 100P	Mann McGowan	**Head:** 1no 20x4mm fitted centrally in frame reveal or leaf head **Jambs:** 1no 15x4mm fitted centrally in frame reveal or leaf edges **Meeting Edges:** 1No. 15x4mm centrally fitted in the meeting edge of one leaf only.
IS/2 (RF09101)	Type 617	Lorient Polyproducts	**Head:** <u>Up to 2440mm high:</u> 1no 15x4mm fitted centrally in frame reveal or leaf head <u>Above 2440mm high:</u> 1no 20x4mm fitted centrally in frame reveal or leaf head **Jambs:** 1no 15x4mm fitted centrally in frame reveal or leaf edges **Meeting Edges:** 1No. 15x4mm centrally fitted in the meeting edge of one leaf only.

4.5.5.9 LSADD + OP Configuration: Leaf Sizes & Intumescent Specification



Intumescent Specification for LSADD+OP EGGER Particleboard with Timber Lippings - Frame Options 1 & 2			
Intumescent Spec. Reference & (Test Reference)	Make / Type	Manufacturer / Supplier	Location & Size
JS/1 (RF9039 Specimen A)	Pyrostrip 100P	Mann McGowan	**Head & Jambs** 1no 15x4mm fitted centrally in frame reveal **Overpanel / Head** **Square Junction** 2No. 10x4mm spaced 10mm apart and centrally fitted in the bottom of the overpanel **Overpanel / Head** **Rebated Junction** 2No. 10x4mm with one seal centrally fitted in the bottom of the leaf rebate and one seal in the opposite (overpanel) rebate. **Meeting Edges:** 1No. 15x4mm centrally fitted in the meeting edge of one leaf only.

4.5.5.10 ULSADD + OP Configuration: Leaf Sizes & Intumescent Specification



Intumescent Specification for ULSADD+OP EGGER Particleboard with Timber Lippings - Frame Options 1 & 2			
Intumescent Spec. Reference & (Test Reference)	Make / Type	Manufacturer / Supplier	Location & Size
KS/1 (RF9039 Specimen A)	Pyrostrip 100P	Mann McGowan	**Head & Jambs** 1no 15x4mm fitted centrally in frame reveal **Overpanel / Head** **Square Junction** 2No. 10x4mm spaced 10mm apart and centrally fitted in the bottom of the overpanel **Overpanel / Head** **Rebated Junction** 2No. 10x4mm with one seal centrally fitted in the bottom of the leaf rebate and one seal in the opposite (overpanel) rebate. **Meeting Edges:** 1No. 15x4mm centrally fitted in the meeting edge of one leaf only.

5 General Description of Construction

5.1 Leaf Core Construction

The door leaf option detailed below is approved by this assessment.

5.1.1 EGGER Particleboard Core – 44mm thick

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

Element	Material	Dimensions (mm)	Minimum Density (kg/m^3)
Core	Egger Particleboard	44 (t)	540 – 580kg/m^3

The leaf must be lipped as specified in section 5.3.

The minimum leaf thickness after calibration is 43mm (i.e. a maximum of 0.5mm from both sides).

The minimum leaf thickness after finishes applied is 44mm.

5.2 Leaf Size Adjustment During Manufacturer – all Leaf Options

Door leaves may be altered as follows prior to the machining for hardware.

Pre-Machining Leaf Size Adjustment Specification	
Element	Reduction
Leaf	The size of the leaf may be reduced in height or width without restriction for manufacturing purposes, providing the finished leaf is lipped in accordance with section 5.3.
Timber Lipping	The timber lipping thickness can be reduced after it has been glued in place, providing it is not reduced below the minimum stated in section 5.3.

5.3 Lippings

The lipping materials below are permitted to be applied to the Egger particleboard door blank, however this assessment does not consider the application of timber and ABS lippings to the same door leaf.

5.3.1 Timber Lipping

The testing documented in section 3 has generally been undertaken using 8-18mm thick lippings applied to all edges using Sapele at varying densities. A number of different adhesives have also been used to seal the lippings.

On the above basis, Egger Particleboard door blanks must be lipped with the following specification, for all leaf types and solid panels (overpanels), where appropriate.

Timber Lipping Specification for Egger particleboard door blanks		
Material	Size (mm)	Min Density (kg/m^3)
Hardwood	1. Flat = 8 – 13 thick 2. Rounded[9] = 12 – 17 thick with a radius matching the distance between leaf edge and floor pivot (see section 7.1) 3. Rebated (flush overpanel to top of leaf junction only) = 23 – 28mm thick with a 15 high x 22 deep rebate an equal rebate 13mm deep	640

Notes:

1. Lippings must be a single timber component, they must not be jointed in their length or width, nor is it permitted for the lipping thickness to be made up of multiple lippings.
2. Lippings may be applied to the door core prior to the final facing concealing the lippings or applied after the final facing to leave the lippings exposed on the finished door leaf.
3. Overpanels separated from the leaf heads with a transom do not need to be lipped.
4. Overpanels flush with the leaf heads must be lipped on their bottom edge but may additionally be lipped on all edges if required, lippings to top three edges where applied must be of type 1 (flat) from the table above. The lipping on the bottom edge of the overpanel may be of type 1 or 3 above.
5. Single and double doorsets with or without transomed overpanels only require lipping on the vertical edges but may be additionally lipped on the top and bottom edges if required.
6. Single and double doorsets with flush overpanels may use a flat or rebated overpanel junction.
7. Lippings can be bonded with UF, PUR or hotmelt EVA or PUR. These may be hand applied or may be applied using an edgebander. With either method it must be ensured that sufficient glue is applied across the entire surface area between the 2No substrates being adhered to guarantee a robust bond. Other manufacturers guidance should be followed, for either installation application.
8. For flat lippings it is permitted to apply maximum 8mm radius to the corners of the lipping at vertical edges to create a maximum 2mm edge profiling.
9. For rounded lippings a minimum of 6 to 8mm thickness of lipping shall be measured at the face of the door leaf where the lipping is its minimum thickness. Rounded lippings must not be applied at the meeting edges of double doorsets.
10. If flat lippings are used on a doorset which includes a flush overpanel refer to section 5.5 for astragal requirements.

5.3.2 ABS Lipping

Based on fire test RF10104, single leaf configurations may be lipped in accordance with the following specification.

Material	**Size** (mm)	**Density** (kg/m^3)
ABS	2 thick	1150 - 1160

Notes:

1. 2mm thick ABS lippings may be applied to the door leaf:
   a. Vertical edges
   b. Vertical edges and head only
   c. To all edges
2. Lorient Polyproducts, Type 617 must be used where ABS lippings are fitted (refer to specific door leaf envelopes in section 4.5.5. where ABS lippings are permitted).
3. Where ABS lippings are fitted to single leaf doors, door edge intumescent seals must be fitted in the frame reveal, not the leaf edge.
4. Lippings must be applied to the door core after the final facing has been applied to the leaf, to leave the lippings exposed on the finished door leaf.
5. The adhesive to be used for applying ABS lippings must be either PVA or PUR (see section 9).
6. ABS lipped door leaves may be installed into doorsets that include a transomed over panel. The over panel must not be lipped with ABS.
7. ABS lippings must not be applied to doorsets which include a flush overpanel.

5.4 Decorative & Protective Facings – all Leaf Options

Relatively thin leaf facing materials are deemed to be decorative and their application is not considered to be of detriment to the overall stability or performance of the doorset design. In fact, when applied as an additional component on top of the minimum facing material required by the door blank, they are likely to provide a small enhancement in performance as an additional barrier to fire spread, although, this is likely to be negligible.

The following additional facing materials are therefore permitted to the leaf for this door design since they would have limited influence under fire resistance test conditions.

Decorative & Protective Facing Specification	
Facing Material	Maximum Permitted Thickness (mm)
Paint[5]	0.2
Timber veneers[3]	2
Plastic laminates[3]	2
PVC[3]	2
Cellulosic and non-metallic foils[3]	0.4

Notes:

1. Metallic facings are not permitted except for push plates and kick plates
2. The door leaf thickness may be reduced on both sides by a maximum of 0.5mm for calibration purposes in order to accommodate the chosen finish. The minimum overall leaf thickness must remain at 44mm after finishing has been applied.
3. Materials may over sail lippings but must not return around leaf edges.
4. For all options, materials must not conceal intumescent strips.
5. Intumescent paints are not permitted.

Decorative finishes listed above may be painted within the limits for paint finish, above.

5.5 Astragal

The inclusion of timber astragals is permitted providing they meet the following specification:

- The astragal shall consist of the same material as the door frame with at least the same or greater density.
- The astragal shall be mechanically fixed using steel screws at no greater than 250mm centres, the screws shall penetrate into the substrate by at least 15mm and no greater than ½ the thickness of the substrate.
- The astragal shall measure 50mm wide x 18mm thick and shall be positioned centrally over the junction.

Other materials or dimensions of astragals are not permitted.

It has been considered possible to include the above specified astragal based on the fact that the effective rebate of the doorset design will remain unchanged. The addition of the astragal element will provide further protection at the perimeter gaps increasing the time in which failure modes may develop.

Astragals are permitted in the following designs:

- Optionally permitted at meeting edges of double doors.
- Required to be fitted at the junction between flush overpanel and the top of the door leaf, where flat lippings are applied. When fitted the astragal shall be fixed to the overpanel.
- Astragals may only be fitted to one side of any single doorset design.

When fitted to the vertical meeting edge of double doors, a door selector as defined within section 10.9.4 shall be fitted to the doorset to ensure functionality.

