SOLIDCOR

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# T30 Installation Guide

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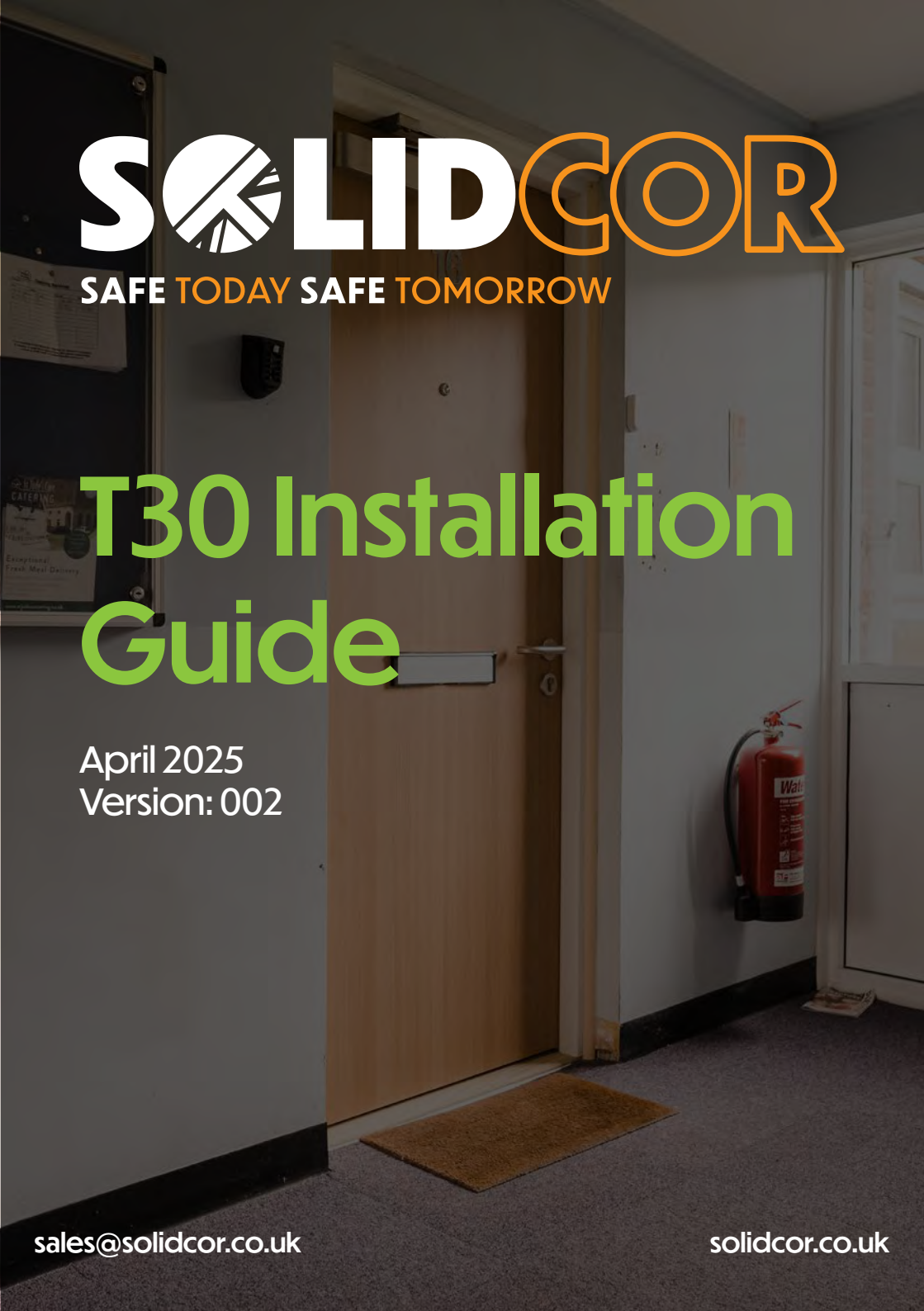
Version: 002



