CERTIFICATE OF APPROVAL
No CF177

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
FD60 Flush 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
Reissued: 19th February 2020
Valid to: 18th February 2025

CERTIFICATE No CF177
JELD-WEN UK LIMITED

FD60 FLUSH TIMBER DOOR ASSEMBLIES

This approval relates to the use of the above doors in providing fire resistance of 60 minutes insulation (if incorporating not more than 20% of uninsulating glass) and 60 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 FD60 door assemblies when used in accordance with the provisions therein.

1. This certification is provided to the client for their own purposes and we cannot opine on whether it will be accepted by Building Control authorities or any other third parties for any purpose.

2. The doors are approved on the basis of:

   i) Initial type testing
   ii) Audit testing at the frequency specified in TS10
   iii) A design appraisal against TS10
   iv) Certification of quality management system to BS EN ISO 9001: 2008
   v) Inspection and surveillance of factory production control

3. The doors comprise cellulosic (flaxboard) cored leaves, with internal timber framing, in various finishes for use with timber frames incorporating intumescent edge seals (ITT FD60).

4. This approval is applicable to both complete door assemblies and door leaves. Where the door is not supplied in a completely fitted form it is a condition of this approval that an agreed Data Sheet accompanies the product and is complied with in its entirety. Failure to do so will invalidate this approval and may jeopardise the fire performance of the door.

5. This approval is applicable to single-acting, single and double-leaf, latched and unlatched, ITT assemblies with leaves 54 mm thick, at leaf dimensions up to those given in the Table 1 below:

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Max. Area (m^2)
Single-Acting, Single-Leaf Latched / Unlatched	2439 (at 937 wide)	1031 (at 2134 high)	2.20
Single-Acting, Double-Leaf Latched / Unlatched	2439 (at 937 wide)	1031 (at 2134 high)	2.20

Table 1

(1) All doorset configurations may incorporate overpanels which include a transom rail as detailed within data sheet.

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

Issued: 7th October 1997
Reissued: 19th February 2020
Valid to: 18th February 2025

CERTIFICATE No CF177
JELD-WEN UK LIMITED

FD60 FLUSH TIMBER DOOR ASSEMBLIES

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

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

8. The door assembly shall be mechanically fixed to wall constructions having a fire resistance of at least 60 minutes.
9. Labels to the CERTIFIRE design or approved by CERTIFIRE, referencing CERTIFIRE and CERTIFIRE Ref. No. CF177 and FD60 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.

Issued: 7th October 1997
Reissued: 19th February 2020
Valid to: 18th February 2025

JELD-WEN FD60 TIMBER DOOR ASSEMBLIES
CF177 DATA SHEET

1. General

This door leaf has been fire tested and is certified by CERTIFIRE as being capable of providing fire resistance of 60 minutes integrity and 60 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 60 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, single and double-leaf, latched and unlatched, assemblies at leaf dimensions up to those detailed within Table 1 below.

Door assembly configuration	Max. Height (mm)	Max. Width (mm)	Max. Area (m^2)
Single-Acting, Single-Leaf Latched / Unlatched	2439 (at 937 wide)	1031 (at 2134 high)	2.20
Single-Acting, Double-Leaf Latched / Unlatched	2439 (at 937 wide)	1031 (at 2134 high)	2.20

Table 1

(1) All doorset configurations may incorporate overpanels which include a transom rail as detailed within data sheet.

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

(3) Double-leaf door assemblies (including plain / square meeting stiles only) 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:

Hardwood Excluding Ash, Beech, Iroko, Towri & Gerrongang	i) Density:	590 kg/m^3 minimum
	ii) Dimensions:	85 mm by 32 mm min.
	iii) Door Stop:	25 mm by 12 mm deep pinned, screwed, or rebated from solid (590 kg/m^3 minimum). Where rebated from solid the overall frame thickness must be increased by 12 mm to accommodate the 12 mm rebate depth. Where the stop is planted it will be glued and pined or pinned only using 40 mm long steel pins.
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 3 mm except at threshold where up to 10 mm is permitted.	

4. Overpanels / Sidepanels

Transomed overpanels, manufactured to the same specification as the door leaves, may be included up to 1000 mm high, with a transom rail of minimum dimensions as frame sections.

Mullioned sidepanels, manufactured to the same specification as the door leaves, may be included up to 1000 mm wide, with a mullion rail of minimum dimensions as frame sections.

Overpanels / sidepanels 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.