6 Glazing within the Leaf

6.1 General

The testing conducted on doorset design has demonstrated that they are capable of tolerating glazed apertures, whilst providing a margin of over performance, this is supported by the summarised test evidence within Appendix A.

Glazing is therefore acceptable within the following parameters.

Apertures must not be less than 130mm from top and side edges and 400mm from the bottom edge. (Supported by RF09015).

Aperture shapes considered herein are rectilinear and as such are permitted unless alternative shapes are detailed within this document for specific glass or glazing systems.

Apertures cannot be rotated (e.g. a square to be rotated to create a diamond effect) unless explicitly stated within this document for specific glass or glazing systems.

6.1.1 Maximum Permitted Glazed Aperture Dimensions

The maximum total assessed aperture area for any individual door leaf based on the test evidence detailed within Section 3 is as follows:

Maximum total permitted aperture within the Egger door leaves (RF09015)		
Maximum Height (mm)	Maximum Width (mm)	Maximum Area (m^2)
1620	1152	1.29 m^2

Multiple apertures are acceptable within the permitted total assessed aperture area, with a minimum dimension of 130mm of core between apertures. (Supported by RF09015).

Maximum glass thickness permitted is 16mm for single pane glazing.

Minimum glass thickness permitted is 7mm, as tested and may not be reduced.

The subsequent sections within this report detail the permitted glass and glazing systems with their associated size ranges permitted within the Egger doorset design.

The maximum glazed areas given in each subsection supersede those given above and must be adhered to. However, the dimensional restrictions given above shall not be exceeded under any circumstance.

It is possible to include glass within the door leaf at smaller dimensions than given for any particular glass type or glazing system.

6.2 Certifire Single Pane Glass and Glazing System Options

Alternative glass and glazing systems with a Certifire certificate – valid at the date of manufacture of the doorset which has been written in accordance with Warringtonfire Testing & Certification Ltd, Technical Schedule TS25 - may be used to glaze the Egger door design, subject to the following.

- The minimum thickness of glass permitted for alternative glass types is 7mm.
- The maximum thickness of glass permitted for alternative glass types is 16mm.
- Where a Certifire certificate is utilised to justify glazing the doorset, the full requirements given within that certificate for the glass and glazing system specified must be complied with.
- All parameters in section 6.1 above must take precedence over those in the supporting Certifire certificate, e.g. the glazed area, maximum height and width permitted in section 6.1 above may not be increased on the basis of the area, height and width permitted within the Certifire certificate. If the area, height and width in the proposed Certifire certificate is smaller than that in section 6.1, the smaller dimension will take precedence for the proposed glass or glazing system.
- The general requirements within the proposed Certifire certificate are still applicable, the Certifire certificate must include the option for the certificated glass and / or glazing system to be fitted within a timber / cellulosic based door leaf within a timber / cellulosic frame with a leaf thickness of 44mm.
- Where the Certifire certificate requires a timber aperture liner, these must always be fitted.
- Bead fixings – The required pin or screw specification as given in the supporting Certifire certificate must be used, alternatives fixing details are not permitted.

6.3 Single Pane Glass and Glazing Systems (Timber Beading)

The tested and assessed glass and glazing system(s) combinations, detailed within the table below may be used, subject to the limitations and scope detailed in section 6.1 above.

Glass & Glazing System Specification			**Maximum Assessed Area (m^2), Height & Width (m)**			
Glass Type Manufacturer		**Thickness**	**System & Manufacturer→**	1	2	3
				Fireglaze 30 2 (t) Applied between the glass and the bead and filling the entire glazing pocket.	30049 14.2 (w) x 1.8 (t) Applied between the glass and the bead	G30 (Dry) 15 (w) x 2 (t) Applied between the glass and the bead
				Sealmaster	Pyroplex	Sealmaster
			Certifire Certificate or Fire Test Reference	RF09015	Chilt/RF13013	WF551082
1	Pyroshield 2 Pilkington UK Ltd	7	RF09015	Area: 1.29 Height: 1.62 Width:1.152	-	-
2	Pyrobelite 7 E30 AGC Glass UK Ltd	7	WF551082	Area 0.351 Height: 0.162 Width:0.162	-	Area 0.351 Height: 0.162 Width:0.162
3	Pyroguard EI30 Pyroguard UK Ltd	15	Chilt/RF13013	Area: 0.53 Height: 0.87 Width:0.708	Area: 0.53 Height: 0.87 Width:0.708	-

Note:

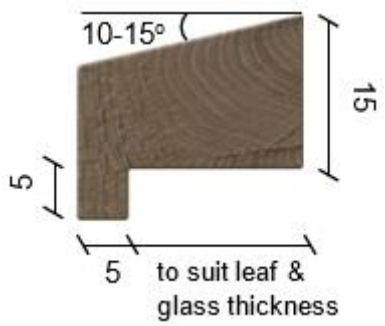
1. All glass types must be fitted fully in accordance with the manufacturers' tested details/installation requirements, particularly with respect to edge cover and expansion tolerances.

6.3.1 Permitted Glazing Beading and Glass Retention (Timber Beads)

The following sections detail the permitted glazing beading, aperture lining requirements and minimum fixing details for the above detailed glass and glazing systems. Each section deals with a specific type of glazing bead and indicates which glass and or glazing system it is applicable to. Glazing beads shall only be used with the permitted glass and glazing system as identified.

6.3.1.1 Chamfer Beads Option 1

Permitted Glazing Systems (Defined in Sections 6.3)	**1**

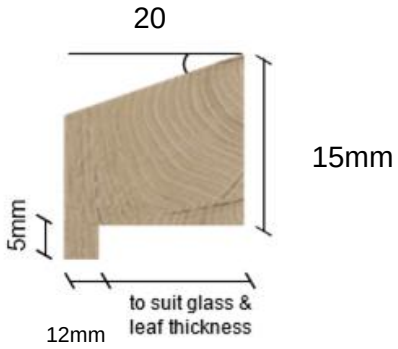


- The above detailed bolection may be increased in thickness and height if required, with the dimensions shown being the minimum.
- The glazing beads must be created from hardwood of a minimum 640kg/m^3 density.
- Glazing beads must be retained in position with minimum length of 40mm long steel pins or 40mm long No. 6-8 screws, inserted at 35-40^o to the vertical.
- Fixings must be at 150mm maximum centres and no more than 50mm from each corner. Pneumatically fired pins are acceptable providing the pins meet the specification given in section 6.3.2 below.
- A 6 – 10mm thick square aperture liner is optionally permitted for use with the above bead providing it is constructed from hardwood of minimum density 640kg/m^3 and glued in position using a UF, PVA or PU type adhesive.
- The fitting of the glazing seal between the bead and the glass should be in accordance with the manufacturer's instructions.

Glass shall be aligned within the aperture using hardwood or non-combustible setting blocks placed at the bottom horizontal edge only, sized to provide edge cover and expansion allowance as the specific system requires

6.3.1.2 Chamfer Beads Option 2

Permitted Glazing Systems (Defined in Sections 6.3)	2

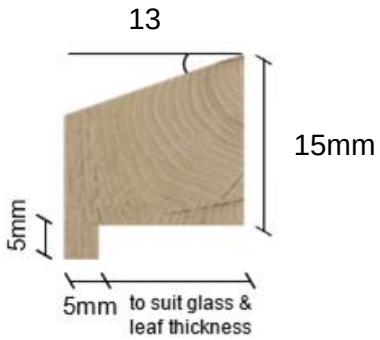


- The above detailed bolection may be increased in thickness and height if required, with the dimensions shown being the minimum.
- The glazing beads must be created from hardwood of a minimum 640kg/m^3 density.
- Glazing beads must be retained in position with minimum length of 50mm long steel pins or 50mm long No. 6-8 screws, inserted at 35-40º to the vertical.
- Fixings must be at 150mm maximum centres and no more than 50mm from each corner. Pneumatically fired pins are acceptable providing the pins meet the specification given in section 6.3.2 below.
- A 6 – 10mm thick square aperture liner is optionally permitted for use with the above bead providing it is constructed from hardwood of minimum density 640kg/m^3 and glued in position using a UF, PVA or PU type adhesive.
- The fitting of the glazing seal between the bead and the glass should be in accordance with the manufacturer's instructions.

Glass shall be aligned within the aperture using hardwood or non-combustible setting blocks placed at the bottom horizontal edge only, sized to provide edge cover and expansion allowance as the specific system requires

6.3.1.3 Chamfer Beads Option 3

Permitted Glazing Systems (Defined in Sections 6.3)	3



- The above detailed bolection may be increased in thickness and height if required, with the dimensions shown being the minimum.
- The glazing beads must be created from hardwood of a minimum 640kg/m^3 density.
- Glazing beads must be retained in position with minimum length of 40mm long steel pins or 40mm long No. 6-8 screws, inserted at 45º to the vertical.
- Fixings must be at 30mm maximum centres and no more than 30mm from each corner. Pneumatically fired pins are acceptable providing the pins meet the specification given in section 6.3.2 below.
- A 5mm thick x 39mm wide square aperture liner must be fitted, centrally to the thickness of the leaf aperture with the above bead. It must be constructed from hardwood of minimum density 640kg/m^3. The aperture liner must be pin fixed in position at 30mm centres, 30mm from corners with 18g x 40mm long pins.
- The fitting of the glazing seal between the bead and the glass should be in accordance with the manufacturer's instructions.

