certifire

# CERTIFICATE OF APPROVAL
# No CF 808

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

## FALCON PANEL PRODUCTS LTD

**Clock House, Station Approach, Shepperton**
**Middlesex, TW17 8AN**
**Tel: 01824 730266**

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

| CERTIFIED PRODUCT | TECHNICAL SCHEDULE |
|---|---|
| **Falcon Panel Products Ltd**<br>**FD60 STREbord 54**<br>**ITT Timber Door Blanks** | **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: 6th July 2011
Revised: 17th February 2024
Valid to: 2nd November 2026

UKAS PRODUCT CERTIFICATION 0087

warringtonfire certifire CERTIFICATION

# CERTIFICATE No CF 808
# FALCON PANEL PRODUCTS LTD

## Falcon Panel Products Ltd. FD60 STREbord 54 Timber Door Blanks

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 blanks comprise cellulosic cored leaves in various finishes for use with timber or 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-acting, single and double-leaf, assemblies, at leaf dimensions up to those given in Tables 1, 2, 3, 4, 5, 6, 7 and 8.

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

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

8. The door assembly shall be mechanically fixed to wall constructions having a fire resistance of at least 60 minutes.

9. Labels to the CERTIFIRE design, or approved by CERTIFIRE, referencing CERTIFIRE and CERTIFIRE Ref. No. CF808 and FD60 classifications resistance shall be affixed to each door in the prescribed position.


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# FALCON PANEL PRODUCTS LTD

## Falcon Panel Products Ltd. FD60 STREbord 54 Timber Door Blanks

10. The 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 where appropriate.

| Door assembly configuration | Max. Height (mm) | Max. Width (mm) | Max. Area ($m^2$) |
|---|---|---|---|
| Single-Acting, Single-Leaf Latched | 3242 (at 1035 wide) | 1177 (at 2850 high) | 3.35 |
| Single-Acting, Single-Leaf Latched | 2680 (at 1290 wide) | 1293 (at 2674 high) | 3.46 |
| Single-Acting, Double-Leaf Latched / Unlatched | 2189 (at 936 wide) | 960 (at 2135 high) | 2.05 |
| Double-Acting, Double-Leaf Unlatched / Unbolted (Hardware shall not be fitted to the meeting edge) | 2257 (at 925 wide) | 1024 (at 2040 high) | 2.09 |

**Table 1. Maximum Permitted Door Leaf Dimensions for Fire Performance** with Intumescent Seals Ltd - Therm-A-Seal / Therm-A-Blade Intumescents

| Door assembly configuration | Max. Height (mm) | Max. Width (mm) | Max. Area ($m^2$) |
|---|---|---|---|
| Single-Acting, Double-Leaf Latched / Unlatched | 2249 (at 935 wide) | 985 (at 2135 high) | 2.10 |

**Table 2. Maximum Permitted Door Leaf Dimensions for Fire Performance** with Lorient Polyproducts Ltd - Type 617 Intumescents

Note: 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



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# FALCON PANEL PRODUCTS LTD

**Falcon Panel Products Ltd. FD60 STREbord 54 Timber Door Blanks**

| Door assembly configuration | Max. Height (mm) | Max. Width (mm) | Max. Area ($m^2$) |
|---|---|---|---|
| Single-Acting, Single-Leaf Latched / Unlatched | 2517 (at 1234 wide) | 1265 (at 2454 high) | 3.11 |
| Single-Acting, Double-Leaf Latched / Unlatched | 2146 (at 928 wide) | 970 (at 2054 high) | 1.99 |
| Single-Acting, Double-Leaf Latched | 3257 (at 936 wide) | 1106 (at 2757 high) | 3.05 |

**Table 3. Maximum Permitted Door Leaf Dimensions for Fire Performance**
with Pyroplex - FO8700 Graphite Rigid box seal Intumescents

| Door assembly configuration | Max. Height (mm) | Max. Width (mm) | Max. Area ($m^2$) |
|---|---|---|---|
| Single-Acting, Double-Leaf Latched / Unlatched | 2353 (at 935 wide) | 1030 (at 2135 high) | 2.2 |

**Table 4. Maximum Permitted Door Leaf Dimensions for Fire Performance**
with Lorient Polyproducts Ltd - Palusol Intumescents

| Door assembly configuration | Max. Height (mm) | Max. Width (mm) | Max. Area ($m^2$) |
|---|---|---|---|
| Single-Acting, Single-Leaf Latched / Unlatched | 2264 (at 1045 wide) | 1097 (at 2156 high) | 2.37 |
| Single-Acting, Double-Leaf Latched / Unlatched | 2903 (at 1008 wide) | 1176 (at 2488 high) | 2.93 |

**Table 5. Maximum Permitted Door Leaf Dimensions for Fire Performance**
with Mann McGowan - 500P Intumescents

Note: 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



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transom rail as detailed within data sheet

**Falcon Panel Products Ltd. FD60 STREbord 54 Timber Door Blanks**

| Door assembly configuration | Max. Height (mm) | Max. Width (mm) | Max. Area ($m^2$) |
|---|---|---|---|
| Single-Acting, Double-Leaf<br>Latched / Unlatched | 2284<br>(at 926 wide) | 984<br>(at 2150 high) | 2.11 |

**Table 6. Maximum Permitted Door Leaf Dimensions for Fire Performance**
Single-Acting, Double-Leaf, doors in Access Panel Ltd Zintec Steel frames
with Lorient Polyproducts Ltd - Type 617 & MAP Intumescents

| Door assembly configuration | Max. Height (mm) | Max. Width (mm) | Max. Area ($m^2$) |
|---|---|---|---|
| Single-Acting, Single-Leaf<br>Latched | 2400<br>(at 1052 wide) | 1075<br>(at 2349 high) | 2.53 |
| Single-Acting, Double-Leaf<br>Latched / Unlatched (with engaged flushbolts) | 2273<br>(at 927 wide) | 958<br>(at 2200 high) | 2.11 |

**Table 7. Maximum Permitted Door Leaf Dimensions for Fire Performance**
Single-Acting, Single & Double-Leaf, doors in Ezy Jamb EZC Steel frames
with Lorient Polyproducts Ltd - Palusol Intumescents

| Door assembly configuration | Max. Height (mm) | Max. Width (mm) | Max. Area ($m^2$) |
|---|---|---|---|
| Single-Acting, Single-Leaf<br>Latched & bolted (top & Bottom) | 2277<br>(at 1050 wide) | 1094<br>(at 2186 high) | 2.39 |

**Table 8. Maximum Permitted Door Leaf Dimensions for Fire Performance**
Single-Acting, Single-Leaf, Latched & Bolted with a Winkhaus AV2 Multipoint
Lock with Intumescent Seals Ltd, Therm-A-Seal Intumescents

Note: 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.


