

CERTIFICATE OF APPROVAL No CF 534

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

HALSPAN LIMITED

Regent House, Regent Centre, Linlithgow, West Lothian, EH49 7HU Tel: 03300563836

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
Halspan Limited FD30 Optima
Timber Door Assemblies

TECHNICAL SCHEDULE
TS10 Fire Resisting Door
Assemblies with Non
Metallic Leaves

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

Paul Duggan

Certification Manager



Issued: 1st February 2007 Revised: 15th July 2020 Valid to: 26th January 2022

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HALSPAN LIMITED OPTIMA FD30 TIMBER DOOR ASSEMBLIES

This approval relates to the use of the above doors in providing fire resistance of 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.

- 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 cored leaves in various finishes for use with timber, mild steel or aluminium frames, with intumescent edge seals (ITT & ITM FD30).
- 4. This approval is applicable to both complete door assemblies and door leaves. Where the door is not supplied in a fully fitted form it is a condition of this approval that an agreed Data Sheet accompanies the product and is complied with in its entirety. Failure to do so will invalidate this approval and may jeopardise the fire performance of the door.
- 5. This approval is applicable to latched and unlatched, single and double-acting, single and double-leaf, ITT and ITM assemblies with or without overpanels, at leaf dimensions up to those given in Table 1 below:
- 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.

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

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- Labels to the CERTIFIRE design, or approved by CERTIFIRE, referencing CERTIFIRE and CERTIFIRE Ref. No. CF534 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.

Door assembly configuration	Maximum Height (mm)	Maximum Width (mm)	Area (m²)
Single-Acting, Single-Leaf Latched / Unlatched Timber Frame	3200 (at 836 wide)	1086 (at 2700 high)	2.93
Single-Acting, Double-Leaf Latched / Unlatched Timber Frame	2630 (at 915 wide)	1165 (at 2130 high)	2.48
Double-Acting, Single-Leaf Latched / Unlatched Timber Frame	3264 (at 921 wide)	1171 (at 2764 high)	3.01
Double-Acting, Double-Leaf Latched / Unlatched Timber Frame	3264 (at 921 wide)	1171 (at 2764 high)	3.01
Single-Acting, Single-Leaf Latched / Unlatched Mild Steel Frame	2542 (at 826 wide)	1076 (at 2042 high)	2.20
Single-Acting, Double-Leaf Latched / Unlatched Mild Steel Frame	2542 (at 826 wide)	1076 (at 2042 high)	2.20
Single-Acting, Single-Leaf Latched / Unlatched Aluminium Frame	2700 (at 838 wide)	838 (at 2700 high)	2.26

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Single-Acting, Double-Leaf	2700	838	
Latched / Unlatched	(at 838 wide)	(at 2700 high)	2.26
Aluminium Frame	(at 656 wide)	(at 2700 flight)	

Table 1

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

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Pel agg-

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HALSPAN LIMITED OPTIMA FD30 TIMBER DOOR ASSEMBLIES CF 534 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 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 Halspan Limited may be considered to meet the requirements in respect of those items.

2. <u>Door Leaf Dimensions</u>

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

Door assembly configuration	Maximum Height (mm)	Maximum Width (mm)	Area (m²)
Single-Acting, Single-Leaf Latched / Unlatched Timber Frame	3200 (at 836 wide)	1086 (at 2700 high)	2.93
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Double-Acting, Double-Leaf Latched / Unlatched Timber Frame	3264 (at 921 wide)	1171 (at 2764 high)	3.01
Single-Acting, Single-Leaf Latched / Unlatched Mild Steel Frame	2542 (at 826 wide)	1076 (at 2042 high)	2.20
Single-Acting, Double-Leaf Latched / Unlatched Mild Steel Frame	2542 (at 826 wide)	1076 (at 2042 high)	2.20
Single-Acting, Single-Leaf Latched / Unlatched Aluminium Frame	2700 (at 838 wide)	838 (at 2700 high)	2.26
Single-Acting, Double-Leaf Latched / Unlatched Aluminium Frame	2700 (at 838 wide)	838 (at 2700 high)	2.26

Table 1

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

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

All single-acting timber framed door assembly configurations may incorporate overpanels without a transom rail as detailed within data sheet.

3. Door Frame

To be any of the following:-

Softwood, MDF or i) Density: 450 kg/m³ min. (730 kg/m³ MDF)

Hardwood ii) Dimensions: 70 mm by 28 mm min.

(single acting doorsets) iii) Door Stop: 12 mm deep pinned, screwed or rebated

Excluding Ash & Iroko from solid (min stop density 450 kg/m³).