Glass shall be aligned within the aperture using hardwood or non-combustible setting blocks placed at the bottom horizontal edge only, sized to provide edge cover and expansion allowance as the specific system requires

6.3.2 Pneumatically Fired Pins

The following pin specification is permitted and has been considered suitable for applications where a pin fixing is permitted for glazing beads:

Option 1 – Round, Oval & Rectangular Pins

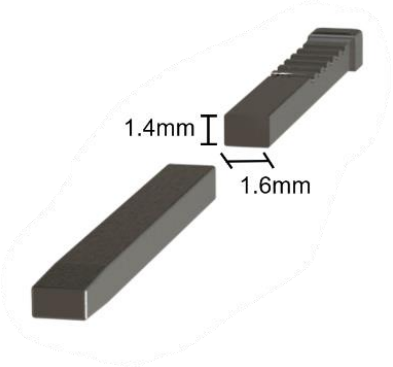
The following dimension of pin has been approved for round, oval and rectangular shaped pins which are hand applied:

- Minimum Standard Wire Gauge (SWG) 16.
- Minimum cross section area of 2.03mm^2.
- Minimum linear dimension of 1.6mm in any direction, see figure below. The maximum pin diameter or any linear dimensions may be no greater than 2.0mm.

Option 2 – Gun (Pneumatically) Fired Rectangular Pins

The following dimension of rectangular pin has been deemed suitable for gun (pneumatically) fired applications.

- Minimum Standard Wire Gauge (SWG) 16.
- Minimum cross section area of 2.24mm^2.
- Minimum linear dimensions as shown in the figure.
- The 1.6mm dimension is predominately oriented perpendicular to the glass, where possible.
- The maximum pin diameter or any linear dimensions may be no greater than 2.0mm.



Pins with dimensions less than those stated above are not covered by this assessment.

7 Door Frame Construction

7.1 Details for Frame

The door frames listed below are the minimum size and density which have been successfully tested and assessed by this report. The frame must be constructed to meet the following specification for single and double acting frames, where applicable.

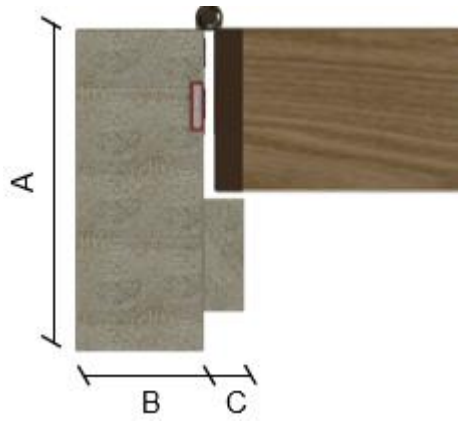
Frame Specification			
Frame Type	Material	Minimum Section Size (mm)	Minimum Density (kg/m^3)
1	Softwood, Hardwood, Laminated Softwood or Hardwood	Frame: 70 (d) x 32 (w) (excluding stop) Stop: 12 (w) (integral or planted on)	510
2	MDF	Frame: 70 (d) x 30 (w) (excluding stop) Stop: 12 (w) (integral or planted on)	750

Note:
Minimum section size is subject to size of hardware and the use of transomed overpanel (see frame details below).

7.1.1 Details for Frame 1

7.1.1.1 Standard frame detail

The diagram below shows detail of the standard frame construction. Minimum section is permitted in two sizes subject to hardware size and the use of transom overpanel. Any radius to the lipping must comply with section 5.3.



A: Frame depth = 70mm minimum

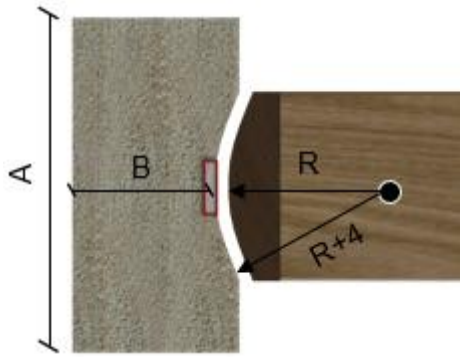
B: Frame width = 32mm minimum

C: Stop width = 12mm minimum

For transomed frame details please refer to Section 8.2.2

7.1.1.2 Scalloped frame detail

The diagram below shows detail of the scalloped frame construction hanging edge only. When using scalloped frames for double acting doorsets, the groove for the specified intumescent strips must be as shown below and to the correct depth.



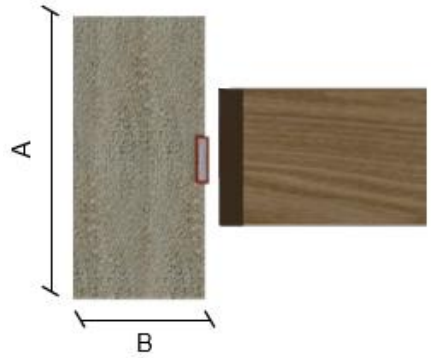
A: Frame depth = 32mm minimum
B: Frame width = 70mm minimum
R: Radius from floor spring or pivot

When utilised the scallop must be positioned centrally to the depth of the frame.

Transoms are not permitted using this frame type

7.1.1.3 Square frame detail for double acting doorsets

The diagram below shows detail of the scalloped frame construction hanging edge only. When using scalloped frames for double acting doorsets, the groove for the specified intumescent strips must be as shown below and to the correct depth.



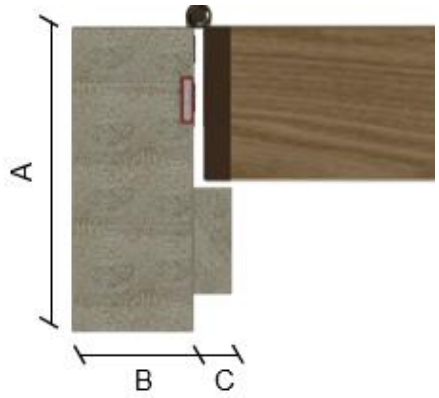
A: Frame depth = 32mm minimum
B: Frame width = 70mm minimum
R: Radius from floor spring or pivot

When utilised the door leaf must be positioned centrally to the depth of the frame.

Transoms are not permitted using this frame type

7.1.2 Details for Frame 2

The diagram below shows detail of the standard frame construction. Minimum section is permitted in two sizes subject to hardware size and the use of transom overpanel. Any radius to the lipping must comply with section 5.3.



A: Frame depth = 70mm minimum

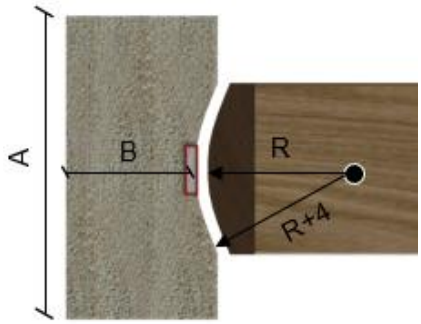
B: Frame width = 30mm minimum

C: Stop width = 12mm minimum

Transoms are not permitted using this frame type

7.1.2.1 Scalloped frame detail

The diagram below shows detail of the scalloped frame construction hanging edge only. When using scalloped frames for double acting doorsets, the groove for the specified intumescent strips must be as shown below and to the correct depth.



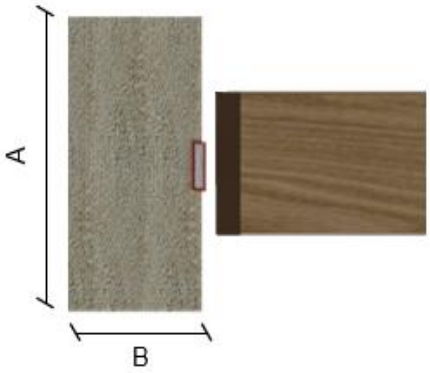
A: Frame depth = 70mm minimum
B: Frame width = 32mm minimum
R: Radius from floor spring or pivot

When utilised the scallop must be positioned centrally to the depth of the frame.

Transoms are not permitted using this frame type

7.1.2.2 Square frame detail for double acting doorsets

The diagram below shows detail of the square frame construction for the closing edge of a double acting doorset. Where utilising square frames for double acting doorsets, any radius to the lipping must comply with section 5.3.



A: Frame depth = 70mm minimum
B: Frame width = 32mm minimum

When utilised the door leaf must be positioned centrally to the depth of the frame.

Transoms are not permitted using this frame type

7.2 Additional Sub Frame – Frame 1 or 2

Based on the testing summarised within Section 3, specifically WF551082, the following sub frame specification has been included for use with the Egger doorset design:

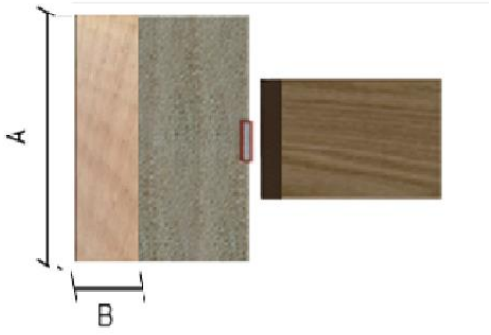
Sub Frame Specification		
Material	Minimum Section Size (mm)	Minimum Density (kg/m^3)
Hardwood	70 (d) x 10 (w)	640

When applied the following criteria must be adhered to:

- The sub frame must meet at least the minimum specification provided within the table above.
- The sub frame may be applied to the rear of a doorset with a frame constructed from frame type 1 or 2 without restriction.
- When applied the sub frame depth must be equal to the depth of the frame to which it is applied.
- The sub frame must be affixed to the door frame with steel screws which penetrate the main frame section by no less than 25mm, at a frequency of 30mm from each corner and no greater than 200mm centres.
- The sub frame may be no greater than 50mm wide.

