



CERTIFICATE OF APPROVAL

No CF 241

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

PREMDOR CROSBY LIMITED

Huddersfield Road, Darton, Barnsley, S75 5JS
Tel: 01226 383434 Fax: 01226 388808

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

Premdor Crosby Limited
FD60 PremCORE Flush &
FD60 Moulded Face
ITT Timber Door Blanks

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: 5th September 2000
Re-issued: 13th April 2022
Valid to: 12th April 2027

Page 1 of 4





CERTIFICATE No CF 241 PREMDOR CROSBY LIMITED

PREMDOR CROSBY LIMITED – FD60 PremCORE Flush & FD60 Moulded Face

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: 1987. 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) 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 door assemblies comprise of cellulosic cored leaves in various finishes for use with timber frames with 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 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, single and double-leaf, ITT assemblies with or without overpanels, at leaf dimensions up to those given in Table 1 and Table 2 below:
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.

CERTIFICATE No CF 241 PREMDOR CROSBY LIMITED

PREMDOR CROSBY LIMITED – FD60 PremCORE Flush & FD60 Moulded Face

Door assembly configuration	Frame material	Max. Height (mm)	Max. Width (mm)	Max. Area (m ²)
Single-Acting, Single-Leaf Latched / Unlatched	Hardwood Frame	2305 (at 915 wide)	988 (at 2135 high)	2.11
Single-Acting, Double-Leaf Latched / Unlatched	Hardwood Frame	2246 (at 826 wide)	908 (at 2042 high)	1.86
Double-Acting, Single-Leaf Latched / Unlatched	Hardwood Frame	2040 (at 826 wide)	826 (at 2040 high)	1.69
Double-Acting, Double-Leaf Latched / Unlatched	Hardwood Frame	2040 (at 826 wide)	826 (at 2040 high)	1.69

Table 1 – FD60 PremCORE Flush

Door assembly configuration	Frame material	Max. Height (mm)	Max. Width (mm)	Max. Area (m ²)
Single-Acting, Single-Leaf Latched / Unlatched	Hardwood Frame	2040 (at 926 wide)	926 (at 2040 high)	1.89
Double-Acting, Single-Leaf Latched / Unlatched	Hardwood Frame	2040 (at 926 wide)	926 (at 2040 high)	1.69

Table 2 – FD60 Moulded face

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

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.



CERTIFICATE No CF 241 PREMDOR CROSBY LIMITED

PREMDOR CROSBY LIMITED – FD60 PremCORE Flush & FD60 Moulded Face

9. Labels to the CERTIFIRE design, or approved by CERTIFIRE, referencing CERTIFIRE and CERTIFIRE Ref. No. CF 241 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.

Page 4 of 4 Signed
E/114

Issued: 5th September 2000
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CF 241 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 Premdor Crosby 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 and Table 2 below.

Double-leaf door assemblies including unequal sized door leaves are permitted on the assumption that the smaller leaf is no less than 30 % of the width of the larger leaf.

Door assembly configuration	Frame material	Max. Height (mm)	Max. Width (mm)	Max. Area (m²)
Single-Acting, Single-Leaf Latched / Unlatched	Hardwood Frame	2305 (at 915 wide)	988 (at 2135 high)	2.11
Single-Acting, Double-Leaf Latched / Unlatched	Hardwood Frame	2246 (at 826 wide)	908 (at 2042 high)	1.86
Double-Acting, Single-Leaf Latched / Unlatched	Hardwood Frame	2040 (at 826 wide)	826 (at 2040 high)	1.69
Double-Acting, Double-Leaf Latched / Unlatched	Hardwood Frame	2040 (at 826 wide)	826 (at 2040 high)	1.69

