



CERTIFICATE OF APPROVAL

No CF 10223

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

LINEAR BUILDING INNOVATIONS T/A SELO

**K2 Kents Hill Business Park, Timbold Drive, Milton Keynes,
Buckinghamshire, MK7 6TT, United Kingdom**

Tel: 020 8080 9651

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

**Selo FD30 Modulo
(Halspan Optima) 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:
Audit Test Frequency:
Valid to:

14th March 2025
Every 5 years
13th March 2030





CERTIFICATE No CF 10223

LINEAR BUILDING INNOVATIONS T/A SELO

LINEAR BUILDING INNOVATIONS T/A SELO – FD30 MODULO (HALSPAN OPTIMA) DOOR ASSEMBLIES

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.

1. This certification is provided to the client for its 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 frames, with intumescent edge seals (ITT 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-acting, double-leaf, ITT assemblies with or without overpanels, at leaf dimensions up to those given in Table 1 below:
6. Glazing of door leaves is not permitted
7. The door assembly shall be mechanically fixed to wall constructions having a fire resistance of at least 30 minutes.
8. Labels to the CERTIFIRE design, or approved by CERTIFIRE, referencing CERTIFIRE and CERTIFIRE Ref. No. CF 10223 and FD30 classifications resistance shall be affixed to each door in the prescribed position.

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EWC-QU-FT-731 (Issue 2)

Issued: 14th March 2025
Valid to: 13th March 2030



CERTIFICATE No CF 10223

LINEAR BUILDING INNOVATIONS T/A SELO

LINEAR BUILDING INNOVATIONS T/A SELO – FD30 MODULO (HALSPAN OPTIMA)
DOOR ASSEMBLIES

Door Assembly Configuration	Maximum Height (mm)	Maximum Width (mm)	Maximum Area (m ²)
Single-Acting, Double-Leaf Latched / Unlatched Bolted / Unbolted	2900 (at 1176 wide)	1176 (at 2900 high)	3.41
Table 1			

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

Both leaves of double-leaf assemblies are to be of identical construction and design.

Secondary leaves for unequal pairs shall be a min 50% of the primary leaf width. Hardware items, including closing devices and intumescent fire seals, shall be as specified in the Data Sheet.

Rebated meeting stiles are not permitted.

9. 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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EWC-QU-FT-731 (Issue 2)

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**LINEAR BUILDING INNOVATIONS T/A SELO – FD30 MODULO (HALSPAN OPTIMA)
DOOR ASSEMBLIES**

CF 10223 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 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 FD30 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 Linear Building Innovations t/a Selo may be considered to meet the requirements in respect of those items.

2. Door Leaf Dimensions

This approval is applicable to single-action, 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)	Maximum Area (m²)
Single-Acting, Double-Leaf Latched / Unlatched Bolted / Unbolted	2900 (at 1176 wide)	1176 (at 2900 high)	3.41

Table 1

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

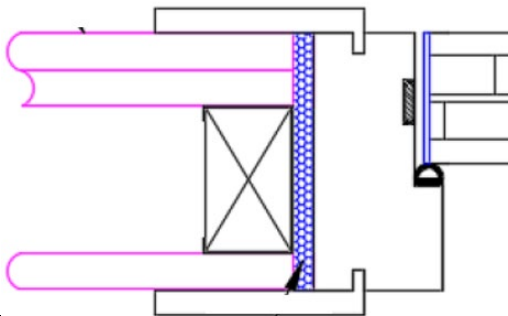
Both leaves of double-leaf assemblies are to be of identical construction and design.

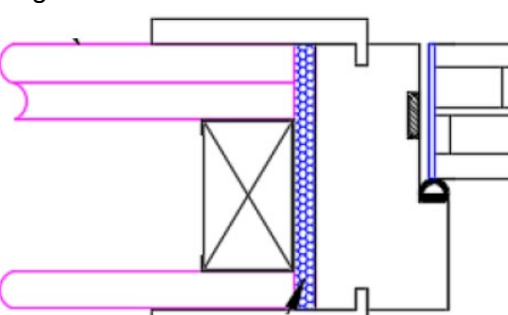
Secondary leaves for unequal pairs shall be a min 50% of the primary leaf width.

