

## Required tools:



Pencil



Tape Measure



Screwdrivers



Caulking Gun



Laser Level



Drill Driver



Chop Saw



## Installation Guide Fire-rated Doorsets

### Important fire rating notice

**The fire rating of any doorset is subject to a number of external factors, including:**

1. The design/workmanship of other work, in particular the partitions into which the doorset is fixed.)
2. The doorset being installed in accordance with the installation instructions.

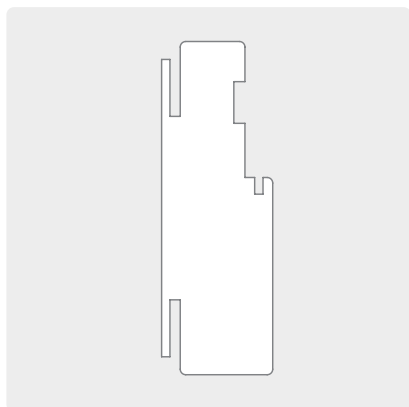
The Modulo system can be fitted to either studwork or masonry walls, you will need to ensure the wall itself meets the correct fire resistance performance.

Please consult Modulo for advice and guidance to ensure the fire performance is met.

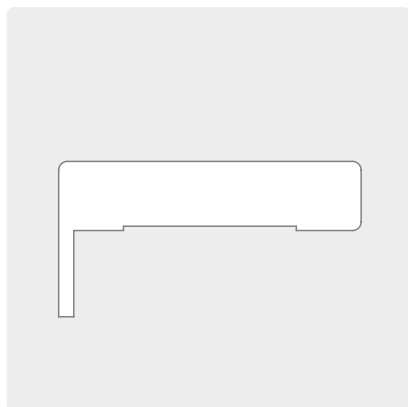
**call** 020 3880 0339 **email** [info@modulodoorsets.com](mailto:info@modulodoorsets.com)

# Components

Identify the components prior to installation. Components may vary depending specification ordered, other components may also be included that are not shown here. Please refer to your schedule to ensure you have everything.



**Frame Sections**



**Architrave Sections**



**Door Leaf**



**Strike Plate & Plastic Insert**  
Supplied with fixings



**Butt Hinge and Intumescent**



**Intumescent Pack**

# Frame installation

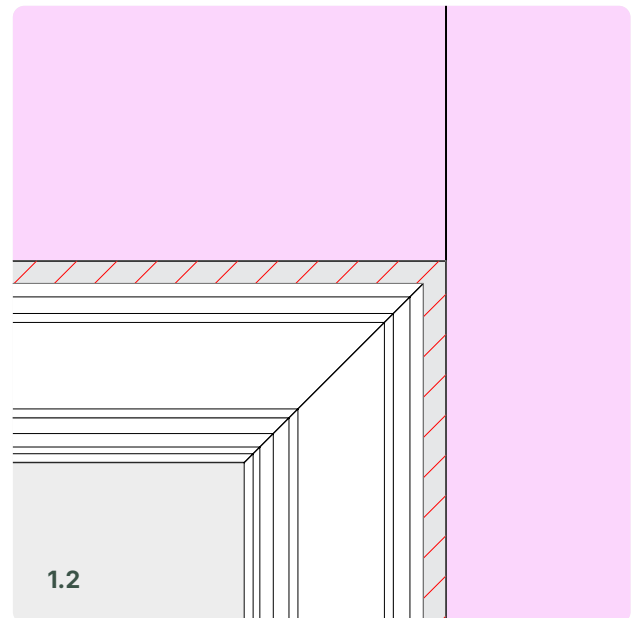
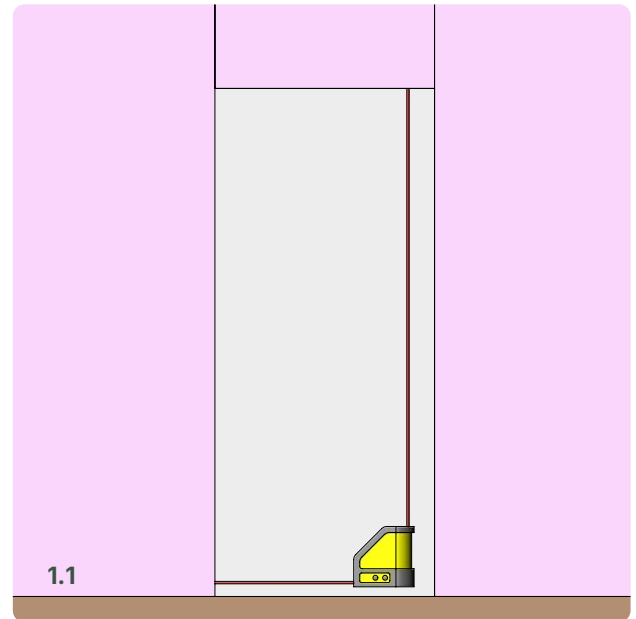
Modulo Doorset does not require timber or metal studwork reveals to be lined for compliance with EN 1634-1 and BS476-22:1987.