Frame fixings must penetrate through both the frame and sub frame, achieving the fixity requirements detailed in section 11.5.3.

Below depicts an example of the permitted subframe applied to a doorset design.



A: = Main frame depth (minimum 70mm)

B: = Extension width = 50mm maximum

7.3 Door Frame Joints

Below are depictions of the door framing joints that are deemed acceptable. Please note that the drawings are provided as general illustrations of each type of door frame joint; actual construction in terms of intumescent seal location and material, etc. must be as the text within this document specifies. The door frame joints are required to be tight, with no gaps, and require mechanical fixing with the appropriate size ring shank nails or screws. Frame joints may additionally be reinforced with any of the adhesives approved for the application of lippings, on the basis that the approved lipping adhesive has been proven to contribute to the positive fire resistance performance of the timber-to-timber junction at the door leaf edge.

Half Lapped Joint

Mitre Joint

Mortice & Tenon Joint

Butt Joint

Trenched Joint

Approved door frame jointing options

7.4 Frame Decorative Facings – Frame

Relatively thin facing materials are deemed to be decorative and their application is not considered to be of detriment to the overall stability or performance of the doorset design.

The following additional facing materials are therefore permitted to the frame for this door design, including frame reveal, since they would have limited influence under fire resistance test conditions.

Decorative & Protective Facing Specification	
Facing Material	Maximum Permitted Thickness (mm)
Paint[3]	0.2
Timber veneers	0.7

Notes:

1. Facing materials not listed above are not permitted.
2. For all options, materials must not conceal intumescent strips.
3. Intumescent paints are not permitted.

Decorative finishes listed above may be painted within the limits for paint finish, above.

8 Overpanels & Fanlights, Sidepanel & Sidelights

Overpanels, fanlights, sidepanels and sidelights are permitted based on the testing as summarised within section 3, the following sections outline the constructional details of each of the permitted elements and limitations associated with each configuration.

8.1 General

The testing undertaken on the doorset design allows for the application of:

Solid overpanels with three framing options (Modular, Transomed & Flush).

Glazed fanlights with one framing option (Modular).

Framing options are detailed in the following section depending on the panel or glazing utilised.

8.2 Framing

The following framing options as detailed below are permitted for the doorset design and are permitted depending on arrangement utilised. Information on the frame type permitted for the solid panel or glazed element is detailed in sections 8.2.1 – 8.2.3.

8.2.1 Modular Framing

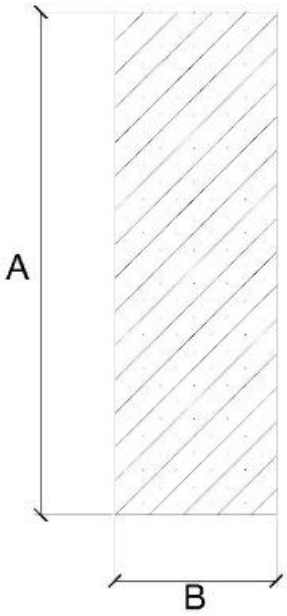
Modular framing for the purpose of this document is considered to be an element (glazing or panel) which is independently framed and fixed to the frame of a doorset design. An example of a modular framed solution is given below.

Single leaf doorset with glazed modular fanlight.

8.2.1.1 Standard Frame Detail (Modular Framing)

The frame listed below is the minimum size and density which has been successfully tested and assessed by this report. The frame must be constructed to meet the following specification for modular units containing solid panels or glazing, the frame section shall meet this specification on all four edges.

Modular Frame specification		
Material	**Minimum section size (mm)**	**Minimum density (kg/m^3)**
Solid Softwood or Hardwood: (see section 2.1)	Frame: 70 (d) x 32 (w)	510



A: Frame depth = 70mm minimum

B: Frame width = 32mm minimum

Notes:

It is possible to include a 3mm x 3mm quirk detail to the rear edges of the frame where the jointing to the door frame or adjacent modular framing element shall occur.

The depth of the modular frame and the door frame shall be equal, this may result in increasing the depth of the permitted door frame to match the modular frame dimension, or vice versa. In all cases the greater dimension shall be used.

8.2.1.2 Frame Jointing (Modular Framing)

Below are depictions of the framing joints that are deemed acceptable for corner jointing of modular framing. Please note that the drawings are provided as general illustrations of each type of frame joint; actual construction in terms of intumescent seal location and material, etc. must be as the text within this document specifies.

Double Rebated Joint

Mitre Joint

Mortice & Tenon Joint

Butt Joint

Trenched or Half Lapped Joint

The modular frame joints are required to be tight, with no gaps, and require mechanical fixing with 2No. Ø5 x 80mm steel screws. Frame joints shall additionally be reinforced with the adhesives approved for the application frame jointing detailed within section 9.

8.2.1.3 Attachment Technique (Modular Framing)

The modular framing shall be affixed to the door frame or adjacent modular framed units utilising steel screws appropriate for use with timber substrates.

Screws must be fixed between 50mm and 100mm from corners at maximum of 450mm centres from each face. Fixings shall penetrate approximately half of the depth of the adjacent timber section.

8.2.2 Shared framing (Transomed)

Shared framing (Transomed) for the purpose of this document is considered to be when an element (panel) is contained within the frame for the doorset and separated from the door leaf by a shared transom. An example of a transomed solution is given below, though the construction of doorsets shall be as the text in this document specifies.

8.2.2.1 Standard Frame Detail (Transomed)

The permitted frame detail for the doorset shall meet the minimum requirements as outlined in section 7, where applicable. The detail for the permitted transom can be found within section 8.2.2.2 below.

8.2.2.2 Detail for Transom (Transomed)

It is possible to include a transom to separate a panelled overpanel within a door frame from the door leaf. When applied the transom shall meet the following specification:

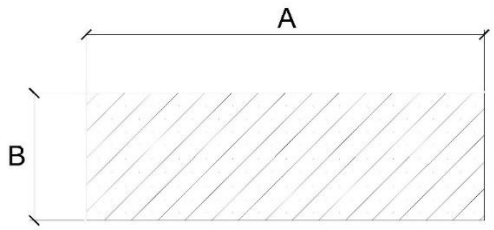
Shared Frame specification		
Frame Type & Material	**Minimum section size (mm)**	**Minimum density (kg/m^3)**
Frame 1	Transom: 70 (d) x 44 (w)	510kg/m^3
Frame 2	Not Permitted	

Notes:

When applied the material for the transom shall match the timber species used for the frame surrounding the door frame.

The transom when applied shall be mortice and tenon or butt jointed as depicted in section 8.2.2.3. The joints are required to be tight, with no gaps, and require mechanical fixing with 2No. Ø5 x 80mm steel screws.

Minimum Section Size – Frame 1



A: Transom depth = 70mm minimum

B: Transom width = 44mm minimum

8.2.2.3 Frame Jointing (Transomed)

Below are depictions of the framing joints that are deemed acceptable for corner jointing of transomed framing. Please note that the drawings are provided as general illustrations of each type of frame joint; actual construction in terms of intumescent seal location and material, etc. must be as the text within this document specifies.

Mortice & Tenon Joint

Butt Joint

The transom when applied shall be mortice and tenon or butt jointed as depicted above. The joints are required to be tight, with no gaps, and require mechanical fixing with 2No. Ø5 x 80mm steel screws.

8.2.3 Flush Overpanels

Based on the testing undertaken on the doorset design it is possible to include solid flush overpanels.

A flush overpanel is where a solid over panel has been included within the door frame and has no additional separating element between the panel and the door leaf or leaves.

Flush overpanels where permitted are detailed within the permitted leaf configurations and require specific perimeter intumescent specifications, these are found within sections 4.5.5.4, 4.5.5.5, 4.5.5.9 & 4.5.5.10.

8.3 Solid Panels

Solid overpanels are permitted for use with the modular framing option given in section 8.2.1 above (Modular Framing).

Solid overpanels are also permitted for use with the shared framing option given in section 8.2.2 above. (Shared Framing).

Solid overpanels are also permitted for use as a flush over panel given in section 8.2.3 above, subject to meeting the requirements outlined within sections 4.5.5.4, 4.5.5.5, 4.5.5.9 & 4.5.5.10 which detail the required intumescent specification.

8.3.1 Solid Panel Construction (Overpanels)

Based on the testing undertaken on the Egger particle board doorset design, it has been assessed to include the tested core construction as a solid fixed panel. This is because under test conditions the panel will be fixed within the perimeter framing limiting the deflection throughout the test duration and enhancing the expected fire resistance performance which was observed for the door leaf itself. Therefore, the following specification shall be met:

Element	Material	Dimensions (mm)	Minimum Density (kg/m^3)
Core	Egger Particleboard	44 (t)	540 – 580kg/m^3

The panel must be lipped as specified in section 5.3.1, and the panel shall be constructed of a single board, joints are not permitted within any panels.

The minimum panel thickness after calibration is 43mm (i.e. a maximum of 0.5mm from both sides).

Decorative & protective facings may be applied to the surface of the solid panels in accordance with section 5.4.

The minimum panel thickness after finishes applied is 44mm.

8.3.2 Intumescent Sealing Arrangement (Overpanels)

Solid overpanels when included within a doorset design (in either modular or shared framing) shall include the same intumescent specification as utilised within the door leaf or frame reveal.