Table 1 – FD60 PremCORE Flush

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

Door assembly configuration	Frame material	Max. Height (mm)	Max. Width (mm)	Max. Area (m ²)
Single-Acting, Single-Leaf Latched / Unlatched	Hardwood Frame	2040 (at 926 wide)	926 (at 2040 high)	1.89
Double-Acting, Single-Leaf Latched / Unlatched	Hardwood Frame	2040 (at 926 wide)	926 (at 2040 high)	1.69
Table 2 – FD60 Moulded face				

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

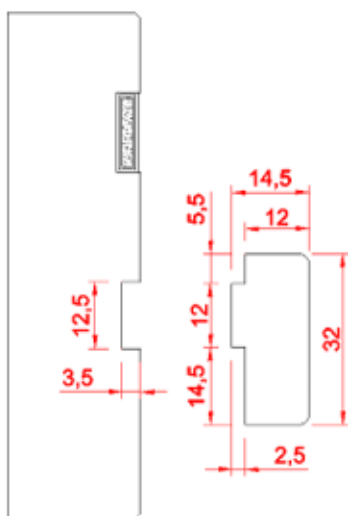
3. Door Frame

To be any of the following:-

Hardwood (excluding Ash, Beech & Iroko)	i) Density:	550 kg/m ³ min.
	ii) Dimensions:	70 mm by 28 mm min.
	iii) Door Stop:	Any size - pinned, screwed, or rebated from solid (min stop density 550 kg/m ³). Where the stop is rebated from solid the overall frame thickness must be increased by the stop depth to accommodate the required rebate depth.
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 3 mm except at threshold where up to 8 mm is permitted and 3 mm at the meeting stiles	

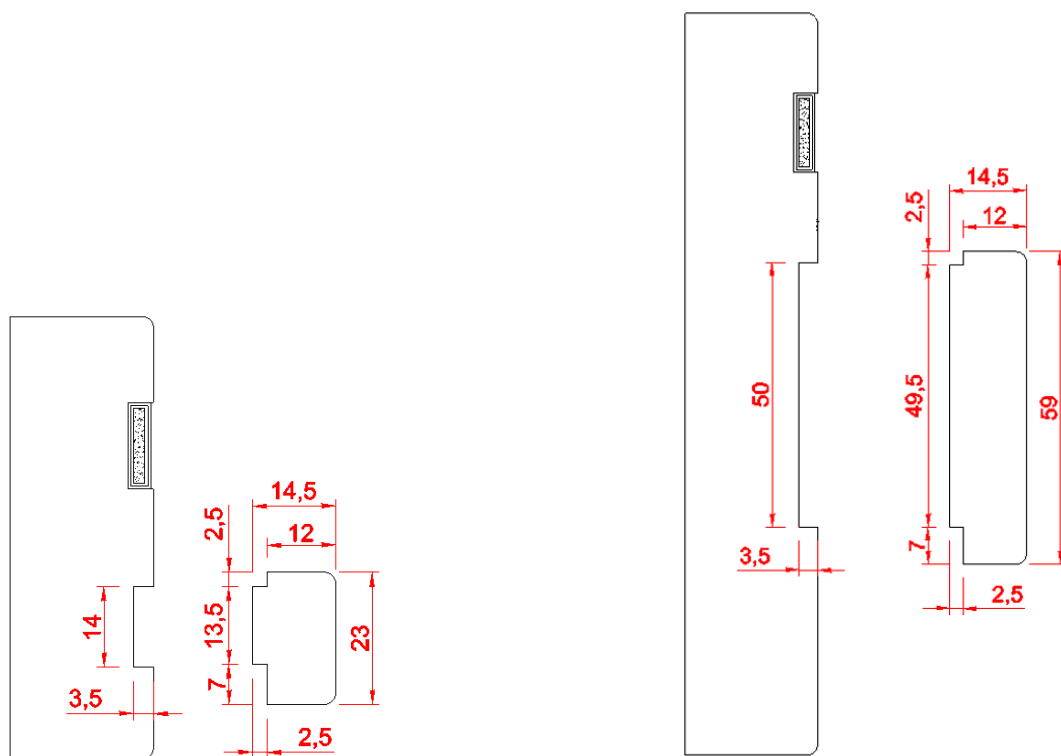
Alternative Framing – Grooved frames / Tongued Stops

Door assemblies may incorporate tongued in stop variants complete with grooved frame linings as shown in the details below:



The tongued in stop and grooved frame linings are to comply with the material and dimensional requirements stated within the table in section 3 of the Data Sheet.