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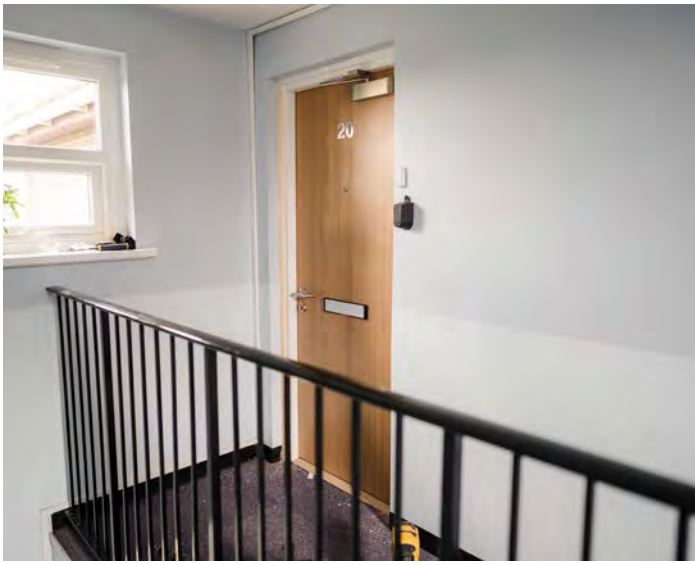
# Our Newest Innovation - The T-Series

Solidcor T-Series doorsets offer durable, alltimber construction with a pre-finished surface, no decorating required. Built to withstand daily wear, they deliver quality and performance without breaking your programme or budget.

Plus with our industry-leading 10-day lead time, you get the reliability you need, when you need it.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# Contents

# Section 1: Critical Information

**1.01 - Document Control:**

These installation instructions are a controlled issue to ensure that installation is happening in line with the most current version. If you are unsure, the latest version is available to download at www.solidcor.co.uk

**1.02 - Product Certification:**

These installation instructions are relevant for the Solidcor T30 internal timber fire doorsets which are covered under the following Field of Application and certification:

- KIWA – Field of Application – PAR/25132/01
- IFC Certification Ltd – IFCC 1503 Dual Scope

Copies of all our certificates are kept online at www.solidcor.co.uk and other data including our Field of Application and Primary Test Evidence is available upon request.

**1.03 – Specifier And Installer Competency:**

It is the designer's responsibility to ensure that the correct doorset specification is used for the application in which it is being installed.

Fire doorsets are life-saving devices and must be installed strictly in accordance with the installation instructions to achieve the intended performance.

Any failure to do this could result in a failure to meet the certification and/or invalidate the warranties and certification of the product.

The following installation guide includes details on how to carry out the installation of the doorset, before starting out on the installation it is critical that you read and understand these instructions.

Fire doors must be installed by competent personnel from accredited companies to ensure fitting is carried out in line with recognised standards and to maintain the Golden Thread.

**1.04 - Installation Conditions:**

It is important that the surrounding conditions are taken into account when choosing the correct type of doorset. Where there is potential for a large temperature difference on either side of the doorset, this could promote potential bowing of the doorleaf causing the installation to become non-compliant.

**1.05 - Documenting The Installation:**

It is recommended that the installation is documented in order to ensure compliance with the installation manual and good practice. Examples of the items to document may include but are not limited to:

- Photographic evidence of the installation process at various stages throughout
- Record the unique traceability number on the IFCC label and the unique Solidcor door ID.
- Documentation of checks or inspections that were undertaken throughout the installation process.
- The date and identification of who carried out the installation.
- The location of the installation.

**1.06 - Labels, Traceability And Certification:**

Traceability labels on the hinge edge of the door leaf provide a critical traceability link from the specific doorset back to the manufacturer and relevant certification throughout the life service of a product. It is important that these labels are left intact during the installation and lifetime of the product to ensure traceability and compliance.

**1.07 - Storage:**

Doorsets must be stored in a dry location prior to installation and must be laid flat and supported or stored vertically to prevent any bowing of the door or frame. Avoid exposure to moisture before installation.

**1.08 - Handling:**

Fire doorsets are bulky and extremely heavy and must be a minimum of two-man lift. This is for the safety of the operative and also the protection of the product and surroundings.

# Section 2: Pre-Installation Checks

### 2.01 - Importance Of Pre-Installation Checklist:

Before starting the installation process including the removal of the existing doorset, it is important to follow the pre-installation checklist to ensure the product is correct for the application in which it is being used and to ensure you have everything you need to complete a compliant installation. This ensures that you can complete the installation in a timely manner whilst maintaining compliance throughout the installation.