Solid flush overpanels shall include the intumescent specification as detailed within sections 4.5.5.4, 4.5.5.5, 4.5.5.9 & 4.5.5.10 as applicable.

Permitted intumescent specifications are detailed in section 4.5, while there may be multiple options for manufacturer and seal types only one specification can be utilised with any single doorset, and the specification used shall match the specification used on the door leaf.

8.3.3 Fixing Arrangement (Overpanels)

Solid panels must be fixed into the framing solution by steel screws appropriate for the timber-based substrates.

Screws shall be applied nominally centrally to the thickness of the solid panel, through the rear of the frame to all edges and transom reveal where applicable and shall penetrate into the solid panel by at least 30mm.

Fixings must be no more than 100mm from each corner and a maximum of 250mm centres in between.

When fitted the solid panel shall have no greater than 1mm between the panel edge and the adjacent framing element.

Where fitted within shared framing (transomed) the face of the solid overpanel shall be nominally in line with the face of the door leaf.

Where fitted within modular framing the panel may either be nominally in line with the face of the door leaf or centrally within the modular frame depth.

Where fitted in a flush arrangement the face of the solid overpanel shall be in line with the face of the door leaf.

8.3.4 Maximum Dimensions (Overpanels)

Based on the testing undertaken within the doorset design the following maximum dimensions are permitted for any single panel, subject to the doorset not exceeding 2950mm in height and width including outer framing dimensions.

Solid Panel & Frame Type	Height (mm)	Width (mm)
Flush Overpanel	405	Overall doorset width
Overpanel (Shared Framing)	1000	
Overpanel (Modular Framing)	1000	

The overall assembly shall form a rectilinear shape.

8.4 Glazed Fanlights

Based on the testing detailed within section 3, it has been possible to consider the use of glazed fanlights with the modular framing given in section 8.2.1 above.

8.4.1 Certifire Approved Glass & Glazing Systems

Glass and glazing systems with a Certifire certificate – valid at the date of manufacture of the doorset which has been written in accordance with Warringtonfire Testing & Certification Ltd Technical Schedule TS25 - may be utilised to glaze fanlights and sidelights for use with the doorset design, subject to the following.

- The chosen Certifire approved glass, and glazing system must detail that it is suitable for use for 30 minutes fire resistance performance within a timber screen.
- Certifire approved glass and glazing systems may be utilised with the doorset design providing they are able to be applied in a self-contained modular frame.
- The modular frame must meet or exceed the specification for modular frames given within section 8.2.1 above, however, must be fixed to the doorset or adjacent modules in the manner specified in section 8.2.1.3.
- Where a Certifire certificate is utilised to justify fanlights, the full requirements given within that certificate for the frame (which may require an increase in dimensional requirements given in section 8.2.1 for example), glass type, glazing system and glass retention method specified must be complied with.
- The dimensions of the entire assembly must not exceed 2950mm wide x 2950mm high for any single doorset including the dimension of the door frame and fanlight.
- Bead Fixings - The required pin or screw specification as given in the supporting Certifire certificate must be used, alternatives fixing details are not permitted.
- The doorset assembly must remain rectilinear.

9 Adhesives

The following adhesives must be used in the construction of the doorsets. These may be hand applied or may be applied using an edgebander. With either method it must be ensured that sufficient glue is applied across the entire surface area between the 2No substrates being adhered to guarantee a robust bond. Other manufacturers guidance should be followed, for either installation application used.

Element	Product/Material Type
Timber lipping & decorative facings	UF, hotmelt EVA, PUR or PVA
ABS lippings	UF, PUR or PVA
Frame Jointing	UF, PUR or PVA

10 Hardware

10.1 General

The following section details the permitted scope and constraints for fitting hardware to this door design. The following items of hardware must also bear the UKCA or CE Mark in addition to the requirements outlined in the following sections. The UKCA or CE mark must indicate that the hardware is suitable for fire doors in the classification code and declaration of performance issued by the hardware manufacturer:

- Latches & locks: Test Standard EN 12209
- Single axis hinges: Test Standard EN 1935
- Controlled door closing devices: Test Standard EN 1154
- Electrically powered hold-open devices: Test Standard EN 1155
- Door co-ordinators: Test Standard EN 1158
- Emergency exit hardware: Test Standard EN 179
- Panic exit hardware: Test Standard EN 1125.

The following sections consider what tested and assessed alternative items of essential and non-essential hardware can be used on the doorset range.

Items of hardware have been considered and approved via the following means:

- The component has been successfully tested to BS 476: Part 22: 1987 or BS EN 1634-1 in a suitably similar type of doorset e.g. timber leaf in timber frame
- As a result of an assessment of the appropriateness of the item of hardware, based on test evidence not commissioned by EGGER (UK) Ltd.
- As a result of the Certifire approval of the item of hardware

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

- Leaf size
- Configuration
- Intumescent seals
- Intumescent protection
- Frame configuration requirements

No item of hardware should be within 200mm of another item of hardware unless there is test evidence to demonstrated they can be in closer proximity.

Hardware items should generally be fitted in accordance with the manufacturer's instructions. **However, the parameters and requirements of this assessment always take precedence, including specified protection such as hardware gaskets.** Referenced Certifire approved hardware may be incorporated subject to the design, material and dimensional limitations identified within this assessment report and identified on the relevant Certifire certificate.

10.2 Intumescent to Hardware

The intumescent materials used to protect hardware that have been tested and assessed for this doorset design are detailed below. Note that any one of the product/manufacturer options listed in the table may be used in the specific application noted. However, only 1No manufacturer should be considered per doorset application.

Hardware Intumescent Specification		
Item	**Location**	**Product/Manufacturer**
Hinges	Under all hinge blades	1mm MAP paper - Lorient Polyproducts Ltd. 1mm Interdens - Dufaylite Developments Ltd. 1mm Therm-A-Flex - Intumescent seals Ltd. 1mm Pyrostrip - Mann McGowan Ltd.
Lock/latches	Under forend & keep (forends over 57 x 26mm)	1mm MAP paper - Lorient Polyproducts Ltd. 1mm Interdens - Dufaylite Developments Ltd. 1mm Therm-A-Flex - Intumescent seals Ltd. 1mm Pyrostrip - Mann McGowan Ltd.
Top & Bottom Pivots	Lining all sides of the mortice	2mm Interdens – Dufaylite Developments Ltd. 2mm MAP paper - Lorient Polyproducts Ltd.
Flush bolts	Lining all sides of the mortice	1mm MAP paper - Lorient Polyproducts Ltd. 1mm Interdens - Dufaylite Developments Ltd. 1mm Therm-A-Flex - Intumescent seals Ltd. 1mm Pyrostrip - Mann McGowan Ltd.

Gaskets must be fitted where required by supporting evidence, for example, test evidence or Certifire certificates. If gaskets are not required by the supporting evidence but are within this Field of Application, the requirements of this Field of Application take precedence.

Where it is stated that intumescent is not required for a particular element of hardware, it is permitted to use up to 2mm thick MAP, Interdens or graphite-based gasket tested for the particular application [as appropriate for the hardware]. It is the opinion of Warringtonfire that the additional protection will not detract from the fire resistance performance under test conditions.

10.3 Essential Hardware

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

Configuration	Hardware
LSASD	• Latch • Handle • Hinges • Self-closing device (closer)
ULSASD	• Hinges • Self-closing device (closer)
DASD	• Top pivot & bottom strap • Self-closing device (closer)
LSASD+OP	• Latch • Handle • Hinges • Self-closing device (closer)
ULSASD+OP	• Hinges • Self-closing device (closer)
LSADD	• Latch • Handle • Hinges • Self-closing device (closer) • Flush bolt
ULSADD	• Hinges • Self-closing device (closer) • Flush bolt
DADD	• Top pivot & bottom strap • Self-closing device (closer)
LSADD+OP	• Latch • Handle • Hinges • Self-closing device (closer) • Flush bolt
ULSADD+OP	• Hinges • Self-closing device (closer)

10.4 Latches & Locks

Unless explicitly detailed within the sections below only 1No. lock or latch shall be applied within any individual doorset. When fitted the lock or latch body shall be installed within the vertical edge of the door leaf in all cases, at a height as detailed within the relevant section below. Refer to specific notes contained within each section for further considerations on lock or latch type.

10.4.1 Single Point Engagement

These items are suitable in the following applications only:

Element	Manufacturer & Product Reference
Locks & latches	1. E*S Tubular mortice latch (RF090039) 2. AR8004, sashlock case (WF551082)

Alternatively, Certifire approved components certified for use within 30-minute fire resistance applications on a timber door of minimum 44mm thickness and timber frames with the following specification are also deemed acceptable for single leaf doorsets.

Single leaf doorsets

Element	Specification
Maximum forend and strike plate dimensions	215 (h) x 25 (w) x 3 (t)
Maximum body dimensions	160 (h) x 90 (w) x 16 (t)
Intumescent protection	see section 10.2
Materials	All parts essential to the locking/latching action (including the latch bolt, forend and strike) to be steel, stainless steel or brass with a melting point ≥ 800ºC

Notes:

1. In all instances the location of the handle must be between 800 – 1200mm from the threshold.

Double leaf doorsets

Element	Specification
Maximum forend and strike plate dimensions	100 (h) x 26 (w) x 3 (t)
Maximum body dimensions	20 (h) x 90 (w) x 18.5 (t)
Intumescent protection	see section 10.2
Materials	All parts essential to the locking/latching action (including the latch bolt, forend and strike) to be steel, stainless steel or brass with a melting point ≥ 800ºC

Notes:

1. In all instances the location of the handle must be between 800 – 1200mm from the threshold.

10.4.2 Cylinders

The table below details the tested cylinders that are approved.

