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## CERTIFICATE OF APPROVAL

### No CF 535

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

## HALSPAN LIMITED

Muirhouses, Bo'ness, Edinburgh EH51 9SS  
Tel: 01506 827538 Fax: 01506 825996

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

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#### CERTIFIED PRODUCT

Halspan Limited FD60 Optima  
Timber Door Assemblies

#### TECHNICAL SCHEDULE

TS10 Fire Resisting Door  
Assemblies with Non  
Metallic Leaves

Signed and sealed for and on behalf of Exova (UK) Limited trading as  
Warrington Certification



Sir Ken Knight  
Chairman  
Impartiality Committee



Paul Duggan  
Certification Manager



Issued: 1<sup>st</sup> February 2007  
Reissued: 30<sup>th</sup> January 2017  
Valid to: 29<sup>th</sup> January 2022

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**CERTIFICATE No CF 535**  
**HALSPAN LIMITED**

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**HALSPAN LIMITED OPTIMA FD60 TIMBER DOOR ASSEMBLIES**

This approval relates to the use of the above doors in providing fire resistance of 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 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. The doors comprise cellulosic cored leaves in various finishes for use with timber or mild steel frames, with intumescent edge seals (ITT & ITM FD60).
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:
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.

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### HALSPAN LIMITED OPTIMA FD60 TIMBER DOOR ASSEMBLIES

9. Labels to the CERTIFIRE design, or approved by CERTIFIRE, referencing CERTIFIRE and CERTIFIRE Ref. No. CF535 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.

Door assembly configuration	Maximum Height (mm)	Maximum Width (mm)	Area (m <sup>2</sup> )
Single-Acting, Single-Leaf Latched / Unlatched <b>Timber Frame</b>	2305 (at 915 wide)	988 (at 2135 high)	2.11
Single-Acting, Double-Leaf Latched / Unlatched <b>Timber Frame</b>	2246 (at 826 wide)	908 (at 2042 high)	1.86
Double-Acting, Single-Leaf Latched / Unlatched <b>Timber Frame</b>	2040 (at 826 wide)	826 (at 2040 high)	1.69
Double-Acting, Double-Leaf Latched / Unlatched <b>Timber Frame</b>	2040 (at 826 wide)	826 (at 2040 high)	1.69
Single-Acting, Single-Leaf Latched / Unlatched <b>Mild Steel Frame</b>	2635 (at 1105 wide)	1355 (at 2135 high)	2.91
Single-Acting, Double-Leaf Latched / Unlatched <b>Mild Steel Frame</b>	2574 (at 795 wide)	954 (at 2145 high)	2.05

**Table 1**

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

# HALSPAN LIMITED OPTIMA FD60 TIMBER DOOR ASSEMBLIES CF 535 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 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 Halspan 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, assemblies at leaf dimensions up to those detailed within Table 1 below.

Door assembly configuration	Maximum Height (mm)	Maximum Width (mm)	Area (m <sup>2</sup> )
Single-Acting, Single-Leaf Latched / Unlatched <b>Timber Frame</b>	2305 (at 915 wide)	988 (at 2135 high)	2.11
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**Table 1**

Note: Under no circumstances must either the maximum height or maximum width be exceeded without separate CERTIFIRE approval.  
All doorset timber framed configurations may incorporate overpanels which include a transom rail as detailed within data sheet.  
All single-acting timber framed doorset configurations may incorporate overpanels without a transom rail as detailed within data sheet.



### 3. Door Frame

To be any of the following:-

Hardwood (single acting doorsets)	i) Density:	530 kg/m <sup>3</sup> min.
	ii) Dimensions:	70 mm by 32 mm min.
<b>Excluding Beech, Iroko and Ash.</b>	iii) Door Stop:	12 mm deep pinned, screwed or rebated from solid (min stop density 640 kg/m <sup>3</sup> ).

Hardwood (double acting doorsets)	i) Density:	640 kg/m <sup>3</sup> min.
	ii) Dimensions:	86 mm by 40 mm min.

**Excluding Beech, Iroko  
and Ash.**

Mild Steel (single acting doorsets)	i) Dimensions	180 mm by 45 mm minimum Frame to include a 15 mm integral stop.
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**Backfilled only, with  
sand / cement mortar**

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 400 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 27.5 mm wide by 10 mm deep rebate at the bottom edge, with a corresponding 18 mm thick (minimum) hardwood lipping with a 27.5 mm wide by 10 mm deep rebate in the top edge of the leaf. Beech lippings are no permitted.

