CERTIFICATE OF APPROVAL
No CF 160

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

JELD-WEN UK LIMITED

Unit 3A, Bessemer Park,
Shepcote Lane,
Sheffield,
South Yorkshire
S9 1DZ
United Kingdom

Tel: 0345 122 2891

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	TECHNICAL SCHEDULE
FD30 Timber Door Assemblies	**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:	7th October 1997
Revised:	4th September 2026
Audit Test Frequency:	Annually
Valid to:	6th October 2027

This certificate is the property of Warringtonfire Testing and Certification Limited
Registered in England and Wales
Registered Office: 3rd Floor, Davidson Building, 5 Southampton Street, London, WC2E 7HA. Company Registration No: 11371436

CERTIFICATE No CF 160
JELD-WEN UK LIMITED

JELD-WEN UK LIMITED FD30 TIMBER DOOR ASSEMBLIES

This approval relates to the use of the above doors with flush faces 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.

This approval also relates to the use of the above doors with moulded faces in providing fire resistance of 30 minutes integrity only 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.

Door assemblies comprising door leaves with moulded facings shall provide 30 minutes integrity performance only as defined in BS 476

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 doors comprise cellulosic (flaxboard) cored, timber framed leaves in various finishes for use with timber, MDF or mild steel 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. Glazing shall only be undertaken by the door manufacturer, or a CERTIFIRE approved Licensed Door Processor, and shall be in accordance with the Data Sheet and Construction Specification. No site cutting or glazing of apertures is permitted.

6. Hardware items, including closing devices and intumescent fire seals, shall be as specified in the Data Sheet.

7. The door assembly shall be mechanically fixed to wall constructions having a fire resistance of at least 30 minutes.

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8. This approval is applicable to latched and unlatched, single-acting, and double-acting, single and double-leaf, ITT assemblies and latched, single-acting, single leaf, ITM assemblies, at leaf dimensions up to those given in Table 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 & 11 below:

Door Leaves with Double Rails and ISL Intumescents – Timber/MDF Frames			
Door Assembly Configuration Double Rails to Door Leaf	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Single-Leaf Latched/Unlatched	2621 (at 912 wide)	1121 (at 2132 high)	2.39
Single-Acting, Double-Leaf Latched/Unlatched	2469 (at 907 wide)	1043 (at 2148 high)	2.24
Double-Acting, Single-Leaf Latched/Unlatched	2555 (at 912 wide)	1106 (at 2080 high)	2.30
Double-Acting, Double-Leaf Latched/Unlatched	2555 (at 912 wide)	1106 (at 2080 high)	2.30
Table 1			

Door Leaves with Single Rails and ISL and Pyroplex Intumescents – Timber/MDF Frames			
Door Assembly Configuration Single Rails to Door Leaf	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Double-Leaf Latched/Unlatched	2040 (at 927 wide)	927 (at 2040high)	1.89
Table 2			

Door Leaves with Single Rails and Pyroplex CF355 Intumescents – Timber/MDF Frames			
Door Assembly Configuration Single Rails to Door Leaf	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Single-Leaf Latched Only	2536 (at 966 wide)	1173 (at 2087 high)	2.45
Single-Acting, Single-Leaf Latched/Unlatched	2621 (at 912 wide)	926 (at 2581 high)	2.39
Single-Acting, Double-Leaf Latched/Unlatched	2534 (at 1012 wide)	1176 (at 2182 high)	2.57
Table 3			

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

Double leaf doorsets may incorporate leaves of unequal width providing the smaller leaf is a minimum of 40% of the width of the larger leaf.

Both leaves of pairs are to be of identical construction, including number of rails.

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Door Leaves with Double Rails and Pyroplex CF355 Intumescents – Timber/MDF Frames			
Door Assembly Configuration Double Rails to Door Leaf	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Single-Leaf Latched Only	2536 (at 966 wide)	1173 (at 2087 high)	2.45
Single-Acting, Single-Leaf Latched/Unlatched	2621 (at 912 wide)	926 (at 2581 high)	2.39
Single-Acting, Double-Leaf Latched/Unlatched	2190 (at 926wide)	994 (at 2040 high)	2.03
Table 4			

Door Leaves with Single or Double Rails & Lorient Type 617 Intumescents – 10 mm by 4 mm – Timber/MDF Frames			
Door Assembly Configuration	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Single-Leaf Latched/Unlatched	2449 (at 926 wide)	1112 (at 2040 high)	2.27
Single-Acting, Double-Leaf Latched/Unlatched	2540 (at 1071 wide)	1176 (at 2313 high)	2.72
Table 5			

'EXTRA TRIM' Door Leaves – Timber/MDF Frames			
Door Assembly Configuration	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Single-Leaf Latched/Unlatched	2040 (at 926 wide)	926 (at 2040 high)	1.89
Single-Acting, Double-Leaf Latched/Unlatched	2040 (at 926 wide)	926 (at 2040 high)	1.89
Table 6			

Door Leaves with Double Rails and ISL Intumescents – Mild Steel Frames			
Door Assembly Configuration Double Rails to Door Leaf	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Single-Leaf Latched Only	2303 (at 838 wide)	972 (at 1985 high)	1.93
Table 7			

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

Double leaf doorsets may incorporate leaves of unequal width providing the smaller leaf is a minimum of 40% of the width of the larger leaf.

Both leaves of pairs are to be of identical construction, including number of rails.

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JELD-WEN UK LIMITED FD30 TIMBER DOOR ASSEMBLIES

Door Leaves with Double Rails and Lorient Type 617 Intumescents – 20 mm by 4 mm – Timber Frames – NSP Duo, NSP 614 & NSP 814 locks/handles			
Door Assembly Configuration Double Rails to Door Leaf	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Single-Leaf Latched Only	2456 (at 926 wide)	1115 (at 2040 high)	2.27
Table 8			

Door Leaves (with Double Rails and Lorient Type 617 Intumescents – 20 mm by 4 mm) and Timber Frames – When using ERA Invincible Multipoint Locks			
Door Assembly Configuration Double Rails to Door Leaf	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Single-Leaf Latched Only	2144 (at 926 wide)	973 (at 2040 high)	1.99
Table 9			

Door Leaves with Single or Double Rails & Lorient Type 617 Intumescents – 15 mm by 4 mm – Timber/MDF Frames			
Door Assembly Configuration	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Single-Leaf Latched/Unlatched	2449 (at 926 wide)	1112 (at 2040 high)	2.27
Single-Acting, Double-Leaf Latched/Unlatched	2540 (at 1071 wide)	1176 (at 2313 high)	2.72
Table 10			

Door Leaves with Single Rails & Astroflame Intumescents (CF5822) – 15 mm by 4 mm – Timber/MDF Frames			
Door Assembly Configuration	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Double-Leaf Latched/Unlatched	2170 (at 926 wide)	985 (at 2040 high)	2.01
Table 11			

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

Double leaf doorsets may incorporate leaves of unequal width providing the smaller leaf is a minimum of 40% of the width of the larger leaf.

Both leaves of pairs are to be of identical construction, including number of rails.

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JELD-WEN UK LIMITED FD30 TIMBER DOOR ASSEMBLIES

9. Labels to the CERTIFIRE design, or approved by CERTIFIRE, referencing CERTIFIRE and CERTIFIRE Ref. No. CF 160 and FD30 classifications resistance shall be affixed to each door in the prescribed position.

10. This 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 when appropriate.

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CF 160 DATA SHEET

1. General

This approval relates to the use of the above doors with flush faces 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.

This approval also relates to the use of the above doors with moulded faces in providing fire resistance of 30 minutes integrity only 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.

In recognition of this, the leaf carries a prefixed label on the top 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 shall 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 JELD-WEN UK Limited may be considered to meet the requirements in respect of those items.

2. Door Leaf Dimensions

This approval is applicable to single-action, double-action, single and double-leaf, latched and unlatched, ITT assemblies and single-acting, single-leaf latched and unlatched ITM assemblies at leaf dimensions up to those detailed within Tables 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 & 11 below.

Door Leaves with Double Rails and ISL Intumescents – Timber/MDF Frames			
Door Assembly Configuration Double Rails to Door Leaf	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Single-Leaf Latched/Unlatched	2621 (at 912 wide)	1121 (at 2132 high)	2.39
Single-Acting, Double-Leaf Latched/Unlatched	2469 (at 907 wide)	1043 (at 2148 high)	2.24
Double-Acting, Single-Leaf Latched/Unlatched	2555 (at 912 wide)	1106 (at 2080 high)	2.30
Double-Acting, Double-Leaf Latched/Unlatched	2555 (at 912 wide)	1106 (at 2080 high)	2.30
Table 1			

Door Leaves with Single Rails and ISL and Pyroplex Intumescents – Timber/MDF Frames			
Door Assembly Configuration Single Rails to Door Leaf	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Double-Leaf Latched/Unlatched	2040 (at 927 wide)	927 (at 2040high)	1.89
Table 2			

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

Double leaf doorsets may incorporate leaves of unequal width providing the smaller leaf is a minimum of 40% of the width of the larger leaf. Both leaves of pairs are to be of identical construction, including number of rails.

Door Leaves with Single Rails and Pyroplex CF355 Intumescents – Timber/MDF Frames			
Door Assembly Configuration Single Rails to Door Leaf	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Single-Leaf Latched Only	2536 (at 966 wide)	1173 (at 2087 high)	2.45
Single-Acting, Single-Leaf Latched/Unlatched	2621 (at 912 wide)	926 (at 2581 high)	2.39
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Table 3			

Door Leaves with Double Rails and Pyroplex CF355 Intumescents – Timber/MDF Frames			
Door Assembly Configuration Double Rails to Door Leaf	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Single-Leaf Latched Only	2536 (at 966 wide)	1173 (at 2087 high)	2.45
Single-Acting, Single-Leaf Latched/Unlatched	2621 (at 912 wide)	926 (at 2581 high)	2.39
Single-Acting, Double-Leaf Latched/Unlatched	2190 (at 926wide)	994 (at 2040 high)	2.03
Table 4			

Door Leaves with Single or Double Rails & Lorient Type 617 Intumescents – 10 mm by 4 mm – Timber/MDF Frames			
Door Assembly Configuration	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Single-Leaf Latched/Unlatched	2449 (at 926 wide)	1112 (at 2040 high)	2.27
Single-Acting, Double-Leaf Latched/Unlatched	2540 (at 1071 wide)	1176 (at 2313 high)	2.72
Table 5			

'EXTRA TRIM' Door Leaves – Timber/MDF Frames			
Door Assembly Configuration	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Single-Leaf Latched/Unlatched	2040 (at 926 wide)	926 (at 2040 high)	1.89
Single-Acting, Double-Leaf Latched/Unlatched	2040 (at 926 wide)	926 (at 2040 high)	1.89
Table 6			

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

Double leaf doorsets may incorporate leaves of unequal width providing the smaller leaf is a minimum of 40% of the width of the larger leaf. Both leaves of pairs are to be of identical construction, including number of rails.

Door Leaves with Double Rails and ISL Intumescents – Mild Steel Frames			
Door Assembly Configuration Double Rails to Door Leaf	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Single-Leaf Latched Only	2303 (at 838 wide)	972 (at 1985 high)	1.93
Table 7			

Door Leaves with Double Rails and Lorient Type 617 Intumescents – 20 mm by 4 mm – Timber Frames – NSP Duo, NSP 614 & NSP 814 locks/handles			
Door Assembly Configuration Double Rails to Door Leaf	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Single-Leaf Latched Only	2456 (at 926 wide)	1115 (at 2040 high)	2.27
Table 8			

Door Leaves (with Double Rails and Lorient Type 617 Intumescents – 20 mm by 4 mm) and Timber Frames – When using ERA Invincible Multipoint Locks			
Door Assembly Configuration Double Rails to Door Leaf	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Single-Leaf Latched Only	2144 (at 926 wide)	973 (at 2040 high)	1.99
Table 9			

Door Leaves with Single or Double Rails & Lorient Type 617 Intumescents – 15 mm by 4 mm – Timber/MDF Frames			
Door Assembly Configuration	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Single-Leaf Latched/Unlatched	2449 (at 926 wide)	1112 (at 2040 high)	2.27
Single-Acting, Double-Leaf Latched/Unlatched	2540 (at 1071 wide)	1176 (at 2313 high)	2.72
Table 10			

Door Leaves with Single Rails & Astroflame Intumescents (CF5822) – 15 mm by 4 mm – Timber/MDF Frames			
Door Assembly Configuration	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Single-Acting, Double-Leaf Latched/Unlatched	2170 (at 926 wide)	985 (at 2040 high)	2.01
Table 11			

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

Double leaf doorsets may incorporate leaves of unequal width providing the smaller leaf is a minimum of 40% of the width of the larger leaf. Both leaves of pairs are to be of identical construction, including number of rails.

