



CERTIFICATE OF APPROVAL

No CF 807

This is to certify that, in accordance with
TS00 General Requirements for Certification of Fire Protection Products
The undermentioned products of

FALCON PANEL PRODUCTS LTD

Clock House, Station Approach, Shepperton
Middlesex, TW17 8AN, United Kingdom
Tel: 01824 730266

Have been assessed against the requirements of the Technical Schedule(s)
denoted below and are approved for use subject to the conditions
appended hereto:

CERTIFIED PRODUCT
Falcon Panel Products Ltd
FD30 STREbord 44
ITT Timber Door Blanks

TECHNICAL SCHEDULE
TS10 Fire Resisting Door
Assemblies with Non
Metallic Leaves

Signed and sealed for and on behalf of Warringtonfire Testing and Certification Limited

Paul Duggan
Certification Manager

Issued: 6th January 2011
Reissued: 9th May 2024
Valid to: 1st November 2026





CERTIFICATE No CF 807 FALCON PANEL PRODUCTS LTD

Falcon Panel Products Ltd. FD30 STREbord 44 Timber Door Blanks

This approval relates to the use of the above doors in providing fire resistance of 30 minutes insulation (if incorporating not more than 20% of uninsulating glass) and 30 minutes integrity as defined in BS 476: Part 22. Subject to the undermentioned conditions, the doors would be expected to meet the relevant requirements of BS 9999 for FD30 door assemblies when used in accordance with the provisions therein.

1. This certification is provided to the client for their own purposes, and we cannot opine on whether it will be accepted by Building Control authorities or any other third parties for any purpose.
2. The doors are approved on the basis of:
 - i) Initial type testing
 - ii) A design appraisal against TS10
 - iii) Inspection and surveillance of factory production control
 - iv) Certification under a CERTIFIRE approved Quality Management System
 - v) Audit testing in accordance with TS10
3. The door blanks comprise cellulosic cored leaves in various finishes for use with timber frames, with intumescent edge seals (ITT & ITM FD30).
4. This approval is applicable to both complete door assemblies and door leaves. Where the door is not supplied in a fully fitted form it is a condition of this approval that an agreed Data Sheet accompanies the product and is complied with in its entirety. Failure to do so will invalidate this approval and may jeopardise the fire performance of the door.
5. This approval is applicable to latched and unlatched, single-acting, single and double-leaf, assemblies, at leaf dimensions up to those given in Tables 1, 2, 3 and 4.
6. Glazing shall only be undertaken by the door manufacturer, or a CERTIFIRE approved Licensed Door Processor, and shall be in accordance with the Data information Sheet and Construction Specification. No site cutting or glazing of apertures is permitted.
7. Hardware items, including closing devices and intumescent fire seals, shall be as specified in the data sheet.
8. The door assembly shall be mechanically fixed to wall constructions having a fire resistance of at least 30 minutes.
9. Labels to the CERTIFIRE design, or approved by CERTIFIRE, referencing CERTIFIRE and CERTIFIRE Ref. No. CF807 and FD30 classifications resistance shall be affixed to each door in the prescribed position.

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10. The approval relates to on-going production. The product and/or its immediate packaging is identified with the manufacturer's name, the product name or number, the CERTIFIRE name or name and mark, together with the CERTIFIRE certificate number and application where appropriate.

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Single-Acting, Single-Leaf Latched / Unlatched	2187 (at 902 wide)	938 (at 2102 high)	1.97
Single-Acting, Double-Leaf Latched / Unlatched	2463 (at 902 wide)	1057 (at 2102 high)	2.22

Table 1. Maximum Permitted Door Leaf Dimensions for Fire Performance
Single-Acting, Single and Double-Leaf, Latched and Unlatched
with Mann McGowan Pyrostrip 100P Intumescents

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Single-Acting, Single-Leaf Latched / Unlatched 10 x 4 mm intumescent	2540 (at 1165 wide)	1165 (at 2540 high)	2.96
Single-Acting, Single-Leaf Latched / Unlatched 15 x 4 mm intumescent	3111 (at 915 wide)	1016 (at 2800 high)	2.85
Single-Acting, Single-Leaf Latched 15 x 4 mm intumescent	2803 (at 1072 wide)	1113 (at 2700 high)	3.00
Single-Acting, Double-Leaf Latched / Unlatched 10 x 4 mm intumescent (2No. 10 x 4 mm to meeting edge)	2600 (at 1152 wide)	1152 (at 2600 high)	3.00
Single-Acting, Double-Leaf Latched / Unlatched 15 x 4 mm intumescent (Single 15 x 4 mm to meeting edge)	2635 (at 999 wide)	1165 (at 2259 high)	2.63

Table 2. Maximum Permitted Door Leaf Dimensions for Fire Performance
Single-Acting, Single and Double-Leaf, Latched and Unlatched
with Lorient Type 617 or 100P Intumescents

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Falcon Panel Products Ltd. FD30 STREbord 44 Timber Door Blanks

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Single-Acting, Double-Leaf Unlatched only Rebated meeting stiles 20 x 4 mm intumescent to head, 10 x 4 mm intumescent to jambs, (Single 15 x 4 mm to each meeting edge)	2600 (at 1081 wide)	1150 (at 2440 high)	2.81

Table 3. Maximum Permitted Door Leaf Dimensions for Fire Performance
Single-Acting, Double-Leaf, Unlatched with **12 mm rebated meeting stiles**
with Lorient Type 617 or 100P Intumescents

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Single-Acting, Single-Leaf Latched / Unlatched 15 x 4 mm intumescent	2195 (at 928 wide)	956 (at 2131 high)	2.04
Single-Acting, Double-Leaf Latched / Unlatched 15 x 4 mm intumescent (Single 15 x 4 mm to meeting edge)	2555 (at 1177 wide)	1177 (at 2555 high)	3.01
Single-Acting, Double-Leaf Latched / Unlatched 15 x 4 mm intumescent (2No. 10 x 4 mm to meeting edge)	2811 (at 915 wide)	1054 (at 2440 high)	2.57
Single-Acting, Double-Leaf Latched / Unlatched 15 x 4 mm intumescent (2No. 15 x 4 mm to meeting edge)	2942 (at 1165 wide)	1165 (at 2942 high)	3.43

Table 4. Maximum Permitted Door Leaf Dimensions for Fire Performance
Single-Acting, Single and Double-Leaf, Latched and Unlatched
with Pyroplex FO8700 Graphite Rigid box seal Intumescents

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Falcon Panel Products Ltd. FD30 STREbord 44 Timber Door Blanks

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Softwood Frame Single-Acting, Single-Leaf Latched / Unlatched	2655 (at 1205 wide)	1205 (at 2655 high)	3.20
MDF Frame Single-Acting, Single-Leaf Latched / Unlatched	2545 (at 955 wide)	1128 (at 2155 high)	2.43
Table 5. Maximum Permitted Door Leaf Dimensions for Fire Performance Single-Acting, single-Leaf, Latched and Unlatched with 34 mm wide by 13 mm deep <u>over rebated detail</u> to the top and vertical edges with Pyroplex FO8500 rigid box intumescents			

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Single-Acting, Single-Leaf Latched / Unlatched	2519 (at 1050 wide)	1085 (at 2438 high)	2.65
Single-Acting, Double-Leaf Latched / Unlatched	2654 (at 1005 wide)	1210 (at 2205 high)	2.67
Table 6. Maximum Permitted Door Leaf Dimensions for Fire Performance Single-Acting, single and Double-Leaf, Latched and Unlatched with Sealed Tight Solutions 154 intumescents			

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Single-Acting, Single-Leaf Latched (centre case) & Unbolted (top / centre / bottom case)	2700 (at 1199 wide)	1199 (at 2700 high)	3.24
Table 7. Maximum Permitted Door Leaf Dimensions for Fire Performance Single-Acting, single-Leaf, Latched & Unbolted with a <u>Winkhaus AV2 Multipoint lock</u> with Pyroplex FO8500 rigid box intumescents			

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Single-Acting, Single-Leaf Latched / Unlatched	2491 (at 926 wide)	1073 (at 2150 high)	2.31
Single-Acting, Double-Leaf Latched / Unlatched	2491 (at 926 wide)	1073 (at 2150 high)	2.31
Table 8. Maximum Permitted Door Leaf Dimensions for Fire Performance Single-Acting, single & Double-Leaf, doors in <u>Access Panel Ltd Zintec Steel frames</u>			