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/m<sup>3</sup>) 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 1000 mm when used with a transom rail. Overpanels will include an identical intumescent specification to the door leaves and a minimum 32 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 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, 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): 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 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 0.50 m<sup>2</sup> per leaf

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

<b>Maximum Permitted Aperture Dimensions</b>		
<b>Max. Height (mm)</b>	<b>Max. Width (mm)</b>	<b>Max. Area (m<sup>2</sup>)</b>
1248 (at 400 wide)	400 (at 1248 high)	0.50

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 FD60 – Timber frames

Door assembly Configuration*	Frame material	Position	Required Intumescent Protection
Single-acting, Single-leaf door assemblies latched / unlatched	Timber	Head	2No. 15 mm wide by 4 mm thick ISL Therm-A-Seal positioned centrally, 8 mm apart.
		Vertical edges	2No. 15 mm wide by 4 mm thick ISL Therm-A-Seal positioned centrally, 8 mm apart.
Single-acting, double-leaf door assemblies latched / unlatched	Timber	Head	2No. 15 mm wide by 4 mm thick ISL Therm-A-Seal positioned centrally, 8 mm apart.
		Hanging edges	2No. 15 mm wide by 4 mm thick ISL Therm-A-Seal positioned centrally, 8 mm apart.
		Meeting edges	2No. 15 mm wide by 4 mm thick ISL Therm-A-Seal positioned centrally, 8 mm apart within one door leaf edge only
Double-acting, Single-leaf door assemblies latched / unlatched	Timber	Head	Single 38 mm by 4 mm thick Lorient Palusol seal
		Vertical edges	Single 38 mm by 4 mm thick Lorient Palusol seal
Double-acting, Double-leaf door assemblies latched / unlatched	Timber	Head	Single 38 mm by 4 mm thick Lorient Palusol seal
		Vertical edges	Single 38 mm by 4 mm thick Lorient Palusol seal
		Meeting edges	Single 38 mm by 4 mm thick Lorient Palusol seal positioned centrally within one door leaf edge only

### For door assemblies to BS476: Part 22 – classified as FD60 – Timber frames & Overpanels

Door assembly Configuration*	Frame material	Position	Required Intumescent Protection
Single-acting, Single & Double-leaf door assemblies latched / unlatched <b>Rebated Overpanel</b>	Timber	Overpanel rebate	2No. 15 mm wide by 4 mm thick Lorient LP1504 Palusol seals
		Door rebate	Single 10 mm wide by 4 mm thick Lorient LP1004 Palusol seal to be fitted into the corner of the rebated lipping
Single & Double-acting, Single & Double-leaf door assemblies latched / unlatched <b>Flush Overpanel</b>	Timber	Bottom of overpanel or Top edge of door	Single 38 mm by 4 mm thick Lorient Palusol seal



**For door assemblies to BS476: Part 22 – classified as FD60 – Steel frames**

Door assembly Configuration*	Frame material	Position	Required Intumescent Protection
Single-acting, single-leaf latched / unlatched	Steel (backfilled)	Head	Single 38 mm by 4 mm thick ISL Therm-A-Seal
		Vertical edges	Single 38 mm by 4 mm thick ISL Therm-A-Seal
Single-acting, double-leaf latched / unlatched	Steel (backfilled)	Head	Single 38 mm by 4 mm thick ISL Therm-A-Seal
		Hanging edge	Single 38 mm by 4 mm thick ISL Therm-A-Seal
		Meeting edge	Single 10 mm by 4 mm thick ISL Therm-A-Stop fitted into the meeting edge of the primary leaf and 2No 10 mm by 4 mm thick ISL Therm-A-Seal positioned centrally to the meeting edge of the opposing leaf, spaced 10 mm apart.

\*See Table 1 for size restrictions

Seals may be interrupted at hinge and latch positions.

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 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 - 110 mm ii) Blade width: 30 - 41 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**	2 mm thick ISL Therm-A-Strip or Interdens 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 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.





## **11. Locks and Latches**

Locks / latches are not necessary. When fitted locks / latches shall be CE Marked for use on 60 minute timber fire doors.

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

Max. case dimension:	200 mm high by 75 mm deep by 23 mm wide
Max. forend dimension:	200 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 intumescent 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.

## **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.



### **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 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

## **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 Exova (UK) Limited trading as Warrington Certification (Tel: +44 (0) 1925 646777).