3. Door Frame

To be any of the following:-

Softwood or Hardwood (Exc. Iroko & Geronggang. Ash may be used subject to a minimum density of 650 kg/m^3)	i) Density:	440 kg/m^3 minimum
	ii) Specification:	BS EN 942 2007, Clause 5 Table 1 (Class J40) or better (for softwood)
	iii) Dimensions:	70 mm by 25 mm minimum
	iv) Door Stop:	Minimum 12 mm deep by 25 mm wide, pinned, glued, and pinned, screwed, or rebated from solid (minimum stop density 450 kg/m³). Pins are to be steel minimum 40 mm long Where the stop is rebated from solid the overall frame thickness must be increased by 12 mm to accommodate the 12 mm rebate depth
Softwood frames can be manufactured from clear engineered laminated softwood with a minimum density of 500 kg/m^3		
MDF	i) Density:	720 kg/m^3 minimum
	ii) Dimensions:	77 mm by 25 mm minimum
	iii) Door Stop:	Minimum 12 mm deep by 25 mm wide, pinned, glued, and pinned, screwed, or rebated from solid (minimum stop density 450 kg/m³). Pins are to be steel minimum 38 mm long Where the stop is rebated from solid the overall frame thickness must be increased by 12 mm to accommodate the 12 mm rebate depth
Mild steel (single-acting, single-leaf, double rail assemblies only)	i) Dimensions	52 mm by 28 mm minimum Frame to include a 19 mm by 3 mm stop Frame to be manufactured from 1.2 mm thick rolled mild steel.
Jointing:	Mortice and tenon or half lapped joints with the head screw fixed to the jambs using two steel screws	
	MDF frames with half-lapped joints may be mechanically fixed using three 50 mm by 1.6 mm by 1.3 mm staples at 12 mm to 22 mm horizontal centres	
Door to frame gaps:	Not to exceed 4 mm to the perimeter/meeting stiles except at the threshold where up to 10mm is permitted Please note that door assemblies incorporating a hardwood threshold shall maintain a maximum 8 mm gap between the underside of the door leaf and the top of the hardwood threshold Please note that a reduced threshold gap may be required to comply with smoke leakage requirements	

Softwood Tri-Laminated & Finger Jointed Frames

Softwood tri-laminated & finger jointed frames may be used, subject to compliance with the following specification:

- Single-acting, single-leaf door assemblies only with maximum overall leaf dimensions 2040 mm high by 926 mm wide.
- The door assemblies may be latched or unlatched, in accordance with the specific CERTIFIRE certificate requirements.

- The once rebated knock down frames will be manufactured from clear engineered softwood of minimum density 500 kg/m^3 and shall have a minimum overall section of 66 mm wide by 56 mm thick complete with a 13 mm deep rebate.
- Alternatively, the once rebated knock down frames will be manufactured from clear engineered softwood of minimum density 500 kg/m^3 and shall have a minimum overall section of 66 mm wide by 52 mm thick complete with a 20 mm deep rebate.
- The softwood frame material will be finger jointed in length only and include a maximum of three laminated elements.
- The finger joints will be orientated to the opening face and closing face of the frame only.
- The frame jambs and head will incorporate a 20 mm wide by 4 mm thick CERTIFIRE approved intumescent seal and a Q-Lon Aquamac 21 seal.

4. Overpanels / Sidepanels

Flush overpanels may be included up to a maximum height of 500 mm and shall include 9 mm thick hardwood lippings (minimum) and opposing lipping to the leaf head.

Timber astragals (minimum 640 kg/m^3) are required at the junction between the bottom of the overpanel and the top edge of the doors.

Transomed overpanels, manufactured to the same specification as the door leaves may be included up to 1000 mm high, with a minimum 25 mm thick softwood/hardwood transom rail in accordance with Section 3 of the Data Sheet.

Mullioned sidepanels, manufactured to the same specification as the door leaves, may be included up to 1000 mm wide, with a minimum 25 mm thick softwood/hardwood mullion in accordance with Section 3 of the Data Sheet.

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

Intumescent seals as specified in Section 9 shall be fitted centrally to all for edges of the Overpanel/sidepanel or within the reveal of the frame.

5. Glazed Fanlights and Sidelights

Fanlights and Sidelights will comply with the following specification details:

Toplight/Sidelight Framing:	
Manufacturer:	JELD-WEN UK
Reference:	FD30 Head
Material:	Softwood (solid or clear engineered tri-laminated and finger jointed material)
Density:	500 kg/m^3 minimum
Dimensions:	66 mm wide by 52 mm thick with a 48 mm wide by 20 mm deep rebate or 95 mm wide by 52 mm thick with a 48 mm wide by 20 mm deep rebate
Fixing method:	Mortice and tenon joint, screwed, and glued using two Ø5 mm by 70 mm long hardened single thread woodscrews and HB Fuller Rakol Eco 3 Plus adhesive

Sidelight Framing – T Section:	
Manufacturer:	JELD-WEN UK
Reference:	FD30 T Head
Material:	Softwood (solid or clear engineered tri-laminated and finger jointed material)
Density:	500 kg/m^3 minimum
Dimensions:	48 mm wide by 70 mm thick with a 30 mm wide by 20 mm deep rebate or 77 mm wide by 70 mm thick with a 30 mm wide by 20 mm deep rebate
Fixing method:	T-Section mulled to door frame and fixed into position using seven Ø4.2 mm by 38 mm long woodscrews at 300 mm centres, 100 mm from the corners
Coupled Sidelight/Toplight Fixings:	
Supplier:	Timber Mate Fastners
Description:	Pozi double CSK head wood screws
Reference:	Woodscrews
Dimensions:	Ø 4.2 mm by 50 mm long
Position:	Screwed at 300 mm centres, 100 mm from the corners.
Sidelight Frame - Midrail:	
Manufacturer:	JELD-WEN UK
Reference:	FD30 Direct Mulled Midrail Sidelight
Material:	Softwood (solid or clear engineered tri-laminated and finger jointed material)
Density:	500 kg/m^3 minimum
Dimensions:	66 mm wide by 150 mm thick with a 48 mm wide by 20 mm deep rebate.
Fixing method:	Midrail butt jointed to mullion and frame, screwed, and glued using two Ø4.2 mm by 70 mm long CSK woodscrews (each side) and HB Fuller Rakol Eco 3 Plus adhesive

Toplight/Sidelight – Glazing Option 1 – Pyroguard T-EI30/16-1 VF - Insulated Glass			
Supplier:	CGI International		
Configuration:	**Pyroguard T-EI30/16-1 VF**		
Thickness:	19 mm		
Maximum pane dimensions:	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Fanlight	515 (at 1977 wide)	2361 (at 432 high)	1.02
Full hight sidelight	3033 (at 480 wide)	576 (at 2528 high)	1.46
Door height sidelight	2424 (at 990 wide)	1188 (at 2020 high)	2.40
Nominal edge clearance:	5 mm		
Setting Blocks:			
Supplier:	Ram Extrusions		
Reference:	Blue 60		
Description:	Glazing packers		
Dimensions:	4.8 mm by 100 mm by 15 mm		
Glazing System – Option 1:			
Supplier:	Sealmaster		
Description:	Intumescent closed cell tape – CF5645		
Reference:	CFT		
Dimensions:	15 mm by 3 mm		
Fixing method:	Self-adhesive, applied to rebate and glazing bead		

Toplight/Sidelight – Glazing Option 2 – Pyroguard EW30/6 VF RV - Non-insulated Glass			
Supplier:	CGI International		
Configuration:	**Pyroguard EW30/6 VF RV**		
Thickness:	13 mm		
Maximum pane dimensions:	**Maximum Height (mm)**	**Maximum Width (mm)**	**Maximum Area (m^2)**
Fanlight	506 (at 1962 wide)	2345 (at 422 high)	0.99
Full height sidelight	3019 (at 470 wide)	564 (at 2516 high)	1.42
Door height sidelight	2412 (at 980 wide)	1176 (at 2010 high)	2.36
Nominal edge clearance:	10 mm		
Setting Blocks:			
Supplier:	Ram Extrusions		
Reference:	Blue 60		
Description:	Glazing packers		
Dimensions:	two 5 mm by 100 mm by 10 mm (to provide 10 mm packer depth)		
Glazing System – Option 2:			
Supplier:	Sealmaster		
Description:	Intumescent foam tape - CF5387		
Reference:	GTR		
Dimensions:	20 mm by 5 mm		
Fixing method:	Self-adhesive, applied to rebate and glazing bead		
Glazing Beads:			
Glazing method:	Externally beaded		
Supplier:	JELD-WEN UK		
Reference:	Splayed flush bead		
Material:	Red Grandis Hardwood		
Density:	570 kg/m^3 minimum		
Dimensions:	20 mm by 24 mm		
Fixing method:	Ø4 mm by 40 mm long CS security screws, at maximum 150 mm centres, maximum 50 mm in from the corners.		

Alternatively, 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 72 mm, providing at least 30 minutes fire resistance. 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 three points with steel or nylon fixings at maximum 600 mm centres penetrating the wall to at least 50 mm, except in domestic locations (excluding flat entrance doorsets) where a minimum 30 mm wall penetration is permitted. 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.

Additionally, Fire and Acoustic Seals, Fire Door Foam (FD60) sealant may be used to the rear of frame installations for gaps up to 10 mm – to the full depth of the gap. This option may be utilised in conjunction with plastic packers.

The gap between the rear of minimum 66 mm wide softwood or hardwood frames and block, brick or masonry supporting constructions may include an alternative linear gap sealing arrangement in accordance with the following specification:

- Softwood or hardwood frames of minimum density 500 kg/m^3 and of minimum overall dimensions 66 mm wide by 52 mm thick complete with a 20 mm deep rebate.
- Dorpro Blue 60 Foam fitted between the rear of the frame and the supporting construction, set back 5 mm to allow for Dorpro Orange 240 acrylic sealant.
- Dorpro Orange 240 acrylic sealant, to a depth of 5 mm to both the opening and closing face of the frame to supporting construction joint.
- Brick, block, or masonry supporting constructions of minimum overall thickness 100 mm, providing at least 30 minutes fire resistance and previously proven capable of supporting a fire door assembly for the required integrity performance.
- Maximum 15 mm gap permitted between the rear of the frame and the brick, block or masonry supporting construction.
- Solid softwood or hardwood architraves or quadrant beading (minimum density 500 kg/m^3) with minimum overall dimensions 19 mm wide by 19 mm thick to both the opening and closing face of the frame jambs and head.
- This option may be utilised in conjunction with Blue 60 packers.

The gap between the rear of minimum 95 mm wide MDF frames and block, brick or masonry supporting constructions may include an alternative linear gap sealing arrangement in accordance with the following specification:

- MDF frame linings of minimum density 720 kg/m^3 and of minimum overall dimensions 95 mm wide by 25 mm thick complete with MDF planted stops of minimum overall dimensions 25 mm wide by 12 mm thick.
- Dorpro Blue 60 Foam fitted between the rear of the frame and the supporting construction, to the full depth of the frame, minimum 95 mm.
- Brick, block, or masonry supporting constructions of minimum overall thickness 100 mm, providing at least 30 minutes fire resistance and previously proven capable of supporting a fire door assembly for the required integrity performance.
- Maximum 20 mm gap permitted between the rear of the frame and the brick, block or masonry supporting construction.
- This option may be utilised in conjunction with Blue 60 packers.