Softwood or Hardwood i) Density: 450 kg/m³ min.

(double acting doorsets) ii) Dimensions: 70 mm by 28 mm min.

Excluding Ash & Iroko

MDF i) Density: 730 kg/m³ min.

(double acting doorsets) ii) Dimensions: 70 mm by 30 mm min.

Mild Steel i) Dimensions 95 mm by 30 mm minimum

(hollow or backfilled with 250 mm by 60 mm maximum

sand / cement mortar)

Frame to include a 15 mm integral stop
Frame to be manufactured from 2 mm

thick steel.

Aluminium i) Type 'Unity' 3 piece frame fixed directly to the

(Single leaf assemblies) supporting construction

ii) Dimensions 63.5 mm by 31.75 mm

Frame to include a 15 mm integral stop. Frame to be manufactured from 0.9 mm

extruded aluminium.

Aluminium i) Type Frame fixed around a hardwood sub-

(Double leaf assemblies) frame with a minimum density 660 kg/m³.

ii) Dimensions 87 mm by 20 mm (sub-frame)

Jointing: Butt joints, mortice and tenon, mitred or half lapped joints

with the head screw fixed to the jambs using two steel screws

Door to frame gaps: Not to exceed 4 mm except at threshold where up to 8 mm is

permitted and 3.5 mm at the meeting stiles

4. Overpanels

Flush overpanels may be included up to a maximum height of 1000 mm and shall include 6 mm thick hardwood lippings (minimum) and opposing lipping to the leaf head, or a rebated 18 mm thick (minimum) hardwood lipping with 22 mm wide by 12 mm deep rebate at the bottom edge, with a corresponding 18 mm thick (minimum) hardwood lipping with a 22 mm wide by 12 mm deep rebate in the top edge of the leaf.

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

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

Overpanels may be included in timber framed doorsets up to a maximum height of 1500 mm when used with a transom rail. Overpanels will include an identical intumescent specification to the door leaves and a minimum 28 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 70 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 four 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. 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 mmTop: 3 mm

Bottom: No limit providing bottom lippings are not fitted.

3 mm if bottom lipping is fitted.

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

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

8. Glazed Apertures

All apertures to be factory prepared by Halspan 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):

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 1.22 m² per leaf

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

Maximum Permitted Aperture Dimensions				
Max. Height (mm)	Max. Height (mm) Max. Width (mm) Max. Are			
1972 (at 619 wide)	800 (at 1525 high)	1.22		

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

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 - Timber frames

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
Max 2410 mm high and 1033 mm wide (Max 2.2m ²)		Vertical edges	Single 10 mm wide by 4 mm thick ISL Therm-A-Seal
Single-acting, Single- leaf door assemblies latched / unlatched	Timber	Head	Single 20 mm wide by 4 mm thick ISL Therm-A-Seal
Max 3200 mm high and 1086 mm wide (Max 2.93m ²)	d	Vertical edges	Single 10 mm wide by 4 mm thick ISL Therm-A-Seal
Single-acting,	Timber	Head	Single 10 mm by 4 mm thick Lorient LP1004
double-leaf door assemblies latched / unlatched		Hanging edges	Single 10 mm by 4 mm thick Lorient LP1004
		Meeting edges	Single 10 mm by 4 mm thick Lorient LP1004 in each meeting edge (opposing)
Double-acting,		Head	Single 15 mm by 4 mm thick Lorient LP1504
Single-leaf door assemblies latched / unlatched	Timber	Vertical edges	Single 10 mm by 4 mm thick Lorient LP1004
Double-acting,	Timber	Head	Single 15 mm by 4 mm thick Lorient LP1504
Double-leaf door assemblies		Vertical edges	Single 10 mm by 4 mm thick Lorient LP1004
latched / unlatched		Meeting edges	Single 10 mm by 4 mm thick Lorient LP1004 in each meeting edge (opposing)

For door assemblies to BS476: Part 22 – classified as FD30 – Timber frames & Overpanels

Door assembly Configuration*	Frame material	Position	Required Intumescent Protection
Single-acting, Single & Double-leaf door assemblies	e-leaf lies Timber ched	Overpanel rebate	Single 10 mm wide by 4 mm thick ISL Therm-A-Seal
latched / unlatched Rebated Overpanel		Door rebate	Single 10 mm wide by 4 mm thick ISL Therm-A-Seal
Single & Double-acting, Single & Double-leaf	-· .	Bottom of overpanel	Single 15 mm wide by 4 mm thick Lorient LP1504
door assemblies latched / unlatched Flush Overpanel	Timber	Top edge of door	'Head' intumescent as specified in the Timber frame intumescent table.