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CERTIFICATE No CF 807 FALCON PANEL PRODUCTS LTD

with Lorient Type 617 & MAP Intumescents

Falcon Panel Products Ltd. FD30 STREbord 44 Timber Door Blanks

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Single-Acting, Single-Leaf Latched / Unlatched	2903 (at 1175 wide)	1175 (at 2903 high)	3.41
Single-Acting, Double-Leaf Latched / Unlatched	2903 (at 1175 wide)	1175 (at 2903 high)	3.41

Table 9. Maximum Permitted Door Leaf Dimensions for Fire Performance
Single-Acting, single & Double-Leaf, Latched / Unlatched
with Mann McGowan Pyrostrip 500P intumescents

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Double-Acting, Double-Leaf Latched / Unlatched	2816 (at 1116 wide)	1147 (at 2741 high)	3.14

Table 10. Maximum Permitted Door Leaf Dimensions for Fire Performance
Double-Acting, Double-Leaf, Latched / Unlatched
with Intumescent Seals Ltd Therm-A-Seal intumescents

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Single-Acting, Double-Leaf Latched / Unlatched	2654 (at 1005 wide)	1210 (at 2205 high)	2.67

Table 11. Maximum Permitted Door Leaf Dimensions for Fire Performance
Single-Acting, Double-Leaf, uPVC Wrapped Doorsets – Latched / Unlatched
with Sealed Tight Solutions 154 intumescents

Note: Under no circumstances must the maximum height, maximum width or maximum area be exceeded without separate CERTIFIRE approval

All timber framed door assembly configurations may incorporate overpanels which include a transom rail as detailed within data sheet

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CF 807 DATA SHEET

1. General

This door leaf has been fire tested and is certified by CERTIFIRE as being capable of providing fire resistance of 30 minutes integrity and 30 minutes insulation (if incorporating not more than 20% of uninsulated glass) as defined in BS 476: Part 22: 1987, when installed in accordance with the following conditions. Subject to these, the door will meet the relevant requirements of BS 9999 for FD30 doorsets when used in accordance with the provisions therein.

In recognition of this the leaf carries a prefixed label on the top edge or hanging edge of the door, issued under the terms of the CERTIFIRE scheme. This label uniquely identifies the door leaf, the manufacture of which complies with a CERTIFIRE approved Quality management System and is subject to on-going surveillance. This label must not be removed.

It is emphasised that the certification is conditional upon the following instructions being complied with in their entirety. Failure to do so will invalidate this approval and may jeopardise the fire performance of the door. Door assemblies supplied pre-fitted with components by the Prime Door Manufacturer / Licensed Door Processor may be considered to meet the requirements in respect of those items.

2. Door Leaf

This approval is applicable to single-action, single and double-leaf, latched and unlatched, assemblies at leaf dimensions up to those detailed within tables 1, 2, 3 and 4 below.

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Single-Acting, Single-Leaf Latched / Unlatched	2187 (at 902 wide)	938 (at 2102 high)	1.97
Single-Acting, Double-Leaf Latched / Unlatched	2463 (at 902 wide)	1057 (at 2102 high)	2.22
Table 1. Maximum Permitted Door Leaf Dimensions for Fire Performance Single-Acting, Single and Double-Leaf, Latched and Unlatched with Mann McGowan Pyrostrip 100P Intumescents			

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Single-Acting, Single-Leaf Latched / Unlatched 10 x 4 mm intumescent	2540 (at 1165 wide)	1165 (at 2540 high)	2.96
Single-Acting, Single-Leaf Latched / Unlatched 15 x 4 mm intumescent	3111 (at 915 wide)	1016 (at 2800 high)	2.85
Single-Acting, Single-Leaf Latched Only 15 x 4 mm intumescent	2803 (at 1072 wide)	1113 (at 2700 high)	3.00
Single-Acting, Double-Leaf Latched / Unlatched 10 x 4 mm intumescent (2No. 10 x 4 mm to meeting edge)	2600 (at 1152 wide)	1152 (at 2600 high)	3.00
Single-Acting, Double-Leaf Latched / Unlatched 15 x 4 mm intumescent (Single 15 x 4 mm to meeting edge)	2635 (at 999 wide)	1165 (at 2259 high)	2.63
Table 2. Maximum Permitted Door Leaf Dimensions for Fire Performance Single-Acting, Single and Double-Leaf, Latched and Unlatched with Lorient Type 617 or 100P Intumescents			

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Single-Acting, Double-Leaf Unlatched only 20 x 4 mm intumescent to head, 10 x 4 mm intumescent to jambs, (Single 15 x 4 mm to each meeting edge)	2600 (at 1081 wide)	1150 (at 2440 high)	2.81
Table 3. Maximum Permitted Door Leaf Dimensions for Fire Performance Single-Acting, Double-Leaf, Unlatched with 12 mm rebated meeting stiles with Lorient Type 617 or 100P Intumescents			

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Single-Acting, Single-Leaf - Latched / Unlatched 15 x 4 mm intumescent	2195 (at 928 wide)	956 (at 2131 high)	2.04
Single-Acting, Double-Leaf - Latched / Unlatched 15 x 4 mm intumescent (Single 15 x 4 mm to meeting edge)	2555 (at 1177 wide)	1177 (at 2555 high)	3.01
Single-Acting, Double-Leaf - Latched / Unlatched 15 x 4 mm intumescent (2No. 10 x 4 mm to meeting edge)	2811 (at 915 wide)	1054 (at 2440 high)	2.57
Single-Acting, Double-Leaf - Latched / Unlatched 15 x 4 mm intumescent (2No. 15 x 4 mm to meeting edge)	2942 (at 1165 wide)	1165 (at 2942 high)	3.43
Table 4. Maximum Permitted Door Leaf Dimensions for Fire Performance Single-Acting, Single and Double-Leaf, Latched / Unlatched with Pyroplex FO8700 Graphite Rigid box seal Intumescents			

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Softwood Frame Single-Acting, Single-Leaf Latched / Unlatched	2655 (at 1205 wide)	1205 (at 2655 high)	3.20
MDF Frame Single-Acting, Single-Leaf Latched / Unlatched	2416 (at 955 wide)	1071 (at 2155 high)	2.31
Table 5. Maximum Permitted Door Leaf Dimensions for Fire Performance Single-Acting, Single-Leaf, Unlatched with 34 mm wide by 13 mm deep <u>over rebated detail</u> to the top and vertical edges with Pyroplex FO8500 rigid box intumescents			

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Single-Acting, Single-Leaf Latched / Unlatched	2519 (at 1050 wide)	1085 (at 2438 high)	2.65
Single-Acting, Double-Leaf Latched / Unlatched	2654 (at 1005 wide)	1210 (at 2205 high)	2.67
Table 6. Maximum Permitted Door Leaf Dimensions for Fire Performance Single-Acting, Single and Double-Leaf, Latched and Unlatched with Sealed Tight Solutions 154 intumescents			

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Single-Acting, Single-Leaf Latched (centre case) & Unbolted (top / centre / bottom case)	2700 (at 1199 wide)	1199 (at 2700 high)	3.24
Table 7. Maximum Permitted Door Leaf Dimensions for Fire Performance Single-Acting, Single-Leaf, Latched & Unbolted with a <u>Winkhaus AV2 Multipoint lock</u> with Pyroplex FO8500 rigid box intumescents			

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Single-Acting, Single-Leaf Latched / Unlatched	2491 (at 926 wide)	1073 (at 2150 high)	2.31
Single-Acting, Double-Leaf Latched / Unlatched	2491 (at 926 wide)	1073 (at 2150 high)	2.31
Table 8. Maximum Permitted Door Leaf Dimensions for Fire Performance Single-Acting, Single & Double-Leaf, doors in <u>Access Panel Ltd Zintec Steel frames</u> with Lorient Type 617 & MAP Intumescents			

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Single-Acting, Single-Leaf Latched / Unlatched	2903 (at 1175 wide)	1175 (at 2903 high)	3.41
Single-Acting, Double-Leaf Latched / Unlatched	2903 (at 1175 wide)	1175 (at 2903 high)	3.41
Table 9. Maximum Permitted Door Leaf Dimensions for Fire Performance Single-Acting, Single & Double-Leaf, Latched / Unlatched with Mann McGowan Pyrostrip 500P intumescent			