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.

Unlipped doors identified as **'SR'** or **'DR'** may be trimmed to fit the frame by the following amounts:

- Stiles (each): 4 mm maximum
- Bottom: 6 mm maximum

Doors with 6 mm thick lippings identified as **'SR'** or **'DR'** may be trimmed to fit the frame by the following amounts:

- Stiles (each): 4 mm maximum
- Bottom: 6 mm maximum

Where the lipping thickness is increased (up to maximum 25 mm) the permitted trim allowance increases accordingly, such that a minimum of 2 mm lipping thickness shall be retained to the vertical leaf edges, whilst the lipping to the bottom edge may be completely removed as shown in the example below:

Doors with 25 mm thick lippings may be trimmed to fit the frame by the following amounts:

- Stiles (each): 23 mm maximum
- Bottom: 25 mm maximum

Unlipped door leaves identified/labelled as '**EXTRA TRIM'** may be trimmed by the following amounts:

- Stiles (each): 40 mm maximum
- Bottom: 40 mm maximum

Unlipped doors identified/labelled **as 'EXTRA TRIM BTM'** may be trimmed by the following amounts:

- Stiles (each): 4 mm maximum
- Bottom: 40 mm maximum

Doors with 6 mm thick lippings to the vertical edges identified/labelled **as 'EXTRA TRIM BTM'** may be trimmed by the following amounts:

- Stiles (each): 4 mm maximum
- Bottom: 40 mm maximum

Where the lipping thickness to the vertical edge is increased (up to maximum 25 mm) the permitted trim allowance increases accordingly, such that a minimum of 2 mm lipping thickness shall be retained to the vertical leaf edges, whilst the lipping to the bottom edge may be completely removed as shown in the example below:

Door leaves lipped with 25 mm thick lippings to the vertical edges and identified/labelled **as 'EXTRA TRIM BTM'** doors may be trimmed by the following amounts:

- Stiles (each): 23 mm
- Bottom: 40 mm

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.

8. Glazed Apertures

All apertures to be factory prepared by JELD-WEN UK Limited, or a CERTIFIRE approved Licensed Door Processor. No site cutting of apertures permitted as this will invalidate the certification.

Additionally, the doors may incorporate CERTIFIRE approved glass/glazing systems subject to the conditions contained within the relevant CERTIFIRE certificate (e.g., maximum size associated with glass, system, edge cover, intumescent aperture lining requirements, etc.) and the maximum pane

dimensions given below (whichever is smaller).

8.1 Vision Panels with Hardwood Aperture Liners

This section relates to vision panel cut outs lined with hardwood only.

When utilising alternative CERTIFIRE approved glazing systems that require a hardwood liner, the liner density requirements of the door and glazing system shall be considered, and whichever is the greater of the two shall be utilised.

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

Area: Maximum total glazed area of 1.2 m^2 per leaf

Sizes: For maximum glazing heights and widths refer to glazing tables below.

Maximum Permitted Aperture Dimensions		
Maximum Height (mm)	**Maximum Width (mm)**	**Maximum Area (m^2)**
1855 (at 647 wide)	745 (at 1611 high)	1.2
2125 (at 375 wide)	375 (at 2125 high)	0.8

Margins: 100 mm from the perimeter edge
100 mm between apertures – including liner where liner is glued and pinned
112 mm between apertures – including liner where liner is pinned only

Aperture lining: Rectilinear apertures only will include a lining 6 mm thick by 42 mm wide of hardwood with a minimum density of 470 kg/m^3, excluding Iroko, Geronggang & Ash (unless stated otherwise in the glazing tables below).

The lining shall be glued and/or pinned to the flaxboard core using PVA and 38 mm long pins at 250 mm nominal centres.

Blocking: Circular apertures only will include 38 mm by 38 mm softwood blocking of any species with a minimum density of 360 kg/m^3.

Bead joints: Mitre joints to rectilinear glazing beads may include a gap of up to 0.5 mm where Intumescent type glazing systems are utilised. Mitre joints to glazing beads must be tight, where non-intumescent type glazing systems are utilised.

Hardwood or non-combustible setting blocks will be used to establish the correct edge cover.

Figure 1 – Meranti Bead

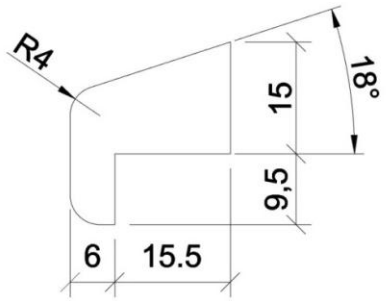


Figure 2 – MDF Bead – Option 1

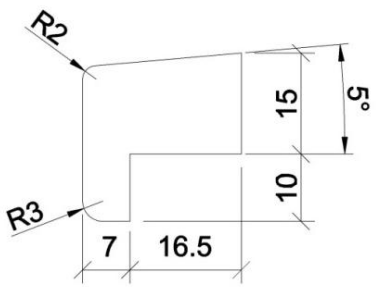


Figure 3 – MDF Bead – Option 2

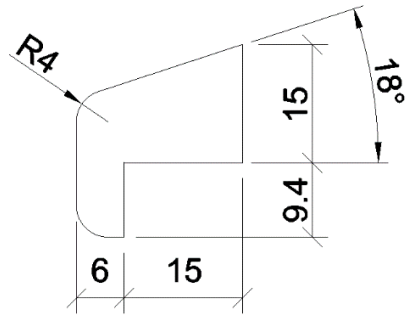
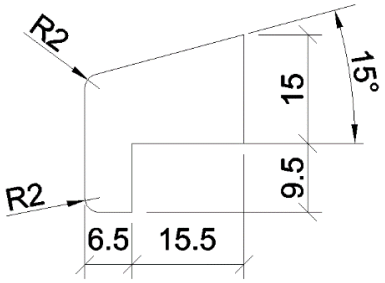


Figure 4 – MDF Bead – Option 3



Non-Insulating Glasses: Rectilinear Apertures

Glass Type	Intumescent System	Bead Dimensions (mm)	Bead Density	Fixings	Maximum Height (mm)	Maximum Width (mm)	Maximum Area (m^2)
Pyran S	Sealmaster Therm-A-Strip, 10 by 2 mm Or Sealmaster Fireglaze mastic (minimum 2 mm thick) Or Sealmaster intumescent compound (minimum 2 mm thick)	23 mm high by minimum 23.5 mm wide (including a 7 mm by 10 mm bolection) Bead to include a minimum 5° - maximum 10° splay 13 mm +2/-1 mm edge cover	Hardwood minimum 490 kg/m^3	Ø1.6 by 38 mm long pins or No.6 by 38 mm long screws at maximum 150 mm centres, maximum 50 mm in from corners. Fixings angled at 20°. Minimum two fixings per bead length	1700 (at 290 wide)	700 (at 700 high)	0.5 m^2
Pyroguard EW 30	Sealmaster Therm-A-Strip, 10 by 2 mm	22 mm high by minimum 25 mm wide (including a 5 mm bolection) Bead can be square or splayed up to maximum 20° splay 13 mm +2/-1 mm edge cover	MDF minimum 720 kg/m^3	Ø1.6 by 38 mm long pins or No.6 by 38 mm long screws at maximum 150 mm centres, maximum 50 mm in from corners. Fixings angled at 20°. Minimum two fixings per bead length	2125 (at 375 wide)	375 (at 2125 high)	0.8 m^2
Pyran S	Sealmaster Therm-A-Strip, 10 by 2 mm	22 mm high by minimum 25 mm wide (including a 5 mm bolection) Bead can be square or splayed up to maximum 20° splay 13 mm +2/-1 mm edge cover	MDF minimum 720 kg/m3	Ø1.6 by 38 mm long pins or No.6 by 38 mm long screws at maximum 150 mm centres, maximum 50 mm in from corners. Fixings angled at 20°.	1855 (at 647 wide)	745 (at 1611 high)	1.2 m2
Pyrobelite EW7	Sealmaster Therm-A-Strip, 10 by 2 mm	22 mm high by minimum 25 mm wide (including a 5 mm bolection) Bead can be square or splayed up to maximum 20° splay 13 mm +2/-1 mm edge cover	MDF minimum 720 kg/m^3	Ø1.6 by 38 mm long pins or No.6 by 38 mm long screws at maximum 150 mm centres, maximum 50 mm in from corners. Fixings angled at 20°.	1085 (at 737 wide)	700 (at 1143 high)	0.8 m^2
Pyroswiss	Sealmaster Therm-A-Strip, 10 by 2 mm	22 mm high by minimum 25 mm wide (including a 5 mm bolection) Bead can be square or splayed up to maximum 20° splay 13 mm +2/-1 mm edge cover	MDF minimum 720 kg/m^3	Ø 1.6 by 38 mm long pins or No.6 by 38 mm long screws at maximum 150 mm centres, maximum 50 mm in from corners. Fixings angled at 20°.	926 (at 248 wide)	248 (at 926 high)	0.23 m^2

Non-Insulating Glasses: Circular Apertures

Glass Type	Intumescent System	Aperture Lining	Bead Dimensions (mm)	Bead Density	Fixings	Maximum Diameter (mm)	Maximum Area (m^2)
Pyran S & Pyroguard EW 30	Sealmaster Therm-A-Strip, 10 by 2 mm with Sealmaster Fireglaze mastic between the glass and the beads (minimum 2 mm thick)	Softwood blocking or 6 mm thick laminated hardwood	20 mm high by minimum 22 mm wide (Inc. a 5 mm by 5 mm bolection). Bead to include a min 15° splay & 13 mm +2/-1 mm edge cover Beads are formed from butt jointed timber sections, glued before machining	Hardwood minimum 490 kg/m^3	Ø1.6 by 38 mm long pins or No.6 by 38 mm long screws at maximum 150 mm centres, maximum 50 mm in from corners. Fixings angled at 20°.	510	0.2 m^2

Non-Insulating Glass: Rectilinear – Sealmaster Intumescent Foam Glazing Tape – Meranti Beads

Glass Type	Intumescent System	Bead Dimensions (mm)	Bead Density	Fixings	Maximum Height (mm)	Maximum Width (mm)	Maximum Area (m^2)
6 mm Pyroclear	Sealmaster Intumescent Foam Glazing Tape **Aperture Lining** 6 mm minimum hardwood liner minimum 550 kg/m^3	24.5 mm high by minimum 21.5 mm wide (including a 6 mm by 9.5 mm bolection) Bead to include an 18° splay 12 mm +2/-1 mm edge cover	Meranti Hardwood minimum 480 kg/m^3 (Figure 1)	Ø1.6 by 40 mm long pins No.6 by 40 mm long screws at maximum 150 mm centres, maximum 50 mm in from corners. Fixings angled at 45° to the vertical.	1700 (at 457 wide)	604 (at 1291 high)	0.78 m^2
7 mm Pyrodur Plus	Sealmaster Intumescent Foam Glazing Tape **Aperture Lining** 6 mm minimum hardwood liner minimum 550 kg/m^3	24.5 mm high by minimum 21.5 mm wide (including a 6 mm by 9.5 mm bolection) Bead to include an 18° splay 12 mm +2/-1 mm edge cover	Meranti Hardwood minimum 480 kg/m^3 (Figure 1)	Ø1.6 by 40 mm long pins No.6 by 40 mm long screws at maximum 150 mm centres, maximum 50 mm in from corners. Fixings angled at 45° to the vertical.	225 (at 225 wide)	225 (at 225 high)	0.05 m^2

Non-Insulating Glass: Rectilinear– Sealmaster Intumescent Foam Glazing Tape – MDF Beads