### 2.02 - Pre-Installation Checklist:

| DESCRIPTION | CHECKED | BY: |
|---|---|---|
| Is the overall size of the doorset correct? | | |
| Is the colour of the doorset correct? | | |
| Is the door design correct including glazing style if applicable? | | |
| Is the handing and opening direction of the doorset correct? | | |
| Do you have all components of the doorset including sidelights/ fanlight as required? | | |
| Do you have the correct fixings? (See section 3.04) | | |
| Do you have the correct linear gap-sealing products? (See section 3.09) | | |
| Do you have the perimeter intumescent and smoke seals to apply following installation? (See section 3.15/3.16/3.17) | | |

# Section 3: Installation Instructions

**3.01 - Removal Of Existing Doorset:**

If you are undertaking remedial work and replacing existing doorsets, great care should be taken not to damage the property, surrounding walls, décor or coatings unnecessarily.

**3.02 - Locating The Doorset In The Structural Opening:**

Locating the doorset in the structural aperture correctly is key to the success of the installation. The hinge leg is always to be installed first and must be vertical and plumb and then the lock leg is to be fixed following this aligned to the door slab.

**3.03 – Supporting Construction:** (PAR/25132/01 Section 8.1)

These doorsets may be installed into the following supporting constructions:

- Timber stud plasterboard partition
- Steel stud plasterboard partition (permanent)
- Masonry walls (Blockwork, brickwork & concrete)

The supporting construction must also meet the following requirements:

- The structure above the proposed timber door assemblies must be self-supporting and must not impose any load upon the timber door assemblies under cold-state or fire conditions.
- The supporting construction must have been fire tested or assessed to provide in excess of 30 minutes fire resistance, at the required size, when incorporating door openings.
- If fitted into timber or steel stud partitions, the method of forming the door assembly opening must be as tested by the partition and/or door assembly manufacturer.

**3.04 - Approved Fixing Types & Method Of Fixing:** (PAR/25132/01 Section 8.2)

When selecting the fixings to install the door with, the following guidance needs to be followed:

(Continued on next page)

- The selected fixing must be suitable for use in the type of construction surrounding the door opening.
- The fixing should be a minimum diameter of 5mm.
- The fixing must be a steel fixing.
- When fixing to masonry walls, fixings must be of a sufficient length to penetrate the wall by at least 50mm.
- When fixing to timber/steel stud partitions, fixings must be of a sufficient length to fully penetrate the timber stud or timber reinforcement within the metal studs.

**3.05 - Fixing Positions:** (PAR/25132/01 Section 8.2)

## Fixing Positions:

- All fixings must be inset from the edge of the door frame by a minimum of 20mm.
- There must be a minimum of 1no. line of fixings. The plane containing the line of fixings must pass through the thickness of the leaf when the door is closed passing.
- Primary door frame sections up to 100mm in width/depth require a single line of fixings and those over 100mm in width/depth require a twin line of fixings (additional fixings shall be equispaced between the initial fixing and end of the frame).

## Fixing Frequency:

- Fixings must be located at 50-200mm from the top and bottom of the jambs and on maximum 600mm centres thereafter.
- A minimum of 1no. fixing must be fitted centrally across the width of the frame head in double doors.

## Concealing Fixings:

The Solidcor T30 system is supplied with a painted frame and the intention would be that the fixings are located in the groove for the intumescent strip within the frame profile so they are concealed. Where this isn't possible the following must be adhered to:

- Fixings may be concealed behind the intumescent strips or door stops
- Alternatively, fixing holes may be countersunk to a maximum depth of 10mm and then be plugged/pelleted.

- Plugs/pellets must be of the same material as the door frame and glued in place using PVA or PU adhesive.
- Fixings shouldn't penetrate the intumescent seals.

## Sidelights & Fanlights:

When the doorset is being installed with a sidelight(s) or a fanlight, section 3.05 should be read in conjunction with sections 3.06 and 3.07.

### 3.06 - Fixing A Sidelight: (PAR/25132/01 Section 7.8.3)

The sidelight arrives premade to site and will need dismantling to assemble.

- Unscrew the internal window beading and remove from the frame allowing the glazing unit to be removed. Remove the glazing unit and set aside along with the packing material for reuse.
- Run a bead of Solidcor Pyrostik fire mastic down the outside of the window frame that adjoins the doorframe and/or fanlight and clamp together, this should be a nominal 3mm bead.
- The vertical frame section of the sidelight, adjacent to the door assembly, shall be mechanically fixed to the rear of the door frame section using 5x50mm long woodscrews located 100mm from internal corners and at no greater than 300mm centres in between.
- Where applicable the top frame section of the sidelight, adjacent to a fanlight, shall be mechanically fixed to the rear of the fanlight bottom section using 5x50mm long woodscrews located 100mm from internal corners and at no greater than 300mm centres in between.
- The frame of the sidelight must be fixed back to the supporting construction with steel fixings 150mm from corners and at no greater then 500mm centres in between.
- The correct 15x4mm intumescent seal should be installed in the groove within the frame.
- Once installed, the glazing unit and beading should be re-installed as it was upon arrival. The screw fix beading should be mounted to the internal side.