## 1. Check opening

**1.1** It is important to ensure the opening is square and level. A laser level is ideal for this. Also check the structural opening (S/O) dimensions are correct.

**1.2** Check the frame sections can be positioned correctly ensuring no more than 20mm gap at any point between the frame and the structural opening.

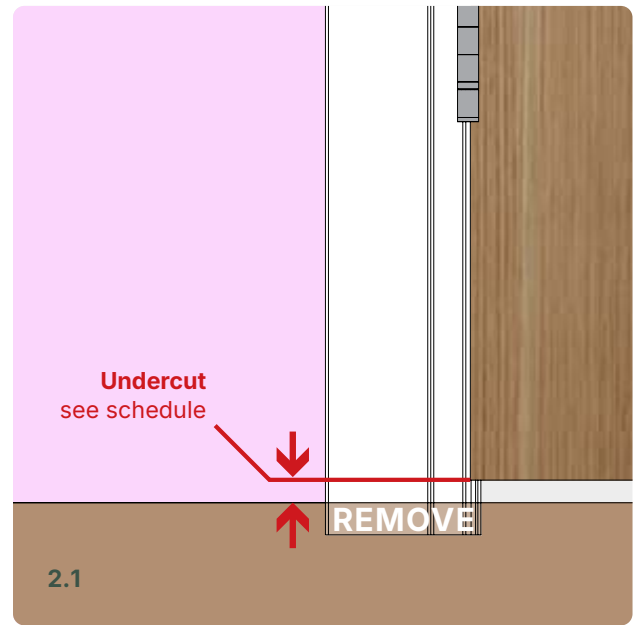
**Note.** If the door is pre-hung, the door can be removed by removing the temporary gold-coloured screws from the hinge on the frame side.



## 2. Frame undercut

If your door frame is supplied over-sized, the vertical jambs should be trimmed to achieve an undercut of **3mm to 8mm** for optimum fire resistance. If ambient temperature smoke control is required, a drop seal must be fitted (2.1).