Glass Type	Intumescent System	Bead Dimensions (mm)	Bead Density	Fixings	Maximum Height (mm)	Maximum Width (mm)	Maximum Area (m^2)
6 mm Pyroclear	Sealmaster Intumescent Foam Glazing Tape **Aperture Lining** 6 mm minimum hardwood liner minimum 470 kg/m^3	25 mm high by minimum 23.5 mm wide (including a 7 mm by 10 mm bolection) Bead to include a 5° splay 12 mm +2/-1 mm edge cover	MDF minimum 595 kg/m^3 (Figure 2, Figure 3, or Figure 4)	Ø1.6 by 40 mm long pins No.6 by 40 mm long screws at maximum 150 mm centres, maximum 50 mm in from corners. Fixings angled at 45° to the vertical.	1700 (at 457 wide)	604 (at 1291 high)	0.78 m^2
7 mm Pyrodur Plus	Sealmaster Intumescent Foam Glazing Tape **Aperture Lining** 6 mm minimum hardwood liner minimum 470 kg/m^3	25 mm high by minimum 23.5 mm wide (including a 7 mm by 10 mm bolection) Bead to include a 5° splay 12 mm +2/-1 mm edge cover	MDF minimum 595 kg/m^3 (Figure 2, Figure 3, or Figure 4)	Ø1.6 by 40 mm long pins No.6 by 40 mm long screws at maximum 150 mm centres, maximum 50 mm in from corners. Fixings angled at 45° to the vertical.	225 (at 225 wide)	225 (at 225 high)	0.05 m^2

Non-Insulating Glass: 7mm Pyrostem & Low Density MDF Beads

Glass Type	Intumescent System	Bead Dimensions (mm)	Bead Density	Fixings	Maximum Height (mm)	Maximum Width (mm)	Maximum Area (m^2)
7 mm Pyrostem	Intumescent Seals Ltd Therm-A-Strip, 10 by 2 mm **Aperture Lining** 6 mm minimum hardwood liner minimum 550 kg/m^3	22 mm high by minimum 25 mm wide (including a 5 mm bolection) Bead to include a maximum 10° splay 13 mm +2/-1 mm edge cover	MDF minimum 595 kg/m^3	Ø1.6 by 38 mm long pins No.6 by 38 mm long screws at maximum 150 mm centres, maximum 50 mm in from corners. Fixings angled at 20° to the vertical. Minimum two fixings per bead length	930 (at 604 wide)	735 (at 735 high)	0.56 m^2

Non-Insulating Glass: 6mm Pyroswiss & MDF Beads

Glass Type	Intumescent System	Bead dimensions (mm)	Bead Density	Fixings	Maximum Height (mm)	Maximum Width (mm)	Maximum Area (m^2)
6 mm Pyroswiss	Intumescent Seals Ltd Therm-A-Strip, 10 by 2 mm **Aperture Lining** 6 mm minimum hardwood liner minimum 550 kg/m^3	25 mm high by minimum 23.5 mm wide (including a 10 mm high by 7 mm wide bolection) Bead to include a 5° splay 13 mm +2/-1 mm edge cover	MDF minimum 720 kg/m^3	Ø1.6 by 40 mm long pins No.6 by 38 mm long screws at maximum 150 mm centres, maximum 50 mm in from corners. Fixings angled at 45° to the vertical. minimum two fixings per bead length	1152 (at 712 wide)	873 (at 939 high)	0.82 m^2

Hardwood lay-bars/glazing bars, surface mounted to the face of the glass may be included at maximum spacing of 250 mm in line with the following specification:

Material:	Hardwood
Density:	350 kg/m^3
Dimensions:	22 mm high chamfered on the upper and lower edges at 15°
Fixing:	Glued and stapled
Intumescent protection	22 mm by 2 mm FGL30 material
Notes:	PVCu, MDF or timber frets may be adhered to the face of the glass via either double-sided self-adhesive tape or hot melt glue.

8.2 Vision Panels Without Hardwood Aperture Liners

This section relates to vision panel cut outs that are not required to be lined with hardwood.

Dimensions: Doors may incorporate one or more vision panels without a hardwood liner to the maximum sizes identified in the table below:

Area: Maximum total glazed area of 0.36 m^2 per leaf

Sizes: For maximum glazing heights and widths refer to glazing tables below:

Maximum Permitted Aperture Dimensions		
Maximum Height (mm)	**Maximum Width (mm)**	**Maximum Area (m^2)**
581 (at 581 wide)	777 (at 465 high)	0.36
1766 (at 150 wide)	187 (at 1413 high)	0.26
878 (at 150 wide)	170 (at 775 high)	0.13

Margins: 125 mm from the perimeter edge and 186 mm between apertures

Aperture lining: None required.
Each corner of the aperture shall include a maximum Ø15 mm round cut out.

Bead joints: Mitre joints to rectilinear glazing beads may include a gap of up to 0.5 mm where Intumescent type glazing systems are utilised.

Figure 5 – Meranti Bead

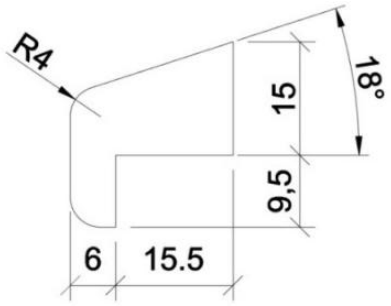
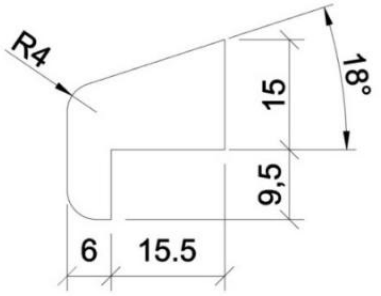


Figure 6 – MDF Bead



Non-Insulating Glass: Rectilinear – Sealmaster Intumescent Foam Glazing Tape – Meranti Beads

Glass Type	Intumescent System	Bead Dimensions (mm)	Bead Density	Fixings	Maximum Height (mm)	Maximum Width (mm)	Maximum Area (m^2)
6 mm Pyroguard TE30	Sealmaster Intumescent Foam Glazing Tape 15 mm high by 5 mm thick (CF5387)	24.5 mm high by minimum 21.5 mm wide (including a 6 mm by 9.5 mm bolection) Bead to include an 18° splay 12 mm +2/-1 mm edge cover	Meranti Hardwood minimum 585 kg/m^3 (Figure 5)	Ø1.6 by 38 mm long pins or No.6 by 38 mm long screws at maximum 130 mm centres, maximum 40 mm in from corners. Fixings angled at 45° to the vertical.	1766 (at 150 wide)	187 (at 1413 high)	0.26 m^2
6 mm Pyroguard TE30	Sealmaster Intumescent Foam Glazing Tape 15 mm high by 5 mm thick (CF5387)	24.5 mm high by minimum 21.5 mm wide (including a 6 mm by 9.5 mm bolection) Bead to include an 18° splay 12 mm +2/-1 mm edge cover	Meranti Hardwood minimum 585 kg/m^3 (Figure 5)	Ø1.6 by 38 mm long pins or No.6 by 38 mm long screws at maximum 130 mm centres, maximum 40 mm in from corners. Fixings angled at 45° to the vertical.	878 (at 150 wide)	170 (at 775 high)	0.13 m^2
6 mm Pyroguard TE30	Sealmaster Intumescent Foam Glazing Tape 15 mm high by 5 mm thick (CF5387)	24.5 mm high by minimum 21.5 mm wide (including a 6 mm by 9.5 mm bolection) Bead to include an 18° splay 12 mm +2/-1 mm edge cover	Meranti Hardwood minimum 585 kg/m^3 (Figure 5)	Ø1.6 by 38 mm long pins or No.6 by 38 mm long screws at maximum 130 mm centres, maximum 40 mm in from corners. Fixings angled at 45° to the vertical.	581 (at 581 wide)	777 (at 465 high)	0.36 m^2
7.2 mm Pyrostem	Sealmaster Intumescent Foam Glazing Tape 15 mm high by 5 mm thick (CF5387)	24.5 mm high by minimum 21.5 mm wide (including a 6 mm by 9.5 mm bolection) Bead to include an 18° splay 12 mm +2/-1 mm edge cover	Meranti Hardwood minimum 585 kg/m^3 (Figure 5)	Ø1.6 by 38 mm long pins or No.6 by 38 mm long screws at maximum 130 mm centres, maximum 40 mm in from corners. Fixings angled at 45° to the vertical.	581 (at 581 wide)	777 (at 465 high)	0.36 m^2
7.2 mm Pyrostem	Lorient Flexible Figure 1 (FF1) Glazing Tape (CF327)	24.5 mm high by minimum 21.5 mm wide (including a 6 mm by 9.5 mm bolection) Bead to include an 18° splay 12 mm +2/-1 mm edge cover	Meranti Hardwood minimum 585 kg/m^3 (Figure 5)	Ø1.6 by 38 mm long pins or No.6 by 38 mm long screws at maximum 130 mm centres, maximum 40 mm in from corners. Fixings angled at 45° to the vertical.	581 (at 581 wide)	777 (at 465 high)	0.36 m^2

Non-Insulating Glass: Rectilinear– Sealmaster Intumescent Foam Glazing Tape – MDF Beads

Glass Type	Intumescent System	Bead Dimensions (mm)	Bead Density	Fixings	Maximum Height (mm)	Maximum Width (mm)	Maximum Area (m^2)
6 mm Pyroguard TE30	Sealmaster Intumescent Foam Glazing Tape 15 mm high by 5 mm thick (CF5387)	24.5 mm high by minimum 21.5 mm wide (including a 6 mm by 9.5 mm bolection) Bead to include an 18° splay 12 mm +2/-1 mm edge cover	MDF minimum 596 kg/m^3 (Figure 6)	Ø1.6 by 38 mm long pins or No.6 by 38 mm long screws at maximum 130 mm centres, maximum 40 mm in from corners. Fixings angled at 45° to the vertical.	1766 (at 150 wide)	187 (at 1413 high)	0.26 m^2
6 mm Pyroguard TE30	Sealmaster Intumescent Foam Glazing Tape 15 mm high by 5 mm thick (CF5387)	24.5 mm high by minimum 21.5 mm wide (including a 6 mm by 9.5 mm bolection) Bead to include an 18° splay 12 mm +2/-1 mm edge cover	MDF minimum 596 kg/m^3 (Figure 6)	Ø1.6 by 38 mm long pins or No.6 by 38 mm long screws at maximum 130 mm centres, maximum 40 mm in from corners. Fixings angled at 45° to the vertical.	878 (at 150 wide)	170 (at 775 high)	0.13 m^2
6 mm Pyroguard TE30	Sealmaster Intumescent Foam Glazing Tape 15 mm high by 5 mm thick (CF5387)	24.5 mm high by minimum 21.5 mm wide (including a 6 mm by 9.5 mm bolection) Bead to include an 18° splay 12 mm +2/-1 mm edge cover	MDF minimum 596 kg/m^3 (Figure 6)	Ø1.6 by 38 mm long pins or No.6 by 38 mm long screws at maximum 130 mm centres, maximum 40 mm in from corners. Fixings angled at 45° to the vertical.	581 (at 581 wide)	777 (at 465 high)	0.36 m^2

9. Intumescent Seals

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

For door assemblies to BS476: Part 22 – classified as FD30

Door Leaves with Double Rails and ISL Intumescents* - Timber/MDF Frames		
Door Assembly Configuration*	**Position**	**Required Intumescent Protection**
Single-acting, single-leaf door assemblies latched/unlatched	Head	One 10 mm wide by 4 mm thick ISL Therm-A-Seal to the centre of the frame reveal or the centre of the door leaf edge
	Vertical edges	One 10 mm wide by 4 mm thick ISL Therm-A-Seal to the centre of the frame reveal or the centre of the door leaf edge
Single-acting, double-leaf door assemblies latched/unlatched	Head	One 20 mm by 4 mm thick ISL Therm-A-Seal to the centre of the frame reveal or the centre of the door leaf edge or two opposing 10 mm by 4 mm thick ISL Therm-A-Seal strips central in the frame reveal and door leaf edge
	Hanging edges	One 10 mm wide by 4 mm thick ISL Therm-A-Seal to the centre of the frame reveal or the centre of the door leaf edge
	Meeting edges (square / radiused)	One 20 mm by 4 mm thick ISL Therm-A-Seal to the centre of the door leaf edge or two opposing 10 mm wide by 4 mm thick ISL Therm-A-Seal (offset by 2-3 mm)
	Meeting edges (rebated)	Two 10 mm wide by 4 mm ISL Therm-A-Seal strips spaced 2-3 mm from the stop, one on each leaf