Intumescent quantity, dimensions, type and position to all be in accordance with the tables in section 9 of the Data Sheet.



4. Overpanels and Sidepanels

Flush overpanels may be included up to a maximum height of 500 mm and shall include 6 mm thick hardwood lippings (minimum) and opposing lipping to the leaf head. The use of rebates to the bottom edge of the flush overpanel and the top edge of the door leaf is not permitted and therefore timber astragals (min 640kg/m³) are required at the junction between the bottom of the flush overpanel and the top edge of the doors.

Transomed overpanels may be included up to 1000 mm high, with a minimum 28 mm thick transom rail. Overpanels will include an identical intumescent specification to the door leaves

Side panels incorporating a mullion of minimum 28 mm thick may be included up to a maximum width of 1000mm.

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

Entire overpanel /sidepanel may be glazed in accordance with Section 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 and timber stud supporting construction of overall minimum thickness 85 mm, providing at least 60 minutes fire resistance.

The door assemblies are also approved to be installed within steel stud partitions as follows:

- The steel studs supporting the door frame must have adequate timber bracing to ensure that they are stable in a fire.
- The wall system manufacturer must be consulted for advice on this. Failing this the steel studs that support the hinges and latch legs of the door frame must be braced floor to ceiling with timber at least 38mm thick by the width of the steel stud.
- The timber bracing must be firmly fixed to the floor and ceiling and the door frame must be firmly fixed to this timber bracing at least four points on each leg of the frame with steel fixings at a maximum 600mm centres.

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 four points with steel or nylon fixings at maximum 600 mm centres penetrating the wall to at least 45 mm, except in domestic locations (excluding flat entrance doorsets) where a minimum 30 mm wall penetration is permitted. Timber based 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: No limit providing lippings are not fitted, 3 mm if lippings are fitted
- Bottom: No limit providing lippings are not fitted, 3mm if lippings are fitted

Doors may be fitted with lippings up to 19 mm thick. Where thicker (greater than 6mm) lippings are fitted, leaves may be trimmed on the lipped edges to leave a minimum residual lipping thickness of 3mm.

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.

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.

8. Glazed Apertures

All apertures to be factory prepared by Premdor 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: See glazing tables below

Margins: 100 mm from the perimeter edge, 80 mm between apertures

Maximum Permitted Aperture Dimensions		
Max. Height (mm)	Max. Width (mm)	Max. Area (m ²)
1280 (at 438 wide)	438 (at 1280 high)	0.56
1590 (at 195 wide) Sight size	195 (at 1590 high) Sight size	0.31 Sight size

Option 3, aperture dimensions are limited to maximum sight size area of 0.23m². The maximum height of glazed openings for Option 3 doors is 1100 mm.

Glazing to double leaf assemblies - The following glazing configurations are approved:

- Equal glazing in both leaves
- Both leaves unglazed
- One leaf glazed: one leaf unglazed
- Each leaf to have unequal glazing (different dimensions and/or area)

The use of Ash, Beech & Iroko glazing beads is not permitted

9. Intumescent Seals

CERTIFIRE certificated intumescent seals are required to be fitted to these doors as below.