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Double-Acting, Double-Leaf Latched / Unlatched	2816 (at 1116 wide)	1147 (at 2741 high)	3.14
Table 10. Maximum Permitted Door Leaf Dimensions for Fire Performance Double-Acting, Double-Leaf, Latched / Unlatched with Intumescent Seals Ltd. Therm-A-Seal intumescents			

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Area (m ²)
Single-Acting, Double-Leaf Latched / Unlatched	2654 (at 1005 wide)	1210 (at 2205 high)	2.67
Table 11. Maximum Permitted Door Leaf Dimensions for Fire Performance Single-Acting, Double-Leaf, <u>uPVC Wrapped Doorsets</u> – Latched / Unlatched with Sealed Tight Solutions 154 intumescents			

Note: Under no circumstances must the maximum height, maximum width or maximum area be exceeded without separate CERTIFIRE approval

All timber framed door assembly configurations may incorporate overpanels which include a transom rail as detailed within data sheet

Decorative Finishes

- Any additional timber veneer up to 2 mm thick may be applied to the face only. (application to the door edge is not permitted)
- Any additional non-metallic facing material, e.g., plastic laminate up to 2mm thick applied to the face only (application to the door edge is not permitted)
- Paint finishes may be applied to the leaf faces and edges.

uPVC Wrapped Door Assemblies

Door leaves / frames may incorporate a uPVC wrapped finish in accordance with the following:

- A 2 mm thick uPVC wrapped finish may be applied to single-action, double-leaf assemblies only
- Please refer to Table 11 for maximum leaf sizes permitted/
- The 2 mm thick uPVC shall wrap around a 6 mm radius arris to the vertical leaf edges only.
- The door leaf shall be lipped to all door leaf edges using 8 mm thick Sapele, complete with max 6 mm radius profile to the vertical lippings only (opening and closing face).
- The frame shall be softwood or hardwood with a minimum lining section of 85 mm wide by 32 mm thick, complete with 6 mm radius arris details. 2 mm thick uPVC shall be applied to 3No. faces of the lining (the rear of the frame lining shall remain unclad).
- The planted stop shall be softwood or hardwood minimum 28 mm wide by 18 mm thick, complete with 6 mm radius arris details. 2 mm thick uPVC shall be applied to 3No. faces of the planted stop (the rear of the stop shall remain unclad).
- The softwood / hardwood frame lining and planted stop shall have a minimum density of 510kg/m³.
- The frame jambs and head shall be mitred, screwed and biscuit jointed.
- The top and vertical door leaf edges shall include 1No Sealed Tight Solutions, STS 154 intumescent with overall dimensions 15 mm wide by 4 mm thick, positioned centrally within the leaf thickness.
- Please refer to Section 13, Locks & Latches for specific specification requirements in conjunction with uPVC wrapped door assemblies.

Raked Head Door Assemblies

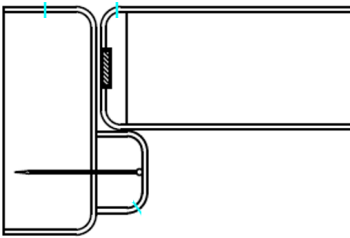
Door leaves / frames may incorporate a raked head in accordance with the following specifications.

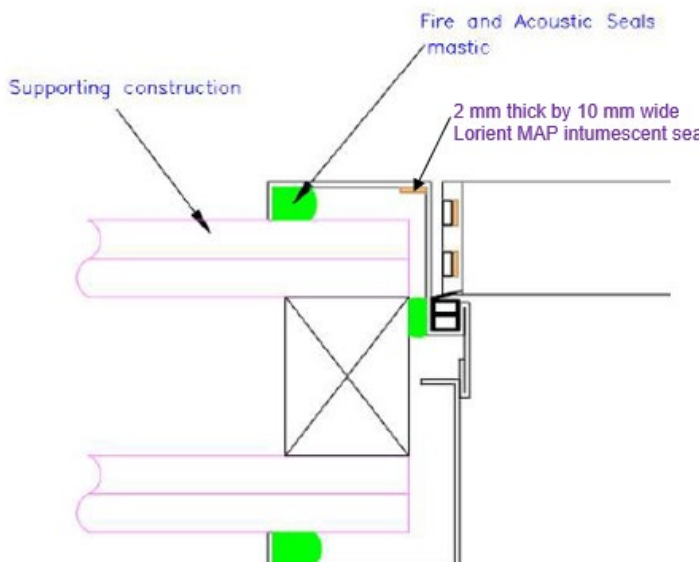
- A raked head detail may be applied to latched single-action, single-leaf assemblies only.
- The raked head detail shall be applied to the top lock edge corner of the door leaf only.
- A minimum 500 mm flat shall be maintained to the top edge of the door leaf, adjacent to the hang edge.
- A maximum 45 degree raked head detail is permitted.
- The door leaf shall be lipped to all door leaf edges using 8 mm thick Sapele
- The top hinge shall be positioned at a maximum of 200 mm from the top of the door to the centreline of the hinge.
- The frame shall be softwood or hardwood with a minimum lining section of 70 mm wide by 32 mm thick, complete with a planted stop minimum 12 mm thick, of minimum density 440kg/m³. Where the stop is rebated from solid the overall frame thickness must be increased by 12 mm to accommodate the 12 mm rebate depth.
- The frame shall include 1No Sealed Tight Solutions, STS 154 intumescent with overall dimensions 15 mm wide by 4 mm thick, positioned 14.5 mm from the opening face of the frame, within the frame reveal.

3. Door Frames

To be any of the following: -

Softwood or Hardwood <u>Single-Action</u>	Density:	440 kg/m ³ min.
	Dimensions:	70 mm by 32 mm min.
	Door Stop:	12 mm deep pinned, screwed, or rebated from solid (440 kg/m ³ min). Where the stop is rebated from solid the overall frame thickness must be increased by 12 mm to accommodate the 12 mm rebate depth.
STREframe E (finger jointed softwood) <u>Single-Action</u>	Density:	510 kg/m ³ min.
	Dimensions:	70 mm by 32 mm min.
	Door Stop:	12 mm deep pinned, screwed, or rebated from solid (510 kg/m ³ min). Where the stop is rebated from solid the overall frame thickness must be increased by 12 mm to accommodate the 12 mm rebate depth.
STREframe (hardwood) <u>Single-Action</u>	Density:	510 kg/m ³ min.
	Dimensions:	70 mm by 32 mm min.
	Door Stop:	12 mm deep pinned, screwed, or rebated from solid (510 kg/m ³ min). Where the stop is rebated from solid the overall frame thickness must be increased by 12 mm to accommodate the 12 mm rebate depth.
Hardwood <u>Double-Action</u>	Density:	633 kg/m ³ min.
	Dimensions:	100 mm by 44 mm min, complete with a 4 mm deep by 50 mm wide scallop to the frame jambs.
Hardwood <u>Winkhaus AV2 locks</u>	Density:	697 kg/m ³ min.
	Dimensions:	95 mm by 44 mm min., with a 47 mm wide by 18 mm deep integral rebate.
MDF <u>Single-Action</u>	Density:	750 kg/m ³ min.
	Dimensions:	70 mm by 30 mm min.
	Door Stop:	12 mm deep pinned, screwed, or rebated from solid (440 kg/m ³ min). Where the stop is rebated from solid the overall frame thickness must be increased by 12 mm to accommodate the 12 mm rebate depth.
Jointing:	Butt joints, mortice and tenon, mitred or half lapped joints with the head screw fixed to the jambs using two steel screws	

uPVC Wrapped Frames <u>Single-Action</u>	Material:	Softwood		
	Density:	510 kg/m ³ min.		
	Dimensions:	Lining:	85 mm by 32 mm min. with 6 mm radius arris.	
		Stop:	18 mm by 28 mm min. with 6 mm radius arris. Stops are pinned or screwed to lining.	
	Cladding:	Lining:	2 mm thick uPVC to 3 sides only (the rear of the frame is to remain unclad.	
Stop:		2 mm thick uPVC to 3 sides only (the rear of the stop is to remain unclad.		
Jointing:	Steel:	Mitred, screwed, and biscuit jointed.		
				