Door Leaves with Double Rails and ISL Intumescents* - Timber/MDF Frames - Continued		
Double-acting, single-leaf door assemblies latched/unlatched	Head	One 10 mm wide by 4 mm thick ISL Therm-A-Seal to the centre of the frame reveal or the centre of the door leaf edge
	Vertical edges	One 10 mm wide by 4 mm thick ISL Therm-A-Seal to the centre of the frame reveal or the centre of the door leaf edge
Double-acting, double-leaf door assemblies latched/unlatched	Head	One 20 mm wide by 4 mm thick ISL Therm-A-Seal to the centre of the frame reveal or the centre of the door leaf edge or two opposing 10 mm wide by 4 mm thick ISL Therm-A-Seal to the centre of the door leaf head and opposite in the frame reveal
	Hanging edges	One 10 mm wide by 4 mm thick ISL Therm-A-Seal to the centre of the frame reveal or the centre of the door leaf edge
	Meeting edges	One 20 mm by 4 mm thick ISL Therm-A-Seal to the centre of the door leaf edge or two opposing 10 mm wide by 4 mm thick ISL Therm-A-Seal (offset by 2-3 mm)

*See Table 1 for size restrictions

Door Leaves with Single Rails and ISL and Pyroplex Intumescents* - Timber/MDF Frames		
Door Assembly Configuration*	**Position**	**Required Intumescent Protection**
Single-acting, double-leaf door assemblies latched/unlatched	Head	One 20 mm by 4 mm thick ISL Therm-A-Seal to the centre of the frame reveal or the centre of the door leaf edge
	Hanging edges	One 10 mm wide by 4 mm thick ISL Therm-A-Seal to the centre of the frame reveal or the centre of the door leaf edge
	Meeting edges (square / radiused)	One 20 mm by 4 mm thick ISL Therm-A-Seal to the centre of the door leaf edge or two opposing 10 mm wide by 4 mm thick ISL Therm-A-Seal (offset by 2-3 mm)
	Meeting edges (rebated)	Two 15 mm wide by 4 mm Pyroplex (CF355) to the rebate of both door leaves

*See Table 2 for size restrictions

Door Leaves with Single Rails and Pyroplex CF355 Intumescents* - Timber/MDF Frames		
Door Assembly Configuration*	**Position**	**Required Intumescent Protection**
Single-acting, single-leaf door assemblies latched/unlatched	Head	One 15 mm wide by 4 mm thick Pyroplex (CF355) intumescent to the centre of the frame reveal or the centre of the door leaf edge
	Vertical edges	One 15 mm wide by 4 mm thick Pyroplex (CF355) intumescent to the centre of the frame reveal or the centre of the door leaf edge
Single-acting, double-leaf door assemblies latched/unlatched	Head	One 15 mm wide by 4 mm thick Pyroplex (CF355) intumescent fitted within the reveal to the frame head, offset 15 mm from opening face of the frame
	Hanging edges	One 15 mm wide by 4 mm thick Pyroplex (CF355) intumescent fitted within the reveal to the frame head, offset 15 mm from opening face of the frame
	Meeting edge active leaf only (square only)	Two 10 mm wide by 4 mm thick Pyroplex (CF355) intumescents fitted to the meeting edge of the active leaf, offset 8 mm from the opening and closing face – positioned 8 mm apart

*See Table 3 for size restrictions

Door Leaves with Double Rails and Pyroplex CF355 Intumescents* - Timber/MDF Frames		
Door Assembly Configuration*	**Position**	**Required Intumescent Protection**
Single-acting, single-leaf door assemblies latched/unlatched	Head	One 15 mm wide by 4 mm thick Pyroplex (CF355) intumescent to the centre of the frame reveal or the centre of the door leaf edge
	Vertical edges	One 15 mm wide by 4 mm thick Pyroplex (CF355) intumescent to the centre of the frame reveal or the centre of the door leaf edge
Single-acting, double-leaf door assemblies latched/unlatched	Head	One 15 mm wide by 4 mm thick Pyroplex (CF355) intumescent to the centre of the frame reveal or the centre of the door leaf edge
	Hanging edges	One 15 mm wide by 4 mm thick Pyroplex (CF355) intumescent to the centre of the frame reveal or the centre of the door leaf edge
	Meeting edges (square only)	Two 10 mm wide by 4 mm thick Pyroplex (CF355) intumescents positioned centrally within the meeting edge of the primary leaf, positioned 8 mm apart

*See Table 4 for size restrictions

Door Leaves with Single or Double Rails and Lorient 10 mm by 4 mm Type 617 Intumescents* - Timber/MDF Frames		
Door Assembly Configuration*	**Position**	**Required Intumescent Protection**
Single-acting, single-leaf door assemblies latched/unlatched	Head	One 10 mm wide by 4 mm thick Lorient, Type 617 intumescent fitted within the reveal to the frame head, offset 19 mm from opening face of the frame
	Vertical edges	One. 10 mm wide by 4 mm thick Lorient, Type 617 intumescent fitted within the reveal to the frame head, offset 19 mm from opening face of the frame
Single-acting, double-leaf door assemblies latched/unlatched	Frame head	One 10 mm wide by 4 mm thick Lorient, Type 617 intumescent fitted within the reveal to the frame head, offset 19 mm from opening face of the frame
	Top edge of active leaf	One 10 mm wide by 4 mm thick Lorient, Type 617 intumescent fitted to the top edge of the leaf, offset 9 mm from the closing face
	Top edge of passive leaf	One 10 mm wide by 4 mm thick Lorient, Type 617 intumescent fitted to the top edge of the leaf, offset 9 mm from the opening face
	Frame jambs	One 10 mm wide by 4 mm thick Lorient, Type 617 intumescent fitted within the reveal to the frame jambs, offset 19 mm from opening face of the frame
	Meeting edge of active leaf (square only)	One 10 mm wide by 4 mm thick Lorient, Type 617 intumescents fitted to the meeting edge of the active leaf, offset 9 mm from the closing face
	Meeting edge of passive leaf (square only)	One 10 mm wide by 4 mm thick Lorient, Type 617 intumescents fitted to the meeting edge of the passive leaf, offset 9 mm from the opening face

*See Table 5 for size restrictions

‘EXTRA TRIM’ Door Leaves* - Timber/MDF Frames			
Door Assembly Configuration*	**Option**	**Position**	**Required Intumescent Protection**
Single-acting, single-leaf door assemblies latched/unlatched	Option 1	Head	One 15 mm wide by 4 mm thick Pyroplex (CF355) intumescent to the centre of the frame reveal or the centre of the door leaf edge
		Vertical edges	One 15 mm wide by 4 mm thick Pyroplex (CF355) intumescent to the centre of the frame reveal or the centre of the door leaf edge
	Option 2	Head	One 10 mm wide by 4 mm thick Lorient, Type 617 intumescent fitted within the reveal to the frame head, offset 19 mm from opening face of the frame
		Vertical edges	One 10 mm wide by 4 mm thick Lorient, Type 617 intumescent fitted within the reveal to the frame head, offset 19 mm from opening face of the frame
	Option 3	Head	One 15 mm wide by 4 mm thick Lorient, Type 617 intumescent to the centre of the frame reveal or the centre of the door leaf edge
		Vertical edges	One 15 mm wide by 4 mm thick Lorient, Type 617 intumescent to the centre of the frame reveal or the centre of the door leaf edge
Single-acting, double-leaf door assemblies latched/unlatched	Option 1	Head	One 20 mm by 4 mm thick ISL Therm-A-Seal to the centre of the frame reveal or the centre of the door leaf edge
		Hanging edges	One 10 mm wide by 4 mm thick ISL Therm-A-Seal to the centre of the frame reveal or the centre of the door leaf edge
		Meeting edges (square only)	One 20 mm by 4 mm thick ISL Therm-A-Seal to the centre of the door leaf edge or two opposing 10 mm wide by 4 mm thick ISL Therm-A-Seal (offset by 2-3 mm)
	Option 2	Frame head	One 15 mm wide by 4 mm thick Lorient, Type 617 intumescent fitted within the reveal to the frame head, offset 15 mm from opening face of the frame
		Top edge of active leaf	One 10 mm wide by 4 mm thick Lorient, Type 617 intumescent fitted to the top edge of the leaf, offset 9 mm from the closing face
		Top edge of passive leaf	One 10 mm wide by 4 mm thick Lorient, Type 617 intumescent fitted to the top edge of the leaf, offset 9 mm from the opening face
		Frame jambs	One 15 mm wide by 4 mm thick Lorient, Type 617 intumescent fitted within the reveal to the frame jambs, offset 15 mm from opening face of the frame
		Meeting edge of active leaf (square only)	One 10 mm wide by 4 mm thick Lorient, Type 617 intumescents fitted to the meeting edge of the active leaf, offset 9 mm from the closing face
		Meeting edge of passive leaf (square only)	One 10 mm wide by 4 mm thick Lorient, Type 617 intumescents fitted to the meeting edge of the passive leaf, offset 9 mm from the opening face

*See Table 6 for size restrictions

Door Leaves with Double Rails and ISL Intumescents* - Steel Frames			
Door assembly Configuration*	**Frame material**	**Position**	**Required Intumescent Protection**
Single-acting, single-leaf door assemblies latched/unlatched	Steel	Head	One 25 mm wide by 4 mm thick ISL Therm-A-Seal to the centre of door leaf edge
		Vertical edges	One 25 mm wide by 4 mm thick ISL Therm-A-Seal to the centre of door leaf edge

*See Table 7 for size restrictions

Door Leaves with Double Rails and Lorient Type 617 Intumescents* – 20 mm by 4 mm – Timber Frames – NSP Duo, NSP 614 & NSP 814 locks/handles		
Door Assembly Configuration*	**Position**	**Required Intumescent Protection**
Single-acting, single-leaf door assemblies latched	Head	One 20 mm wide by 4 mm thick Lorient Type 617 seal within the frame reveal, positioned 11 mm from the opening face of the frame
	Vertical edges	One 20 mm wide by 4 mm thick Lorient Type 617 seal within the frame reveal, positioned 11 mm from the opening face of the frame

*See Table 8 for size restrictions

Door Leaves (with Double Rails and Lorient Type 617 Intumescents – 20 mm by 4 mm) and Timber Frames – When using ERA Invincible Multipoint Locks		
Door Assembly Configuration*	**Position**	**Required Intumescent Protection**
Single-acting, single-leaf door assemblies latched	Head	One 20 mm wide by 4 mm thick Lorient Type 617 seal within the frame reveal, positioned 11 mm from the opening face of the frame
	Vertical edges	One 20 mm wide by 4 mm thick Lorient Type 617 seal within the frame reveal, positioned 11 mm from the opening face of the frame

*See Table 9 for size restrictions

Door Leaves with Single or Double Rails and Lorient 15 mm by 4 mm Type 617 Intumescents* - Timber/MDF Frames		
Door Assembly Configuration*	**Position**	**Required Intumescent Protection**
Single-acting, single-leaf door assemblies latched/unlatched	Head	One 15 mm wide by 4 mm thick Lorient, Type 617 intumescent fitted within the reveal to the frame head, offset 15 mm from opening face of the frame
	Vertical edges	One. 15 mm wide by 4 mm thick Lorient, Type 617 intumescent fitted within the reveal to the frame head, offset 15 mm from opening face of the frame
Single-acting, double-leaf door assemblies latched/unlatched	Frame head	One 15 mm wide by 4 mm thick Lorient, Type 617 intumescent fitted within the reveal to the frame head, offset 15 mm from opening face of the frame
	Top edge of active leaf	One 10 mm wide by 4 mm thick Lorient, Type 617 intumescent fitted to the top edge of the leaf, offset 9 mm from the closing face
	Top edge of passive leaf	One 10 mm wide by 4 mm thick Lorient, Type 617 intumescent fitted to the top edge of the leaf, offset 9 mm from the opening face
	Frame jambs	One 15 mm wide by 4 mm thick Lorient, Type 617 intumescent fitted within the reveal to the frame jambs, offset 15 mm from opening face of the frame
	Meeting edge of active leaf (square only)	One 10 mm wide by 4 mm thick Lorient, Type 617 intumescents fitted to the meeting edge of the active leaf, offset 9 mm from the closing face
	Meeting edge of passive leaf (square only)	One 10 mm wide by 4 mm thick Lorient, Type 617 intumescents fitted to the meeting edge of the passive leaf, offset 9 mm from the opening face

*See Table 10 for size restrictions

Door Leaves with Single Rails and Astroflame (CF5822) Intumescents* - Timber/MDF Frames		
Door Assembly Configuration*	**Position**	**Required Intumescent Protection**
Single-acting, double-leaf door assemblies latched/unlatched	Frame head	One 15 mm wide by 4 mm thick Astroflame (CF5822) intumescent fitted within the reveal to the frame head, offset 15 mm from opening face of the frame
	Frame jambs	One 15 mm wide by 4 mm thick Astroflame (CF5822) intumescent fitted within the reveal to the frame head, offset 15 mm from opening face of the frame
	Meeting edge of active leaf (square only)	Two 10 mm wide by 4 mm thick Astroflame (CF5822) intumescents fitted to the meeting edge of the active leaf, offset 5 mm from the opening and closing face – positioned 14 mm apart

*See Table 11 for size restrictions

Intumescent seals may be interrupted at hinge and latch positions.