Intumescent Seals Limited Therm-A-Seal Intumescent Strips

Door Assembly Configuration	Position	Required Intumescent Protection
Single-acting, Single-leaf Latched / Unlatched	Head	2No. 15 mm wide by 4 mm thick positioned centrally, 8 mm apart
	Vertical edges	2No. 15 mm wide by 4 mm thick positioned centrally, 8 mm apart
Double-acting, Single-leaf Latched / Unlatched	Head	2No. 15 mm wide by 4 mm thick positioned centrally, 8 mm apart
	Vertical edges	2No. 15 mm wide by 4 mm thick positioned centrally, 8 mm apart
Single-acting, Double-leaf Latched / Unlatched	Head	2No. 15 mm wide by 4 mm thick positioned centrally, 8 mm apart
	Hanging edges	2No. 15 mm wide by 4 mm thick positioned centrally, 8 mm apart
	Meeting edges (Square)	2No. 15 mm wide by 4mm thick, to the primary leaf only positioned 12 mm apart. Or 2No. 15 mm wide by 4mm thick, to each leaf, offset so seals are not directly opposing Or Single 30 mm wide by 4 mm thick positioned centrally to primary leaf only

Intumescent Seals Limited Therm-A-Seal Intumescent Strips - continued

Double-acting, Double-leaf Latched / Unlatched	Head	2No. 15 mm wide by 4 mm thick positioned centrally, 8 mm apart
	Hanging edges	2No. 15 mm wide by 4 mm thick positioned centrally, 8 mm apart
	Meeting edges (Square)	2No. 15 mm wide by 4mm thick, to the primary leaf only positioned 12 mm apart. Or 2No. 15 mm wide by 4mm thick, to each leaf, offset so seals are not directly opposing Or Single 30 mm wide by 4 mm thick positioned centrally to primary leaf only

All seals to be CERTIFIRE approved (to Technical Schedule 35).

Seals may be fitted in the edge of the door or frame reveal unless specifically stated otherwise.

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 3No. hinges per leaf	
Type:	Steel, Phosphor bronze or brass butt, journal supported and pin. Any washers or ball bearings to be of phosphor bronze or steel.	
Positions*:	Top hinge	Maximum 250 mm from the top of the door to the top hinge
	Bottom hinge	Maximum 275 mm from the bottom of door to bottom hinge.
	Middle hinge	May be positioned at any point from the mid-height of the door to a minimum 200mm from the top hinge position.
Dimensions:	Blade height:	100 mm (+20 - 10 mm)
	Blade width:	38 mm (± 3 mm)
	Blade thickness:	3 mm (± 0.5 mm)
	Knuckle dia.:	13 mm (± 1 mm)
Fixings:	4 No. steel screws (min.) no smaller than No.8 by 32 mm long	
Intumescent protection:**	Hardwood lippings: (min 640kg/m ³ – excluding Ash, Beech & Iroko)	None required Option to include 1 mm thick Interdens, Mono Ammonium phosphate or Graphite intumescent sheet material also permitted
	Alpi Lippings:	1 mm thick Interdens (Mono Ammonium Phosphate) or Graphite intumescent sheet materials is required to all hinge blades.

* 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.

11. Locks and Latches

Locks / latches are not necessary. When fitted locks / latches shall be CE Marked in accordance with BS EN 12209 or EN 179 for use on 60 minute timber fire doors.

Mortice type, automatic (sprung) latch bolt

Option 1	
Max. case dimension:	155 mm high by 98 mm deep by 19 mm wide
Max. forend dimension:	170 mm high by 25 mm wide
Max. keep dimension:	170 mm high by 25 mm wide (excluding latch plate)
Latchbolt material:	Steel or Brass
Position:	Max. 1100 mm from bottom of door to centreline of lockcase
Cylinders:	Euro profile single cylinder, double cylinder or cylinder / thumbturn CE marked in accordance with BS EN 1303 as suitable for use on FD60 fire resistant assemblies may be utilised.
Intumescent: protection*	Latch cases and forends are to be bedded on intumescent mastic complete with 1 mm thick Interdens sheet material lining the recesses for the case, forend and keep. Forend and keep are to be bypassed by a minimum 10 mm by 4 mm thick intumescent strip.

* 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.

Mortice type, automatic (sprung) latch bolt.

