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

Woodhouse Mill, Sheffield, South Yorkshire S13 9WH
Tel: 0114 2542000 Fax: 0114 2696696

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 Exova (UK) Limited trading as Warrington Certification

Paul Duggan
Certification Manager

Issued: 7th October 1997
Revised: 30th January 2018
Valid to: 31st August 2021

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

1. This certificate is designed specifically to demonstrate compliance of the product or system with Approved Document B (England and Wales); the Technical Handbooks (Scotland); Technical Booklet E (N. Ireland). If compliance is required with other regulatory or guidance documents there may be additional considerations or conflicts to be taken into account.

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. This approval relates to the use of the above doors in providing fire resistance of 30 minutes insulation and 30 minutes integrity as defined in BS 476: Part 22. Subject to the undermentioned conditions, the doors would be expected to meet the relevant requirements of BS 9999 for FD30 door assemblies when used in accordance with the provisions therein.

4. 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).

5. 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.

6. 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 below:

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JELD-WEN UK LIMITED FD30 TIMBER DOOR ASSEMBLIES

Door assembly configuration **Double rails to door leaf**	**Maximum Height (mm)**	**Maximum Width (mm)**	**Area (m^2)**
Single-Acting, Single-Leaf Latched / Unlatched **Timber / MDF Frame**	2621 (at 912 wide)	1121 (at 2132 high)	2.39
Single-Acting, Double-Leaf Latched / Unlatched **Timber / MDF Frame**	2469 (at 907 wide)	1043 (at 2148 high)	2.24
Double-Acting, Single-Leaf Latched / Unlatched **Timber / MDF Frame**	2555 (at 912 wide)	1106 (at 2080 high)	2.30
Double-Acting, Double-Leaf Latched / Unlatched **Timber / MDF Frame**	2555 (at 912 wide)	1106 (at 2080 high)	2.30
Single-Acting, Single-Leaf Latched Only **Mild Steel Frame**	2303 (at 838 wide)	972 (at 1985 high)	1.93

Table 1

Door assembly configuration **Single rails to door leaf**	**Maximum Height (mm)**	**Maximum Width (mm)**	**Area (m^2)**
Single-Acting, Single-Leaf Latched **Timber / MDF Frame**	2536 (at 966 wide)	1173 (at 2087 high)	2.45
Single-Acting, Single-Leaf Unlatched **Timber / MDF Frame**	2621 (at 912 wide)	926 (at 2581 high)	2.39
Single-Acting, Double-Leaf Latched / Unlatched **Timber / MDF Frame**	2040 (at 927 wide)	927 (at 2040high)	1.89

Table 2

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

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7. Glazing shall only be undertaken by the door manufacturer, or a CERTIFIRE approved Licensed Door Processor, and shall be in accordance with the Data Information Sheet and Construction Specification. No site cutting or glazing of apertures is permitted.

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

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

10. 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.

11. 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 door leaf has been fire tested and is certified by CERTIFIRE as being capable of providing fire resistance of 30 minutes integrity and 30 minutes insulation (if incorporating not more than 20% of uninsulated glass) as defined in BS 476: Part 22, when installed in accordance with the following conditions. Subject to these, the door will meet the relevant requirements of BS 9999 for FD 30 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 Table 1 & 2 below.

Door assembly configuration **Double rails to door leaf**	**Maximum Height (mm)**	**Maximum Width (mm)**	**Area (m^2)**
Single-Acting, Single-Leaf Latched / Unlatched **Timber / MDF Frame**	2621 (at 912 wide)	1121 (at 2132 high)	2.39
Single-Acting, Double-Leaf Latched / Unlatched **Timber / MDF Frame**	2469 (at 907 wide)	1043 (at 2148 high)	2.24
Double-Acting, Single-Leaf Latched / Unlatched **Timber / MDF Frame**	2555 (at 912 wide)	1106 (at 2080 high)	2.30
Double-Acting, Double-Leaf Latched / Unlatched **Timber / MDF Frame**	2555 (at 912 wide)	1106 (at 2080 high)	2.30
Single-Acting, Single-Leaf Latched Only **Mild Steel Frame**	2303 (at 838 wide)	972 (at 1985 high)	1.93

Table 1

(1) Under no circumstances must the maximum height, maximum width or maximum area be exceeded without separate CERTIFIRE approval.
(2) 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.