Steel Frames	Supplier / Ref:	Access Panels Simplis Soleco Visible 2-part frame
Single-Action	Material:	Upton Steel – Zintec EZ Steel
	Dimensions:	180 mm by 75 mm complete with a 13 mm deep integral rebate, & additional profile detail to accommodate the System Components 584-2146-092 PVC seal as detailed below:
Jointing:	Mitred and welded	
Note:	<p>A 2 mm thick by 10 mm wide Lorient Mono Ammonium Phosphate intumescent seal shall be fitted within the frame profile on the opening face, along with Fire and Acoustic seals intumescent mastic to areas shaded green – as detailed below:</p> 	

Door to frame gaps:	Not to exceed 4 mm except at threshold where up to 8 mm is permitted and 3.5 mm at the meeting stiles. Please note that a reduced threshold gap may be required to comply with smoke leakage requirements.
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4. Overpanels & Sidepanels

Overpanels / sidepanels to be manufactured as per door leaf specification, including lippings to all four edges and bedded against beads or the stop of the rebate.

Overpanels to be fixed using steel screws at a maximum of 400 mm centres and a maximum 100 mm from each corner, through the centre of the panel to a depth of at least 30mm.

Flush overpanels may be included up to a maximum height of 600 mm and shall include 9 mm thick hardwood lippings (minimum) and opposing lipping to the leaf head or a rebated 20 mm thick hardwood lipping with 22 mm wide by 11 mm deep rebate at the bottom edge, with a corresponding 20 mm thick rebated hardwood lipping in the top edge of the leaf.

Door to flush overpanel meeting edges shall incorporate a 15 mm by 4 mm Lorient intumescent seal in each rebate, or centrally within the leaf / overpanel thickness where a square (non-rebated) door to overpanel meeting edge is adopted.

Where rebated door to flush overpanel meeting edges are not incorporated on double-leaf assemblies, timber astragals (min 640 kg/m³) are required at the junction between the bottom of the overpanel and the top edge of the door.

Transomed overpanels may be included up to 1000 mm high, with a minimum 40 mm wide softwood or hardwood transom rail (see frame specification for minimum density requirements).

Transomed sidepanels may be included up to 1000 mm wide, with a minimum 40 mm wide softwood or hardwood mullion rail (see frame specification for minimum density requirements).

Entire transomed overpanel may be glazed in accordance with point 5 below.

5. Glazed Fanlights

Any CERTIFIRE approved glazing systems may be used providing the specification and installation details given in the appropriate certification documents are adhered to.

6. Supporting Construction

The door assemblies are approved to be installed in brick, block, masonry, timber or steel stud supporting constructions of minimum overall thickness 70mm, providing at least 30 minutes fire resistance and previously proven capable of supporting a fire door assembly for the required integrity performance.

Where stud partitions are used these should be suitably constructed to provide a secure fixing for the door assemblies as recommended by the partition manufacturer

Where brick, block, masonry walls are plasterboard faced, the plasterboard adjacent to the door assembly shall be mechanically fixed to ensure that it remains in-situ for the required integrity period.

7. Installation

The opening may be lined with softwood or hardwood which shall be continuous and of minimum width, 70 mm. Each door frame jamb to be fixed through to the wall at not less than four points with steel or nylon frame fixings screwed and plugged at maximum 600mm centres and penetrating the wall to at least 50 mm. Timber based architraves are optional with no restrictions on material, size or fixing.

Door assemblies shall be installed as stated in BS 8214. Suitable CERTIFIRE approved lineal gap sealing systems may also be utilised to protect the frame / supporting construction gap, subject to the conditions contained within the relevant certificate.

The use of third party accredited installers provides a means of ensuring that installations have been conducted by knowledgeable contractors, to appropriate standards, thereby increasing the reliability of the anticipated performance in fire.

Door leaves may be trimmed to fit the frame by the following maximum amounts:

- Stiles (each) 3 mm
- Top 3 mm
- Bottom No limit providing bottom lippings are not fitted, 3 mm if bottom lipping is fitted.

Note that the maximum door to frame and door to threshold gaps specified shall not be exceeded nor shall the door edge fitted with the CERTIFIRE label be trimmed since removal of the label will invalidate the certification.

The labelled edge may be subjected to minor 'shooting-in', providing the label is not damaged or removed in the process, and the amount of material removed does not exceed that stated previously.

Door assemblies may be installed within the supporting construction, complete with a maximum 200 mm upstand, above floor level.

8. Lippings

General lipping notes:

- All doors, shall be lipped to the vertical edges as a minimum with the option to apply lippings to the top and bottom leaf edges
- Maximum 2 mm thick decorative PVC / laminate edgings may be applied to the vertical door edges in addition to 5 mm standard hardwood lippings – single-action assemblies only.
- Door assemblies incorporating a Winkhaus AV2 lock shall include minimum 8 mm thick standard hardwood lippings to all four door leaf edges.
- Double-action double-leaf assemblies shall include minimum 8 mm thick standard hardwood lippings to the meeting edges and 18 mm thick standard hardwood lippings to the top, bottom and hang edges of both door leaves. Lippings to the hang edges of double-action, double-leaf doorsets shall incorporate a rounded profile.
- uPVC wrapped doors shall include minimum 8 mm thick standard hardwood lippings to all four door leaf edges, complete with max 6 mm radius profile to the vertical lippings only (opening and closing face).

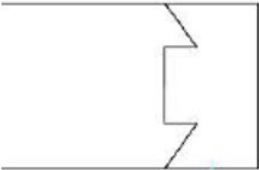
Hardwood Lippings

Door leaves may incorporate Standard lippings in accordance with the following specification.

Hardwood	Material:	Solid hardwood (excluding Ash, Beech & Iroko)
	Density:	640 kg/m ³ minimum
	Thickness:	Minimum 5 mm / Maximum 25 mm
	Adhesive:	Urea Formaldehyde, Cascamite, PVA or PU

T-Shaped Lippings

Door leaves may incorporate T-Shaped lippings in accordance with the following specification.

Hardwood	Material:	Solid hardwood (excluding Ash, Beech & Iroko)
	Density:	640 kg/m ³ minimum
	Thickness:	25 mm thick
	Adhesive:	Urea Formaldehyde, Cascamite, PVA or PU
Notes:	<p>Where T-Shaped lippings are utilised the door leaf shall be lipped to all four door leaf edges.</p> <p>T-Shaped lippings incorporate 10 mm deep by 21 mm wide tongue, which is inserted into a corresponding groove within the core perimeter, to create a tightly fitting joint as depicted in the detail below:</p> 	

STRElip Lippings

Door leaves may incorporate STRElip lippings in accordance with the following specifications.

Hardwood	Material:	Engineered hardwood
	Density:	720 kg/m ³ minimum
	Thickness:	8 mm thick
	Adhesive:	Urea Formaldehyde, Cascamite, PVA or PU
Notes:	<p>2No 8 mm thick STRElip lippings may be applied to the bottom leaf edge only, where the additional lipping shall be bonded and screwed with 30 mm long by 5 mm Ø steel wood screws, 50 mm in from each end and max 150 mm centres between.</p>	

9. Glazed Apertures

All apertures to be factory prepared by a CERTIFIRE approved Licensed Door Processor. No site cutting of apertures permitted as this will invalidate the certification.