### 3.07 - Fixing A Fanlight: (PAR/25132/01 Section 7.8.2)

The fanlight arrives premade to site and will need dismantling to assemble.

- Unscrew the internal window beading and remove from the frame allowing the glazing unit to be removed. Remove the glazing unit and set aside along with the packing material for reuse.

- Run a bead of Solidcor Pyrostik fire mastic down the outside of the window frame that adjoins the doorframe and/or sidelight and clamp together, this should be a nominal 3mm bead.
- The bottom frame section of the fanlight shall be mechanically fixed to the rear of the door frame/sidelight head section using 5x50mm long woodscrews located 100mm from internal corners and at no greater than 300mm centres in between.
- The frame of the fanlight must be fixed back to the supporting construction with steel fixings 150mm from corners and at no greater then 500mm centres in between.
- The correct 15x4mm intumescent seal should be installed in the groove within the frame.
- Once installed, the glazing unit and beading should be re-installed as it was upon arrival. The screw fix beading should be mounted to the internal side.

**3.08 - Fixing A Freestanding Screen:** (PAR/25132/01 Section 7.8.4)

The freestanding screen arrives premade to site and will need dismantling to assemble.

- Unscrew the internal window beading and remove from the frame allowing the glazing unit to be removed. Remove the glazing unit and set aside along with the packing material for reuse.
- Run a bead of Solidcor Pyrostik fire mastic down the outside of the window frame that adjoins the doorframe and/or sidelight and clamp together, this should be a nominal 3mm bead.
- The perimeter frame of the fanlight shall be mechanically fixed to the rear of the adjacent frame using 5x50mm long woodscrews located 70-80mm from the top and bottom corners and at no greater then 300mm centres in between.
- The frame of the screen must be fixed back to the supporting construction with steel fixings 150mm from corners and at no greater then 500mm centres in between.
- The correct 15x4mm intumescent seal should be installed in the groove within the frame.
- Once installed, the glazing unit and beading should be re-installed as it was upon arrival. The screw fix beading should be mounted to the internal side.

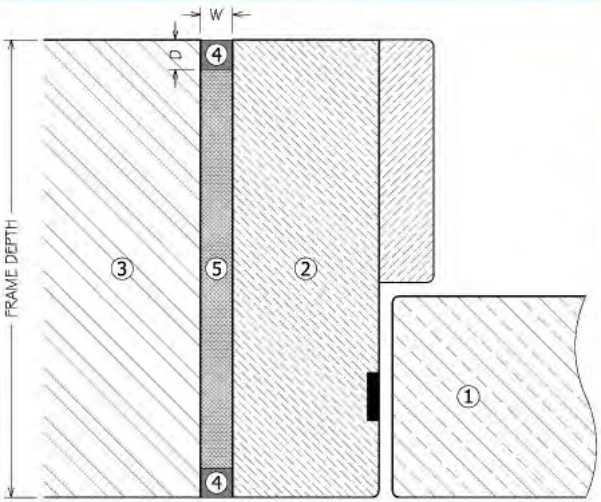
## 3.09 – Linear Gap Sealing: (PAR/25132/01 Section 10.1)

### General Notes:

- The gap sealing information detailed relates to the linear gap between the door frame and surrounding construction, as depicted in the drawing below, and must not be used to support the sealing of other, unspecified gaps.

### Diagram:

DIAGRAM




| KEY | |
|---|---|
| 1 | Door leaf |
| 2 | Door frame |
| 3 | Supporting construction (Masonry, steel/timber stud partition) |
| 4 | Gap sealant |
| 5 | Backing material |
| D | Depth of gap sealant |
| W | Width of gap/gap sealant |

Note *The diagram across is typical and gap sealing components may be installed in conjunction with other door frame profiles approved within this report (subject to compliance with Section 10.2)*

### Solidcor Pyrofoam and Pyrostik Sealing System:

- This is the preferred linear gap sealing method and is primary tested within the Solidcor range and can be used in conjunction with the Solidcor CableStop in section 3.10.
- 5-24mm wide gap between the rear of the door/sidelight frame and supporting construction must be fully filled for the complete perimeter of the frame using Solidcor Pyrofoam and capped both sides with Solidcor Pyrostik Silicone to a depth of 10mm.