Door assembly configuration **Single rails to door leaf**	Maximum Height (mm)	Maximum Width (mm)	Area (m^2)
Single-Acting, Single-Leaf Latched **Timber / MDF Frame**	2536 (at 966 wide)	1173 (at 2087 high)	2.45
Single-Acting, Single-Leaf Unlatched **Timber / MDF Frame**	2621 (at 912 wide)	926 (at 2581 high)	2.39
Single-Acting, Double-Leaf Latched / Unlatched **Timber / MDF Frame**	2040 (at 927 wide)	927 (at 2040high)	1.89

Table 2

(1) Under no circumstances must the maximum height, maximum width or maximum area be exceeded without separate CERTIFIRE approval.
(2) 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.

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: ii)Specification: iii) Dimensions: iv) Door Stop:	440 kg/m^3 min. BS EN 942 1996, Clause 5.2 Table 1 (Class J40) or better (for softwood) 70 mm by 25 mm min. Min. 12 mm deep by 25 mm wide, pinned, glued and pinned, screwed or rebated from solid (min stop density 450 kg/m^3). Pins are to be steel min 40 mm long
Softwood frames can be manufactured from clear engineered laminated softwood with a minimum density of 500 kg/m^3		
MDF	i) Density: ii) Dimensions: iii) Door Stop:	720 kg/m^3 min. 77 mm by 25 mm min. Min. 12 mm deep by 25 mm wide, pinned, glued and pinned, screwed or rebated from solid (min stop density 450 kg/m^3). Pins are to be steel min 38 mm long
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	
Door to frame gaps:	Not to exceed 4.0mm except at threshold where up to 10mm is permitted.	

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.

Flush 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

Timber astragals (min 640kg/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 transom rail.

5. Glazed Fanlights and Sidelights

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 of minimum 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.

7. Installation

The opening may be lined with softwood or hardwood which shall be continuous and of minimum width, 70mm. 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. Architraves are optional with no restrictions on material, size or fixing.

Door assemblies shall be installed as stated in BS 8214, Table 2. Suitable CERTIFIRE approved lineal gap sealing systems may also be utilised to protect the frame/supporting construction gap, subject to the conditions contained within the relevant certificate.

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

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

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

Door may incorporate CERTIFIRE approved glazing systems subject to the conditions contained within the relevant CERTIFIRE certificate (e.g. maximum size associated with glass, system, edge cover, aperture lining requirements, etc.) and the maximum pane dimensions given below (whichever is smaller):

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.

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/m3, 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 / 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 min. density of 360 kg/m^3.

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

Non-Insulating glasses: Rectilinear apertures

Glass Type	Intumescent System	Bead dimensions (mm)	Bead Density	Fixings	Max. Height (mm)	Max. Width (mm)	Max. Area (m^2)
Pyroshield 2	Lorient Flexible Figure 1 Or Sealmaster Therm-A-Strip, 10 x 2 mm	23 mm high by min 23.5 mm wide (including a 7 mm by 10 mm bolection) Bead to include a min 5° - max 10° splay 13 mm +2/-1 mm edge cover	Hardwood min. 490 kg/m^3	1.6 by 38 mm long pins or No.6 x 38 mm long screws at max 150 mm centres, max. 50 mm in from corners. Fixings angled at 20°. Min 2No fixings per bead length	1707 (at 702 wide)	702 (at 1707 high)	1.2 m^2
					Aperture references		
					G01, G05, G06, G07, G08, G09, G10, G11 & G12		
Pyran S	Sealmaster Therm-A-Strip, 10 x 2 mm Or Sealmaster Fireglaze mastic (min 2 mm thick) Or Sealmaster intumescent compound (min 2 mm thick)	23 mm high by min 23.5 mm wide (including a 7 mm by 10 mm bolection) Bead to include a min 5° - max 10° splay 13 mm +2/-1 mm edge cover	Hardwood min. 490 kg/m^3	1.6 by 38 mm long pins or No.6 x 38 mm long screws at max 150 mm centres, max. 50 mm in from corners. Fixings angled at 20°. Min 2No fixings per bead length	1700 (at 290 wide)	700 (at 700 high)	0.5 m^2
					Aperture references		
					G01, G06, G07, G10, G11 & G12		

Non-Insulating glasses: Rectilinear apertures (continued)