Rebated meeting stiles are not permitted.

3. Door Frame

To be any of the following:-

Moduframe BB Frames	Density:	Fir – 450 kg/m ³ and Poplar – 340 kg/m ³ minimum
	Dimensions:	<u>Rebated frame</u> 85 mm by 40 mm minimum with a 10 mm deep integral rebate. Where the integral rebate depth is increased from the minimum 10 mm required, the overall frame thickness shall be increased proportionately e.g., integral rebate depth increased to 12 mm, overall frame thickness increased to 45 mm.
	Architraves:	Plywood architraves of minimum density 700 kg/m ³ shall be fitted to the opening and closing face of the frame jambs and head. The plywood architraves shall have overall minimum dimensions of 70 mm wide by 20 mm deep by 10 mm thick and shall be fitted into grooves recessed into the frames, in accordance with the tested arrangement, shown below, ensuring a tight fit is achieved. 
	Notes:	The Moduframe BB frame and architrave include a 0.25 mm thick CPL decorative material. The intumescent seal shall not be concealed by the CPL decorative material.

Softwood or Hardwood (solid only)	Density:	450 kg/m ³ minimum
	Dimensions:	<u>Rebated frame</u> 85 mm by 40 mm minimum with a 10 mm deep integral rebate. Where the integral rebate depth is increased from the minimum 10 mm required, the overall frame thickness shall be increased proportionately e.g., integral rebate depth increased to 12 mm, overall frame thickness increased to 45 mm.
	Architraves:	Plywood architraves of minimum density 700 kg/m ³ shall be fitted to the opening and closing face of the frame jambs and head. The plywood architraves shall have overall minimum dimensions of 70 mm wide by 20 mm deep by 10 mm thick and shall be fitted into grooves recessed into the frames, in accordance with the tested arrangement, shown below, ensuring a tight fit is achieved. 

Jointing:	Mitred, and screwed using 1No. Ø5 mm by 60 mm long steel screw and seated using 2No. Ø8 mm by 30 mm beech dowels.
Door to frame gaps:	Not to exceed 3 mm except at threshold where up to 7 mm is permitted and 3.5 mm at the meeting stiles. Please note that a reduced threshold gap may be required to comply with smoke leakage requirements.

4. Overpanels and Sidepanels

Flush overpanels are not permitted.

Transomed overpanels, manufactured to the same specification as the door leaves, may be included up to 1000 mm high, with a minimum 85 mm wide by 33 mm thick (plus additional planted stops) solid softwood or hardwood transom rail (in accordance with section 3).

Mullioned sidepanels, manufactured to the same specification as the door leaves, may be included up to 1000 mm wide, with a minimum 85 mm wide by 33 mm thick (plus additional planted stops) solid softwood or hardwood mullion rail (in accordance with section 3).

The use of blockboard transoms and mullions is not permitted.

Overpanels and sidepanels to be bedded against beads or the stop of the rebate and be screw fixed at minimum 400 mm centres.

Intumescent seals shall comply with the tables in section 9 of this Data Sheet and shall be fitted centrally to all four edges of the overpanel or within the reveal of the frame.

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 steel stud supporting constructions of minimum overall thickness 85 mm, providing at least 30 minutes fire resistance and previously proven capable of supporting a fire door assembly for the required integrity period.

Where stud partitions are used these shall be suitably constructed to provide a secure fixing for the door assemblies as recommended by the partition manufacturer.

Where brick, block, masonry walls are plasterboard faced, the plasterboard adjacent to the door assembly shall be mechanically fixed to ensure that it remains in-situ for the required integrity period.

7. Installation

The opening may be lined with softwood or hardwood which shall be continuous and of minimum width, 85mm. 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. Plywood

architraves shall be fitted to the opening and closing face of the frame jambs and head in accordance with section 3.