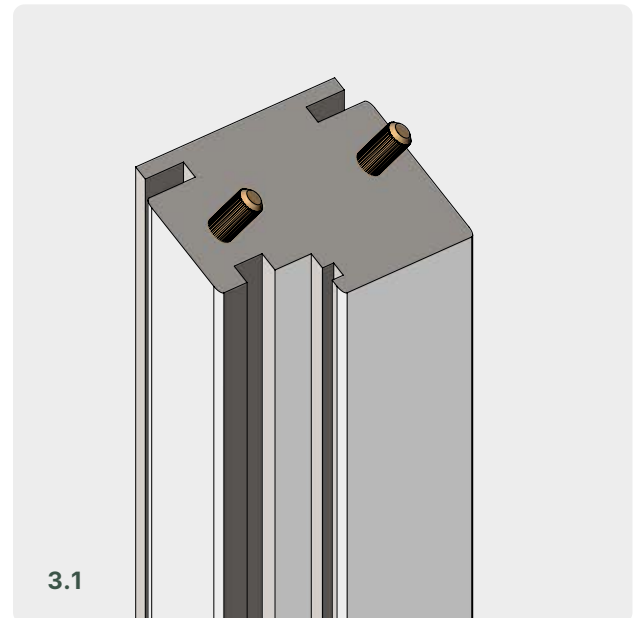
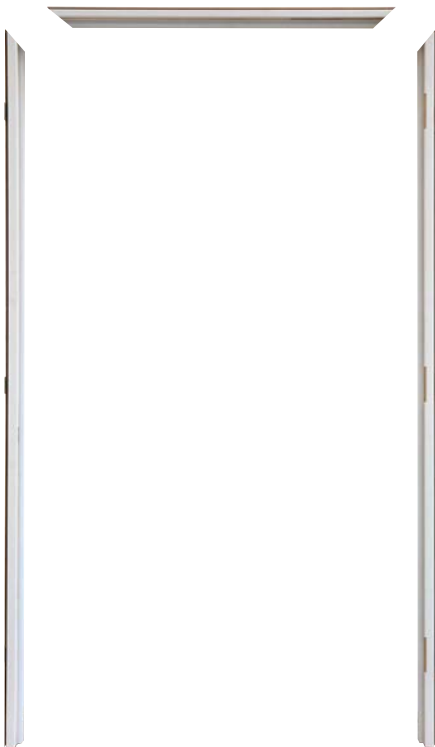
If a **Drop Seal** is fitted an undercut of between **5mm to 8mm** is recommended.



## 3. Frame assembly

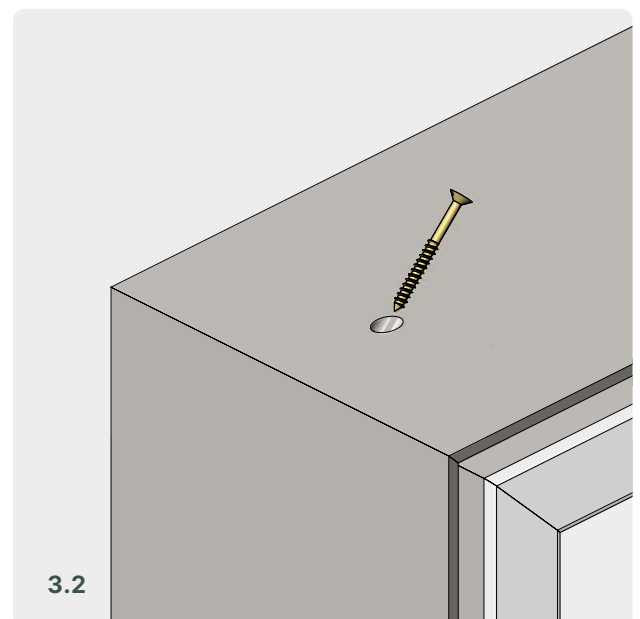
If supplied unassembled

Identify correct orientation of jambs and head.



Insert wooden dowels into prepared holes in the top of each jamb. Apply a small amount of PVA adhesive to one face of the joint (optional). Attach head section to top of each jamb and ensure joint is tight and true (3.1).

Using 1 No. **5×60mm** (supplied), screw each side to securely affix the head to the jambs through the predrilled holes. Check joint is tight and correctly aligned and remove any surplus adhesive (3.2).



## 4. Hinge Jamb fixing

### Both sides for double door

Stand frame into opening and ensure that it is located centrally and vertical in both dimensions. Fix hinge jamb(s) to the structure using suitable fixings and packers.

**Note.** Modulo Doorsets allow the use of both timber and standard plastic packers while complying with EN1634-1 and BS 476-22:1987. **Packers should be positioned behind each fixing** to ensure the frame is not deformed by the fixings.

It is recommended to locate fixings through the stop (4.1). If concealed fixings are required, fixings locate through the intumescent groove. Depending on supporting construction type, screws may need to be angled. Ensure screw head sits flush below the intumescent groove.