Glass Type	Intumescent System	Bead dimensions (mm)	Bead Density	Fixings	Max. Height (mm)	Max. Width (mm)	Max. Area (m^2)
Pyroguard EW 30	Sealmaster Therm-A-Strip, 10 x 2 mm	22 mm high by min 25 mm wide (including a 5 mm bolection) Bead can be square or splayed up to max 20° splay 13 mm +2/-1 mm edge cover	MDF min. 720 kg/m^3	1.6 by 38 mm long pins or No.6 x 38 mm long screws at max 150 mm centres, max. 50 mm in from corners. Fixings angled at 20°. Min 2No fixings per bead length	2125 (at 375 wide)	375 (at 2125 high)	0.8 m^2
					Aperture references		
					G05, G06, G07, G11 & G12		
Pyroshield 2	Sealmaster Therm-A-Strip, 10 x 2 mm	22 mm high by min 25 mm wide (including a 5 mm bolection) Bead can be square or splayed up to max 20° splay 13 mm +2/-1 mm edge cover	MDF min. 720 kg/m^3	1.6 by 38 mm long pins or No.6 x 38 mm long screws at max 150 mm centres, max. 50 mm in from corners. Fixings angled at 20°. Min 2No fixings per bead length	900 (at 600 wide)	735 (at 735 high)	0.54 m^2
					Aperture references		
					G01, G05 & G08		
Pyran S	Sealmaster Therm-A-Strip, 10 x 2 mm	22 mm high by min 25 mm wide (including a 5 mm bolection) Bead can be square or splayed up to max 20° splay 13 mm +2/-1 mm edge cover	MDF min. 720 kg/m^3	1.6 by 38 mm long pins or No.6 x 38 mm long screws at max 150 mm centres, max. 50 mm in from corners. Fixings angled at 20°.	1855 (at 647 wide)	745 (at 1611 high)	1.2 m^2
					Aperture references		
					G01, G05, G06, G07, G09, G10, G11 & G12		
Pyrobelite EW7	Sealmaster Therm-A-Strip, 10 x 2 mm	22 mm high by min 25 mm wide (including a 5 mm bolection) Bead can be square or splayed up to max 20° splay 13 mm +2/-1 mm edge cover	MDF min. 720 kg/m^3	Min 2No fixings per bead length	1085 (at 737 wide)	700 (at 1143 high)	0.8 m^2
					Aperture references		
					G01, G05, G10 & G12		
Pyroswiss	Sealmaster Therm-A-Strip, 10 x 2 mm	22 mm high by min 25 mm wide (including a 5 mm bolection) Bead can be square or splayed up to max 20° splay 13 mm +2/-1 mm edge cover	MDF min. 720 kg/m^3	1.6 by 38 mm long pins or No.6 x 38 mm long screws at max 150 mm centres, max. 50 mm in from corners. Fixings angled at 20°.	926 (at 248 wide)	248 (at 926 high)	0.23 m^2
					Aperture references		
					G05 & G12		

Non-Insulating glasses: Circular apertures

Glass Type	Intumescent System	Aperture lining	Bead dimensions (mm)	Bead Density	Fixings	Max. Dia. (mm)	Max. Area (m^2)
Pyroshield 2, Pyran S, CGI Cross-mesh glass & Pyroguard EW 30	Sealmaster Therm-A-Strip, 10 x 2 mm with Sealmaster Fireglaze mastic between the glass and the beads (min 2 mm thick)	Softwood blocking or 6 mm thick laminated hardwood	20 mm high by min 22 mm wide (Inc. a 5 mm x 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 min. 490 kg/m^3	1.6 by 38 mm long pins or No.6 x 38 mm long screws at max 150 mm centres, max. 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	Max. Height (mm)	Max. Width (mm)	Max. Area (m^2)
7 mm Pyroshield 2	Sealmaster Intumescent Foam Glazing Tape	24.5 mm high by min 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 min. 480kg/m3 (Figure 1)	1.6 by 40 mm long pins No.6 x 40 mm long screws at max 150 mm centres, max. 50 mm in from corners. Fixings angled at 45° to the vertical.	1700 (at 457 wide)	604 (at 1291 high)	0.78 m2
	Aperture lining				**Aperture references**		
	6 mm min hardwood liner min 550 kg/m3				G01, G05, G06, G07, G08, G09, G10, G11 & G12		
6 mm Pyroclear	Sealmaster Intumescent Foam Glazing Tape	24.5 mm high by min 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 min. 480kg/m3 (Figure 1)	1.6 by 40 mm long pins No.6 x 40 mm long screws at max 150 mm centres, max. 50 mm in from corners. Fixings angled at 45° to the vertical.	1700 (at 457 wide)	604 (at 1291 high)	0.78 m2
	Aperture lining				**Aperture references**		
	6 mm min hardwood liner min 550 kg/m3				G01, G05, G06, G09, G10, G11 & G12		
7 mm Pyrodur Plus	Sealmaster Intumescent Foam Glazing Tape	24.5 mm high by min 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 min. 480kg/m3 (Figure 1)	1.6 by 40 mm long pins No.6 x 40 mm long screws at max 150 mm centres, max. 50 mm in from corners. Fixings angled at 45° to the vertical.	225 (at 225 wide)	225 (at 225 high)	0.05 m2
	Aperture lining				**Aperture references**		
	6 mm min hardwood liner min 550 kg/m3				G07 & G08		