For door assemblies to BS476: Part 22 - classified as FD30 - Steel frames

Door assembly Configuration*	Frame material	Position	Required Intumescent Protection
Single-acting, Single-leaf door assemblies latched / unlatched	Steel (hollow)	Head (door)	Single 20 mm wide by 4 mm thick Lorient LP2004 backed with a sheet of ISL Therm-A-Flex 20 mm wide by 2 mm thick.
		Vertical edges (door)	Single 20 mm wide by 4 mm thick Lorient LP2004 backed with a sheet of ISL Therm-A-Flex 20 mm wide by 2 mm thick.
Single-acting, double-leaf door assemblies latched / unlatched	Steel (hollow)	Head (door)	Single 20 mm wide by 4 mm thick Lorient LP2004 backed with a sheet of ISL Therm-A-Flex 20 mm wide by 2 mm thick.
		Hanging edges (door)	Single 20 mm wide by 4 mm thick Lorient LP2004 backed with a sheet of ISL Therm-A-Flex 20 mm wide by 2 mm thick.
		Meeting edges	Single 20 mm by 4 mm thick ISL Therm-A-Seal fitted to the edge of one leaf only
Single-acting, single-leaf door	Steel	Head	Single 20 mm by 4 mm thick ISL Therm-A-Seal
assemblies latched / unlatched	(backfilled)	Vertical edges	Single 20 mm by 4 mm thick ISL Therm-A-Seal
Single action	Steel (backfilled)	Head	Single 20 mm by 4 mm thick ISL Therm-A-Seal
Single-acting, double-leaf door assemblies latched / unlatched		Hanging edge	Single 20 mm by 4 mm thick ISL Therm-A-Seal
		Meeting edge	Single 10 mm by 4 mm thick ISL Therm-A-Seal & a single 10 mm by 4 mm thick ISL Therm-A-Stop fitted into the edge of one leaf only.

For door assemblies to BS476: Part 22 - classified as FD30 - Aluminium frames

Door assembly Configuration*	Frame material	Position	Required Intumescent Protection
Single-acting, single-leaf door assemblies latched	Aluminium	Head	Single 25 mm by 2 mm thick ISL Therm-a-Strip fitted fitted at mid-width of the door leaf within the frame reveal.
	Vertical edges	Single 25 mm by 2 mm thick ISL Therm-a-Strip fitted fitted at mid-width of the door leaf within the frame reveal.	
Single-acting, double-leaf door assemblies latched / unlatched	Head (door)	Single 30 mm by 4 mm thick ISL Therm-A-Seal	
	Aluminium	Hanging edge (door)	Single 20 mm by 4 mm thick ISL Therm-A-Seal
		Meeting edge	2No. 10 mm by 4 mm thick ISL Therm-A-Seal positioned centrally, 8 mm apart within one door leaf edge.

^{*}See Table 1 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.

10. Hinges

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

Number: Minimum 3 No.

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: 98 - 110 mm

ii) Blade width: 29 - 35 mm iii) Thickness: 3 mm (+/- 0.5 mm)

iv) Knuckle dia.: 10 - 13 mm

Fixings: Minimum 4No. steel screws, minimum No.8 by 32 mm long.

Intumescent Protection** None required.

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

^{*} 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.

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: 100 mm high by 75 mm deep by 23 mm wide

Max. forend dimension: 150 mm high by 20 mm wide

Max. keep dimension: 150 mm high by 20 mm wide (excluding latch plate)

Latchbolt material: Steel or material with a melting point greater than 950°C

Position: Max. 1100 mm from bottom of door to centreline of spindle

Intumescent: protection* Latch cases, forend and strike plate to be bedded onto 1 mm

of interdens sheet material.

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.

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.

13. Ancillary items

13a Protection plates and signage

Surface mounted plastic, steel, aluminium or brass plates are acceptable on the basis that 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.

^{*} 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.

13b Flushbolts

Not permitted

13c 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.

13d Air transfer grilles

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

Where apertures are pre-cut by Halspan 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.

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 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.

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

14. Further Information

Further information regarding the details contained in this data sheet may be obtained from Halspan Limited (Tel: 01506 827538).

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

15. Further Information

Further information regarding the details contained in this data sheet may be obtained from Halspan Limited (Tel: 01506 827538).

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

Further information regarding BWF labelling requirements can be obtained from the British Woodworking Federation (Tel: 0870 458 6939).