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# CF 808 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: 1987, when installed in accordance with the following conditions. Subject to these, the door will meet the relevant requirements of BS 9999 for FD60 doorsets when used in accordance with the provisions therein.

In recognition of this the leaf carries a prefixed label on the top edge 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 must 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 the prime door manufacturer may be considered to meet the requirements in respect of those items.

## 2. Door Leaf

This approval is applicable to single-action, single and double-leaf, latched and unlatched, assemblies at leaf dimensions up to those detailed in Tables 1, 2 and 3 below.

| Door assembly configuration | Max. Height (mm) | Max. Width (mm) | Max. Area ($m^2$) |
|---|---|---|---|
| Single-Acting, Single-Leaf<br>Latched | 3242<br>(at 1035 wide) | 1177<br>(at 2850 high) | 3.35 |
| Single-Acting, Single-Leaf<br>Latched | 2680<br>(at 1290 wide) | 1293<br>(at 2674 high) | 3.46 |
| Single-Acting, Double-Leaf<br>Latched / Unlatched | 2189<br>(at 936 wide) | 960<br>(at 2135 high) | 2.05 |
| Double-Acting, Double-Leaf<br>Unlatched / Unbolted<br>(Hardware shall not be fitted to the meeting edge) | 2257<br>(at 925 wide) | 1024<br>(at 2040 high) | 2.09 |

**Table 1. Maximum Permitted Door Leaf Dimensions for Fire Performance**
with Intumescent Seals Ltd - Therm-A-Seal / Therm-A-Blade Intumescents

| Door assembly configuration | Max. Height (mm) | Max. Width (mm) | Max. Area ($m^2$) |
|---|---|---|---|
| Single-Acting, Double-Leaf<br>Latched / Unlatched | 2249<br>(at 935 wide) | 985<br>(at 2135 high) | 2.10 |

**Table 2. Maximum Permitted Door Leaf Dimensions for Fire Performance**
with Lorient Polyproducts Ltd - Type 617 Intumescents

Note: 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.

| Door assembly configuration | Max. Height (mm) | Max. Width (mm) | Max. Area ($m^2$) |
|---|---|---|---|
| Single-Acting, Single-Leaf<br>Latched / Unlatched | 2517<br>(at 1234 wide) | 1265<br>(at 2454 high) | 3.11 |
| Single-Acting, Double-Leaf<br>Latched / Unlatched | 2146<br>(at 928 wide) | 970<br>(at 2054 high) | 1.99 |
| Single-Acting, Double-Leaf<br>Latched | 3257<br>(at 936 wide) | 1106<br>(at 2757 high) | 3.05 |

**Table 3. Maximum Permitted Door Leaf Dimensions for Fire Performance**
with Pyroplex - FO8700 Graphite Rigid box seal Intumescents

| Door assembly configuration | Max. Height (mm) | Max. Width (mm) | Max. Area ($m^2$) |
|---|---|---|---|
| Single-Acting, Double-Leaf<br>Latched / Unlatched | 2353<br>(at 935 wide) | 1030<br>(at 2135 high) | 2.2 |

**Table 4. Maximum Permitted Door Leaf Dimensions for Fire Performance**
with Lorient Polyproducts Ltd - Palusol Intumescents

| Door assembly configuration | Max. Height (mm) | Max. Width (mm) | Max. Area ($m^2$) |
|---|---|---|---|
| Single-Acting, Single-Leaf<br>Latched / Unlatched | 2264<br>(at 1045 wide) | 1097<br>(at 2156 high) | 2.37 |
| Single-Acting, Double-Leaf<br>Latched / Unlatched | 2903<br>(at 1008 wide) | 1176<br>(at 2488 high) | 2.93 |

**Table 5. Maximum Permitted Door Leaf Dimensions for Fire Performance**
with Mann McGowan - 500P Intumescents

| Door assembly configuration | Max. Height (mm) | Max. Width (mm) | Max. Area ($m^2$) |
|---|---|---|---|
| Single-Acting, Double-Leaf<br>Latched / Unlatched | 2284<br>(at 926 wide) | 984<br>(at 2150 high) | 2.11 |

**Table 6. Maximum Permitted Door Leaf Dimensions for Fire Performance**
Single-Acting, Double-Leaf, doors in Access Panel Ltd Zintec Steel frames
with Lorient Polyproducts Ltd - Type 617 & MAP Intumescents

| Door assembly configuration | Max. Height (mm) | Max. Width (mm) | Max. Area ($m^2$) |
|---|---|---|---|
| Single-Acting, Single-Leaf<br>Latched | 2400<br>(at 1052 wide) | 1075<br>(at 2349 high) | 2.53 |
| Single-Acting, Double-Leaf<br>Latched / Unlatched (with engaged flushbolts) | 2273<br>(at 927 wide) | 958<br>(at 2200 high) | 2.11 |

**Table 7. Maximum Permitted Door Leaf Dimensions for Fire Performance**
Single-Acting, Single & Double-Leaf, doors in Ezy Jamb EZC Steel frames
with Lorient Polyproducts Ltd - Palusol Intumescents

Note: 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

| Door assembly configuration | Max. Height (mm) | Max. Width (mm) | Max. Area ($m^2$) |
|---|---|---|---|
| Single-Acting, Single-Leaf<br>Latched & bolted (top & Bottom) | 2277<br>(at 1050 wide) | 1094<br>(at 2186 high) | 2.39 |

**Table 8. Maximum Permitted Door Leaf Dimensions for Fire Performance**
Single-Acting, Single-Leaf, Latched & Bolted with a Winkhaus AV2 Multipoint Lock with Intumescent Seals Ltd, Therm-A-Seal Intumescents