Aperture dimensions: Doors may incorporate one or more vision panels to the maximum sizes identified in the table below:

Margins: 100 mm from the perimeter edge, 100 mm between apertures

Maximum Permitted Aperture Dimension				
Latching Condition	Max. Height (mm)	Max. Width (mm)	Max. Area per Vision panel (m²)	Max. Area per Door Leaf (m²)
Latched or Unlatched Door Assemblies	2085 (at 725 wide)	822 (at 1840 high)	1.51	1.51
Latched Only Door Assemblies	2412 (at 1220 wide)	1220 (at 2412 high)	2.94	2.94

Hardwood or non-combustible setting blocks will be used to establish the correct edge cover. The leaf / leaves may incorporate any CERTIFIRE approved glazing system subject to the conditions contained within the relevant certificate (e.g., maximum size associated with glass or system, edge cover, aperture lining requirements etc.), and the maximum pane dimensions given above (whichever is the smaller):

Alternatively, doors may be glazed in accordance with the following specifications

Pyrobelite 7:	
Glass Thickness	7 mm thick
Max. Height	1233 mm (at max 625 mm wide)
Max. Width	771 mm (at max 1000 mm high)
Max. Diameter	Not Permitted
Max. Area	0.77m ²
Glazing system:	Lorient Polyproducts Ltd. Flexible Figure 1 (FF1) 13.5 mm by 3.5 mm
Setting Blocks:	3 mm thick hardwood / non-combustible board
Glazing Bead:	Material: Hardwood
	Density: Min. 640kg/m ³
	Profile: Splayed Bolection bead
	Splay: 15 degrees
	Dimensions: 20 mm high by 21 mm wide with a 5 mm by 5 mm bolection
	Edge Cover: 12 mm (+2 mm / - 1 mm)
Bead Fixings:	Type: Steel Pins (or screws)
	Size: 16swg by 63 mm long
	Centres: Max 100 mm centres, at max 50 mm in from the corners, at max 25 degrees to the face of the glass.

Pyroguard EI30 INT:		
Glass Thickness	15 mm thick	
Max. Height	1859 mm (at max 308 mm wide)	
Max. Width	380 mm (at max 1507 mm high)	
Max. Diameter	Not Permitted	
Max. Area	0.57m ²	
Glazing system:	Sealmaster Intumescent foam glazing tape 20 mm by 5 mm (compressed to 3 mm thick), complete with Sealmaster Intumescent compound	
Setting Blocks:	3 mm thick hardwood / non-combustible board	
Glazing Bead:	Material	Hardwood
	Density:	Min. 640kg/m ³
	Profile:	Splayed Bolection bead
	Splay:	17 degrees
	Dimensions:	20 mm high by 23 mm wide with a 6 mm high bolection
	Edge Cover:	11 mm (+2 mm / - 1 mm)
Bead Fixings:	Type:	Steel Pins (or screws)
	Size:	18swg by 50 mm long
	Centres:	Max 80 mm centres on the horizontal beads and max 110 mm centres on the vertical beads, at max 30 mm in from the corners.

Pyroguard EI30 INT:		
Glass Thickness	15 mm thick	
Max. Height	1762 mm (at max 307 mm wide)	
Max. Width	358 mm (at max 1510 mm high)	
Max. Diameter	Not Permitted	
Max. Area	0.54m ²	
Glazing system:	Sealmaster Intumescent foam glazing tape 20 mm by 5 mm (compressed to 3 mm thick and reduced to 18 mm high).	
Setting Blocks:	3 mm thick hardwood / non-combustible board	
Glazing Bead:	Material	Hardwood
	Density:	Min. 640kg/m ³
	Profile:	Splayed Bolection bead
	Splay:	17 degrees
	Dimensions:	24 mm high by 18 mm wide with a 6 mm high bolection
	Edge Cover:	15 mm (+2 mm / - 1 mm)
Bead Fixings:	Type:	Steel Pins (or screws)
	Size:	18swg by 50 mm long
	Centres:	Max 150 mm centres, at max 50 mm in from the corners.

Fully Glazed Doors

Door leaves may be fully glazed in accordance with the following specification requirements:

Pyroguard Advance 2-EW30/7-1:		
Glass Thickness	7 mm thick	
Max. Height	2412 mm (at max 1220 mm wide)	
Max. Width	1220 mm (at max 2412 mm high)	
Max. Diameter	Not Permitted	
Max. Area	2.94m ²	
Glazing system:	Fire & Acoustic Seals Closed Cell Foam Tape 10 mm by 2 mm	
Setting Blocks:	3 mm thick hardwood / non-combustible board	
Glazing Bead:	Material	Hardwood
	Density:	Min. 640kg/m ³
	Profile:	Flush Square bead
	Splay:	Not Applicable
	Dimensions:	15 mm high by 17 mm wide with a 2 mm by 2 mm quirk
	Edge Cover:	12 mm (+2 mm / - 1 mm)
Bead Fixings:	Type:	Steel Pins (or screws)
	Size:	18swg by 40 mm long
	Centres:	Max 150 mm centres, at max 50 mm in from the corners.
Notes:	100 mm minimum margins shall be maintained between the door leaf perimeter and the aperture cut out. Fully glazed doors in accordance with the above specification, shall be latched. A minimum of 11 mm core / blank material shall be maintained between the lock recess and the aperture cut out.	

10. Recessed solid panels

All apertures to be factory prepared by a CERTIFIRE approved Licensed Door Processor No site cutting of apertures permitted as this will invalidate the certification.

Aperture dimensions: Doors may incorporate one of more recessed solid panels to the maximum sizes identified in the table below:

Area: Maximum total recessed solid panel area of 1.33 m² per leaf

Margins: 100 mm from the top and vertical edges, 200 mm to the bottom edge of the door leaf, 180 mm between solid recessed panel apertures.

Panel Specification: 44 mm thick STREbord blank recessed to a maximum depth of 10 mm both faces*, leaving a minimum thickness of 23 mm.

Recess faced with 3 mm MDF to both sides bonded with PVA adhesive.

Decorative timber beads are optional.

* Both faces must be recessed equally.

Maximum Permitted recessed solid panel Dimensions		
Max. Height (mm)	Max. Width (mm)	Max. Area (m²)
1831 (at 728 wide)	728 (at 1831 high)	1.33

11. Intumescent Seals

CERTIFIRE certificated intumescent seals are required to be fitted to these doors as below.

For door assemblies to BS 476: Part 22 – classified as FD30

Mann McGowan Pyrostrip 100P intumescent Seals – See Table 1 for size restrictions

Doorset Configuration	Position	Intumescent Specification
Single-Acting, Single-Leaf Latched / Unlatched	Head	Single 10 mm wide by 4 mm thick – centrally positioned
	Vertical Edges	Single 10 mm wide by 4 mm thick – centrally positioned
Single-Acting, Double-Leaf Latched / Unlatched	Head	Single 10 mm wide by 4 mm thick – centrally positioned
	Hanging Edges	Single 10 mm wide by 4 mm thick – centrally positioned
	Meeting Edges	Single 10 mm wide by 4 mm thick fitted centrally in the meeting edge of both leaves.

Lorient Type 617 or 100P intumescent Seals – See Tables 2 & 3 for size restrictions

Doorset Configuration	Position	Intumescent Specification
Single-Acting, Single-Leaf Latched / Unlatched	Head	Single 10 mm wide by 4 mm thick – centrally positioned
	Vertical Edges	Single 10 mm wide by 4 mm thick – centrally positioned
Single-Acting, Single-Leaf Latched / Unlatched	Head	Single 15 mm wide by 4 mm thick – centrally positioned
	Vertical Edges	Single 15 mm wide by 4 mm thick – centrally positioned
Single-Acting, Single-Leaf Latched Only	Head	Single 15 mm wide by 4 mm thick – centrally positioned
	Vertical Edges	Single 15 mm wide by 4 mm thick – centrally positioned
Single-Acting, Double-Leaf Latched / Unlatched	Head	Single 10 mm wide by 4 mm thick – centrally positioned
	Hanging Edges	Single 10 mm wide by 4 mm thick – centrally positioned
	Meeting Edges	2No. 10 mm wide by 4 mm thick, positioned centrally, 12 mm apart, to primary leaf only
Single-Acting, Double-Leaf Unlatched Only. 12 mm equal rebated meeting stiles.	Head	Single 20 mm wide by 4 mm thick – centrally positioned
	Hanging Edges	Single 10 mm wide by 4 mm thick – centrally positioned
	Meeting Edges	Single 15 mm wide by 4 mm thick fitted centrally in the meeting edge of both leaves.