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

Alternatively, door assemblies may include a linear gap sealing arrangement in accordance with the following specification:

- Maximum 20 mm gap between the rear of the frame and the supporting construction.
- Minimum frame dimensions and minimum density in accordance with CF10223.
- Nullifire FF197 fire rated PU foam fitted between the rear of the frame and the supporting construction, to the full depth of the frame section.
- Brick, block, masonry, timber or steel stud supporting constructions of minimum overall thickness 85 mm, providing at least 30 minutes fire resistance and previously proven capable of supporting a fire door assembly for the required integrity performance.
- All other door assembly specification requirements shall fully comply with CF10223.

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: 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

Not permitted.

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

The specification of the seals will be in accordance with the following tables:

Pyroplex Intumescent Seals – See Table 1 for Leaf Restrictions		
Door Assembly Configuration*	Position	Intumescent Type/Position

Single-acting, double-leaf latched/unlatched active leaf bolted/unbolted passive leaf	Head & hanging jamb	1No. 15 mm wide by 4 mm thick Pyroplex (CF355) intumescent seal positioned 16 mm from the opening face of the frame, within the frame reveal
	Meeting edge (active leaf)	1No. 10 mm wide by 4 mm thick Pyroplex (CF355) intumescent seal positioned 7 mm from the opening face of the door leaf – active leaf only and 1No. 10 mm wide by 4 mm thick Pyroplex (CF822) intumescent seal positioned 24 mm from the opening face of the door leaf – active leaf only.

*See Table 1 for size restrictions

Intumescent seals may be interrupted at hinge and latch positions.

All door assembly configurations shall include the specific intumescent size type and location as specified within the table above.

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

10. Hinges

Hinges shall be CE marked against EN 1935 for use on 30 minute timber fire door assemblies, in accordance with the specification requirements stated below:.

Number:	Minimum 4 No. hinges	
Type:	Steel lift off or butt hinges.	
Positions:*	Top Hinge:	200 mm (± 25 mm) from the top of the door to top hinge.
	2 nd Hinge:	500 mm (± 25 mm) from top of leaf to second hinge
	Middle Hinge:	Fitted centrally in the leaf height (± 100 mm)
	Bottom.	250 mm (± 25 mm) from bottom of leaf to bottom hinge
	* The datum in all cases is the centreline of the hinge.	
Dimensions:	blade height:	102 mm ($\pm 20\%$)
	Blade width:	30 mm (± 2 mm)
	Thickness:	3 mm (± 0.5 mm)
	Knuckle dia.:	14 mm (± 1 mm)
Fixings:	Quantity:	4No. steel screws (minimum)
	Dimensions:	Ø4.3 mm by 25 mm long (minimum).
Intumescent Protection**	1 mm thick Graphite intumescent sheet material to all hinge blades. The proposed graphite intumescent sheet material shall have suitable test evidence at the required thickness, in conjunction with hinges installed on timber based doors assemblies for the required integrity period.	

* The datum in all cases is the centreline of the hinge.

** The hinge specification above overrides any requirement for additional intumescent identified in the hinge manufacturer's certification providing the hinge specification falls within the parameters identified in the table above, specifically maximum dimensions and material.

Any other CERTIFIRE approved hinge may be fitted, providing the hinge dimension are no greater than 10% in blade width and 25% in blade height from that approved in the table above (excluding the tolerances stated). Where the Certifire approved hinge exceeds the specification given in the

table above, the minimum requirement for intumescent protection to the hinges, by-passing perimeter intumescent, and the material density and thickness for the door and frame elements given in the hinge manufacture's CERTIFIRE certificate shall apply.

Double-action hinges, projection hinges and rising / falling butt hinges are not permitted for use in conjunction with CERTIFIRE approved door assemblies,

11. Locks and Latches

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

Mortice type, automatic (sprung) latch bolt.

Case dimension:	Maximum 165 mm long by 14 mm wide by 85 mm deep
Forend dimension:	Maximum 235 mm long by 22 mm wide
Keep dimension:	Maximum 180 mm long by 37 mm wide (including a 13 mm latch plate lip)
Latchbolt material:	Steel or Brass
Cylinder:	Euro profile single cylinder, double cylinder or cylinder / thumbturn, suitable for use on FD30 fire resistant assemblies in accordance with EN 1303.
Position:	Max. 1000 mm from bottom of door to centreline of spindle
Intumescent: protection*	1 mm thick Interdens intumescent sheet material under the strike plate and forend and to fully wrap the lock case.