Option 2	
Max. case dimension:	81 mm high by 106 mm deep by 16 mm wide
Max. forend dimension:	118 mm high by 23 mm wide
Max. keep dimension:	89 mm high by 25.5 mm wide (excluding latch plate)
Latchbolt material:	Steel or Brass
Position:	Max. 1100 mm from bottom of door to centreline of lockcase
Cylinders:	Euro profile single cylinder, double cylinder or cylinder / thumbturn CE marked in accordance with BS EN 1303 as suitable for use on FD30 fire resistant assemblies may be utilised.
Intumescent: protection*	1 mm or 2 mm thick Interdens intumescent sheet material to fully wrap the lock case and behind both the forend and keep.

- 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 15 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.
- Single cylinder door preparation shall penetrate through only half the thickness of the door leaf.
- The use of oval profile cylinders is not permitted.
- Intumescent door edge seals may be partially interrupted by the forend or keep of lock/latch.

Espagnolette Locks

'Winkhaus AV2 or STV', 'Saracen' and 'Fullex SL16' Multi-point espagnolette locks are approved on this door assembly.

The sides of the latch and hook box bodies must be lined with 1.8 mm thick Mann McGowan Pyrostrip 500 or 2 mm Sealmaster Therm-a-flex intumescent sheet and the latch and hook box forends must be bedded on 1.8 mm thick Mann McGowan Pyrostrip 500 or 2 mm Sealmaster Therm-a-flex intumescent sheet.

Additional intumescent in the form of Mann McGowan Pyrostrip 300 or Sealmaster Therm-a-flex, 2 mm thick, must be fitted under the latch and keep bodies.

Espagnolette locks can be used with:

- Single action, single leaf assemblies only.
- Frame specification must be hardwood with a minimum density of 680 kg/m³.
- Winkhaus ArmorShield cylinder guard
- Recessing for locks shall result in a tight fit, allowing for intumescent protection specified.
- The use of oval profile cylinders is not permitted.

- 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 15 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.
- Single cylinder door preparation shall penetrate through only half the thickness of the door leaf.
- Lock keeps may partially interrupt intumescent seals within frame providing a minimum of 6 mm seal remains in place.

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. Building Regulations may identify locations within domestic buildings where self-closing devices are not mandatory. Note: closers with mechanical hold-open mechanisms are not permitted to be used.

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 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.

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

Double-acting assemblies are to be fitted with a CERTIFIRE approved floor spring and associated hardware and intumescent protection.

12d Jamb mounted Door Springs

The Astra 3000 series jamb mounted door springs may be used in accordance with the guidance stated within Approved Document B as follows:

- May be used on doors within a dwellinghouse, excluding doors between a dwellinghouse and an integral garage.
- May be used on doors within flats, **excluding flat entrance doors**.
- May be used on doors to cupboards and service ducts which are normally kept locked.
- All other fire doors should be fitted with a self-closing device as previously stated.

Astra 3000 series door springs are to include 94 mm by 250 mm by 1 mm thick Mono Ammonium Phosphate intumescent, wrapped around the door spring body and a 30 mm diameter by 2.5 mm thick graphite end disk (provided with an 8 mm diameter hole to go over the adjustment screw)

13. Ancillary items

13a 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 uninsulated glazing

13b Protection plates and signage

Surface mounted plastic, steel, aluminium, laminate 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 within 50 mm of each corner and no closer than 250 mm spacing on height and width.

13c 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.

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 Door Viewers

Door viewers may be fitted into the leaf providing the viewer comprises a metal sleeve and an optical glass lens and is not positioned higher than 1500 mm from the threshold. The viewer should have an external diameter of not greater than 15 mm be tightly fitted within the leaf. The aperture provided for the installation of the viewer should be lined with intumescent mastic.