Element	Manufacturer & Product Reference
Cylinder	• Yale, KMT3030, SSS, (WF551082)

Alternatively, components with the following specification are also deemed acceptable.

- Where required for use with single, the cylinder must be constructed of either brass or steel with a melting point in excess of 800^0C.
- The cylinder must be compatible with the lock/latch.
- Cylinder dimensions may be up to 33mm high x 17mm wide at the maximum dimension and may be of euro profile or oval.
- Single and double cylinders, along with cylinder & turn are permitted.
- Door preparation for single cylinders shall penetrate a maximum of 2/3rds of the door thickness.
- Intumescent protection and tightness of fitting:
    - If the lock body is not protected with an intumescent material, the maximum clearance between leaf and cylinder is 1mm to each edge.
    - If the lock body is protected with an intumescent material, maximum clearance between leaf and cylinder is 3mm to each edge.
    - 1mm thick MAP or non-pressure forming graphite intumescent around the cylinder is optionally permitted.

10.5 Handles & Escutcheons

The table below details the tested handles that are approved.

Element	Manufacturer & Product Reference
Handles	• Hoppe AR961/60-3-SR-SS

Alternative handles are permitted providing they meet the specification given below:

- Steel, stainless steel, brass, aluminium or bronze are permitted
- Surface fixings or through fixings are permitted. If through fixed there must be no more than 0.5mm clearance between the hole and the fixing.
- The hole through the leaf to facilitate the spindle must be no greater than 20mm diameter.

The design may be either handle on rose or handle on back plate up to the following maximum sizes:

- Handle on rose with a rose diameter up to 54mm
- Handle on back plate with a back plate size up to 243mm high x 56mm wide
- Lever handle length 250mm

The handle must be compatible with the lock/latch, such that the closing action of the doorset is not impeded.

Alternative escutcheons are permitted providing they meet the specification given below:

- Steel, stainless steel, brass, aluminium or bronze are permitted
- Surface fixings or through fixings are permitted. If through fixed there must be no more than 0.5mm clearance between the hole and the fixing.
- The escutcheon may be up to Ø52mm overall and up to 8mm thick.

10.6 Butt Hinges

These items are suitable in the following applications only:

Configurations: LSASD, ULSASD, LSASD+OP, ULSASD+OP, LSADD, ULSADD, LSADD+OP, ULSADD+OP

The table below details the tested butt hinges that are approved.

Element	Manufacturer & Product Reference
Hinges	Royde & Tucker H105 (RF09039) Royde & Tucker H101 (RF09015) Hoppe AR8182-SSS (WF551082)

Alternatively, components with the following specification are also deemed acceptable.

Element	Specification
Blade height:	90 - 120mm
Blade width (excluding knuckle):	30 - 35mm
Blade thickness	2.5 - 4mm
Fixings:	For Royde & Tucker H105: Minimum of 3 No. 30mm long No. 8 or No.10 steel wood screws per blade For all other hinge types: Minimum of 4 No. 32mm long No. 8 or No.10 steel wood screws per blade
Materials:	Steel or stainless steel

Alternatively, Certifire approved components certified for use within 30-minute fire resistance applications on 44mm thick timber door, for installation within timber frames the following specification are also deemed acceptable for both single and double leaf doorsets.

Element		Specification	
Hinge positions:	If 3 hinges are required:	Top	100 –180mm from the head to top of hinge
		2nd	Minimum 200mm from top hinge or centrally fitted between top and bottom hinge
		Bottom	150 - 250mm from the foot of leaf to bottom of hinge
	If 4 hinges are required:	Top	100-180mm from the head to top of hinge
		2nd & 3rd	Equispaced between top and bottom or 2nd hinge 200mm from top hinge and 3rd hinge equally spaced between 2nd and bottom hinge
		Bottom	150 - 250mm from the foot of leaf to bottom of hinge
Intumescent protection:		See section 10.2	

Note:

Leaves less than 2400mm (h) must be hung on a minimum of 3 hinges. Leaves greater or equal 2400mm (h) must be hung on 4 hinges.

10.7 Doorset Self Closing

Doorset automatic self-closing can be provided by:

- Overhead face fixed closers
- Floor springs with top pivots and bottom straps

Automatic doorset self-closing devices such as transom mounted, and offset pivots used with floor springs are not considered acceptable for use with the Egger particleboard doorset range

10.7.1 Overhead Face Fixed Closer

These items are suitable in the following applications only:

Configurations: All Singe Action Configurations

The table below details the tested overhead face-fixed closers that are approved.

Element	Manufacturer & Product Reference
Overhead face-fixed closers	• Dorma TS68 (RF09039) • Dorma TS71 (RF09015) • Hoppe AR1500 (WF551082)

Alternatively, components with the following specification are also deemed acceptable.

- Certifire approved overhead face-fixed closers for 30-minute fire resistance applications on 44mm thick timber door and timber frames.

Note:

It must be ensured that the closer is of sufficient strength and power to ensure the door leaf/leaves fully engage into the frame reveal.

10.7.2 Floor Spring Self Closing Device

These items are suitable in the following applications only:

Configurations: DASD, DADD

Dorma BTS 80 F floor spring

This item has been successfully tested in test reference RF09101, along with the 7421 bottom strap and 8067 top strap/pivot, and is suitable for use within the following scope:

- The leaf shall be lipped to the top and bottom edge of the leaf, this lipping must have a minimum lipping density of 640kg/m^3
- The frame shall have a minimum section size of 40mm thick x 70mm deep (excluding stop).
- Intumescent protection:
  (a) 2mm thick graphite based intumescent kit, lining the sides of top strap in the door leaf, and covering face of the bottom strap in the door leaf.
- The tested intumescent applied in the frame reveal was fully interrupted at the top pivot location and therefore it is assessed to utilise the above floor spring in all double acting configurations permitted within section 4.5.

10.8 Bolts

10.8.1 Flush Bolts

These items are suitable in the following applications only:

Configurations: LSADD, LSADD+OP, ULSADD & ULSADD+OP

Flush bolts shall not be installed within doorsets which include rebates to the edges of the overpanel or meeting edges.

Flush bolts may be incorporated centrally into the bottom of one meeting edge, providing the following maximum dimensions are not exceeded and the components are fitted opposite the edge fitted with intumescent strips:

200mm long x 20mm deep x 30mm wide.

Flush bolts must be steel, and the mortice must be as tight to the mechanism as is compatible with its operation. All edges of the mortice of the keep and body must be protected with intumescent gaskets as specified in section 10.2. Alternatively, the hardware manufacturers tested gaskets may be used.

Figure – Flush bolt installation and intumescent protection

10.8.2 Surface Mounted Face Fixed Bolts

Surface mounted face fixed bolts constructed from steel, stainless steel, aluminium or bronze may be fitted to the top and bottom of one leaf within a double doorset design, providing the following maximum dimensions given below are not exceeded and the components are fitted at least 50mm from the meeting edge:

- 300mm long x 20mm wide (footprint).

Intumescent protection is not required.

10.9 Non-Essential Hardware

Only the following items of non-essential hardware are permitted in addition to the prescribed essential hardware as detailed within section 10.3.

10.9.1 Pull Handles

Steel, stainless steel or bronze handles may be surface-fixed or bolted through the door leaf, providing the length is limited to 1200mm between the fixing points. If through fixed, there must be no more than 1mm clearance between the hole and stud.

The above scope of application is provided as in the opinion of Warringtonfire they will not significantly affect the fire resistance performance of the doorset being considered. This is on the basis of the items being surface mounted away from the edge of the door leaf, therefore unlikely to influence the junction between door leaf and frame. Furthermore, they are generally of lightweight construction, meaning that they are unlikely to destabilise the doorset and therefore cause adverse deflection under test conditions. Lastly, the surface mounted arrangement of the features means no material is removed in terms of the overall thickness of the door leaf beyond the footprint of the item, therefore burn through of the leaf would not be expected.

10.9.2 Push Plates & Kick Plates

Components with the following specification are deemed acceptable as in the opinion of Warringtonfire they will not significantly affect the fire resistance performance of the doorset being considered. This is on the basis of the items being surface mounted away from the edge of the door leaf, therefore unlikely to influence the junction between door leaf and frame. Furthermore, they are generally of lightweight construction, meaning that they are unlikely to destabilise the doorset and therefore cause adverse deflection under test conditions. Lastly, the surface mounted arrangement of the features means no material is removed in terms of the overall thickness of the door leaf beyond the footprint of the item, therefore burn through of the leaf would not be expected.

Approved specification:

- Polymeric or metal face-fixed hardware such as push plates and kick plates up to 2mm thick may be surface fitted to the doorset. These items of hardware are permitted up to a maximum of 20% of the door leaf area if mechanically fixed and a maximum of 30% if bonded with a contact or other thermally softening adhesive.
- Plates must not return around the door edges.
- In all cases plates meeting the above specification shall not be applied under glazing beads or door stops.

10.9.3 Security Viewers

A viewer is permitted within a single door leaf and must be positioned no closer than 100mm to door edges, glazed apertures or any other hardware component.

Components with the following specification are deemed acceptable.