Figure 1 – Meranti Bead

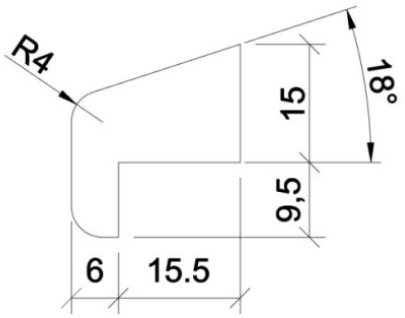


Figure 2 – MDF Bead – Option 1

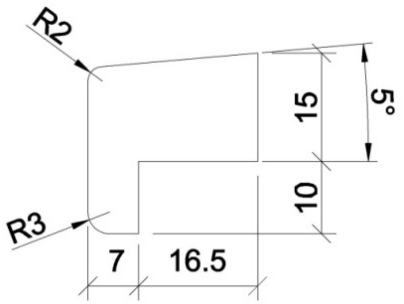


Figure 3 – MDF Bead – Option 2

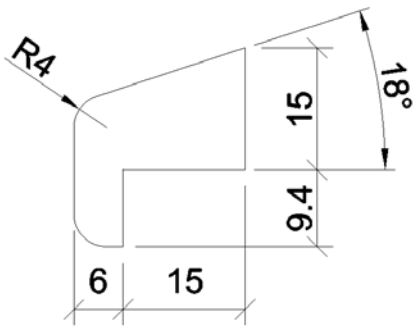
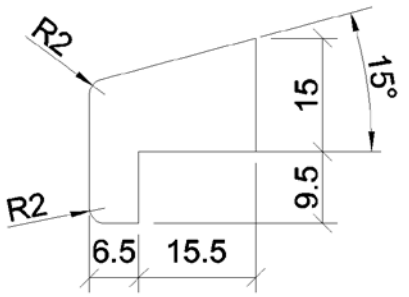


Figure 4 – MDF Bead – Option 3



Non-Insulating glass: Rectilinear– Sealmaster Intumescent Foam glazing tape – MDF Beads

Glass Type	Intumescent System	Bead dimensions (mm)	Bead Density	Fixings	Max. Height (mm)	Max. Width (mm)	Max. Area (m2)
7 mm Pyroshield 2	Sealmaster Intumescent Foam Glazing Tape	25 mm high by min 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 min. 595 kg/m3 (Figure 2, Figure 3 or Figure 4)	1.6 by 40 mm long pins No.6 x 40 mm long screws at max 150 mm centres, max. 50 mm in from corners. Fixings angled at 45° to the vertical.	1700 (at 457 wide)	604 (at 1291 high)	0.78 m2
	Aperture lining				**Aperture references**		
	6 mm min hardwood liner min 470 kg/m3				G01, G05, G06, G07, G08, G09, G10, G11 & G12		
6 mm Pyroclear	Sealmaster Intumescent Foam Glazing Tape	25 mm high by min 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 min. 595 kg/m3 (Figure 2, Figure 3 or Figure 4)	1.6 by 40 mm long pins No.6 x 40 mm long screws at max 150 mm centres, max. 50 mm in from corners. Fixings angled at 45° to the vertical.	1700 (at 457 wide)	604 (at 1291 high)	0.78 m2
	Aperture lining				**Aperture references**		
	6 mm min hardwood liner min 470 kg/m3				G01, G05, G06, G09, G10, G11 & G12		
7 mm Pyrodur Plus	Sealmaster Intumescent Foam Glazing Tape	25 mm high by min 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 min. 595 kg/m3 (Figure 2, Figure 3 or Figure 4)	1.6 by 40 mm long pins No.6 x 40 mm long screws at max 150 mm centres, max. 50 mm in from corners. Fixings angled at 45° to the vertical.	225 (at 225 wide)	225 (at 225 high)	0.05 m^2
	Aperture lining				**Aperture references**		
	6 mm min hardwood liner min 470 kg/m3				G07 & G08		