* The lock specification above overrides any requirement for additional intumescent identified in the lock manufacturer's certification providing the lock/latch specification falls within the parameters identified in the table above, specifically maximum dimensions and material.

Any other CERTIFIRE approved lock/latch may be fitted, providing no lock/strikeplate dimension is more than 25% of that approved in the table above and subject to the conditions contained within the relevant certificate. Where the Certifire approved lock/latch exceeds the specification given in the table 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 shall result in a tight fit, allowing for the intumescent protection specified.
- No restriction on type and material of face fixed mechanical lever handles and knobs providing these are wholly surface mounted (with the exception of the spindle and fixing holes) and the spindle hole is a maximum 16 mm in diameter
- The Euro profile cylinder recess in the door face shall follow the shape of the cylinder and result in a tight fit. The preparation for single cylinders shall penetrate through only half the thickness of the door leaf.
- The use of oval profile cylinders is not permitted.

12. Self-Closing Devices

All doors are required to be fitted with a CERTIFIRE certificated self-closing device. The exceptions are doors kept locked shut such as service access doors. Note: closers with mechanical hold-open

mechanisms are not permitted to be used. Building Regulations may identify locations within domestic locations where self-closing devices are not mandatory.

The closers shall have a power rating appropriate to the leaf sizes, subject to the closer having the ability to close the door from any angle and against any latch and/ or seals fitted. The closer shall have the ability to provide a minimum size 3 closing force. Where doors are unlatched a minimum size 3 shall be maintained.

Closers shall be CE Marked against EN 1154 and categorised as grade 1 – suitable for use on fire / smoke door assemblies.

Uninsulated glass shall not be included directly below the body of surface mounted overhead closers.

12a Surface mounted overhead closers

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

12b Transom Mounted and Concealed Closers

Not permitted

12c 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 following basis:

- < 2 mm 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, subject to a maximum length of 25 mm. The use of bolt through fixings is not permitted).

13b. Coat Hooks and Other Surface Mounted Hardware

Ancillary items which are wholly surface mounted may be applied to the door leaf face 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

13c Flushbolts

Flushbolts are not necessary, but where fitted, shall comply with the following specification:

Max. dimension	200 mm high by 36 mm deep by 20 mm wide
Material:	Steel
Position:	Where required flushbolts shall be fitted to the top & bottom of the passive leaf edge centrally within the leaf thickness. (rebated meeting edges are not permitted)
Intumescent protection*	The flushbolts and keeps shall be fitted with a Zoo hardware, Flexifire 2 mm thick graphite intumescent kit referenced ZIF0160G.

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

13d Pull Handles

Screw-fixed, bolt-fixed from the back and back-to-back fixed pull handles of steel, brass, aluminium and nylon coated are permitted providing any through-bolt fixings are of steel and maximum bolt to bolt centres do not exceed 1000 mm.

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

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

13e. Air transfer grilles

Not permitted

13f. Letter Plates

Not permitted

13g. Dropseals

Door assemblies may incorporate CERTIFIRE approved wholly surface mounted dropseals to the bottom edge of the door leaf.

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

The use of recessed dropseals is not permitted.

13h. Door Viewers

Not permitted

13i. Threshold plates / Cills

Not permitted

13j. Electric Strikes / Electromechanical locks

Not permitted

13k. Edge Protectors

Not permitted

13l. Door Frame Seals

The Getroplast seal referenced SL282/219 may be fitted within the frame jambs and head, stop mounted, such that the perimeter of the door leaf on the closing face contacts the seal when the door is in the closed position.

The fitment of this seal does not relate to smoke leakage performance.

14. Further Information

Further information regarding the details contained in this data sheet may be obtained from Linear Building Innovations t/a Selo (Tel: 020 8080 9651).

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