Note: 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

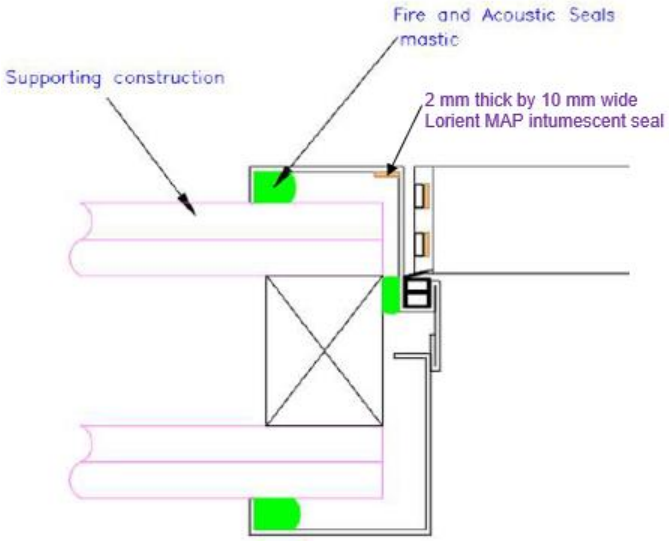
**Decorative Finishes**

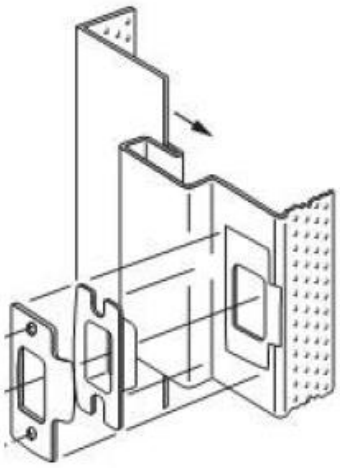
- Any additional timber veneer up to 2 mm thick may be applied to the face only. (application to the door edge is not permitted)
- Any additional non-metallic facing material, e.g., plastic laminate up to 2mm thick applied to the face only (application to the door edge is not permitted)
- Paint finishes may be applied to the leaf faces and edges.

## 3. Door Frames

To be any of the following: -

| | | |
|---|---|---|
| Hardwood<br>(Excluding Ash, Beech & Iroko)<br>Single-Action | Density: | 640 kg/$m^3$ min. |
| | Dimensions: | 70 mm by 32 mm min. |
| | Door Stop: | 12 mm deep pinned, screwed, or rebated from solid (640 kg/$m^3$ min). Where rebated from solid the overall frame thickness must be increased by 12 mm to accommodate the 12 mm rebate depth. |
| Hardwood<br>(Excluding Ash, Beech & Iroko)<br>Double-Action | Density: | 640 kg/$m^3$ min. |
| | Dimensions: | 90 mm by 44 mm min, complete with a 10 mm deep by 58 mm wide scallop to the frame jambs. |
| MDF*<br>*MDF frames are restricted to single-action, single-leaf door assemblies only, and shall incorporate Pyroplex FO8700 Graphite Rigid box intumescent seals. | Density: | 750 kg/$m^3$ min. |
| | Dimensions: | 70 mm by 30 mm min. |
| | Door Stop: | 12 mm deep pinned, screwed, or rebated from solid (750 kg/$m^3$ min). Where rebated from solid the overall frame thickness must be increased by 12 mm to accommodate the 12 mm 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 | |

| **Access Panels 2 Part Steel Frames** | | |
|---|---|---|
| Steel Frames<br><br><u>Single-Action</u> | Supplier / Ref: | Access Panels Simplis Soleco Visible 2-part frame |
| | Material: | Upton Steel – Zintec EZ Steel |
| | Dimensions: | 180 mm by 75 mm complete with a 13 mm deep integral rebate, & additional profile detail to accommodate the System Components 584-2146-092 PVC seal as detailed below: |
| Jointing: | Mitred and welded | |
| Note: | A 2 mm thick by 10 mm wide Lorient Mono Ammonium Phosphate intumescent seal shall be fitted within the frame profile on the opening face, along with Fire and Acoustic seals intumescent mastic to areas shaded green – as detailed below:<br>  <br> | |

| **EzyJamb EZC Steel Frames** | | |
|---|---|---|
| Steel Frames<br><br><u>Single-Action</u> | Supplier / Ref: | EzyJamb EZC Concealed profiled steel frame |
| | Material: | 1 mm thick Steel |
| | Dimensions: | 99 mm by 47 mm complete with a 12 mm deep integral rebate, & additional profile detail as shown below: |
| Jointing: | Butt jointed, complete with EzyJamb Clip system | |
| |  | |

| | |
|---|---|
| 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. Please note that a reduced threshold gap may be required to comply with smoke leakage requirements. |

## 4. Overpanels and sidepanels

Overpanels / sidepanels to be manufactured as per door leaf specification, including lippings to all four edges and bedded against beads or the stop of the rebate.

Overpanels to be fixed using steel screws at a maximum of 400 mm centres and a maximum 100 mm from each corner, through the centre of the panel to a depth of at least 30mm.

Flush overpanels may be included up to a maximum height of 613 mm and shall include 9 mm thick hardwood lippings (minimum) and opposing lipping to the leaf head or a rebated 20 mm thick hardwood lipping with 22 mm wide by 13 mm deep rebate at the bottom edge, with a corresponding 20 mm thick rebated hardwood lipping with 32 mm wide by 13 mm deep rebate to the top edge of the leaf.

Door to flush overpanel meeting edges shall incorporate a 15 mm by 4 mm Lorient intumescent seal in overpanel rebate and a 25 mm by 4 mm Lorient intumescent seal in the door rebate, or the same seal specification positioned centrally within the leaf / overpanel thickness where a square (non-rebated) door to overpanel meeting edge is adopted.

Where rebated door to overpanel meeting edges are not incorporated on double-leaf assemblies, timber astragals (min 640 kg/$m^3$) are required at the junction between the bottom of the overpanel and the top edge of the door.

Transomed overpanels may be included up to 1000 mm high, with a minimum 40 mm wide hardwood transom rail (see frame specification for minimum density requirements).

Transomed sidepanels may be included up to 1000 mm wide, with a minimum 40 mm wide hardwood mullion rail (see frame specification for minimum density requirements).

Entire transomed 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 70mm, 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

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 hardwood which shall be continuous and of minimum width, 70 mm. Each door frame jamb to be fixed through to the wall at not less than four points with steel or nylon frame fixings screwed and plugged at maximum 600mm centres and penetrating the wall to at least 50 mm. Architrave is optional with no restrictions on material, size or fixing.

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

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

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

- Stiles (each) 3 mm
- Top 3 mm
- Bottom 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. Lippings

**General lipping notes:**

- All doors, shall be lipped to the vertical edges as a minimum with the option to apply lippings to the top and bottom leaf edges
- Door assemblies incorporating a Winkhaus AV2 lock shall include minimum 8 mm thick standard hardwood lippings to all four door leaf edges.
- Double-action double-leaf assemblies shall include minimum 10 mm thick standard hardwood lippings to the meeting edges and 18 mm thick standard hardwood lippings to the top, bottom and hang edges of both door leaves. Lippings to the hang edges of double-action, double-leaf doorsets shall incorporate a rounded profile.