Pyroplex FO8700 Graphite Rigid box intumescent Seals – See Table 4 for size restrictions

Doorset Configuration	Position	Intumescent Specification
Single-Acting, Single-Leaf Latched / Unlatched	Head	Single 15 mm wide by 4 mm thick – centrally positioned
	Vertical Edges	Single 15 mm wide by 4 mm thick – centrally positioned
Single-Acting, Double-Leaf Latched / Unlatched	Head	Single 15 mm wide by 4 mm thick – centrally positioned
	Hanging Edges	Single 15 mm wide by 4 mm thick – centrally positioned
	Meeting Edges	Single 15 mm wide by 4 mm thick, positioned centrally, to the primary leaf only
Single-Acting, Double-Leaf Latched / Unlatched	Head	Single 15 mm wide by 4 mm thick – centrally positioned
	Hanging Edges	Single 15 mm wide by 4 mm thick – centrally positioned
	Meeting Edges	2No. 10 mm wide by 4 mm thick, positioned centrally, 10 mm apart, to primary leaf only
Single-Acting, Double-Leaf Latched / Unlatched	Head	Single 15 mm wide by 4 mm thick – centrally positioned
	Hanging Edges	Single 15 mm wide by 4 mm thick – centrally positioned
	Meeting Edges	2No. 15 mm wide by 4 mm thick, positioned centrally, 10 mm apart, to primary leaf only

Pyroplex FO8500 Graphite Rigid box intumescent Seals – See Table 5 for size restrictions

Doorset Configuration	Position	Intumescent Specification
Single-Acting, Single-Leaf Latched / Unlatched <u>Over rebated detail</u>	Top of Door Leaf	2No 10 mm wide by 4 mm thick – positioned 5.5 mm apart, 4.5 mm from the closing face.
	Vertical Door Leaf Edges	2No 10 mm wide by 4 mm thick – positioned 5.5 mm apart, 4.5 mm from the closing face.

Sealed Tight Solutions STS 154 intumescent Seals – See Table 6 for size restrictions

Doorset Configuration	Position	Intumescent Specification
Single-Acting, Single-Leaf Latched / Unlatched	Head	Single 15 mm wide by 4 mm thick – centrally positioned in the door leaf or 14 mm from the opening face of the frame, within the frame reveal.
	Vertical edges	Single 15 mm wide by 4 mm thick – centrally positioned in the door leaf or 14 mm from the opening face of the frame, within the frame reveal.
Single-Acting, Double-Leaf Latched / Unlatched	Head	Single 15 mm wide by 4 mm thick – centrally positioned in the door leaf or 14 mm from the opening face of the frame, within the frame reveal.
	Vertical edges	Single 15 mm wide by 4 mm thick – centrally positioned in the door leaf or 14 mm from the opening face of the frame, within the frame reveal.
	Meeting Edges	Single 15 mm wide by 4 mm thick – centrally positioned in the meeting edge of both the primary & secondary leaf.

Pyroplex FO8500 Graphite Rigid box intumescent Seals – See Table 7 for size restrictions

Doorset Configuration	Position	Intumescent Specification
Single-Acting, Single-Leaf Latched & Unbolted <u>Winkhaus AV2 Multipoint lock</u>	Top of Door Leaf	2No 10 mm wide by 4 mm thick – positioned 10 mm apart, 8.5 mm from the opening face of the frame, within the frame reveal.
	Vertical Door Leaf Edges	2No 10 mm wide by 4 mm thick – positioned 10 mm apart, 8.5 mm from the opening face of the frame, within the frame reveal.

Lorient Type 617 & MAP Intumescent Seals – See Table 8 for size restrictions

Doorset Configuration	Position	Intumescent Specification
Single-Acting, Single-Leaf Latched / Unlatched <u>Access Panel Ltd</u> <u>Zintec Steel frames</u>	Top of Door Leaf & Vertical Door Leaf Edges	2No 10 mm wide by 2 mm thick MAP intumescents – positioned 10 mm apart, 7 mm from the opening face of the door leaf at the base of 2No. 10 mm wide by 6 mm deep grooves and 2No 10 mm wide by 4 mm thick Type 617 intumescents – positioned 10 mm apart, 7 mm from the opening face of the door leaf within 2No 10 mm wide by 6 mm deep grooves (on top of the MAP seals)
Single-Acting, Double-Leaf Latched / Unlatched <u>Access Panel Ltd</u> <u>Zintec Steel frames</u>	Head & Hanging Edges	2No 10 mm wide by 2 mm thick MAP intumescents – positioned 10 mm apart, 7 mm from the opening face of the door leaf at the base of 2No. 10 mm wide by 6 mm deep grooves and 2No 10 mm wide by 4 mm thick Type 617 intumescents – positioned 10 mm apart, 7 mm from the opening face of the door leaf within 2No 10 mm wide by 6 mm deep grooves (on top of the MAP seals)
	Meeting Edges (Primary leaf)	2No 10 mm wide by 2 mm thick MAP intumescents – positioned 10 mm apart, 7 mm from the opening face of the door leaf at the base of 2No. 10 mm wide by 6 mm deep grooves and 2No 10 mm wide by 4 mm thick Type 617 intumescents – positioned 10 mm apart, 7 mm from the opening face of the door leaf within 2No 10 mm wide by 6 mm deep grooves (on top of the MAP seals)

Mann McGowan Pyrostrip 500P Intumescent Seals – See Table 9 for size restrictions

Doorset Configuration	Position	Intumescent Specification
Single-Acting, Single-Leaf Latched / Unlatched	Head	1No 15 mm wide by 4 mm thick Intumescent – positioned 14.5 mm from the opening face of the frame, within the frame reveal, or centrally within the door leaf.
	Hang Edge	1No 15 mm wide by 4 mm thick Intumescent – positioned 14.5 mm from the opening face of the frame, within the frame reveal, or centrally within the door leaf.
	Lock edge	2No. 10 mm wide by 4 mm thick intumescents – positioned 7 mm and 27 mm from the opening face of the door leaf (10 mm apart)
Single-Acting, Double-Leaf Latched / Unlatched	Head	1No 15 mm wide by 4 mm thick Intumescent – positioned 14.5 mm from the opening face of the frame, within the frame reveal, or centrally within the door leaf.
	Hang Edges	1No 15 mm wide by 4 mm thick Intumescent – positioned 14.5 mm from the opening face of the frame, within the frame reveal, or centrally within the door leaf.
	Meeting Edges (Primary leaf)	2No 10 mm wide by 4 mm thick intumescents – positioned 7 mm and 27 mm from the opening face of the door leaf (10 mm apart)

Intumescent Seals Ltd Therm-A-Seal intumescent Seals –See Table 10 for size restrictions

Doorset Configuration	Position	Intumescent Specification
Double-Acting, Double-Leaf Latched / Unlatched	Frame head	2No 15 mm wide by 4 mm thick intumescents – positioned 6 mm apart, centrally within the frame width (the door leaf is to be positioned centrally within the frame width)
	Frame Jambs	1No 20 mm wide by 4 mm thick intumescent – positioned centrally within the frame (the door leaf is to be positioned centrally within the frame width)
	Meeting Edges (Primary leaf)	1No 20 mm wide by 4 mm thick intumescent – positioned centrally within the meeting edge (the door leaf is to be positioned centrally within the frame width)

Sealed Tight Solutions STS 154 intumescent Seals – See Table 11 for size restrictions

Doorset Configuration	Position	Intumescent Specification
Single-Acting, Double-Leaf Latched / Unlatched uPVC Wrapped Doorsets	Head	Single 15 mm wide by 4 mm thick – centrally positioned in the door leaf or 14 mm from the opening face of the frame, within the frame reveal.
	Hang edges	Single 15 mm wide by 4 mm thick – centrally positioned in the door leaf or 14 mm from the opening face of the frame, within the frame reveal.
	Meeting Edges	Single 15 mm wide by 4 mm thick – centrally positioned in the meeting edge of both the primary & secondary leaf.

Latched or unlatched, single acting, single-leaves with maximum leaf dimensions 2040 mm high by 926 mm wide and of a minimum thickness of 44 mm may utilise alternative Intumescents in-line with the relevant CERTIFIRE approval for the proposed intumescent seal. All seals to be CERTIFIRE approved to Technical Schedule 35.

All other door assembly configurations should include the specific intumescent size type and location as specified within the data sheet (Tables 1, 2, 3 & 4).

Seals may be interrupted at hinge and latch positions. Seals may be fitted in the edge of the door or frame reveal.

Smoke seals may be included subject to the conditions contained within the relevant CERTIFIRE certificate for the smoke seal.

12. Hinges

Hinges shall be CE marked against EN 1935 for use on 30 minute timber fire door assemblies.