Non-Insulating glass: 7mm Pyroshield 2, 7mm Pyrostem & Low Density MDF Beads

Glass Type	Intumescent System	Bead dimensions (mm)	Bead Density	Fixings	Max. Height (mm)	Max. Width (mm)	Max. Area (m2)
7 mm Pyroshield 2 or 7 mm Pyrostem	Intumescent Seals Ltd Therm-A-Strip, 10 x 2 mm	22 mm high by min 25 mm wide (including a 5 mm bolection) Bead to include a max 10° splay 13 mm +2/-1 mm edge cover	MDF min. 595 kg/m3	1.6 by 38 mm long pins No.6 x 38 mm long screws at max 150 mm centres, max. 50 mm in from corners. Fixings angled at 20° to the vertical. Min 2no fixings per bead length	930 (at 604 wide)	735 (at 735 high)	0.56 m2
	Aperture lining				**Aperture references**		
	6 mm min hardwood liner min 550 kg/m3				G01, G05, G08, G10 & G12		

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

Glazing bars:	Material:	Hardwood
	Density:	350 kg/m^3
	Dimensions:	22 mm high chamfered on the upper and lower edges at 15^o
	Fixing:	Glued and stapled
	Intumescent protection:	22 mm by 2 mm FGL30 material

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.

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*

Door assembly Configuration*	Frame material	Position	Required Intumescent Protection
Single-acting, Single-leaf door assemblies latched / unlatched	Timber	Head	Single 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	Single 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	Timber	Head	Single 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 2No opposing 10 mm by 4 mm thick ISL Therm-A-Seal strips central in the frame reveal and door leaf edge.
		Hanging edges	Single 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)	Single 20 mm by 4 mm thick ISL Therm-A-Seal to the centre of the door leaf edge Or 2No opposing 10 mm wide by 4 mm thick ISL Therm-A-Seal (offset by 2-3 mm).
		Meeting edges (rebated)	2No 10 mm wide by 4 mm ISL Therm-A-Seal strips spaced 2-3 mm from the stop, one on each leaf.
Single-acting, Single-leaf door assemblies latched / unlatched	Steel	Head	Single 25 mm wide by 4 mm thick ISL Therm-A-Seal to the centre of door leaf edge
		Vertical edges	Single 25 mm wide by 4 mm thick ISL Therm-A-Seal to the centre of door leaf edge

*See Table 1 for size restrictions

Door leaves with Single Rails**

Door assembly Configuration*	Frame material	Position	Required Intumescent Protection
Single-acting, Single-leaf door assemblies latched / unlatched	Timber	Head	Single 15 mm wide by 4 mm thick Pyroplex FO8700 intumescent to the centre of the frame reveal or the centre of the door leaf edge
		Vertical edges	Single 15 mm wide by 4 mm thick Pyroplex FO8700 intumescent to the centre of the frame reveal or the centre of the door leaf edge
Single-acting, double-leaf door assemblies latched / unlatched	Timber	Head	Single 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	Single 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)	Single 20 mm by 4 mm thick ISL Therm-A-Seal to the centre of the door leaf edge Or 2No opposing 10 mm wide by 4 mm thick ISL Therm-A-Seal (offset by 2-3 mm).
		Meeting edges (rebated)	2No 15 mm wide by 4 mm ISL Pyroplex FO8700 to the rebate of both door leaves.

**See Table 2 for size restrictions

Seals may be interrupted at hinge and latch positions. Alternative seals may be utilised in-line with the relevant CERTIFIRE approval for the proposed intumescent seal. All seals to be CERTIFIRE approved (to Technical Schedule 35).

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.