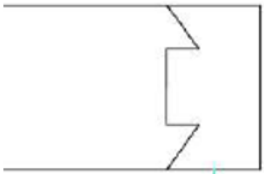
**Hardwood Lippings**

Door leaves may incorporate Standard lippings in accordance with the following specification.

| | | |
|---|---|---|
| Hardwood (Excluding Ash, Beech and Iroko) | Material: | Solid hardwood (excluding Ash, Beech & Iroko) |
| | Density: | 640 kg/m$^3$ minimum |
| | Thickness: | Minimum 6 mm / Maximum 25 mm |
| | Adhesive: | Urea Formaldehyde, Cascamite, PVA or PU |

**T-Shaped Lippings**

Door leaves may incorporate T-Shaped lippings in accordance with the following specification.

| | | |
|---|---|---|
| Hardwood (Excluding Ash, Beech & Iroko) | | Solid hardwood (excluding Ash, Beech & Iroko) |
| | Density: | 640 kg/m$^3$ minimum |
| | Thickness: | 25 mm thick |
| | Adhesive: | Urea Formaldehyde, Cascamite, PVA or PU |
| Notes: | Where T-Shaped lippings are utilised the door leaf shall be lipped to all four door leaf edges. | |
| | Strelip lippings incorporate 10 mm deep by 21 mm wide tongue, which is inserted into a corresponding groove within the core perimeter, to create a tightly fitting joint as depicted in the detail below:  | |

**STRElip Lippings**

Door leaves may incorporate STRElip lippings in accordance with the following specifications.

| | | |
|---|---|---|
| Hardwood (Excluding Ash, Beech & Iroko) | Material: | Engineered hardwood (excluding Ash, Beech & Iroko) |
| | Density: | 720 kg/m$^3$ minimum |
| | Thickness: | 8 - 10 mm thick |
| | Adhesive: | Urea Formaldehyde, Cascamite, PVA or PU |

## 9. Glazed Apertures

All apertures to be factory prepared by a CERTIFIRE approved Licensed Door Processor. No site cutting of apertures permitted as this will invalidate the certification.

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

Area: Maximum total glazed area of 1.12 m$^2$ per leaf

Margins: 120 mm from the perimeter edge, 120 mm between apertures

Lining to aperture: As required by the CERTIFIRE glazing certificate

| **Maximum Permitted Aperture Dimension** | | |
|---|---|---|
| **Max. Height (mm)** | **Max. Width (mm)** | **Max. Area (m$^2$)** |
| 2201 (at 510 wide) | 604 (at 1860 high) | 1.12 |
| 881 (at 675 wide) | 743 (at 801 high) | 0.59 |

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

The leaf / leaves may incorporate any CERTIFIRE approved glazing system subject to the conditions contained within the relevant certificate (e.g., maximum size associated with glass or system, edge cover, aperture lining requirements etc), and the maximum pane dimensions given above (whichever is the smaller).

Alternatively, doors may be glazed in accordance with the following specifications

| **Pyrostem:** | | |
|---|---|---|
| Glass thickness | 7 mm thick | |
| Max. Height | 1792 mm (at max 260 mm wide) | |
| Max. Width | 290 mm (at max 1605 mm high) | |
| Max. Diameter | Not Permitted | |
| Max. Area | 0.47m$^2$ | |
| Glazing system: | Sealmaster Limited Intumescent foam glazing tape 25 mm by 5 mm (compressed to 2.5 mm thick) and a Sealmaster Fireglaze glazing liner, 54 mm wide by 2.5 mm thick. | |
| Setting Blocks: | 3 mm thick hardwood / non-combustible board | |
| Glazing Bead: | Material | Hardwood (excluding Ash, Beech & iroko) |
| | Density: | Min. 578kg/m$^3$ |
| | Profile: | Splayed Bolection bead |
| | Splay: | 20 degrees |
| | Dimensions: | 30 mm high by 26 mm wide with a 5 mm by 5 mm bolection |
| | Edge Cover: | 22 mm (+2 mm / - 1 mm) |
| Bead Fixings: | Type: | Steel screws |
| | Size: | No.8 by 70 mm long |
| | Centres: | Max 150 mm centres, at max 50 mm in from the corners, |

| | | |
|---|---|---|
| | | perpendicular to the splayed bead face. |
| **Pyrobelite 7:** | | |
| Glass thickness | 7 mm thick | |
| Max. Height | 1819 mm (at max 260 mm wide) | |
| Max. Width | 295 mm (at max 1605 mm high) | |
| Max. Diameter | Not Permitted | |
| Max. Area | 0.47m$^2$ | |
| Glazing system: | Sealmaster Limited Intumescent foam glazing tape 25 mm by 5 mm (compressed to 2.5 mm thick) and a Sealmaster Fireglaze glazing liner, 54 mm wide by 2.5 mm thick. | |
| Setting Blocks: | 3 mm thick hardwood / non-combustible board | |
| Glazing Bead: | Material | Hardwood (excluding Ash, Beech & iroko) |
| | Density: | Min. 578kg/m$^3$ |
| | Profile: | Splayed Bolection bead |
| | Splay: | 20 degrees |
| | Dimensions: | 30 mm high by 26 mm wide with a 5 mm by 5 mm bolection |
| | Edge Cover: | 22 mm (+2 mm / - 1 mm) |
| Bead Fixings: | Type: | Steel screws |
| | Size: | No.8 by 70 mm long |
| | Centres: | Max 150 mm centres, at max 50 mm in from the corners, perpendicular to the splayed bead face. |

| | | |
|---|---|---|
| **Pyrobelite 12:** | | |
| Glass thickness | 12 mm thick | |
| Max. Height | 1227 mm (at max 634 mm wide) | |
| Max. Width | 771 mm (at max 1008 mm high) | |
| Max. Diameter | Not Permitted | |
| Max. Area | 0.78m$^2$ | |
| Glazing system: | Mann McGowan Pyroglaze 60, 25 mm by 3 mm and a Pyrostrip 100ECSA Palusol glazing liner, 54 mm wide by 2 mm thick. | |
| Setting Blocks: | 5 mm thick hardwood / non-combustible board | |
| Glazing Bead: | Material | Hardwood (excluding Ash, Beech & iroko) |
| | Density: | Min. 615kg/m$^3$ |
| | Profile: | Splayed Bolection bead |
| | Splay: | 20 degrees |
| | Dimensions: | 23.5 mm high by 25 mm wide with a 5 mm by 5 mm bolection |
| | Edge Cover: | 13.5 mm (+2 mm / - 1 mm) |
| Bead Fixings: | Type: | Steel Pins (or screws) |
| | Size: | 16swg by 50 mm long |
| | Centres: | Max 150 mm centres, at max 50 mm in from the corners, at 30 degrees to the face of the glass. |