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

5. Glazed Fanlights

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

6. Supporting Construction

The door assemblies are approved to be installed in brick, block, masonry, timber or an appropriate timber stud/plasterboard lined partition of minimum thickness 85 mm, providing at least 60 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 hardwood which shall be continuous and of minimum width, 85 mm. Each door frame jamb to be fixed through to the wall at not less than three points with steel 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. Suitable CERTIFIRE approved lineal gap sealing systems may also be utilised to protect the frame/supporting construction gap, subject to the conditions contained within the relevant certificate.

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

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

- Stiles (each): 3 mm
- Top: 3 mm
- Bottom: 3 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, 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):

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

Area: Maximum total glazed area of 0.4 m^2 per leaf

Margins: Not less than 125 mm to top or bottom edges or 100 mm from vertical edges and between apertures.

Aperture lining: Where stated in the glazing tables below, apertures are to incorporate an aperture lining in accordance with the following specification:

Material:	Softwood or hardwood (excluding Ash, Beech, Iroko, Towri & Gerrongang)
Density:	Minimum 410 kg/rn^3
Section size:	38 mm by 38 mm
Position:	1No to the top, bottom and both vertical edges of the aperture.

Hardwood / non-combustible setting blocks to be used where required to establish correct edge cover.

Double-leaf door assemblies with equal width leaves shall both be similarly glazed.

Non-insulating glasses: 6 mm thick Pyran S glass with Lorient System 90+

Intumescent System	Bead Dimensions	Bead Density	Fixings	Max. Height (mm)	Max. Width (mm)	Max. Dia.	Max. Area (m^2)
System 90+ with 2 x 52 mm Palusol aperture liner (no timber liner)	31 mm by 31 mm, splayed min. 10° / max 20° with max 12 mm bolection return (15 mm +2/-1 mm edge cover)	Hardwood min 630 kg/m3 (excluding Ash, Beech, Iroko, Towri & Gerrongang)	Min 58 mm long No.8 steel screws at max 150 mm centres, min. four fixings per bead. Fixings skewed at 20° to the plane of the leaf.	1000 (at 400 wide)	400 (at 1000 high)	N/A	0.4
System 90+ with 2 x 52 mm Palusol aperture liner. (no timber liner)	19 mm x 25 mm, splayed 45° with max 10 mm bolection return (15 mm +2/-1 mm edge cover)	Hardwood min 630 kg/m3 (excluding Ash, Beech, Iroko, Towri & Gerrongang)	Min 58 mm long No.8 steel screws at max 150 mm centres, min. four fixings per bead. Fixings skewed at 20° to the plane of the leaf.	1000 (at 400 wide)	400 (at 1000 high)	N/A	0.4

Note: Apertures utilising the System 90+ glazing system may be square / rectangular only.

Non-insulating glasses: 6 mm thick Pyran S glass with Sealmaster Fireglaze 60

Intumescent System	Bead Dimensions	Bead Density	Fixings	Max. Height (mm)	Max. Width (mm)	Max. Dia.	Max. Area (m^2)
Fireglaze 60 complete with a 54 mm wide aperture liner. (no timber liner)	31 mm by 31 mm, splayed min. 10° / max 20° with max 12 mm bolection return (15 mm +2/-1 mm edge cover)	Hardwood min 630 kg/m3 (excluding Ash, Beech, Iroko, Towri & Gerrongang)	Min 58 mm long No.8 steel screws at max 150 mm centres, min. four fixings per bead. Fixings skewed at 20° to the plane of the leaf.	800 (at 500 wide)	500 (at 800 high)	500	0.4
Fireglaze 60 complete with a 54 mm wide aperture liner. (no timber liner)	19 mm x 25 mm, splayed 45° with max 10 mm bolection return (15 mm +2/-1 mm edge cover)	Hardwood min 630 kg/m3 (excluding Ash, Beech, Iroko, Towri & Gerrongang)	Min 58 mm long No.8 steel screws at max 150 mm centres, min. four fixings per bead. Fixings skewed at 20° to the plane of the leaf.	800 (at 500 wide)	500 (at 800 high)	500	0.4

Note: Apertures utilising the Fireglaze 60 glazing system may be square / rectangular / Circular / curved.