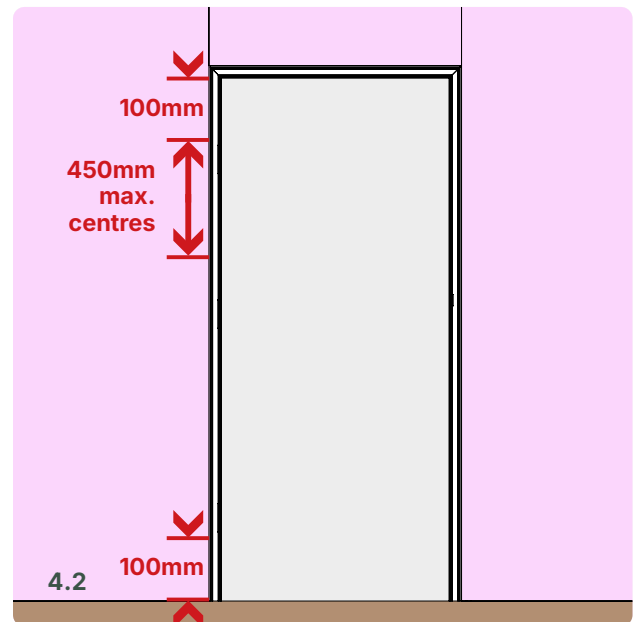
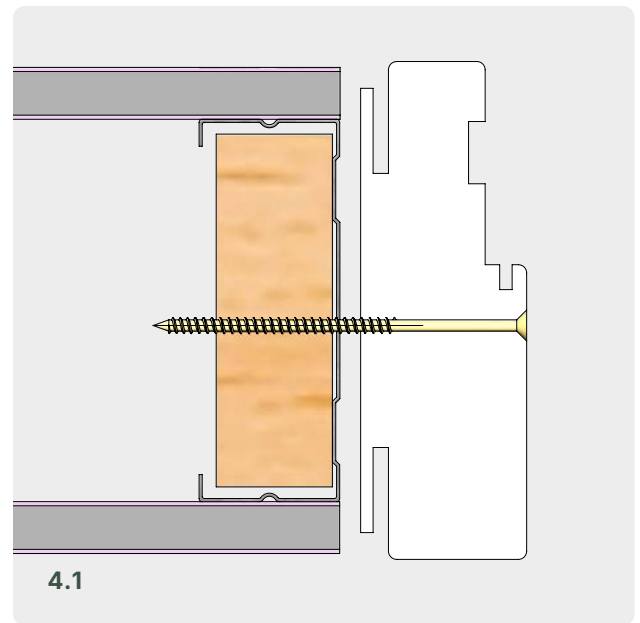
Jamb fixings must be positioned at no more than **100mm from the top and bottom** and at no more than **450mm centres** (4.2).

Screws should be a minimum of **5mm gauge** of sufficient length to ensure a **50mm minimum penetration** into the supporting structure.

If rapid fit brackets are specified, please see:

SEL-PRT-02743

**Modulo - Rapid Fit Brackets Installation Guide.pdf**



## 5. Install Strike Jamb

### Single door only

Fix strike jamb by aligning with leading edge of door leaf ensuring that correct gaps are maintained. Adjust as required and check door operates smoothly and correctly. Fix strike jamb to the structure using suitable fixings and packers.

**Note.** Modulo doorsets allow the use of both timber and standard plastic packers while complying with EN1634-1 and BS 476-22:1987. **Packers should be positioned behind each fixing** to ensure the frame is not deformed by the fixings.

It is recommended to locate fixings through the stop (5.1). If concealed fixings are required, fixings locate through the intumescent groove. Depending on supporting construction type, screws may need to be angled. Ensure screw head sits flush below the intumescent groove.

Jamb fixings must be positioned at no more than **100mm from the top and bottom** and at no more than **450mm centres** (5.2).

Screws should be a minimum of **5mm gauge** of sufficient length to ensure a **50mm minimum penetration** into the supporting structure.