13f Flushbolts

Steel Flushbolts	
Max. flushbolt dimension:	100 mm high x 18 mm x 2.6 mm thick face plate with a 25 mm returned top edge. 15 mm deep (fitted into 18 mm deep rebate)
Max. keep dimension:	Maximum 18 mm wide by 32 mm
Material:	All Steel construction required
Position:	Top and bottom on door edge
Intumescent: protection*	1 mm Intumescent sheet to base rebate and 2 mm intumescent sheet beneath the keep

Zinc Alloy Flushbolts	
Max. flushbolt dimension:	152 mm high x 20 mm deep x 19 mm wide
Max. keep dimension:	Maximum 18 mm wide by 32 mm
Material:	Zinc alloy
Position:	Top and bottom on door edge
Intumescent: protection:	2 mm thick Norseal Graphite intumescent sheet material to base of bolt body & beneath keeps
Perimeter Intumescents:	2No. 15 mm wide by 4 mm thick Therm-A-Seal intumescents positioned centrally within the lock edge of the primary leaf, 12 mm apart.

Meeting edge intumescent protection should only be fitted to the active door leaf such that fitment of the flushbolts does not interrupt the door edge intumescent seals.

13g Air transfer grilles

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

Where apertures are pre-cut by 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.

13h. Dropseals

Door assemblies may incorporate CERTIFIRE approved dropseals with maximum dimensions of 35 mm high by 14 mm wide to the bottom edge of the door leaf.

Alternatively, door assemblies may be fitted with the following dropseals mortised into the bottom edge of the door leaf:

- Norsound Nor810
- Norsound Nor810s
- Norsound Nor810s+
- Norsound Nor810dB+
- Halspan SLS DRP-100
- Exitex Concealex A8100
- Exitex Concealex A8100 Superior
- Exitex Concealex Superior Variseal
- Exitex Concealex Chronoseal
- Lorient LAS8001si
- Lorient LAS8002si
- Lorient AAS8501
- Fire And Acoustic Seals FAS45

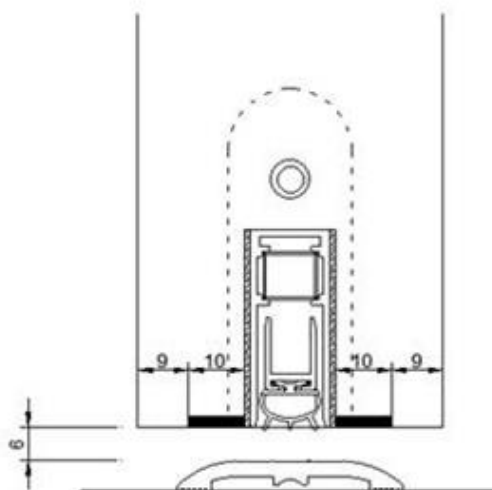
Where dropseals are fitted, the recess for a dropseal may be formed on site by NON-CERTIFIRE approved staff. Care must be taken to ensure all fitting instructions are followed, including any constraints imposed by the CERTIFIRE certificate.

Note: Threshold gaps as stated within Section 3 of the Data Sheet are to be maintained between the bottom edge of the door leaf and the finished floor level.

13i Thresholds

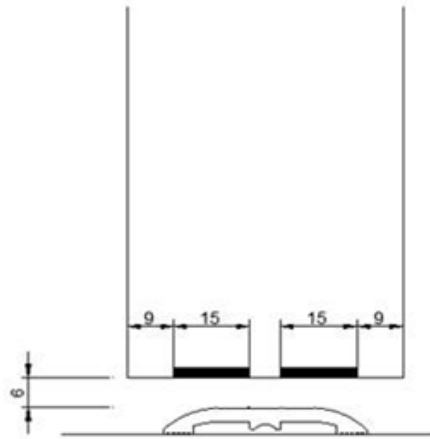
Metal thresholds may be utilised with dropseals in accordance with the CERTIFIRE certificate of approval for the door assembly and the specification requirements below:

- Mild steel / Stainless steel / Aluminium.
- Maximum dimensions 40 mm wide by 6 mm high.
- Domed (unrebated) profile only.
- Maximum 6 mm gap from the underside of the door to the top of the threshold strip.
- 2No 10 mm wide by 2 mm thick Mann McGowan 500F intumescent seals positioned 9 mm (± 0.5 mm) from the opening and closing face of the door leaf.
- 1mm thick Interdens intumescent sheet material shall be applied to the sides of the dropseal body or the sides of the dropseal recess.