Number:	Minimum 3 No (doors up to 2400 mm high) Minimum 4 No (doors larger than 2400 mm high).
Type:	Steel lift off or butt hinges.
Positions:*	Maximum 150 mm from the top of door to top hinge. Maximum 250 mm from the bottom of door to bottom hinge. Middle hinge fitted centrally in the leaf height.
Dimensions:	i) Height: 100 mm (+/- 20%) ii) Blade width: 26 - 36 mm iii) Thickness: 2.5 mm (+/- 0.5 mm) iv) Knuckle dia.: 12 mm (+/- 1 mm)
Fixings:	Minimum 4No. steel screws, minimum No.8 by 32 mm long. (Fixings within MDF frames are to be a minimum of 25 mm long)
Intumescent Protection**	None required.

* The datum in all cases is the centreline of the hinge.
** This specification overrides any requirement for additional intumescent identified in the hinge manufacturer's certification providing the hinge specification falls within the parameters identified above, specifically maximum dimensions and material. Where alternative hinges exceed the specification given above the intumescent protection as identified in the hinge manufacture's CERTIFIRE certificate shall apply.

Any other CERTIFIRE approved hinges may be used, subject to the conditions contained within the relevant certificate.

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

11. Locks and Latches

Locks / latches are not necessary. When fitted locks / latches shall be CE Marked for use on 30 minute timber fire doors.

Mortice type, automatic (sprung) latch bolt, cylinder rim nightlatches and knobsets.

Max. case dimension:	120 mm high by 19 mm wide
Max. forend dimension:	165 mm high by 25 mm wide
Max. keep dimension:	165 mm high by 25 mm wide (excluding latch plate)
Latchbolt material:	Steel or material with a melting point greater than 800°C
Position:	Max. 1100 mm from bottom of door to centreline of lockcase
Intumescent: protection*	Latch cases, forend and strike plate to be bedded onto 1 mm of interdens sheet material.

* This specification overrides any requirement for additional intumescent identified in the lock manufacturer's certification providing the lock/latch specification falls within the parameters identified above, specifically maximum dimensions and material. Where alternative lock/latch exceeds the specification given above the intumescent protection as identified in the lock/latch manufacture's CERTIFIRE certificate shall apply.

Any other CERTIFIRE approved lock/latch may be fitted, subject to the conditions contained within the relevant certificate.

Recessing for locks should result in a tight fit, allowing for any intumescent protection where required.

No restriction on type and material of handles.

- 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

- 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 Abloy '4238 Roller Catch' is specifically assessed for use on these doorsets.

12. Self-Closing Devices

12a. Overhead Closers

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

12b. 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.**

12c. Jamb Mounted Closers

Recessed cylindrical door closers referenced 'Perko (R1/R2)' and 'Perkomatic (R85)' are permitted to be used with the above mentioned doorset references within the following constraints:

i) On internal, single-leaf, single-acting, latched door assemblies
ii) In single occupancy, domestic dwellings including on a door between an integral garage and the living accommodation
iii) On internal doors ONLY within a single residence (flat) of multiple occupancy domestic dwellings
iv) Use on individual entrance (flat entrance) doors and in common areas within multiple occupancy dwellings and flats and all industrial and commercial applications are expressly excluded.

(1) Note: use of 'Perko (R1/R2)' and 'Perkomatic (R85)' closers are 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 closing device is 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

13a. 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 fixing is of steel.

13b. 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 500mm in height for kickplates and 300mm for mid-plates, whichever is the smaller.
- Do not wrap around the vertical edges, and on the closing face do not extend beneath the door stops (generally 40-50mm narrower than door width)
- Plates/signage can be bonded with a thermally softening adhesive. Additionally screws may be used.

13c. Flushbolts

Doorsets may incorporate steel flushbolts as detailed below: -

- The primary leaf must be latched.
- Flushbolts must be engaged where fitted.
- Flushbolts are to be steel.
- Flushbolts are to be a maximum of 202.5 mm high by 37.5 mm deep by 19 mm wide.
- Flushbolts may be included both at the top and bottom of the door leaf.
- Flushbolts are to be fully wrapped in 1 mm Interdens intumescent material.

13d. Door Viewers

Not permitted

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

14. Further Information

Further information regarding the details contained in this data sheet may be obtained from JELD-WEN UK Limited (Tel: 01302 394000).

Further information regarding the CERTIFIRE certification and other approved products can be obtained from CERTIFIRE (Tel: 01925 646777).