Number:	Minimum 3 No. hinges	
Type:	Steel lift off or butt hinges.	
Positions:*	Top Hinge:	Max 200 mm from the top of door to top hinge.
	Middle Hinge:	Middle hinge fitted centrally in the leaf height.
	Bottom.	Max 250 mm from the bottom of door to bottom hinge
	* The datum in all cases is the centreline of the hinge.	
Dimensions:	blade height:	100 mm (+3 mm / -2 mm)
	Blade width:	35 mm (+ 3 mm / - 4 mm)
	Thickness:	3 mm (+/- 1 mm)
	Knuckle dia.:	13.5 mm (+/- 1 mm)
Fixings:	Quantity:	3No. steel screws (minimum)
	Size:	No.5 by 30 mm long (minimum).
Intumescent Protection**	Timber Frames:	None required.
	Steel Frames:	1 mm thick Mono Ammonium Phosphate intumescent material to the rear of hinge blades fixed to the door leaf
	PVC wrapped Doors / Frames	1 mm thick Sealed Tight Solutions STS100X25 graphite intumescent hinge pad to the rear of all hinge blades.

* The datum in all cases is the centreline of the hinge.

** The hinge specification above overrides any requirement for additional intumescent identified in the hinge manufacturer's certification providing the hinge specification falls within the parameters identified in the table above, specifically maximum dimensions and material.

Any other CERTIFIRE approved hinge may be fitted, providing the hinge dimension are no greater than 10% in blade width and 25% in blade height from that approved in the table above (excluding the tolerances stated). Where the Certifire approved hinge exceeds the specification given in the table above, the minimum requirement for intumescent protection to the hinges, by-passing perimeter intumescent, and the material density and thickness for the door and frame elements given in the hinge manufacture's CERTIFIRE certificate shall apply.

13. Locks and Latches

Locks / latches where fitted shall be CE Marked in accordance with BS EN 12209 or EN179 for use on 30 minute timber fire doors.

Timber Frames - Mortice type, automatic (sprung) latch bolt and/or deadlock

Max. case dimension:	166 mm high by 98 mm deep by 20 mm wide	
Max. forend dimension:	235 mm high by 25 mm wide	
Max. keep dimension:	185 mm high by 25 mm wide (excluding latch plate lip)	
Latchbolt material:	Steel or brass	
Position:	Max. 1100 mm from bottom of door to centreline of lockcase	
Cylinders	Euro profile single cylinder, double cylinder or cylinder / thumbturn, suitable for use on FD30 fire resistant assemblies in accordance with EN 1303.	
Intumescent: protection*	Tubular latches	None required
	Lock / latch not exceeding: <ul style="list-style-type: none"> • 155 mm by 22 mm forend • 125 mm by 24 mm keep (excluding latch plate lip) 	1 mm Interdens Intumescent sheet material to keep only.
	Lock / latch exceeding: <ul style="list-style-type: none"> • 155 mm by 22 mm forend • 125 mm by 24 mm keep (excluding latch plate lip) 	1 mm Interdens intumescent sheet material to fully warp the case and under the forend and keep.
Intumescent: protection*	Doors fitted with a cylinder	1 mm Interdens intumescent sheet material to fully warp the case and under the forend and keep.

uPVC Wrapped Door & Frames - Mortice type, automatic (sprung) latch bolt and/or deadlock

Max. case dimension:	110 mm high by 76 mm deep by 215 mm wide
Max. forend dimension:	162 mm high by 26 mm wide
Max. keep dimension:	185 mm high by 29 mm wide (excluding latch plate lip)
Latchbolt material:	Steel or brass
Position:	Max. 1100 mm from bottom of door to centreline of lockcase
Cylinders	Euro profile single cylinder, double cylinder or cylinder / thumbturn, suitable for use on FD30 fire resistant assemblies in accordance with EN 1303.
Intumescent: protection*	Case & Keep – None required. Forend – To be bedded on 1 mm thick Sealed Tight Solutions Sealed Tight Solutions graphite.

Steel Frames - Mortice type, automatic (sprung) latch bolt

Max. case dimension:	22 mm high by 70 mm deep by 22 mm wide
Max. forend dimension:	70 mm high by 22 mm wide
Max. keep dimension:	230 mm high by 26 mm wide (excluding latch plate lip)
Latchbolt material:	Steel or brass
Position:	Max. 1100 mm from bottom of door to centreline of lockcase
Intumescent: protection*	2 mm thick Interdens intumescent sheet material to fully wrap case, and under the lock forend and keep.

* The lock specification above overrides any requirement for additional intumescent identified in the lock manufacturer's certification providing the lock/latch specification falls within the parameters identified in the table above, specifically maximum dimensions and material.

Any other CERTIFIRE approved lock/latch may be fitted, providing no lock/strikeplate dimension is more than 25% of that approved in the table above and subject to the conditions contained within the relevant certificate. Where the Certifire approved lock/latch exceeds the specification given in the table above, the minimum requirement for intumescent protection to the locks, latches and strikeplates, by-passing perimeter intumescent, and the material density and thickness for the door and frame elements given in the lock/latch manufacture's CERTIFIRE certificate shall apply.

Single-action, single-leaf door assemblies may incorporate a Winkhaus AV2 multipoint lock with an engaged latch bolt to the central lock in accordance with the following specification:

Supplier/description:	Winkhaus AV2 Multipoint lock (supplied with 3No keeps)	
Case dimensions:	Central:	185 mm high by 78 mm deep by 16.5 mm wide
	Top & Bottom:	113 mm high by 48 mm deep by 16.5 mm wide
Keep dimension:	Central:	255 mm high by 24 mm wide
	Top & Bottom:	155 mm high by 24 mm wide
Forend dimensions:	1770 mm high by 20 mm wide by 3 mm thick	
Position:	1025 mm (\pm 50 mm) from bottom of door to centreline of central latch nib.	
Lock Configuration:	Central:	Engaged latchbolt
	Top & Bottom:	Engaged or disengaged hook bolts
Cylinder:	Supplier / Ref:	ERA Fortress cylinder (34 mm by 70 mm by 17 mm)
Lever Handles:	Supplier / Ref:	Eurospec CSL-1194 lever handle
Escutcheon:	Supplier / Ref:	Eurospec CSE1006 escutcheon.
Intumescent protection:	Lock cases:	The 3No lock cases shall be full wrapped in a 1 mm thick Interdens AV2 kit by Winkhaus.
	Forend:	0.8 mm thick Exitex Exi-Fire Graphite intumescent sheet material.
	Keeps:	The 3No keeps shall be fully wrapped in a 1 mm thick Interdens AV2 kit by Winkhaus.
Frame:	Material:	Hardwood (excluding Ash, Beech & Iroko)
	Density:	697 kg/m ³ min.
	Dimensions:	95 mm by 44 mm minimum, with a 47 mm wide by 18 mm deep integral rebate.
Lippings	Material:	Hardwood (excluding Ash, Beech & Iroko)
	Density:	640 kg/m ³ min.
	Dimensions:	8 mm thick lippings to all four door leaf edges.
	Note:	STRElip and T-Shaped lippings not permitted.

Door assemblies may incorporate a Glutz magnetic sashlock in accordance with the following:

Supplier/description:	Glutz 24100.7.60.magnetic mortice sashlock
Max. case dimension:	159 mm high by 89 mm deep by 13.3 mm wide
Max. forend dimension:	235 mm high by 18 mm wide by 3 mm thick
Max. keep dimension:	190 mm high by 20 mm wide
Position:	Max. 1100 mm from bottom of door to centreline of lockcase
Lock Configuration:	Engaged latch bolt Engaged or disengaged lock bolt
Cylinder:	Euro profile single cylinder, double cylinder or cylinder / thumbturn, suitable for use on FD30 fire resistant assemblies in accordance with EN 1303.
Intumescent protection:	1 mm thick Intumescent Seals Ltd. Therm-A-Strip intumescent sheet material to fully wrap case and the box keep, and under the lock forend and keep plate.

The following points relate to all locks & latches discussed within this section of the Data Sheet:

- Recessing for locks shall result in a tight fit, allowing for the intumescent protection specified.
- No restriction on type and material of face fixed mechanical lever handles and knobs providing these are wholly surface mounted (with the exception of the spindle and fixing holes) and the spindle hole is a maximum 16 mm in diameter.
- The Euro profile cylinder recess in the door face shall follow the shape of the cylinder and result in a tight fit.
- The use of oval profile cylinders is not permitted.
- Locks / latches are not permitted to be fitted to door leaves with rebated meeting stiles.
- A minimum of 11 mm core / blank material shall be maintained between the lock recess and vision panel / aperture cut outs.