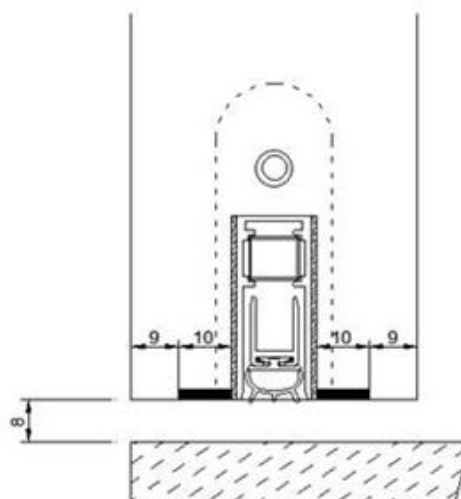
Metal thresholds may be utilised without dropseals in accordance with specification requirements below:

- Mild steel / Stainless steel / Aluminium.
- Maximum dimensions 40 mm wide by 6 mm high.
- Domed (unrebated) profile only.
- Maximum 6 mm gap from the underside of the door to the top of the threshold strip.
- 2No 15 mm wide by 2 mm thick Mann McGowan 500F intumescent seals positioned 9 mm (± 0.5 mm) from the opening and closing face of the door leaf.



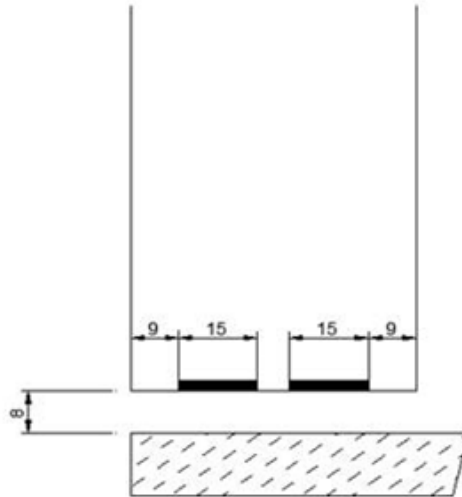
Hardwood thresholds may be utilised in conjunction with dropseals in accordance with the CERTIFIRE certificate of approval for the door assembly and the specification requirements below:

- Hardwood of minimum density 640kg/m^3 (excluding Ash, Beech & Iroko).
- Minimum dimensions 89 mm wide by 14 mm high.
- Plain (unrebated) profile only, with option for pencil round top corners.
- Maximum 8 mm gap from the underside of the door to the top of the threshold.
- 2No 10 mm wide by 2 mm thick Mann McGowan 500F intumescent seals positioned 9 mm (± 0.5 mm) from the opening and closing face of the door leaf.
- 1mm thick Interdens intumescent sheet material shall be applied to the sides of the dropseal body or the sides of the dropseal recess.



Hardwood thresholds may be utilised without dropseals in accordance with specification requirements below:

- Hardwood of minimum density 640kg/m³ (excluding Ash, Beech & Iroko).
- Minimum dimensions 89 mm wide by 14 mm high.
- Plain (unrebated) profile only, with option for pencil round top corners.
- Maximum 8 mm gap from the underside of the door to the top of the threshold.
- 2No 15 mm wide by 2 mm thick Mann McGowan 500F intumescent seals positioned 9 mm (± 0.5 mm) from the opening and closing face of the door leaf.



14. Further Information

Further information regarding the details contained in this data sheet may be obtained from Premdor Crosby Limited (Tel: 01226 383434).

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