Latched or unlatched, single acting, single-leaves with maximum leaf dimensions of 2040 mm high by 926 mm wide and of a minimum thickness of 43 mm may utilise alternative Intumescents in-line with the relevant CERTIFIRE approval for the proposed intumescent seal (excluding doorsets with NSP Security locks and ERA Invincible multipoint locks). 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 tables above.

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

Single-acting, single-leaf and double-leaf 'hatch' doors (of leaf dimensions up to 1300 mm high by 1000 mm wide) are to include a single 10 mm wide by 4 mm thick Therm-a-Seal in the centre of the door leaf at the threshold.

10. Hinges

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

Option 1		
Quantity:	Minimum three hinges (doors up to 2400 mm high) Minimum four hinges (doors larger than 2400 mm high)	
Type:	Steel lift off or butt hinges.	
Positions:*	Top hinge:	Maximum 300 mm from head of leaf to top hinge
	Bottom hinge:	Maximum 300 mm from bottom of leaf to bottom hinge
	Third hinge:	• Positioned centrally between top & bottom hinge (±20 mm). • Positioned maximum 200 mm below the top hinge
Dimensions:	Height:	100 mm (±20%)
	Blade width:	26 - 36 mm
	Thickness:	3 mm (±0.5 mm)
	Knuckle dia.:	13 mm (±1 mm)
Fixings:	Minimum four steel screws, No.8 by 25 mm long	
Intumescent protection**	None required	
	Option to include 1 mm thick Interdens or graphite intumescent sheet material under hinge blades permitted. Where Graphite intumescent sheet material is to be used, the proposed graphite material shall have suitable test evidence at the required thickness, in conjunction with hinges installed on timber-based doors assemblies for the required 30 minutes integrity period.	

Option 2		
Quantity:	Minimum three hinges	
Type:	Steel butt hinges	
Positions:*	Top hinge:	Maximum 300 mm from head of leaf to top hinge
	Bottom hinge:	Maximum 300 mm from bottom of leaf to bottom hinge
	Third hinge:	• Positioned centrally between top & bottom hinge (± 20 mm) • Positioned maximum 300 mm below the top hinge.
Dimensions:	Height:	100 mm (±20%)
	Blade width:	25 mm (+3/-0 mm
	Thickness:	2 mm (+0.5/-0 mm)
	Knuckle dia.:	10 mm (+1/-0 mm)
Fixings:	Frame fixings	Minimum four steel screws, 3 or 4 mm diameter by 19 mm long
	Door fixings:	Minimum four steel screws, 3 or 4 mm diameter by 32 mm long
Intumescent protection**	None required	
	Option to include 1 mm thick Interdens or graphite intumescent sheet material under hinge blades permitted. Where Graphite intumescent sheet material is to be used, the proposed graphite material shall have suitable test evidence at the required thickness, in conjunction with hinges installed on timber-based doors assemblies for the required 30 minutes integrity period.	

Option 3		
Reference	Frisco (UK) Sales Ltd., Eclipse 14858 / 14860 / 14882G11 Grade 11 hinges with square corners (CF336).	
Quantity:	Minimum three hinges	
Type:	Steel butt hinges	
Positions:*	Top hinge:	Maximum 200 mm from head of leaf to top hinge
	Bottom hinge:	Maximum 300 mm from bottom of leaf to bottom hinge
	Third hinge:	• Positioned centrally between top & bottom hinge (± 20 mm) • Positioned maximum 300 mm below the top hinge.
Dimensions:	Height:	101.5 mm
	Blade width:	30 mm
	Thickness:	3 mm
	Knuckle dia.:	14 mm
Fixings:	Minimum four steel screws, Ø4.5 mm by 32 mm long	
Intumescent protection**	None required	
	Option to include 1 mm thick Interdens or graphite intumescent sheet material under hinge blades permitted. Where Graphite intumescent sheet material is to be used, the proposed graphite material shall have suitable test evidence at the required thickness, in conjunction with hinges installed on timber-based doors assemblies for the required 30 minutes integrity period.	

Option 4 – 'Doorkit' hinges			
Reference	'Doorkit' hinges – hinges shall be CE marked for use on 30 minute timber based doorsets		
Quantity:	Minimum three hinges		
Type:	Mild steel butt hinges		
Positions:*	Top hinge:	Maximum 230 mm from head of leaf to top hinge	
	Bottom hinge:	Maximum 230 mm from bottom of leaf to bottom hinge	
	Third hinge:	Positioned centrally within the leaf height	
Dimensions:	Height:	Frame:	65 mm (-0.2 mm / +0.5 mm)
		Door:	55 mm (±0.5 mm)
	Blade width:	Frame:	34 mm (±0.5 mm)
		Door:	44 mm (±0.5 mm)
	Thickness:	Frame:	2.5 mm (-0 mm / +0.5 mm)
		Door:	6 mm (-0.2 mm / +0.8 mm)
	Knuckle dia.:	11.2 mm (±0.5 mm)	
Fixings:	Minimum three steel screws of minimum Ø4 mm by 32 mm long – per hinge blade into the frame Minimum two steel screws of minimum Ø4 mm by 32 mm long – per hinge blade into the door leaf		
Intumescent protection**	None required		
	Option to include 1 mm thick Interdens or graphite intumescent sheet material under hinge blades permitted. Where Graphite intumescent sheet material is to be used, the proposed graphite material shall have suitable test evidence at the required thickness, in conjunction with hinges installed on timber-based doors assemblies for the required 30 minutes integrity period.		

* 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.

Specific hinges referenced 61029BB may be used with each blade bedded on 1 mm thick Mono-ammonium phosphate (Interdens) material.

Double-action hinges are not permitted for use in conjunction with CERTIFIRE approved door assemblies, as they are not a controlled self-closing device, and therefore do not comply with Building regulation requirements.

Projection hinges and rising / falling butt hinges are not permitted for use in conjunction with CERTIFIRE approved door assemblies.

11. Locks and Latches

Locks and latches are not necessary. When fitted locks/latches shall be CE marked in accordance with BS EN 12209 or BS EN 179 for use on 30 minute timber fire doors.

Option 1	
Type:	Mortice type, automatic (sprung) latch bolt, and/or deadlock.
Case dimension:	Maximum 120 mm long by 19 mm wide
Forend dimension:	Maximum 165 mm long by 26 mm wide
Strike plate dimension:	Maximum 165 mm long by 25 mm wide (excluding latch plate lip)
Latchbolt material:	Steel or material with a melting point ≥ to 850°C
Position:	Maximum 1100 mm from bottom of door to centreline of lockcase
Cylinders:	Euro profile Single cylinder, double cylinder or cylinder/thumbturns shall be suitable for use on FD30 fire resistant assemblies in accordance with BS EN 1303.
Intumescent protection*	None Required
	Option to include 1 mm thick Interdens intumescent sheet material to the case, and under the keep and forend permitted.

Option 2		
Type:	Mortice type, automatic (sprung) latch bolt, and/or deadlock.	
Case dimension:	Maximum 165 mm long by 19 mm wide by 90 mm deep	
Forend dimension:	Maximum 235 mm long by 22 mm wide	
Strike plate dimension:	Maximum 180 mm long by 40 mm wide (including a 135 mm by 15 mm latch plate lip)	
Latchbolt material:	Steel or material with a melting point ≥ to 850°C	
Position:	Maximum 1100 mm from bottom of door to centreline of lockcase	
Cylinders:	Euro profile Single cylinder, double cylinder or cylinder/thumbturns shall be suitable for use on FD30 fire resistant assemblies in accordance with BS EN 1303.	
Intumescent protection*	Unlipped & edge banded doors:	Latch case, forend and keep to be bedded onto 1 mm thick Interdens intumescent sheet material. Additional 1 mm thick Interdens intumescent sheet material is required to the bottom of the lock / latch bolt recesses.
	Doors with lipped vertical edge:	Latch case, forend and keep to be bedded onto 1 mm thick Interdens intumescent sheet material.

* 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 tables above and subject to the conditions contained within the relevant certificate. Where the Certifire approved lock/latch exceeds the specification given in the tables 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.

The use of CE Marked 'Fire Brigade' type locks is permitted in accordance with the specification below:

CE Marked 'Fire Brigade Type' Locks and Latches		
Dimensions:	Forend:	Maximum 118 mm high by 23 mm wide
	Case:	Maximum 81 mm high by 106 mm wide by 17 mm thick
	Keep:	Maximum 89 mm high by 26 mm wide
Latchbolt material:	Steel or Brass	
Position:	Maximum 1100 mm from bottom of door to centreline of lockcase	
Intumescent: protection:	1 mm thick Interdens intumescent sheet material to fully wrap the lock case and behind both the forend and keep	
	Unlipped CF160 doors also require 1 mm thick Interdens intumescent sheet material to the bottom of the lock / latch bolt recesses	
Notes:	The 'Fire Brigade Type' locks and latches shall be CE marked in accordance with BS EN 12209 for use on 30 minute timber fire doors.	

The use of tubular latches is permitted in accordance with the specification below:

Tubular Latches		
Dimensions:	Forend:	60 mm high by 25.5 mm wide by 5 mm thick
	Case:	24 mm high by 16 mm wide by 76 mm deep
	Keep:	65 mm high by 25 mm wide by 14.1 mm deep by 1.2 mm thick (excluding a 32 to 40 mm high by 15 mm wide latch plate lip)
Latchbolt material:	Zinc	
Position:	Maximum 1100 mm from bottom of door to centreline of spindle	
Intumescent: protection:	None Required	

The use of an ERA 60 mm DL Nightlatch – 193-37 is permitted in accordance with the specification below:

ERA 60 mm DL Rim Mounted Nightlatch – 193-37		
Dimensions:	Case:	Maximum 85 mm high by 90 mm wide by 33 mm deep
	Keep:	Maximum 89 mm high by 26 mm wide
Latchbolt material:	Steel	
Position:	Maximum 1530 mm from bottom of door to centreline of lockcase	
Intumescent: protection:	1 mm thick Flexifire graphite intumescent sheet material behind the latch body, latch keep and inside the cylinder recess.	
Notes:	The recess for the cylinder shall be tight, whilst allowing for the 1 mm thick graphite intumescent sheet material, which fully lines the cylinder recess. The graphite intumescent material shall have suitable test evidence at the required thickness, in conjunction with locks/latches installed in timber-based doors assemblies for the required 30 minutes integrity period. The 193-37 nightlatch latch body and staple (keep box) shall be fitted to the opening face of the door assembly, on the fire risk / exposed face of the doorset only. Where the fire risk / exposure direction is unknown the fitment of the nightlatch is not permitted.	