| **Pyrobelite 12:** | | |
|---|---|---|
| Glass thickness | 12 mm thick | |
| Max. Height | 1272 mm (at max 741 mm wide) | |
| Max. Width | 914 mm (at max 1031 mm high) | |
| Max. Diameter | Not Permitted | |
| Max. Area | 0.94m$^2$ | |
| Glazing system: | Sealmaster Limited Intumescent foam glazing tape 20 mm by 5 mm (compressed to 4 mm thick) and a GL60 glazing liner, 54 mm wide by 2 mm thick. | |
| Setting Blocks: | 3 mm thick hardwood / non-combustible board | |
| Glazing Bead: | Material | Hardwood (excluding Ash, Beech & iroko) |
| | Density: | Min. 647kg/m$^3$ |
| | Profile: | Splayed Bolection bead |
| | Splay: | 20 degrees |
| | Dimensions: | 25 mm high by 22 mm wide with a 5 mm by 5 mm bolection |
| | Edge Cover: | 17 mm (+2 mm / - 1 mm) |
| Bead Fixings: | Type: | Steel Pins (or screws) |
| | Size: | 16swg by 50 mm long |
| | Centres: | Max 135 mm centres, at max 50 mm in from the corners, at 30 degrees to the face of the glass. |

| **Pyrobel 16:** | | |
|---|---|---|
| Glass Thickness : | 17.3 mm thick | |
| Max. Height | 1706 mm (at max 306 mm wide) | |
| Max. Width | 347 mm (at max 1506 mm high) | |
| Max. Diameter | Not Permitted | |
| Max. Area | 0.52m$^2$ | |
| Glazing system: | Sealmaster Intumescent foam glazing tape 20 mm by 5 mm (compressed to 3 mm thick) and a GL60 glazing liner, 54 mm wide by 2 mm thick. | |
| Setting Blocks: | 3 mm thick hardwood / non-combustible board | |
| Glazing Bead: | Material | Hardwood (excluding Ash, Beech & iroko) |
| | Density: | Min. 640kg/m$^3$ |
| | Profile: | Splayed Bolection bead |
| | Splay: | 20 degrees |
| | Dimensions: | 25 mm high by 20.5 mm wide with a 5 mm by 5 mm bolection |
| | Edge Cover: | 17 mm (+2 mm / - 1 mm) |
| Bead Fixings: | Type: | Steel Pins (or screws) |
| | Size: | 16swg by 63 mm long |
| | Centres: | Max 140 mm centres, at max 50 mm in from the corners. |

| **Pyroguard EI60 INT:** | | |
|---|---|---|
| Glass Thickness | 23 mm thick | |
| Max. Height | 694 mm (at max 456 mm wide) | |
| Max. Width | 479 mm (at max 661 mm high) | |
| Max. Diameter | Not Permitted | |
| Max. Area | 0.32m$^2$ | |
| Glazing system: | Lorient Polyproducts Flexible Figure 1 glazing seal, 13 mm high by 3.5 mm thick and an LX5402 Palusol aperture liner, 54 mm wide by 2 mm thick. | |
| Setting Blocks: | 3 mm thick hardwood / non-combustible board | |
| Glazing Bead: | Material | Hardwood (excluding Ash, Beech & iroko) |
| | Density: | Min. 640kg/m$^3$ |
| | Profile: | Splayed Bolection bead |
| | Splay: | 16 degrees |
| | Dimensions: | 25 mm high by 18 mm wide with a 5 mm by 5 mm bolection |
| | Edge Cover: | 15 mm (+2 mm / - 1 mm) |
| Bead Fixings: | Type: | Steel screws |
| | Size: | No.8 by 70 mm long |
| | Centres: | Max 150 mm centres, at max 50 mm in from the corners. |

| **Pyrostop 30-10:** | | |
|---|---|---|
| Glass Thickness | 15 mm thick | |
| Max. Height | 1797 mm (at max 410 mm wide) | |
| Max. Width | 458 mm (at max 1610 mm high) | |
| Max. Diameter | Not Permitted | |
| Max. Area | 0.74m$^2$ | |
| Glazing system: | Lorient Polyproducts Rigid Figure 1 glazing seal 27 mm high by 4 mm thick and an LX5402 Palusol aperture liner, 54 mm wide by 2 mm thick. | |
| Setting Blocks: | 5 mm thick hardwood / non-combustible board | |
| Glazing Bead: | Material | Hardwood (excluding Ash, Beech & iroko) |
| | Density: | Min. 640kg/m$^3$ |
| | Profile: | Splayed Bolection bead |
| | Splay: | 30 degrees |
| | Dimensions: | 35 mm high by 23 mm wide with a 10 mm high by 6 mm wide bolection |
| | Edge Cover: | 20 mm (+2 mm / - 1 mm) |
| Bead Fixings: | Type: | Steel screws |
| | Size: | No.8 by 60 mm long |
| | Centres: | Max 150 mm centres, at max 40 mm in from the corners. |

## 10. Intumescent Seals

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

**For door assemblies to BS 476: Part 22 – classified as FD60**

**Intumescent Seals Ltd - Therm-A-Seal / Blade intumescent – See Table 1 for size restrictions**

| Doorset Configuration | Position | Intumescent Specification |
|---|---|---|
| Single-Acting, Single-Leaf Latched | Head | 2No. 15 mm wide by 4 mm thick fitted 10 mm apart, with first seal 7 mm from the opening face of the frame, within the frame reveal. |
| | Vertical Edges | 2No. 15 mm wide by 4 mm thick fitted 10 mm apart, with first seal 7 mm from the opening face of the frame, within the frame reveal. |
| Single-Acting, Double-Leaf Latched / Unlatched | Head | 2No. 15 mm wide by 4 mm thick fitted 10 mm apart, with first seal 7 mm from the opening face of the frame, within the frame reveal. |
| | Hanging Edges | 2No. 15 mm wide by 4 mm thick fitted 10 mm apart, with first seal 7 mm from the opening face of the frame, within the frame reveal. |
| | Meeting Edges | 2No. 15 mm wide by 4 mm thick positioned centrally, 10 mm apart, to primary leaf only. |
| Double-Acting, Double-Leaf Unlatched & Unbolted<br><br>(Hardware shall not be fitted to the meeting edge) | Frame head | 2No 20 mm wide by 4 mm thick Therm-A-Blade intumescents – positioned centrally within the frame, 8 mm apart. (the door leaf is to be positioned centrally within the frame width) |
| | Top Edge of Door Leaves | 1No 20 mm wide by 4 mm thick Therm-A-Seal intumescent – positioned centrally within the leaf thickness. (the door leaf is to be positioned centrally within the frame width) |
| | Frame Jambs | 2No 15 mm wide by 4 mm thick Therm-A-Blade intumescents – positioned centrally within the frame, 10 mm apart. (the door leaf is to be positioned centrally within the frame width) |
| | Meeting Edges (Primary leaf) | 1No 15 mm wide by 4 mm thick Therm-A-Blade and 1No 15 mm wide by 4 mm thick Therm-A-Seal intumescent – positioned centrally within the meeting edge, 10 mm apart. (the door leaf is to be positioned centrally within the frame width) |