Non-insulating glasses: 6 mm thick Pyran S glass with Intumescent Seals Ltd. Therm-A-Glaze 60

Intumescent System	Bead Dimensions	Bead Density	Fixings	Max. Height (mm)	Max. Width (mm)	Max. Dia.	Max. Area (m^2)
Therm-A-Glaze 60 complete with a 54 mm wide aperture liner. (timber liner required)	31 mm by 31 mm, splayed min. 10° / max 20° with max 12 mm bolection return (15 mm +2/-1 mm edge cover)	Hardwood min 630 kg/m3 (excluding Ash, Beech, Iroko, Towri & Gerrongang)	Min 58 mm long No.8 steel screws or min 50 mm long steel pins at max 150 mm centres, min. four fixings per bead. Fixings skewed at 20° to the plane of the leaf.	1700 (at 235 wide)	400 (at 1000 high)	N/A	0.4
Therm-A-Glaze 60 complete with a 54 mm wide aperture liner. (timber liner required)	19 mm x 25 mm, splayed 45° with max 10 mm bolection return (15 mm +2/-1 mm edge cover)	Hardwood min 630 kg/m3 (excluding Ash, Beech, Iroko, Towri & Gerrongang)	Min 58 mm long No.8 steel screws or min 50 mm long steel pins at max 150 mm centres, min. four fixings per bead. Fixings skewed at 20° to the plane of the leaf.	1700 (at 235 wide)	400 (at 1000 high)	N/A	0.4
Therm-A-Glaze 60 complete with a 54 mm wide aperture liner. (no timber liner)	31 mm by 31 mm, splayed min. 10° / max 20° with max 12 mm bolection return (15 mm +2/-1 mm edge cover)	Hardwood min 630 kg/m3 (excluding Ash, Beech, Iroko, Towri & Gerrongang)	Min 58 mm long No.8 steel screws at max 150 mm centres, min. four fixings per bead. Fixings skewed at 20° to the plane of the leaf.	800 (at 250 wide)	400 (at 500 high)	N/A	0.2
Therm-A-Glaze 60 complete with a 54 mm wide aperture liner. (no timber liner)	19 mm x 25 mm, splayed 45° with max 10 mm bolection return (15 mm +2/-1 mm edge cover)	Hardwood min 630 kg/m3 (excluding Ash, Beech, Iroko, Towri & Gerrongang)	Min 58 mm long No.8 steel screws at max 150 mm centres, min. four fixings per bead. Fixings skewed at 20° to the plane of the leaf.	800 (at 250 wide)	400 (at 500 high)	N/A	0.2

Note: Apertures utilising the Therm-A-Glaze 60 glazing system and a timber aperture liner may be square / rectangular only.

Apertures utilising the Therm-A-Glaze 60 glazing system and no timber aperture liner may be square / rectangular / Polygon / Triangular, but are limited to an area of $0.2m^2$.

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 FD60 – Timber frames

Door assembly Configuration	Position	Required Intumescent Protection
Single-acting, Single-leaf door assemblies latched / unlatched	Head	2No. 15 mm wide by 4 mm thick Intumescent Seals Limited Therm-A-Seal strips positioned 8 mm and 33 mm from the opening face of the frame
	Vertical edges	2No. 15 mm wide by 4 mm thick Intumescent Seals Limited Therm-A-Seal strips positioned 8 mm and 33 mm from the opening face of the frame
Single-acting, Double-leaf door assemblies latched / unlatched	Head	2No. 15 mm wide by 4 mm thick Intumescent Seals Limited Therm-A-Seal strips positioned 8 mm and 33 mm from the opening face of the frame
	Hanging edges	2No. 15 mm wide by 4 mm thick Intumescent Seals Limited Therm-A-Seal strips positioned 8 mm and 33 mm from the opening face of the frame
	Meeting edges	2No. 15 mm wide by 4 mm thick Intumescent Seals Limited Therm-A-Seal strips positioned Equispaced in 1No leaf, or a single, unopposed seals in each leaf.

One seal may be completely interrupted at the ironmongery positions, whilst the other may be reduced by a maximum of 2 mm in width (this may be repositioned to ensure it is not reduced).
Intumescent strips cannot be changed from the specific size type and location specified within the data sheet / table above.

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

10. Hinges

Hinges shall be CE marked against EN 1935 for use on 60 minute timber fire door assemblies.

Number:	Minimum 3 No.	
Type:	Steel lift off or butt hinges.	
Positions:*	Maximum 200 mm from the top of door to top hinge.	
	Maximum 200 mm from the bottom of door to bottom hinge.	
	Middle hinge fitted centrally in the leaf height.	
Dimensions:	Blade height:	82 - 122 mm
	Blade width:	30 - 38 mm***
	Blade thickness:	2.5 – 3.5 mm
	Knuckle dia.:	11 – 13 mm
Fixings:	Minimum 4No. steel screws, minimum No.8 by 32 mm long.	
Intumescent Protection**	1 mm Interdens or Graphite intumescent sheet material under all hinge blades	

* 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 hinges with a blade width greater than 30 mm wide are used, a continuous length of nominally 10 mm wide by 4 mm thick Therm-A-Seal intumescent shall bypass the hinge.