The following points relate to all locks & latches discussed within this 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)
- The spindle hole shall be a maximum of 16 mm in diameter, where the lock case is not protected by Intumescent sheet material. In this instance lever handles may be steel, brass, zinc or aluminium and may be screw or bolt through fixed with steel fixings.
- The spindle hole may be increased to a maximum of 20 mm in diameter where the lock case is not protected with intumescent sheet material, subject to the use of wholly steel or wholly brass lever handles, in conjunction with steel bolt through fixings only.
- The spindle hole may be further increased to a maximum of 22 mm in diameter where the lock case is protected with 1 mm thick Interdens intumescent sheet material in accordance with the specifications provided in the tables above.
- 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.
- Single cylinder recesses shall penetrate through only half the thickness of the door leaf.

Specific locksets referenced below may be used and shall be bedded onto ISL Therm-A-Flex intumescent sheet material (these latches may only be used on door leaves approved for unlatched configurations and sizes):

Samuel Heath 'Trip Catch'
Royde & Tucker 'Hush Latch'

- The following items of exit hardware are specifically assessed for use on these doorsets:

1413E/KE
1438E
376E
377E
378E

- The following cylinders and door furniture are specifically assessed for use on these doorsets:

Cylinders	801
	802
	803
Door Furniture	57.5000
	5402
	5404/5

Note rebate conversion kit bedded onto intumescent mastic may be used on rebated double-leaf doorsets. Maximum case dimensions of 57 mm high by 78 mm wide by 25 mm thick.

- Specific locksets referenced below may be used and shall be bedded onto 1 mm thick Mono-ammonium phosphate (Interdens) material:

5410.60
5420.60
5430.60
5440.60
3722
Chubb 3R55
Chubb 3G110
Lockey No. 2430

- The Abloy '4238 Roller Catch' is specifically assessed for use on these doorsets where an unlatched configuration is permitted.

NSP Security Locks and Handles

Single-action, single-leaf door assemblies, may incorporate NSP Security lock cases referenced SMF 02 Ansi, complete with SMF Duo, SMF 614 and SMF 814 handles/card readers in accordance with the following specification – See Table 8 for maximum leaf sizes:

Manufacturer:	NSP Security		
Lock reference:	SMF 02 ANSI		
Keep reference:	Plate		
Case dimensions:	155 mm long by 110 mm deep by 24 mm wide		
Forend dimensions:	204 mm long by 29 mm wide by 5 mm thick		
Keep dimension:	132 mm long by 34 mm wide by 2 mm thick		
Spindle diameter:	SMF 614: Ø24 mm	SMF 814: Ø40 mm	SMF Duo: Ø26 mm
Position:	1020 mm (± 50 mm) from bottom of door to centreline of spindle.		
Lock Configuration:	Engaged latchbolt		
Handles/card reader:	Manufacturer:	NSP Security	
	Reference:	SMF Duo, SMF 614 and SMF 814	
	Material:	Stainless Steel	
	Fixings:	As supplied by the manufacturer	
Intumescent protection:	Lock case:	1 mm thick Interdens intumescent sheet material to fully wrap the case	
	Forend:	None required	
	Keep:	None required	
Frame:	Material:	Softwood (solid or finger jointed/laminated)	
	Density:	500 kg/m^3 min.	
	Dimensions:	66 mm wide by 52 mm thick minimum complete with a 48 mm wide by 20 mm deep integral rebate.	
Lippings	Doors shall either be unlipped or shall be edge banded with Surteco Techoline P (0.38 mm thick) to the vertical leaf edges only.		
Perimeter seals:	Manufacturer:	Lorient Polyproducts Limited	
	Type:	Type 617	
	Dimensions:	20 mm wide by 4 mm thick	
	Position:	11 mm from the opening face of the frame, within the frame reveal (jambs and head)	

ERA Home Security Invincible Multipoint Locks

Single-action, single-leaf door assemblies, may incorporate an ERA Home Security multipoint lock referenced Invincible, in accordance with the following specification – See Table 9 for maximum leaf sizes:

Manufacturer:	ERA Home Security		
Lock reference:	Invincible 6935-3H-629-79ZJ		
Keep reference:	Invincible 6935-3H-629-79ZJ		
Lock material:	Passivated steel and stainless steel		
Keep material:	Passivated steel		
Case dimensions:	Central:	222 mm long by 53 mm deep by 15 mm wide	
	Top & Bottom:	113 mm long by 43 mm deep by 15 mm wide	
Forend dimensions:	1635 mm long by 20 mm wide by 5 mm thick		
Keep dimension:	Central:	200 mm long by 24 mm wide by 2 mm thick, plus a 46 mm long by 15 mm latch plate lip.	
	Top & Bottom:	177 mm long by 35 mm wide by 26 mm thick	
Spindle diameter:	Ø18 mm		
Position:	1015 mm (± 50 mm) from bottom of door to centreline of spindle.		
Lock Configuration:	Central:	Engaged latchbolt	
	Top & Bottom:	Engaged or disengaged hook bolts	
Cylinder:	Supplier / Ref:	ERA Fortress 3* 35/35 Euro profile cylinder	
	Type:	Cylinder with thumbturn	
	Dimensions:	33 mm by 75 mm by 17 mm	
	Alternative Euro profile single cylinders, double cylinders or cylinder / thumbturns, suitable for use on FD30 fire resistant assemblies in accordance with EN 1303 may be utilised		
Lever Handles:	Manufacturer:	ERA Home Security	
	Reference:	Balmoral	
	Material:	Aluminium	
	Dimensions:	Face plate:	243 mm long by 32 mm wide by 10.7 mm thick
		Lever:	17 mm high by 120 mm wide by 66.6 mm projection
	Note: Alternatively, NSP Security SMF 814 handles may be utilised.		
Intumescent protection:	Central lock case:	1 mm thick Interdens intumescent sheet material to fully wrap the case	
	Top & bottom case:	None required	
	Forend:	None required	
	Keeps:	Face plates bedded on 1 mm thick Interdens intumescent sheet material	
Frame:	Material:	Softwood (solid or finger jointed/laminated)	
	Density:	500 kg/m^3 min.	
	Dimensions:	66 mm wide by 52 mm thick minimum complete with a 48 mm wide by 20 mm deep integral rebate.	
Lippings	Doors shall either be unlipped or shall be edge banded with Surteco Techoline P (0.38 mm thick) to the vertical leaf edges only.		
Perimeter Intumescent seal:	Manufacturer:	Lorient Polyproducts Limited	
	Type:	Type 617	
	Dimensions:	20 mm wide by 4 mm thick	
	Position:	11 mm from the opening face of the frame, within the frame reveal (jambs and head)	
Perimeter frame seal:	Schlegel, Q-Lon Aquamac AQ21		

Ares AA-09 Locks

Single-action, single-leaf door assemblies, may incorporate an Ares AA-09 lock in accordance with the following specification:

Manufacturer/Ref:	Ares AA-09	
Material:	Stainless steel	
Case dimensions:	Central case:	165 mm long by 80 mm deep by 15 mm wide
	Electronics case:	86 mm long by 92 mm deep by 19.5 mm wide
	Overall:	262 mm long by 92 mm deep by 19.5 mm wide
Forend dimensions:	325 mm long by 22 mm wide by 1.5 mm thick with an additional 325 mm long by 22 mm wide by 1.5 mm thick forend cover plate.	
Keep dimension:	184 mm long by 26 mm wide by 1.5 mm thick, plus a 150 mm long by 18 mm latch plate lip.	
Fixings:	Central case:	Two Ø4 mm by 20 mm long
	Forend (1):	Three Ø3.5 mm by 6 mm long grub screws
	Forend (2):	Three Ø3.5 mm by 6 mm long grub screws
	Keep:	Three Ø4 mm by 20 mm long
Spindle diameter:	Ø20 mm	
Position:	Maximum 1020 mm from bottom of door to centreline of spindle.	
Lock Configuration:	Latchbolt:	Engaged latchbolt
	Lock bolt:	Engaged or disengaged
Cylinder:	Single Euro profile cylinder with thumbturn, suitable for use on FD30 fire resistant assemblies in accordance with EN 1303. Single cylinder recesses shall penetrate through only half the thickness of the door leaf. The cylinder shall be fixed with one Ø5 mm by 65 mm long screw.	
Lever Handles:	Manufacturer/Ref	Ares AA-09 lever handle
	Material:	Stainless steel
	Dimensions:	135 mm long by 54 mm projection by Ø31 mm with Ø56 mm by 130 mm faceplate
	Fixings:	Two M4 by 40 mm long bolt through screws located within the inner faceplate of the handle
Escutcheon:	Manufacturer/Ref	Ares AA-09 lever escutcheon
	Material:	Stainless steel
	Dimensions:	Ø56 mm by 10 mm thick
	Fixings:	Two M4 by 40 mm long bolt through screws located within the inner faceplate of the handle
Intumescent protection:	Central case:	1 mm thick Interdens intumescent sheet material to fully wrap the case
	Electronics case:	1 mm thick Interdens intumescent sheet material to fully wrap the case
	Forend:	None required
	Keeps:	1 mm thick Interdens intumescent sheet material
Frame:	Material:	Softwood (solid or finger jointed/laminated)
	Density:	500 kg/m^3 min.
	Dimensions:	66 mm wide by 52 mm thick minimum complete with a 48 mm wide by 20 mm deep integral rebate.
Lippings	Doors shall either be unlipped or shall be edge banded with Surteco Techoline P (0.38 mm thick) to the vertical leaf edges only.	
Perimeter Intumescent seal:	Manufacturer:	Pyroplex
	Type:	Rigid box intumescents - CF355
	Dimensions:	15 mm wide by 4 mm thick
	Position:	14.5 mm from the opening face of the frame, within the frame reveal (jambs and head). See Table 3 & 4 for maximum leaf sizes
Perimeter seal:	Lorient Batwing (12 mm by 12 mm) applied to the frame	

Salto Locks

Salto lock cases complete with card readers in accordance with CF5596 may be fitted in accordance with the following specification requirements:

- Maximum case: 165 mm by 100 mm by 15 mm
- Maximum strike: 170 mm long by 24 mm wide (excluding lip)
- Maximum forend: 235 mm by 24 mm
- Minimum door thickness of 44 mm
- Doors to be lipped to vertical edges with hardwood with a minimum density of 650 kg/m^3.
- Recess for lock and card reader to be fully lined with 1 mm thick Interdens intumescent sheet material
- Forend and strike to be bedded on 1 mm thick Interdens intumescent sheet material
- Locks are to be fitted no higher than 1100 mm from the spindle to the finished floor level.

12. 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 a minimum 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.

12a. Surface Mounted Overhead Closers

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

The Briton ‘2003’ surface mounted overhead door closer is specifically assessed for use on these doorsets.