- Door security viewers with brass or steel bodies of a diameter less than or equal to 15mm may be used provided that the through-hole is bored tight to the case of the viewer (maximum tolerance +1 mm). Lenses must be glass, and the item must be protected with a tested acrylic intumescent mastic and / or a 0.5 – 1.0mm thick graphite based intumescent wrap.

10.9.4 Door Selectors

These items are suitable in the following applications only:

Configurations: All double leaf door configurations

These may be freely applied, provided that they are not invasive in the leaf edges or door frames and they do not interfere with the self-closing action of the door leaf. Products that are invasive will require fire resistance test/assessment evidence to support their use.

10.9.5 Environmental Seals

These items are suitable in the following applications only:

Configurations: All single action configurations

Environmental seals have been successfully tested as part of the Egger Particleboard core doorset design. Based on this testing the table below details the approved environmental seal included within the summarised evidence within section 3:

Product Reference & Manufacturer (Test Reference)
Schlegel Aquamac AQ48 (WF551082)

Alternatively, on the basis of the testing undertaken, silicon or PVC based flame retardant acoustic, weather and dust seals may be fitted to this doorset design without compromising the performance, providing their fitting does not interfere with the activation of the intumescent seals or hinder the self-closing function of the leaves.

Where required, the seals may be fitted rebated/grooved into the timber doorstop.

10.9.6 Air Transfer Grilles

Air transfer grilles must be Certifire approved for 30 minutes in doorsets with solid timber door leaves. Restriction relating to size, location and intumescent protection around the air transfer grille must be complied with.

The area occupied by the air transfer grille must not exceed 0.2m^2 and must be deducted from the area of glazing, if both elements are fitted.

10.9.7 Threshold drop Seals

Drop seals have been successfully tested within the doorset design and are therefore, acceptable for use in the door designs considered herein. The table below details the permitted threshold Drop Seals as tested and summarised within section 3:

It is permitted for use without the requirement for any intumescent protection, where identified.

Note, if a rebated drop seal is fitted to the doorset then flush bolts, if approved, may not be fitted to the bottom of the doorset.

Product Reference & Manufacturer (Test Reference)	**Intumescent Protection**
Häfele GmbH & Co 950.07.546 (RF13013)	Not required
Norsound Ltd, NOR810, (WF551082)	Not required

Alternatively, the components meeting all of the following specifications are also deemed acceptable, recessed into the bottom of leaves:

- Certifire approved threshold drop seals for 30-minute fire resistance applications on 44mm thick timber / cellulosic doors in timber / cellulosic frames.
- The threshold drop seal must not exceed:
    - Body dimensions of 35mm (h) x 14mm (t) and
    - Face plate dimensions of 57mm (h) x 21mm (w) x 1.5mm (t).
- The Certifire certificate shall be adhered to for intumescent protection and fitting requirements.

Note: In all instances, if a rebated drop seal is fitted to the doorset then flush bolts, if approved, may not be fitted to the bottom of the doorset.

10.9.8 Knockers, Numerals & Signage

Components with the following specification are deemed acceptable as in the opinion of Warringtonfire they will not significantly affect the fire resistance performance of the doorset being considered. This is on the basis of the items being surface mounted away from the edge of the door leaf, therefore unlikely to influence the junction between door leaf and frame. Furthermore, they are generally of lightweight construction, meaning that they are unlikely to destabilise the doorset and therefore cause adverse deflection under test conditions. Lastly, the surface mounted arrangement of the features means no material is removed in terms of the overall thickness of the door leaf beyond the footprint of the item, therefore burn through of the leaf would not be expected.

Approved specifications:

Knockers:

- Steel, stainless steel, aluminium or bronze knockers, may be surface fixed or bolted through the door leaf, providing they are fitted no closer than 75mm from the leaf edge, other elements of building hardware or to any glazing and are no greater than 200mm high x 120mm wide. If through fixed, there must be no more than 1mm clearance between the hole and stud. It is only permitted to fit 1No. knocker to any one doorset.

Numerals & Signage:

- Steel, stainless steel, aluminium or bronze numerals or signage may be surface fixed to the door leaf, providing they are fitted no closer than 35mm from the leaf edge, other elements of building hardware or to any glazing. The dimension of each numeral or sign must be no greater than 200mm high x 100mm wide x 4mm thick. Up to 5No. numerals or signs may be applied to a doorset, numerals and signs may be applied adjacent to each other providing the 35mm from other elements as detailed above is maintained.

10.9.9 Security Chains

Components with the following specification are deemed acceptable as in the opinion of Warringtonfire they will not significantly affect the fire resistance performance of the doorset being considered. This is on the basis of the items being surface mounted with fixings positioned away from the edge of the door leaf and therefore unlikely to influence the junction between door leaf and frame. Furthermore, they are generally of lightweight construction, meaning that they are unlikely to destabilise the doorset and cause adverse deflection under test conditions. Lastly, the surface mounted arrangement of the features means no material is removed in terms of the overall thickness of the door leaf beyond the footprint of the item, therefore burn through of the leaf would not be expected.

Approved specification:

- Metallic security chains may be surface fixed to the face of the door leaf and frame, providing they are fitted such that they do not interfere with the junction between the leaf edge and the frame, and no material is removed in order to facilitate the fitting of the security chain. Screws to affix the security chain shall be no greater than 25mm long.

10.9.10 Fire Door Identification Plates

Plastic or metal fire door identification plates may be glued or screwed to the face of the door leaves providing they are fitted no closer than 35mm from the leaf edge, other elements of building hardware or to any glazing. The dimension of any applied plate must be no greater than 100mm high x 100mm wide x 3mm thick.

These may be required to identify the following:

a) To be kept closed when not in use (Fire Door Keep Shut)

b) To be kept locked shut when not in use (Fire Door Keep Locked Shut)

c) Held open by an automatic release mechanism or free swing device (Automatic Fire Door Keep Clear).

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

10.9.11 Panic Hardware

Certifire approved panic hardware may be fitted, providing the installation does not require the removal of any timber from the leaf, stop or frame reveal and it does not interfere with the self-closing action of the door leaf.

The fitting of panic hardware is not considered to change the latching arrangement of the doorset and therefore the permitted leaf size shall be established using unlatched doorset configurations as detailed within section 4.5.

11 Installation

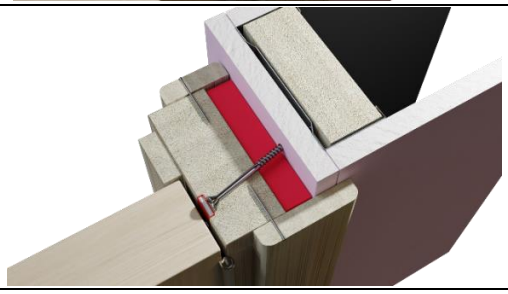
11.1 General

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

- the door frame and architrave installation position relative to the wall
- the fire stopping between the frame and the wall
- the fixing requirement including packers
- the requirements for door edge gaps
- the trimming of door edges

11.2 Door Frame Installation

The following figures indicate the acceptable door frame installations. Please note that the firestopping element is provided in the below 3D models as a generic coloured seal. For further clarification of the approved firestopping systems see section 11.3.

Permitted Installations	
	Instances where the door frame and the wall of the same depth such that architraves are fitted flush to both faces. Note that the minimum door frame section size (width and depth) must be as per the requirements noted in this report – see door frame section. Architraves requirements are documented in the firestopping section of this report.
	Instances where the wall thickness is greater than the door frame depth. In this scenario timber architraves of minimum 18mm thick must be fitted to both faces, fitted with a minimum 15mm overlap to the door gap, other than when the architrave abuts the wall.
	Split frames are permitted providing that both frame sections are secured to the wall in accordance with section 11.5. Furthermore, the main frame section (from which the door is hung) must be constructed to at least the minimum door frame section size (width and depth) as per the requirements noted in this report – see door frame section. The extension piece must be constructed using the same timber species as the main frame section.

Note:

1. The drawings are provided as a generalised illustration of the door frame installation only; actual installation must be as per the text within this document specifies.
2. When fitted within a masonry construction as detailed in section 11.5 the entire thickness of the leaf shall be within the thickness of the masonry element.

11.3 Firestopping

The firestopping requirements between the back of frame and wall are dependent on the gap size between the substrates. The table below provides the requirements based upon the gaps size. Please note that in the 3D depictions noted below show the application where a door frame is of the same depth as the overall wall thickness.

Gap (mm)	Requirement	3D model depiction
0 – 2	In practice, unlikely to occur, but if present, must be sealed with architraves, as below, fitted over a bead of acrylic intumescent sealant, tested as below.	
3 – 10	Gap must be sealed on both sides with a 10mm depth of acrylic intumescent mastic, fire tested for this application to BS 476: Part 22: 1987 or BS EN 1634-1. Timber architraves of a minimum 18mm thick may be fitted to both faces, fitted with a minimum 15mm overlap to the door frame to supporting construction gap.	
10 – 20	Gap must be tightly packed with mineral fibre capped on both sides with a 10mm depth of acrylic intumescent mastic, fire tested for this application to BS 476: Part 22: 1987 or BS EN 1634-1. Timber architraves of a minimum 18mm thick may be fitted to both faces, fitted with a minimum 15mm overlap to the door frame to supporting construction gap.	
10 – 20	Full depth expanding PU foam, fire tested for this application to BS 476: Part 22: 1987 or BS EN 1634-1. Timber architraves of a minimum 18mm thick must be fitted to both faces, fitted with a minimum 15mm overlap to the door frame to supporting construction gap.	