### Alternative Gap Sealing Systems:

- The gap sealing between the supporting construction and timber frames should follow the recommendations given in Section 9.4 of BS8214: 2016

- 'Timber-based fire door assemblies – Code of practice', using a product proven in such timber applications.
- Alternative gap sealing products used in conjunction with proposed door assemblies must have been successfully fire-tested for 30 minutes fire resistance in accordance with BS EN 1634-1.

**3.10 – Packers:** (PAR/25132/01 Section 8.3)

The following options may be used as door frame packers:

- Plastic shims/packers (For example, Broadfix)
- Timber (MDF, softwood, hardwood)
- Non-combustible board (For example, Supalux)

Fixing and Installation of Packers:

- Door Frame packers must be used at all fixing positions, but their use must be minimised beyond this, so as to avoid excessive interruption of the backfilling/firestopping materials and gap sealant which are installed within the linear gap at the rear of the door frame.
- Typically, door frame packers must be cut short of the gap sealant/ wall face, unless fire test evidence is available to demonstrate that the proposed gap sealing configuration/system has been successfully fire tested for the proposed period of fire resistance with frame packers which penetrate the gap sealant.

**3.11 – Solidcor Cablestop:** (PAR/25132/01 Section 10.2)

When using Solidcor Pyrofoam and Pyrostik for the linear gap sealing method as detailed in section 3.09, Solidcor have tested to include their CableStop cable trunking solution penetrating the seal and recessed into the supporting construction. Therefore, the following may be present behind the gap-sealing system: (Continued on next page)

| ITEM | DESCRIPTION |
|---|---|
| Size | 25mm wide x 16mm deep x 100mm long x 1.3mm thick red trunking |
| Intumescent Protection | 1nr 19x3mm intumescent seal installed within the trunking<br><br>Pyrostik silicone sealant applied between the trunking and supporting construction finishing flush with the face of the trunking / supporting construction. |
| Installation | The supporting construction is to be channelled out to the depth of the trunking so the face of the trunking will finish flush with the supporting construction when fitted.<br><br>The cable is to be passed through the trunking and clipped back to the supporting construction with nail-in plastic cable clips. |
| Location | These can be fitted at the jambs only and must be a minimum of 150mm from the head and bottom edges of the frame. |
| Additional Notes | The system has been tested in accordance with BS EN 1634-1 |

**3.12 - Architraves:** (PAR/25132/01 Section 7.4.3)

The inclusion of architraves is optional and not required to achieve the fire resistance performance of these doorsets. MDF architraves are available to order with your doorset from Solidcor.

Where a specific gap sealing system requires the use of an architrave it must be installed, to the appropriate specification.

**3.13 - Frame Liner Extensions:**

A range of frame extension liners are available from Solidcor in sizes of 15mm, 25mm and 50mm. These are supplied loose and can be pinned to the frame after the installation and linear gap sealing has been carried out.

Linear gap sealing systems must be applied to the primary frame section

(in the place of the door) and is not required behind the extension lining.

**3.14 – Timber Thresholds:** (PAR/25132/01 Section 7.4.8)

Timber thresholds of 15mm high have been tested and may be used in conjunction with single-leaf door assemblies. The element of construction is permitted to be omitted provided that the threshold beneath the leaf comprises a level, non-combustible material.

**3.15 - Perimeter Seals Installation:**

- Perimeter intumescent seals and smoke seals are supplied loose to be fitted on-site after installation of the doorset.
- These are required to be square cut tight between all hardware items and placed into the rebate.
- Seals are secured using the self-adhesive backing.

**3.16 - Perimeter Fire Seals:**

Perimeter intumescent seals are supplied loose to be fitted on-site after installation of the doorset. Where alternative seals are required the following guidance must be followed:

| Element | Specification |
|---|---|
| Intumescent Seal Type | Granite |
| Approved Manufacturers/ Suppliers | It is recommended that the intumescent seals are manufactured or supplied by members of the Intumescent Fire Seals Association (IFSA) or that the product is included in a Third-Party Certification scheme to ensure product quality and compliance. Some recommended manufacturers / suppliers are as follows:<br>1. Sealed Tight Solutions<br>2. Lorient Polyproducts<br>3. Pyroplex<br>4. Mann McGowan Fabrications<br>5. Sealmaster |
| Additional Notes | All perimeter intumescent seals in a door assembly must be of the same type / manufacturer. |

### 3.17 - Perimeter Smoke Seals:

Perimeter smoke seals are supplied loose to be fitted on-site after installation of the doorset. This can either be a combined fire and smoke seal as tested and approved by Solidcor or a separate single sided batwing seal that is applied to the frame rebate. These will be supplied relevant to the door configuration.