12b. Transom Mounted Closers

Not permitted

12c. Floor Spring Closers

All double-acting doorsets shall be fitted onto floor springs and associated accessories which are covered by a CERTIFIRE certificate. This is not essential for fire performance if the doorset incorporates a latch and the leaf is in the closed and fully latched position. A self-closing device is however required to be fitted to satisfy fire regulations. **Note: closers with mechanical hold-open mechanisms are not permitted to be used.**

12d. Concealed Overhead Closers

Single action door assemblies may incorporate Rutland ITS.11204 concealed overhead closers in accordance with the specification below:

Manufacturer:	Rutland	
Lock reference:	ITS.11204	
Dimensions:	Closer body:	243 mm long by 64 mm deep by 32 mm wide
	Channel:	464 mm long by 19 mm deep by 33.5 mm wide
Intumescent protection:	Closer body:	Rutland IP.114 kit comprising 2 mm thick graphite intumescent sheet material over the entire forend and recess in the top edge of the door
	Guide rail:	Rutland IP.114 kit comprising 2 mm thick graphite intumescent sheet material to the vertical edges only of the guide rail recess in the frame head
Leaf thickness:	44 mm thick minimum (excluding decorative finishes)	
Lippings	Doors shall be unlipped or edge banded with Surteco Techoline P (0.38 mm thick) to the vertical leaf edges only	
Frame:	Material:	Softwood (solid or finger jointed/laminated) or hardwood
	Density:	500 kg/m^3 minimum
	Dimensions:	66 mm wide by 52 mm thick minimum complete with a 48 mm wide by 20 mm deep integral rebate
Perimeter Intumescent seal:	Manufacturer:	Lorient Polyproducts Limited
	Type:	Type 617
	Dimensions:	15 mm wide by 4 mm thick
	Position:	15 mm from the opening face of the frame, within the frame reveal (jambs and head) See Table 10 for size restrictions
Configuration:	The closer body shall be mounted in the top edge of the door leaf, with the channel mounted in the frame head The closer body shall be mounted centrally within the leaf thickness. The channel shall be mounted centrally within the frame reveal	
Notes:	Closer body and arm positioning is to be in accordance with the CERTIFIRE certificate of approval for the Rutland ITS.11204.2.5.SE closer (CF5902) All additional requirements stated within CF5902 shall be complied with in full	

12e. Jamb Mounted Door Springs

Jamb mounted door springs referenced 'Perko R1/R2' and 'Perkomatic R85' may be used as follows:

- May be used on doors within a dwellinghouse, excluding doors between a dwellinghouse and an integral garage.
- May be used on doors within flats, excluding flat entrance doors.
- May be used on doors to cupboards and service ducts which are normally kept locked.
- All other fire doors should be fitted with a self-closing device as previously stated.
- Furthermore, the use of jamb mounted door springs is limited to latched, single-acting, single-leaf door assemblies for internal use only.

The use of Perko R1/R2 and Perkomatic R85 jamb mounted door springs is permitted on the basis that, when the door is latched shut, it will not detract from the fire performance of the door assembly in the event of a fire. The door springs are NOT CERTIFIRE approved, and no claims are made or should be implied or inferred on the ability of the device to close and latch the door or in respect of its mechanical performance or durability.

13. Ancillary Items

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

13a. Protection Plates and Signage

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

- < 2mm thick.
- Do not occupy more than 20% of the door leaf in total or exceed 500 mm in height for kickplates and 300 mm 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 40-50 mm narrower than door width).
- Plates/signage can be bonded with a thermally softening adhesive. Additionally, screws may be used.

13b. 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.

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

Bolt through fixings will require intumescent protection in the form of a 1 mm thick graphite tube, or Intumescent mastic to the full depth of the recess.

13c. Flushbolts

Doorsets may incorporate flushbolts in accordance with the following specification requirements:

Option A	
Maximum flushbolt dimension:	202.5 mm long by 37.5 mm deep by 19 mm wide
Maximum keep dimension:	27 mm long by 16 mm wide by 1 mm thick
Material:	Steel
Position:	Top and bottom on door edge or face (positioned a minimum of 50 mm from leading edge of the door to the centre of the bolt)
Intumescent protection:	Flushbolts are to be fully wrapped in 1 mm Interdens intumescent material
Configuration:	The primary leaf may be latched or unlatched
	Flushbolts may be engaged or disengaged where fitted

Option B	
Maximum flushbolt dimension:	100 mm long by 27 mm deep by 17 mm wide
Maximum keep dimension:	27 mm long by 16 mm wide by 1 mm thick
Material:	Brass or Steel
Position:	Top and bottom on door edge or face (positioned a minimum of 50 mm from leading edge of the door to the centre of the bolt)
Intumescent protection:	None required
Intumescent seals:	Lorient 10 mm by 4 mm Type 617 Intumescent seals in accordance with the configuration for use with single or double railed door leaves (see Table 5 for maximum leaf sizes)
Configuration:	The primary leaf may be latched or unlatched
	Flushbolts may be engaged or disengaged where fitted

Option C	
Maximum flushbolt dimension:	203 mm long by 38 mm deep by 19 mm wide
Maximum keep dimension:	42 mm long by 19 mm wide by 2 mm thick
Material:	Steel
Position:	Flushbolts fitted to the top and bottom on the door edge or face (positioned a minimum of 50 mm from leading edge of the door to the centre of the bolt). Flushbolt keeps shall be surface mounted only.
Intumescent protection:	1 mm thick Interdens intumescent sheet material to wrap each flushbolt, complete with intumescent mastic to the rear of each flushbolt body. Keeps do not require intumescent protection
Configuration:	The primary leaf may be latched or unlatched
	Flushbolts may be engaged or disengaged where fitted

Option D	
Maximum flushbolt dimension:	101 mm long by 28 mm deep by 17.5 mm wide
Maximum keep dimension:	27.5 mm long by 16 mm wide by 1 mm thick
Material:	Steel
Position:	Flushbolt fitted to the top of the meeting edge only. Flushbolt keeps shall be surface mounted only.
Intumescent protection:	1 mm thick Interdens intumescent sheet material to wrap the flushbolt body. Keeps do not require intumescent protection
Configuration:	The primary leaf may be latched or unlatched
	The flushbolt may be engaged or disengaged where fitted
Note:	**Certifire do not recommend the fitment of a single flushbolt to the top of the meeting edge, therefore please discuss this detail further with JELD-WEN UK before proceeding**

Barrel bolts which are wholly surface mounted and do not encroach into the door/frame gap may be fitted providing these items are screw fixed only, and not bolted through the full thickness of the door.

When fitted to the closing face of the door assembly, the bolt may be located within a tight recess to the frame head stop.

13d. Door Viewers

Door viewers may be fitted into the leaf providing the viewer comprises a metal sleeve and an optical glass lens and is not positioned higher than 1500 mm from the threshold to the centre line of the viewer barrel.

The viewer should have an external diameter of not greater than 15 mm.

The aperture provided for the installation of the viewer should be fully lined with 1 mm thick Interdens intumescent sheet material, ensuring that the viewer is a tight fit.

One or more door viewers may be fitted providing a minimum of 100 mm centre-to-centre is retained between viewers.

Additionally, door viewers referenced UK Fixings 22528 may be utilised.

13e. Air Transfer Grilles

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

Where apertures are pre-cut by JELD-WEN UK Limited, or 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.

13f. 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.

13g. 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

13h. Dropseals

CERTIFIRE approved dropseals may be fitted to the bottom edge of CF160 door leaves, including, but not limited to the Lorient Polyproducts LAS8001si, subject to maximum dimensions of 35 mm high by 14 mm wide.

Fire and Acoustic Seals, FAS45 dropseals with overall dimensions 21 mm high by 11 mm wide are also permitted.

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.

Wholly surface mounted CERTIFIRE approved dropseals may also be fitted to the bottom edge of CF160 door leaves.

Note: Threshold gaps as stated in Section 3 are to be maintained

13i. Electric Strikes / Electromechanical Locks

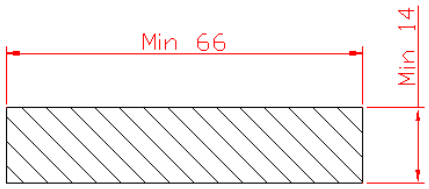
Not permitted

13j. Edge Protectors

Not permitted

13k. Hardwood Thresholds

Door assemblies may incorporate hardwood thresholds, in accordance with the following specification:

Reference:	Plain threshold – see detail below:
Material:	Hardwood (excluding Ash, Beech, Geronggang & Iroko)
Density:	Minimum 620kg/m^3
Dimensions:	Minimum 66 mm wide by 14 mm high
Fixings:	Screwed to the bottom of the frame jambs using two M4 by 40 mm long steel screws to each frame jamb (four in total), plus additional fixings at maximum 400 mm centres using Ø5.6 mm by 100 mm long steel screws
Threshold gap:	A maximum 8 mm gap is permitted between the underside of the door leaf and the top of the hardwood threshold
Note:	Hardwood thresholds may be used with/without Certifire approved dropseals of maximum overall dimensions 35 mm high by 14 mm wide
	

13l. Hardwood Cills

Single-action, single-leaf and single-action, double-leaf assemblies may incorporate hardwood, once rebated cills, in accordance with the following specification:

Reference:	Once rebated Cill
Material:	Hardwood (excluding Ash, Beech, Geronggang & Iroko)
Density:	Minimum 640kg/m^3
Dimensions:	Minimum 78 mm wide by 43 mm thick, complete with an integral rebate of overall dimensions 47 mm wide by 13 mm deep.
Fixings:	Screwed to the bottom of the frame jambs using two M4 by 40 mm long steel screws to each frame jamb (four in total), plus additional fixings at maximum 400 mm centres using Ø5.6 mm by 100 mm long steel screws
Threshold gap:	A maximum 8 mm gap is permitted between the underside of the door leaf and the reveal of the once rebated cill.
Note:	The once rebated cill width shall be greater than or equal to the width of the frame jambs and head. Hardwood once rebated cills may be used with/without Certifire approved dropseals of maximum overall dimensions 35 mm high by 14 mm wide. Door assemblies do not require an intumescent seal to be fitted within the reveal of the once rebated cill section.

13m. Feature Grooves

- CF160 door leaves may be grooved to a maximum width of 6 mm by a maximum depth of 1.5 mm to one or both faces, when utilising a facing of minimum thickness 2.7 mm, such that a minimum of 1.2 mm of facing remains at the base of each groove.
- The groove depth may be further increased in accordance with a proportionate increase of the facing thickness, such that a minimum facing thickness of 1.2 mm is always maintained at the groove positions, and subject to a maximum facing thickness of 5 mm.
- The facing shall have a minimum density of 800 kg/m^3
- Grooves may be full height/width, running horizontally/vertically or a combination of both.
- Grooves shall not extend to the perimeter of cut outs; therefore a minimum 30 mm margin shall be maintained between grooves and all recesses through the door leaf faces for apertures, letter plates, air transfer grilles etc.
- Grooves may be square, 'U' shaped or 'V' shaped on the basis that the maximum overall groove depth and width are not exceeded.
- A 100 mm minimum margin shall be maintained between the door leaf perimeter and grooves that run parallel to the door leaf edges, with the exception of the door leaf hang edge where a 32 mm minimum margin between the leaf edge and the grooves is permitted.
- A 30 mm minimum margin shall be maintained between adjacent horizontal and vertical grooves, but grooves may cross / intersect each other.

13n. Data Pins

Data pins, where required, shall be in accordance with the specification below:

Supplier:	Door Data Systems	
Description/reference:	Data Pin/Data ID Tag	
Materials:	Computer chip with dual plastic coating	
Overall dimensions:	Ø6 mm by 37.5 mm	
Position (within door leaf):	Top edge:	100 mm minimum from the top or bottom of the door leaf edge
	Hang edge:	100 mm minimum from the lock or hang edge of the door leaf
Fixing method:	Data pins are friction fitted into the top or hang edge of the door leaf, centred within the leaf thickness	
Intumescent protection:	None required	

13o. Light Sensor

Light sensors, where required, shall be in accordance with the specification below:

Manufacturer:	Vivid Hospitality Solutions	
Supplier:	Light Symphony	
Description/reference:	Light Sensor	
Materials:	Plastic encased computer chip and sensor	
Overall dimensions:	Leaf element:	Ø24 mm by 85 mm long
	Frame element:	Ø7.5 mm by 29 mm (permitted to protrude through the back of the frame)
Position:	Leaf element:	Fitted to the top edge of the door leaf, centred within the leaf thickness, at 200 mm minimum from the lock edge of the door leaf
	Frame element:	Fitted to the frame head, 22 mm from the opening face of the frame, in alignment with the leaf element of the sensor
Fixing method:	Light sensors are friction fitted into the frame head and top edge of the door	
Intumescent protection:	None required	

14. Further Information

Further information regarding the details contained in this Data Sheet may be obtained from JELD-WEN UK Limited (Tel: 0345 122 2891).

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