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 above.

Where the Certifire approved hinge exceeds the specification given 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.

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

11. Locks and Latches

Locks / latches where fitted shall be CE Marked in accordance with EN 1935 or EN179 for use on 60 minute timber fire doors.

Mortice type, automatic (sprung) latch bolt

Max. case dimension:	120 mm high by 90 mm wide by 19 mm thick
Max. forend dimension:	160 mm high by 25 mm wide
Max. keep dimension:	160 mm high by 25 mm wide (excluding latch plate)
Latchbolt material:	Steel or material with a melting point greater than or equal to 850°C
Position:	Max. 1100 mm from bottom of door to centreline of lockcase
Intumescent: protection*	None required

OR

Max. case dimension:	150 mm high by 81 mm wide by 14 mm thick
Max. forend dimension:	234 mm high by 24 mm wide
Max. keep dimension:	175 mm high by 22 mm wide (excluding latch plate)
Latchbolt material:	Steel or material with a melting point greater than or equal to 850°C
Position:	Max. 1100 mm from bottom of door to centreline of lockcase
Intumescent: protection*	1mm thick Interdens intumescent sheet material is required to fully encase the lock body, with further 1 mm thick Interdens material under the lock forend and keep.

* 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.

Any other CERTIFIRE approved lock/latch may be fitted, providing no lock/strikeplate dimension is more than 25% of that approved above and subject to the conditions contained within the relevant certificate.

Where the Certifire approved lock/latch exceeds the specification given 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.

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

No restriction on type and material of mechanical lever handles and knobs.

The use of mechanical locks in conjunction with electromechanical handles must be either CERTIFIRE approved for the application or subject to specific appraisal.

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.

CERTIFIRE approved closers for use with timber doors and composite frames (ITC) must be CERTIFIRE approved for this configuration specifically.

10a Surface mounted overhead closers

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

10b Transom Mounted and Concealed Closers

Not permitted

10c Floor Springs

Not permitted

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 that they are:

- < 2 mm 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 fixing is of steel.

13c Flushbolts

Not permitted (Recessed)

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

13d. 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 FD60 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.

13e. 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 FD60 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.

13f. Door Viewers

Not permitted

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

FAS45 dropseals by Fire and acoustic Seals Limited may be utilised within the bottom edge of CF177 door leaves.

Where FAS45 dropseals are fitted, the required recess 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.

Additional intumescent protection to the FAS45 dropseal is not required.

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

13i. Electric Strikes / Electro mechanical locks

Not permitted

14. Further Information

Further information regarding the details contained in this data sheet may be obtained from JELD-WEN UK Limited (Tel. 0114 229 3250).

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

CONSTRUCTIONAL SPECIFICATION FOR CERTIFIRE APPROVED CF177

Introduction

This document specifies constructional and other details for Flush FD60 doors manufactured by JELD-WEN UK Limited and certified by CERTIFIRE under certificate No. CF177. Only doors complying with the details of this document may be marked or marketed as CERTIFIRE approved. Any change to or deviation from this specification requires the agreement of CERTIFIRE.

General

CERTIFIRE approval is applicable to both complete door assemblies and door leaves. Where the door is not supplied in a completely fitted form it is a condition of approval that an agreed Data Sheet accompanies the product and is complied with in its entirely. Failure to do so will render the approval invalid and may jeopardise the fire performance of the product.

Scope of Approval

As defined in Certificate of Approval No. CF177.

1. Leaf Construction

1.1.1 Core

Material:	Flaxboard:
Density:	Minimum 360kg/m^3
Thickness:	38 mm
Number of Pieces:	Maximum 3 (of equal width)
Core to frame joints:	Butt jointed

1.1.2. Internal framing (Rails)

Material:	Hardwood (excluding Ash, Beech, Iroko, Towri or Gerronggang)
Density:	Minimum 630 kg/m^3
Section Size:	38 mm (-0 / + 0.2 mm) by 38 mm (-0 / + 0.2mm)
Finger Jointing:	The stile & rail sections may include up to 3 finger joints (per section).

1.1.3. Internal framing (Stiles)

Material:	Softwood or hardwood (excluding Ash, Iroko, Towri or Gerronggang)
Density:	Minimum 410 kg/m^3
Section Size:	38 mm (-0 / + 0.2 mm) by 38 mm (-0 / + 0.2mm)
Finger Jointing:	The stile & rail sections may include up to 3 finger joints (per section).