### 3.18 - Perimeter Gaps: (PAR/25132/01 Section 8.5)

| Element | Dimensions |
|---|---|
| Gap between leaf & frame jambs / head | 1.5 - 4mm |
| Gap between leaves at meeting stiles | 3mm |
| Gap between bottom of door leaf and non-combustible floor / threshold including drop seal | 10mm |

### 3.19 – Removal Of Film:

Upon completion of the doorset installation, any protective film on the leaf or frame must be removed immediately.

### 3.20 – Door Frame / Door Leaf Alignment: (PAR/25132/01 Section 8.4)

The door assemblies must sit entirely within the plane of the fire-rated supporting construction.

It is not permitted for the door leaf of the door frame to project beyond the face of the supporting construction. This includes any degree of door leaf or door frame projection to enable alignment with decorative 'cladding' which is fitted on the face of the fire-resisting supporting construction (e.g. timber panelling on battens, or plasterboard on dabs)

The door assembly design shall be such that when closed, the door leaves finish flush, or is set back slightly, from the out frame edge, or may protrude up to a maximum of 3mm from the face of the frame.

### 3.21 – Final Adjustments:

Upon completion of the installation, particular attention should be given to some aspects to ensure the longevity of the doorset as listed below:

- Lock Keeps – where applicable lock keeps should be adjusted to ensure the door latches and locks correctly and against the frame rebate.
- Door Closer – the door closer should be adjusted so the door closers and latches without any intervention whilst the speed should be set to prevent slamming which could damage the doorset and impact performance. Manufacturers guidance should be followed to prevent slamming and injury to residents.

# Section 4: Final Inspections

### 4.01 - Importance Of Final Inspection:

On completion of the installation a Final Checklist should be completed by the installer to make sure the essential fire and security integrity fixings and sealing is complete. A checklist should be completed on each installation and records uploaded or kept on file for the period of the guarantee.

A general checklist is provided below.

### 4.02 – Final Checklist Template:

The below checklist includes a list of items that should be checked, however, this is not exhaustive and any additional checks required on behalf of the installer to maintain compliance should be added to this.

(Checklist continued on next page)

| Description | Checked | By |
|---|---|---|
| **Fixings** | | |
| Check the correct fixings have been used including length and diameter. | | |
| Check the spacing and quantity of fixings is correct. | | |
| **Door & Perimeter Gaps Check** | | |
| Check the perimeter gaps between the structural aperture and frame are within tolerance. | | |
| Check the perimeter gaps between the frame and the leaf as within tolerance where applicable. | | |
| **Doorset & Hardware Operation** | | |
| Check that the doorset is installed plumb and square. | | |
| Check that the door leaf closers tightly against the jamb/smoke seal as applicable. | | |
| Check the door closer has been adjusted. to be self-closing from any angle. For air pressures use the 'Power Up/Speed Down' method. | | |
| Where applicable, check the lock keeps have been adjusted. | | |
| Where applicable, check the operation of all hardware items including handle, lock, cylinder, letterplate etc. | | |
| Check that the perimeter intumescent fire and smoke seals have been installed. | | |
| Check the eyeviewer where applicable is tight and clear to look through. | | |
| **Quality Checks** | | |
| The door film has been removed from the door leaf and frame as required. | | |
| Has the doorset been cleaned down? | | |
| Check exposed surfaces of door leaf, frame and hardware to be free from visual damage. | | |

# Section 5: After Care

**5.01 - Inspections:**

It is the responsibility of the client to regularly inspect and maintain the doorset post installation to ensure ongoing compliance.

**5.02 - Operations And Maintenance:**

O&M is critical to the on+going fire and security safety performance of the T30 FED Fire Doorset.

Maintenance is done by UKAS accredited installer schemes which include maintenance of fire doors and records of maintenance kept for the period of the guarantee which is 10 years. Training should be done to the written O&M Manual instructions which are available from Solidcor.

If you have any questions regarding the information in this manual, please contact us at sales@solidcor.co.uk.

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