Gap (mm)	Requirement	3D model depiction
Over 20	A timber based or non-combustible subframe up to 50mm thick can be inserted and fixed to the wall bedded on intumescent mastic, the gap between door frame and subframe filled as follows: Gaps 5 to 10mm filled on both sides with 10mm depth of acrylic intumescent mastic Timber architraves of a minimum 18mm thick must be fitted to both faces, fitted with a minimum 15mm overlap to the door frame and the wall.	
	A timber based or non-combustible subframe up to 50mm thick can be inserted and fixed to the wall bedded on intumescent mastic, the gap between door frame and subframe filled as follows: Gaps 5 to 10mm filled on both sides with full depth expanding PU foam, fire tested for this application to BS 476: Part 22: 1987 or BS EN 1634-1. Timber architraves of a minimum 18mm thick must be fitted to both faces, fitted with a minimum 15mm overlap to the door frame and the wall.	

11.4 Packers

Packers can be timber of equal density to the frame, or plywood or plastic packers if fire tested for this application to BS 476: Part 22: 1987 or BS EN 1634-1.

11.5 Wall Types, Structural Opening & Fixity

11.5.1 Wall Types

The following wall types are approved for this doorset design:

a) Plasterboard clad timber stud partitions
b) Plasterboard clad steel stud partitions including timber lining.
c) Blockwork, masonry or homogenous concrete constructions.

Wall types a & b above must have supporting fire resistance test evidence which demonstrates that it is capable of staying in place and intact for a minimum of 30 minutes supporting a doorset design.

Wall type c above must be determined to be able to provide at least the same level of fire resistance of the doorset design.

All wall types detailed above shall provide a suitable medium to permit adequate fixity, it is anticipated that for:

- Plasterboard clad timber stud partitions, the timber stud will be of sufficient dimensions such that the fixing for the door frame penetrates into solid timber.
- Plasterboard clad steel stud partitions will include a timber lining of sufficient dimensions such that the fixing for the door frame penetrates into solid timber.
- Blockwork, masonry or homogenous concrete constructions are anticipated to be solid to receive the fixings.

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

11.5.2 Structural Opening

For all wall types the structural opening shall be square, plumb and provide a flat surface for installation of the doorset

For flexible wall types such as steel and timber stud partitions the structural opening must be prepared in line with the test evidence provided by the wall manufacturer.

11.5.3 Fixity

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

For single leaf doorset without overpanels, the frame jambs only are to be fixed to the supporting construction using steel fixings at 600mm maximum centres and maximum of 150mm from corner. The fixings must be of the appropriate type for the supporting construction and must penetrate to a minimum depth of 50mm. It is not necessary to fix the frame head, although packers must be inserted.

For all other configurations of doorset, the upper horizontal framing section abutting the structural opening must also be secured to the wall using steel fixings at 600mm maximum centres and maximum of 150mm from corner. The fixings must be of the appropriate type for the supporting construction and must penetrate to a minimum depth of 50mm.

11.6 Post Production (Onsite) Leaf Size Adjustment

The Egger particleboard doorset design range of doorsets may be altered as follows:

Leaf Size Adjustment Specification	
Element	Reduction
Lipping	The post-production lipping thickness may be reduced by 1mm for fitting purposes, providing that the door gaps and intumescent conditions remain as required by this assessment and the minimum limitation in terms of lipping thickness is still maintained. Doorsets with ABS lippings may not be resizes once lippings have been applied.

11.7 Door Gaps

Door gaps and alignment tolerances must fall within the following range:

Door Gap & Alignment Tolerance Specification	
Location	Dimension
Door edge gaps	A minimum of 2mm and a maximum of 4mm
Alignment tolerances	Leaves must not be proud of each other or from the door frame by more than 1mm.
Threshold / Bottom edge of the leaf This is the maximum tolerance for fire resistance only.	8mm between bottom of leaf and top of floor covering.

12 Insulation Performance

Insulation performance may be claimed for a doorset to this design meeting the following:

Insulation Performance Criteria	
Type	Details
Partially insulating	Doorsets incorporating up to 20% of non-insulating glazing or air transfer grilles.
Fully insulating	Unglazed doorsets or doorsets including 30-minute insulating glazing

13 Conclusion

If the Egger particleboard doorset design were to be constructed in accordance with the specification documented in this field of application were to be tested in accordance with BS 476: Part 22: 1987, it is our opinion that they would provide a minimum of 30 minutes integrity and insulation (subject to section 12).

14 Declaration by the Applicant

1) We the undersigned confirm that we have read and comply with obligations placed on us by the Passive Fire Protection Forum (PFPF) Guide to undertaking technical assessments and engineering evaluations based on fire test evidence 2021 Industry Standard Procedure
2) We confirm that any changes to a component or element of structure which are the subject of this assessment have not to our knowledge been tested to the standard against which this assessment has been made.
3) We agree to withdraw this assessment from circulation should the component or element of structure, or any of its component parts be the subject of a failed fire resistance test to the standard against which this assessment is being made.
4) We understand that this assessment is based on test evidence and will be withdrawn should evidence become available that causes the conclusion to be questioned. In that case, we accept that new test evidence may be required.
5) We are not aware of any information that could affect the conclusions of this assessment. If we subsequently become aware of any such information, we agree to ask the assessing authority to withdraw the assessment.

(In accordance with the principles of FTSG Resolution No. 82: 2001)

Signed: DocuSigned by: J Lynch D106A8DFA0FF433...

Name: J Lynch

Position: Product Manager

Date: 07-Aug-2025

For and on behalf of: EGGER (UK) Ltd.

15 Limitations

The following limitations apply to this assessment:

1) This field of application addresses itself solely to the elements and subjects discussed and do not cover any other criteria or modifications. All other details not specifically referred to should remain as tested or assessed.
2) This field of application report is issued on the basis of test data and information to hand at the time of issue. If contradictory evidence becomes available to Warringtonfire, the assessment will be unconditionally withdrawn, and the applicant will be notified in writing. Similarly, the assessment evaluation is invalidated if the assessed construction is subsequently tested since actual test data is deemed to take precedence.
3) This field of application has been carried out in accordance with Fire Test Study Group Resolution No. 82: 2001.
4) Opinions and interpretation expressed herein are outside the scope of UKAS accreditation.
5) This field of application relates only to those aspects of design, materials and construction that influence the performance of the element(s) under fire resistance test conditions against the ISO 834 time/temperature curve that is stipulated in the standard this assessment concludes to. It does not purport to be a complete specification ensuring fitness for purpose and long-term serviceability. It is the responsibility of the client to ensure that the element conforms to recognised good practice in all other respects and that, with the incorporation of the guidance given in this field of application, the element is suitable for its intended purpose.
6) This field of application report represents our opinion as to the performance likely to be demonstrated on a test in accordance with BS 476: Part 22: 1987, on the basis of the test evidence referred to in this report. We express no opinion as to whether that evidence, and/or this field of application would be regarded by any Building Control authorities or any other third parties as sufficient for that or any other purpose.
7) This report may only be reproduced in full. Extracts or abridgements of reports shall not be published without permission of Warringtonfire. All work and services carried out by Warringtonfire Testing and Certification Limited are subject to, and conducted in accordance with, the Standard Terms and Conditions of Warringtonfire Testing and Certification Limited, which are available at https://www.element.com/terms/terms-and-conditions or upon request.
8) The version/revision stated on the front of this field of application supersedes all previous versions/revisions and must be used to manufacture doorsets from the stated validity date on this front cover. Previous revisions of the Field of Application cannot be used once an updated Field of Application has been issued under a new revision.

16 Validity

1) The assessment is initially valid for five years after which time it is recommended to be submitted to Warringtonfire for re-appraisal.
2) This assessment report is not valid unless it incorporates the declaration given in Section 14 duly signed by the applicant.

Position:	Assessor	Reviewer
Signature:	Signed by: 3A9C822F3E7F487...	Signed by: 43935C1A192A419...
Name:	**C Newton***	**N Whitelock***
Title:	Senior Product Assessor	Technical Manager, Doors & Smoke Leakage

* For and on behalf of Warringtonfire

Appendix A : Revisions

Rev.	WF Ref.	Date	Description
A	A13160	19/06/2013	Included datasheet covering Pyroplex intumescent seals in latched, single acting, single leaf doors.
B	A15280	03/12/2015	Inclusion of PUR adhesive for ABS lippings and for additional decorative & protective facings.
C	A15314	18/01/2016	Inclusion of Morland Quickfix FD30 Glazing Bead System based on WF341550 & WF342584.
D	WF406084	01/10/2018	Five year technical review and revalidation.
E	WF410169	27/06/2019	Amendment to hinge positioning and update to EN15725: 2010 format.
F	WF538599	28/02/2024	Scope of Pyroplex perimeter seals reduced to latched single action single doors. ABS lippings scope restricted to Lorient 617 seals for single leaf doorsets as tested. Glazing margins increased to tested dimensions of 130mm from the edge of the aperture to the edge of the door leaf. Glass types limited to tested glass and glazing systems. Certifire glazing systems included to increase scope. The following sections from WF538599 Revision E have been removed: • Section 16.15 – Cableway • Section 16.16 – Letterplate: • Section 16.13 – Environmental Seals Section 22 – Smoke Control
G	WF551950	01/08/2025	Technical review and revalidation. Addition of sampled test WF551082 supporting larger lockcases in single leaf doorsets and timber extensions to the rear of the doorframe. Validity of the document extended based on the new issue date.