1.1.4 Layout of framing

Hanging edge:	3No. Stiles required.
Closing edge:	3No. Stiles required
Top edge:	2No. Rails required
Bottom edge:	2No. Rails required

Doors in excess of 2244 mm high ***OR*** 908 mm wide ***OR*** 1.85m^2 area are to comprise the following specification:

1.2.1 Core

Material:	Flaxboard
Density:	Minimum 550kg/m^3
Thickness:	38 mm
Number of Pieces:	Maximum 3 (of equal width)
Core to frame joints:	Butt jointed

1.2.2 Internal framing (Stiles & Rails)

Material:	Hardwood (excluding Ash, Beech, Iroko, Towri or Gerronggang)
Density:	Minimum 629 kg/m^3
Section Size:	38 mm (-0 / + 0.2 mm) by 38 mm (-0 / + 0.2mm)
Finger Jointing:	The stile & rail sections may include up to 3 finger joints (per section).

1.2.3 Layout of framing (all doors)

Hanging edge:	3No. Stiles required.
Closing edge:	3No. Stiles required
Top edge:	2No. Rails required
Bottom edge:	2No. Rails required

1.3 Facings (Inner)

Material:	Chipboard
Thickness:	5 mm
Density:	Minimum 720kg/m^3

1.4 Facings (Outer)

Material:	Hardboard:
Thickness:	3 mm minimum
Density:	Minimum 930kg/m^3
Note:	May be embossed with shallow panel designs for Orleans and Bronte with hardboard having a density of 1045kg/m^3

Or

Material:	Plywood	
No. of Plys:	3	
Thickness:	3 mm minimum	
Density:	Internal ply:	Poplar/Fuma 365 kg/rn^3 or Meranti 670 kg/rn^3,
	External ply:	Ilomba 510 kg/rn^3

Or

Material:	Chipboard:
Thickness:	3 mm
Density:	Minimum 720kg/m^3
Note:	for use with over veneered option.

1.5 Adhesive Urea Formaldehyde, PVA or Resorcinol

1.6	Finishes	Timber Veneer:	If required, any decorative timber veneer additional to above.
		Other:	Any non-metallic facing material, paint or varnish e.g. plastic laminate up to 2 mm thick applied additional to structural facing above.

1.7 Lippings*

Material:	Hardwood, minimum density 650 kg/m^3 (excluding Ash, Beech, Iroko, Towri or Gerronggang)
Thickness:	8 - 21 mm
Adhesive:	Urea Formaldehyde or Henkel Purmelt RS270/7

OR

Material:	Meranti, minimum density 400 kg/m^3
Thickness:	8 - 12 mm
Adhesive:	Urea Formaldehyde or Henkel Purmelt RS270/7

* Lippings are not required where hardwood stiles and rails of minimum 650 kg/m^3 density are used. In this case Beech stiles and rails must not be used.

2. Leaf Dimensions

2.1	Leaf thickness:	54 mm (-1 mm / +10 mm) excluding decorative finish.
2.2	Leaf height / width:	As specified in Certificate of Approval
2.3	Configuration:	As specified in Certificate of Approval
2.4	Meeting edges:	Square / plain only (rebated meeting stiles are not permitted)

3. Door Frame

To be as specified in Data Sheet.

4. Overpanels / Sidepanels

4.1 Transomed overpanels, manufactured to the same specification as the door leaves, may be included up to 1000 mm high, with a transom rail of minimum dimensions as frame section.

4.2 Mullioned sidepanels, manufactured to the same specification as the door leaves, may be included up to 1000 mm wide, with a mullion rail of minimum dimensions as frame section.

4.3 Overpanels / Sidepanels to be manufactured as per door leaf specification, bedded against beads or the stop of the rebate and be screw fixed at minimum 400 mm centres, maximum 100 mm from each corner through the centre of the panel to a depth of at least 30 mm.

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

5. Glazed Fanlights

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

6. Glazed Apertures

6.1 One or more glazed openings systems may be included in each leaf.

6.2 Apertures

Height:	Specific to glazing system - See Section 8 of Data Sheet
Width:	Specific to glazing system - See Section 8 of Data Sheet
Area:	Specific to glazing system - See Section 8 of Data Sheet
Margins:	Not less than 125 mm to top or bottom edges or 100 mm from vertical edges and between apertures.
Lining to aperture:	Specific to glazing system - See Section 8 of Data Sheet

6.3 Glazing System

As specified in Data Sheet.

5. Hardware/Intumescent Seals

To be CERTIFIRE approved or otherwise as specified in Data Sheet.

6. Labels

Labels of the BWF design referencing JELD-WEN UK LIMITED, CERTIFIRE CF177 FD60 fire resistance, to be applied to each approved door leaf in the prescribed position.