**Lorient Polyproducts - Type 617 intumescents – See Table 2 for size restrictions**

| Doorset Configuration | Position | Intumescent Specification |
|---|---|---|
| Single-Acting, Double-Leaf Latched / Unlatched | Head | 2No. 15 mm wide by 4 mm thick fitted 10 mm apart, with first seal 7 mm from the opening face of the frame, within the frame reveal. |
| | Hanging Edges | 2No. 15 mm wide by 4 mm thick fitted 10 mm apart, with first seal 7 mm from the opening face of the frame, within the frame reveal. |
| | Meeting Edges | 2No. 15 mm wide by 4 mm thick positioned centrally, 10 mm apart, to primary leaf only. |

**Pyroplex - FO8700 Graphite Rigid Box seal intumescents – See Table 3 for size restrictions**

| Doorset Configuration | Position | Intumescent Specification |
|---|---|---|
| Single-Acting, Single-Leaf Latched / Unlatched | Head | 2No. 15 mm wide by 4 mm thick fitted 10-12 mm apart, with first seal 7 mm from the opening face of the frame, within the frame reveal. |
| | Vertical Edges | 2No. 15 mm wide by 4 mm thick fitted 10-12 mm apart, with first seal 7 mm from the opening face of the frame, within the frame reveal. |
| Single-Acting, Double-Leaf Latched / Unlatched | Head | 2No. 15 mm wide by 4 mm thick fitted 10-12 mm apart, with first seal 7 mm from the opening face of the frame, within the frame reveal. |
| | Hanging Edges | 2No. 15 mm wide by 4 mm thick fitted 10-12 mm apart, with first seal 7 mm from the opening face of the frame, within the frame reveal. |
| | Meeting Edges | 2No. 15 mm wide by 4 mm thick positioned centrally, 10 mm apart, to primary leaf only. |
| Single-Acting, Double-Leaf Latched | Head | 2No. 15 mm wide by 4 mm thick fitted 10-12 mm apart, with first seal 7 mm from the opening face of the frame, within the frame reveal. |
| | Top Edge | 1No. 15 mm wide by 4 mm thick - centrally |
| | Hanging Edge | 2No. 15 mm wide by 4 mm thick fitted 10-12 mm apart, with first seal 7 mm from the opening face of the frame, within the frame reveal. |
| | Meeting Edges | 2No. 15 mm wide by 4 mm thick positioned centrally, 10 mm apart, to primary leaf only. |

Note: MDF frames are restricted to single-action, single-leaf door assemblies only, and shall incorporate Pyroplex FO8700 Graphite Rigid box intumescent seals.

**Lorient Polyproducts - Palusol intumescents – See Table 4 for size restrictions**

| Doorset Configuration | Position | Intumescent Specification |
|---|---|---|
| Single-Acting, Double-Leaf Latched / Unlatched | Head | 2No. 15 mm wide by 4 mm thick fitted 10 mm apart, with first seal 7 mm from the opening face of the frame, within the frame reveal. |
| | Hanging Edges | 2No. 15 mm wide by 4 mm thick fitted 10 mm apart, with first seal 7 mm from the opening face of the frame, within the frame reveal. |
| | Meeting Edges | 2No. 15 mm wide by 4 mm thick positioned centrally, 10 mm apart, to primary leaf only. |

**Mann McGowan – 500P intumescents – See Table 5 for size restriction s**

| Doorset Configuration | Position | Intumescent Specification |
|---|---|---|
| Single-Acting, Double-Leaf Latched / Unlatched | Head | 2No. 15 mm wide by 4 mm thick fitted 10 mm apart, with first seal 7 mm from the opening face of the frame, within the frame reveal. |
| | Hanging Edges | 2No. 15 mm wide by 4 mm thick fitted 10 mm apart, with first seal 7 mm from the opening face of the frame, within the frame reveal. |
| | Meeting Edges | 2No. 15 mm wide by 4 mm thick positioned centrally, 10 mm apart, to primary leaf only. |

**Lorient Type 617 & MAP Intumescent Seals – See Table 6 for size restrictions**

| Doorset Configuration | Position | Intumescent Specification |
|---|---|---|
| Single-Acting, Double-Leaf Latched / Unlatched<br><br>**Access Panel Ltd Zintec Steel frames** | Head & Hanging Edges | 2No 20 mm wide by 2 mm thick MAP intumescents – positioned 10 mm apart, 2 mm from the opening face of the door leaf at the base of 2No. 20 mm wide by 6 mm deep grooves and 2No 20 mm wide by 4 mm thick Type 617 intumescents – positioned 10 mm apart, 2 mm from the opening face of the door leaf within 2No 20 mm wide by 6 mm deep grooves (on top of the MAP seals) |
| | Meeting Edges (Primary leaf) | 2No 20 mm wide by 2 mm thick MAP intumescents – positioned 10 mm apart, 2 mm from the opening face of the door leaf at the base of 2No. 20 mm wide by 6 mm deep grooves and 2No 20 mm wide by 4 mm thick Type 617 intumescents – positioned 10 mm apart, 2 mm from the opening face of the door leaf within 2No 20 mm wide by 6 mm deep grooves (on top of the MAP seals) |

**Lorient Polyproducts - Palusol intumescents – See Table 7 for size restrictions**

| Doorset Configuration | Position | Intumescent Specification |
|---|---|---|
| Single-Acting, Single-Leaf Latched<br><br>**Ezy Jamb EZC Steel frames** | Head | 2No. 20 mm wide by 4 mm thick fitted 5 mm apart, centrally within the leaf thickness. |
| | Vertical Edges | 2No. 20 mm wide by 4 mm thick fitted 5 mm apart, centrally within the leaf thickness. |
| Single-Acting, Double-Leaf Latched / Unlatched (with engaged flushbolts – Top and bottom)<br><br>**Ezy Jamb EZC Steel frames** | Head | 2No. 20 mm wide by 4 mm thick fitted 5 mm apart, centrally within the leaf thickness. |
| | Hanging Edges | 2No. 20 mm wide by 4 mm thick fitted 5 mm apart, centrally within the leaf thickness. |
| | Meeting Edge (secondary leaf) | 2No. 20 mm wide by 4 mm thick fitted 5 mm apart, centrally within leaf thickness of secondary leaf only |

**Intumescent Seals Ltd – Therm-A-Seal intumescents – See Table 8 for size restrictions**

| Doorset Configuration | Position | Intumescent Specification |
|---|---|---|
| Single-Acting, Double-Leaf Latched & Bolted<br><br>**Winkhaus AV2 Multipoint lock** | Head | 2No. 15 mm wide by 4 mm thick fitted 11 mm apart, with first seal 6 mm from the opening face of the frame, within the frame reveal. |
| | Vertical Edges | 2No. 15 mm wide by 4 mm thick fitted 11 mm apart, with first seal 6 mm from the opening face of the frame, within the frame reveal. |

Intumescent seals cannot be changed from the specific size type and location specified within the data sheet (Tables 1, 2, 3, 4, 5, 6, 7 & 8)

Seals may be interrupted at hinge and latch positions. Seals may be fitted in the edge of the door or frame reveal.