14. Self-Closing Devices

All doors are required to be fitted with a CERTIFIRE certificated self-closing device. The exceptions are doors kept locked shut such as service access doors. Note: closers with mechanical hold-open mechanisms are not permitted to be used. Building Regulations may identify locations within domestic locations where self-closing devices are not mandatory.

The closers shall have a power rating appropriate to the leaf sizes, subject to the closer having the ability to close the door from any angle and against any latch and/ or seals fitted. The closer shall have the ability to provide size 3 closing force. Where doors are unlatched a minimum size 3 shall be maintained.

Closers shall be CE Marked against EN 1154 and categorised as grade 1 – suitable for use on fire / smoke door assemblies.

Uninsulated glass shall not be included directly below the body of surface mounted overhead closers.

14a Surface mounted overhead closers

Any CERTIFIRE approved surface mounted overhead closer may be fitted, subject to the conditions contained within the relevant certificate.

14b Floor Springs

Double-action, Double-leaf door assemblies may incorporate CERTIFIRE approved floor springs in accordance with the following:

Max. Top pivot dimension:	164 mm long x 35 mm deep x 25 mm wide
Max. Top strap dimension:	222 mm long x 11 mm deep x 29 mm wide
Max. bottom strap dimension:	171 mm long x 20 mm deep x 24 mm wide
Material:	Steel
Intumescent: protection*	2 mm Therm-A-Strip intumescent sheet material to fully wrap the top pivot body and behind the forend. 2 mm Therm-A-Strip intumescent sheet material to all concealed faces of the top strap. 2 mm Therm-A-Strip intumescent sheet material to fully wrap the bottom strap, except for the pivot locating mount.

14c Transom Mounted Closers

Not permitted

14d Concealed Closers

Door assemblies may incorporate CERTIFIRE approved concealed overhead closers in accordance with the following:

- Concealed overhead closers are to be CERTIFIRE approved for use with single-acting, latched and unlatched, intumescent sealed door assemblies consisting of timber faced and edged leaves with timber, cellulosic or mineral cores in timber frames having a fire resistance of 30 minutes (code ITT).
- Minimum leaf thickness to be in accordance with the CERTIFIRE certificate of approval for the specified closer and CF807 (whichever is the greater thickness).
- Intumescent protection to the closer body and arm channel is to be in accordance with the CERTIFIRE certificate of approval for the specified closer.
- Closer body and arm positioning is to be in accordance with the CERTIFIRE certificate of approval for the specified closer.
- The minimum required frame density and section size are to be in accordance with the CERTIFIRE certificate of approval for the specified closer.
- Compliance is required with all additional requirements as stated within the CERTIFIRE certificate of approval for the specified closer.
- Concealed closers may be incorporated within doors, complete with glazed apertures, subject to a minimum 60 mm of core / blank material being maintained between the closer body and aperture recess.

15. Ancillary items

Please note that hardware items other than those discussed within this certificate of approval are not permitted.

15a Protection plates and signage

Surface mounted

Surface mounted plastic, steel, aluminium or brass plates are acceptable on the following basis:

- < 2mm thick
- Do not occupy more than 20% of the door leaf in total or exceed 500mm in height for kickplates and 300mm for mid-plates, whichever is the smaller.
- Do not wrap around the vertical edges, and on the closing face do not extend beneath the door stops (generally 40-50mm narrower than door width)
- Plates/signage can be bonded with a thermally softening adhesive. Additionally, screws may be used.

Recessed

Recessed steel plates are acceptable on the following basis:

- Maximum 1.5 mm thick
- Do not occupy more than 20% of the door leaf in total or exceed 200mm in height for kickplates and 300mm for mid-plates, whichever is the smaller.
- Do not wrap around the vertical edges, and on the closing face do not extend beneath the door stops (generally 40-50mm narrower than door width)
- Recessed plates shall be screw fixed using 15 mm long steel screws.

15b Flushbolts

Double-leaf door assemblies may incorporate flushbolts in accordance with the following:

Max. dimension	150 mm high by 25 mm deep by 19 mm wide
Material:	Steel
Position:	Top and bottom on door edge
Intumescent: protection*	1 mm Interdens to base and sides of bolt body and under the keep.
Note:	Flushbolts are not permitted to be fitted in rebated meeting stiles.

15c Pull Handles

Screw-fixed, bolt-fixed from the back and back-to-back fixed pull handles of steel, brass, aluminium and nylon coated are permitted providing any through-bolt fixings are of steel and maximum bolt to bolt centres do not exceed 1000 mm.

Recesses for bolt through fixings less than or equal to 9 mm Ø do not require intumescent protection but can optionally be included in the form of a 1 mm thick graphite tube, or Intumescent paste to the full depth of the recess.

Recesses for bolt through fixings in excess of 9 mm Ø shall require intumescent protection in the form of a 1 mm thick graphite tube, or Intumescent paste to the full depth of the recess.

A maximum 15 mm diameter recess is permitted for through bolt fixings.

15d Air transfer grilles

No site cutting of apertures permitted as this will invalidate the certification.

Where apertures are pre-cut by a CERTIFIRE approved Licensed Door Processor, Intumescent Air Transfer Grilles may be fitted on site by NON-CERTIFIRE approved staff, however, the Intumescent Air Transfer Grilles shall be CERTIFIRE approved for use in FD30 timber based doors. The air transfer grilles must be fitted into apertures prepared in line with the relevant CERTIFIRE certificate for the air transfer grille. Care must be taken to ensure all fitting instructions are followed, including any constraints imposed by the CERTIFIRE certificate with regards to position of the air transfer grille within the door assembly.

15e Letter Plates

Where letter plates are fitted, the aperture for a letter plate may be formed on site by NON-CERTIFIRE approved staff, however, the letter plates shall be CERTIFIRE approved for use in FD30 timber based doors. The letter plates must be fitted into apertures prepared in line with the relevant CERTIFIRE certificate for the letter plate. Care must be taken to ensure all fitting instructions are followed, including any constraints imposed by the CERTIFIRE certificate with regards to position of the letter plate within the door assembly.

15f Door Viewers

A Door viewer may be fitted into the leaf providing the viewer comprises a metal sleeve and an optical glass lens and is not positioned higher than 1450 mm from the bottom edge of the door leaf. The door viewer shall have an external barrel diameter of not greater than 14 mm and must be tightly fitted within the leaf. Intumescent protection is not required.

15g Dropseals

Door assemblies may incorporate CERTIFIRE approved dropseals with maximum dimensions of 35 mm high by 14 mm wide to the bottom edge of the door leaf.

Alternatively, door assemblies may be fitted with the following dropseals mortised into the bottom edge of the door leaf:

- Lorient LAS8001si
- Norsound NOR810

Where dropseals are fitted the door leaf shall incorporate a 6 mm thick hardwood lipping to the bottom leaf edge. The hardwood lipping shall have a minimum density of 640 kg/m³.

Where dropseals are fitted, the recess for a dropseal may be formed on site by NON-CERTIFIRE approved staff. Care must be taken to ensure all fitting instructions are followed, including any constraints imposed by the CERTIFIRE certificate.

Note: Threshold gaps as stated within Section 3 of the Data Sheet are to be maintained between the bottom edge of the door leaf and the finished floor level.

15h Threshold plates / cills

Not permitted

15i Coat Hooks and Other Surface Mounted Hardware

Ancillary items which are wholly surface mounted may be fitted providing:

- These items are screw fixed or bonded only
- Are not bolted through the full thickness of the door
- Are not directly above, or closer than 100 mm to any non-insulated glazing

15j Electric Strikes / Electromechanical locks

Not permitted

13k Edge Protectors

Not permitted

16. Further Information

Further information regarding the details contained in this data sheet may be obtained from Falcon Panel Products Ltd (Tel: +44 (0) 1932 256580).

Further information regarding the CERTIFIRE certification and other approved products can be obtained from Warringtonfire Testing and Certification (Tel: +44 (0) 1925 646777).