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

## 11. Hinges

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

| **Steel Lift Off or Butt Hinges** | | |
|---|---|---|
| Number: | Minimum 3No. hinges | |
| Positions:* | Top Hinge: | Max 200 mm from the top of door to top hinge. |
| | Middle Hinge: | Middle hinge fitted centrally in the leaf height. |
| | Bottom. | Max 250 mm from the bottom of door to bottom hinge |
| | * The datum in all cases is the centreline of the hinge. | |
| Dimensions: | blade height: | 100 mm (+3 mm / -2 mm |
| | Blade width: | 35 mm (+ 3 mm / - 4 mm) |
| | Thickness: | 3 mm (+/- 1 mm) |
| | Knuckle dia.: | 13.5 mm (+/- 1 mm) |
| Fixings: | Quantity: | 3No. steel screws (minimum) |
| | Size: | No.5 by 30 mm long (minimum). |
| Intumescent Protection** | Minimum 1 mm thick Interdens intumescent sheet material. | |

Additionally, door leaves hung within steel frames, may utilise the following hinge specification:

| **Concealed Hinges** | | |
|---|---|---|
| Manufacturer: | Krona Koblenz | |
| Reference: | Atomika Karakter K8080 | |
| Material: | Steel | |
| Number: | Minimum 2No. hinges / Maximum 3No. hinges | |
| Positions:* | 2No hinges: | Max 255 mm from the top of door to top hinge.<br>Max 245 mm from the bottom of door to bottom hinge. |
| | 3No. hinges: | Max 255 mm from the top of door to top hinge.<br>Middle hinge fitted centrally between the top and bottom hinges (± 25 mm).<br>Max 245 mm from the bottom of door to bottom hinge. |
| | * The datum in all cases is the centreline of the hinge. | |
| Dimensions: | 160 mm long by 28 mm wide by 31 mm deep | |
| Fixings: | Quantity: | 4No. steel screws (minimum) |
| | Size: | As supplied with the hinge by Krona Koblenz |
| Intumescent Protection** | Minimum 1 mm thick Interdens intumescent sheet material under hinge blades fitted to door leaf only. | |

* 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.

## 12. Locks and Latches

Locks / latches where fitted shall be CE Marked in accordance with BS EN 12209 or EN179 for use on 60 minute timber fire doors.

Mortice type, automatic (sprung) latch bolt.

| | | |
|---|---|---|
| Max. case dimension: | 166 mm high by 98 mm deep by 20 mm wide | |
| Max. forend dimension: | 235 mm high by 25 mm wide | |
| Max. keep dimension: | 185 mm high by 25 mm wide (excluding latch plate lip) | |
| 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, suitable for use on FD30 fire resistant assemblies in accordance with EN 1303. | |
| Intumescent: protection* | Tubular latches | 1 mm Interdens intumescent sheet material to fully wrap the case and under the forend and keep. |
| Intumescent: protection* | Lock / latch **not** exceeding:<br>• 155 mm by 22 mm forend<br>• 125 mm by 24 mm keep (excluding latch plate lip) | 1 mm Interdens intumescent sheet material to fully warp the case and under the forend and strike. |
| | Lock / latch exceeding:<br>• 155 mm by 22 mm forend<br>• 125 mm by 24 mm keep (excluding latch plate lip) | 2 mm Interdens intumescent sheet material to fully warp the case and under the forend and strike. |
| | Doors fitted with a cylinder | 1 or 2 mm thick Interdens intumescent sheet material to fully warp the case and under the forend and strike.<br><br>The Interdens thickness will vary depending on the maximum lock dimensions as stated above. |

* 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.

Single-action, single-leaf door assemblies may incorporate a Winkhaus AV2 multipoint lock with an engaged latch bolt to the central lock in accordance with the following specification:

| | | |
|---|---|---|
| Supplier/description: | Winkhaus AV2 Multipoint lock (supplied with 3No keeps) | |
| Case dimensions: | Central: | 185 mm high by 78 mm deep by 16.5 mm wide |
| | Top & Bottom: | 113 mm high by 48 mm deep by 16.5 mm wide |
| Keep dimension: | Central: | 255 mm high by 24 mm wide |
| | Top & Bottom: | 155 mm high by 24 mm wide |
| Forend dimensions: | 1770 mm high by 20 mm wide by 3 mm thick | |
| Position: | 951 mm (± 50 mm) from bottom of door to centreline of spindle. | |
| Lock Configuration: | Central: | Engaged latchbolt |
| | Top & Bottom: | Engaged hook bolts |
| Cylinder: | Supplier / Ref: | Yale Platinum 3 star 35/35/70 |
| Lever Handles: | Supplier / Ref: | Hafele HL03 Curved lever handle |
| Escutcheon: | Supplier / Ref: | Zoo Serozzetta EP SS escutcheon. |
| Intumescent protection: | Lock cases: | The 3No lock cases shall be fully wrapped in 1 mm thick Therm-A-Strip intumescent sheet material. |
| | Forend: | 1 mm thick Therm-A-Strip intumescent sheet material. |
| | Keeps: | The 3No keeps shall be bedded on 1 mm thick Therm-A-Strip intumescent sheet material. |
| | Cylinder: | 2 mm thick Therm-A-Strip intumescent sheet material to the perimeter of the cylinder recess, within the door leaf. |
| Frame: | Material: | Hardwood (excluding Ash, Beech & Iroko) |
| | Density: | 640 kg/m$^3$ min. |
| | Dimensions: | 90 mm by 44 mm minimum, with a 57 mm wide by 15 mm deep integral rebate. |
| Lippings | Material: | Hardwood (excluding Ash, Beech & Iroko) |
| | Density: | 640 kg/m$^3$ min. |
| | Dimensions: | 8 mm thick lippings to all four door leaf edges. |
| | Note: | STRElip and T-Shaped lippings not permitted. |

<u>The following points relate to all locks & latches discussed within this section of the Data Sheet:</u>

- 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 use of oval profile cylinders is not permitted.
- A minimum of 25 mm core / blank material shall be maintained between the lock recess and vision panel / aperture cut outs.
- Door leaves may accommodate a horizontal cableway, positioned 900 mm from the bottom of the door leaf. The cableway shall have a maximum diameter of 10 mm and shall be fully lined to the full length, around the circumference of the recess, with 1 mm thick Therm-A-Strip intumescent sheet material. Minimum cableway to aperture cut out margin of 90 mm shall be maintained.

## 13. 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 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.

### 13a Surface mounted overhead closers

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

### 13b Transom Mounted closers

Not permitted

### 13d Concealed Overhead Closers

Door assemblies may incorporate CERTIFIRE approved concealed overhead closers in accordance with the following:

- Concealed overhead closers are to be CERTIFIRE approved for use with single-acting, latched and unlatched, intumescent sealed door assemblies consisting of timber faced and edged leaves with timber, cellulosic or mineral cores in timber frames having a fire resistance of 60 minutes (code ITT).
- Door leaves shall not be less than **54 mm thick** (excluding decorative faces).
- Closer body is required to be fitted to the top edge of the door leaf with the guide rail fitted to the frame head.
- Hardwood frames are required to have a minimum overall section size of 90 mm wide by 44 mm thick (excluding the stop / rebate) subject to this complying with the minimum section requirements stated in the CERTIFIRE certificate of approval for the specified concealed closer.

  Where the CERTIFIRE certificate of approval for the specified concealed closer requires the use of hardwood frame section in excess of 90 mm wide by 44 mm thick (excluding stop / rebate) the frame section shall be increased accordingly to meet the stated minimum section requirements.

- Frames are required to be hardwood (excluding Ash, Beech & Iroko) with a minimum density of 640kg/$m^3$, subject to this complying with the minimum density requirements stated in the CERTIFIRE certificate of approval for the specified concealed closer.

  Where the CERTIFIRE certificate of approval for the specified concealed closer requires the use of hardwood (excluding Ash, Beech & Iroko) with a density in excess of 640kg/$m^3$ the frame density shall be increased accordingly to meet the stated minimum density requirements.

- 18 mm thick standard hardwood lipping to be applied to the top edge of the door leaf. Lipping to have a minimum density of 640kg/$m^3$ – excluding Ash Beech & Iroko.

- 2No 15 mm by 4 mm intumescents to be fitted to the frame jambs and head, as per the intumescent section of this Data Sheet, with an additional 15 mm by 4 mm intumescent fitted centrally in the top edge of the door leaf.

- Where the CERTIFIRE certificate of approval for the concealed closer states that the intumescents to the frame head are required to bypass the guide rail by a stated amount, it is essential that this requirement is complied with.

  In this instance, the gap between the 2No 15 mm by 4 mm intumescent seals within the frame jambs and head, may vary from those stated within the intumescent section of this Data Sheet.

- Intumescent protection to the closer body and arm channel are to be in accordance with the CERTIFIRE certificate of approval for the specified closer.

- Compliance is required with all additional requirements as stated within the CERTIFIRE certificate of approval for the specified closer.

### 13c Floor Springs

Double-action, Double-leaf door assemblies may incorporate CERTIFIRE approved floor springs in accordance with the following:

| | |
|---|---|
| Max. Top pivot dimension: | 165 mm long x 30 mm deep x 25 mm wide |
| Max. Top strap dimension: | 125 mm long x 16 mm deep x 30 mm wide |
| Max. bottom strap dimension: | 235 mm long x 20 mm deep x 24 mm wide |
| Material: | Steel |
| Intumescent: protection* | 2 mm thick Interdens intumescent sheet material between the top pivot face plate and the cover plate.<br>2 mm Graphite intumescent sheet material to the external face of the bottom strap.<br>3No layers of 2 mm thick Graphite intumescent sheet material to the external face of the bottom strap. |
| Note: | The graphite intumescent sheet material shall have suitable test evidence at the required thickness, for the required 60 minutes integrity/insulation performance, for use within timber doorsets |

## 14. Ancillary items

**Please note that hardware items other than those discussed within this certificate of approval are not permitted.**

### 14a Protection plates and signage

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

- < 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.

### 14b Flushbolts

Double-leaf door assemblies may incorporate flushbolts in accordance with the following:

| | |
|---|---|
| Max. dimension | 205 mm high by 25 mm deep by 19 mm wide |
| Material: | Steel |
| Position: | Top and bottom on door edge |
| Intumescent: protection* | 1 mm Interdens to base and sides of bolt body and under the keep. |

### 14c 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.

Recesses for bolt through fixings less than or equal to 6 mm Ø do not require intumescent protection but can optionally be included in the form of a 1 mm thick graphite tube, or Intumescent paste to the full depth of the recess.

Recesses for bolt through fixings in excess of 6 mm Ø shall require intumescent protection in the form of a 1 mm thick graphite tube, or Intumescent paste to the full depth of the recess.

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

### 14d 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.

Additionally, door assemblies may be fitted with Mann McGowan Pyrogrille 25 and Pyrogrille 100 air transfer grilles in accordance with CERTIFIRE certificate of approval No. CF5847.

**14e 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.

**14f Dropseals**

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

- Lorient LAS8001si
- Norseal NOR810
- Sealmaster 2712

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

Where dropseals are fitted the door leaf shall incorporate a minimum 6 mm thick hardwood lipping to the bottom leaf edge. The hardwood lipping shall have a minimum density of 640 kg/m$^3$ (excluding Ash, Beech & Iroko).

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 from the bottom of the door to the finished floor level.

**14g Door Viewers**

A Door viewer 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 bottom edge of the door leaf. The door viewer shall have an external barrel diameter of not greater than 14 mm.

The door viewer barrel shall be fully wrapped in 2 mm thick Graphite intumescent sheet material.

The graphite intumescent sheet material shall have suitable test evidence at the required thickness, for the required 60 minutes integrity/insulation performance, for use within timber doorsets

The door viewer shall be tightly fitted within the leaf, whilst allowing for the required intumescent protection.

**14h 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

### 14i. Electric Strikes / Electromechanical locks

Not permitted

### 14j Edge Protectors

Not permitted

### 14k Concealed Cable Loop

CF808 assemblies may incorporate concealed cable loops in accordance with the following:

| | | |
|---|---|---|
| Supplier / reference | Assa Abloy – EA280 | |
| Material: | Steel | |
| Dimensions | Body | 323 mm long (outer plate) x 24 mm wide |
| | Spring | 12 mm diameter x 250 mm long |
| | Cut out | 258 mm long by 24 mm wide by 17 mm deep |
| Position: | To suit horizontal cableway, at max 900 mm from bottom of door leaf | |
| Intumescent: protection* | Assa Abloy Intumescent kit referenced INPK-280 | |

## 15. Further Information

Further information regarding the details contained in this data sheet may be obtained from Falcon Panel Products Ltd (Tel: +44 (0) 1932 256580).

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