If rapid fit brackets are specified, please see:

SEL-PRT-02743

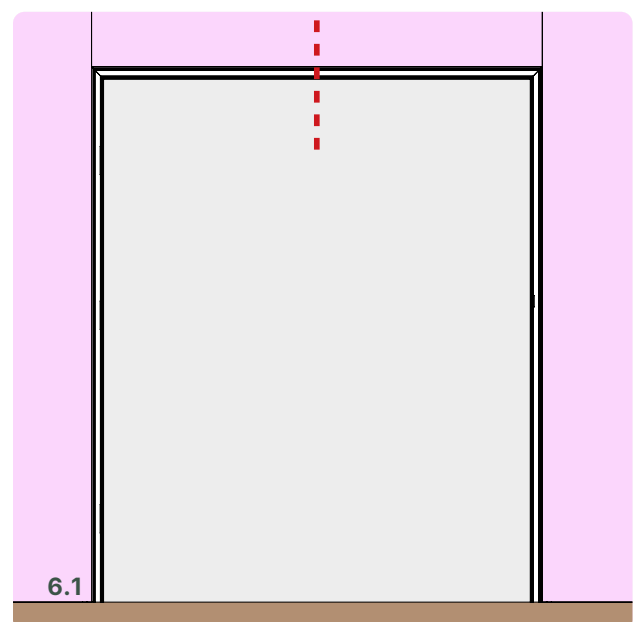
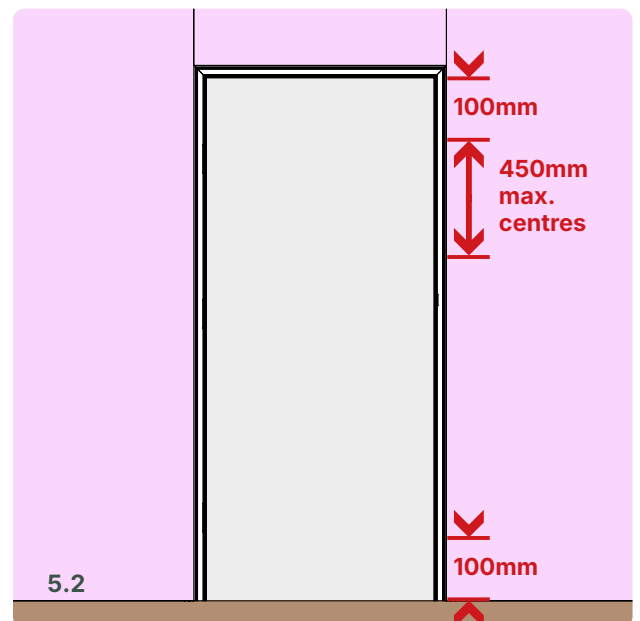
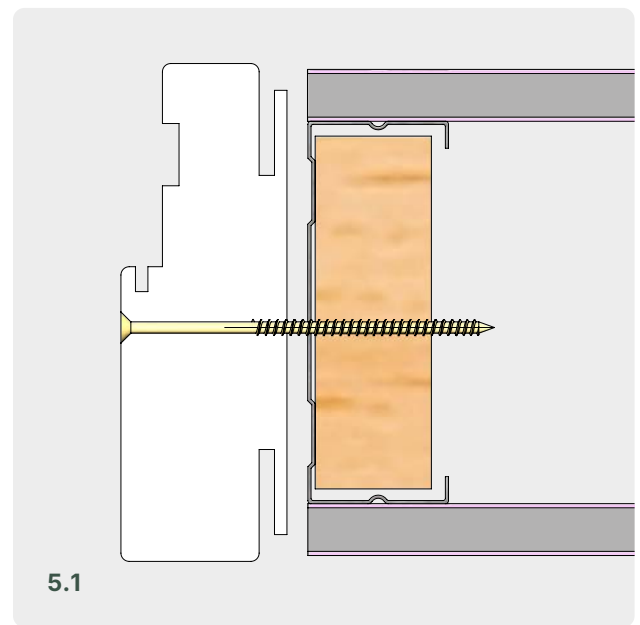
**Modulo - Rapid Fit Brackets Installation Guide.pdf**

## 6. Frame Head

If you are fitting a **single door**, a screw through the head is **not required**.

**Double doors require a single screw** fixing in the centre of the head. (6.1). Fixings locate through the stop. Depending on supporting construction type, screws may need to be angled. Ensure screw head sits flush below the intumescent groove.

Check gaps and function of the door before moving on.

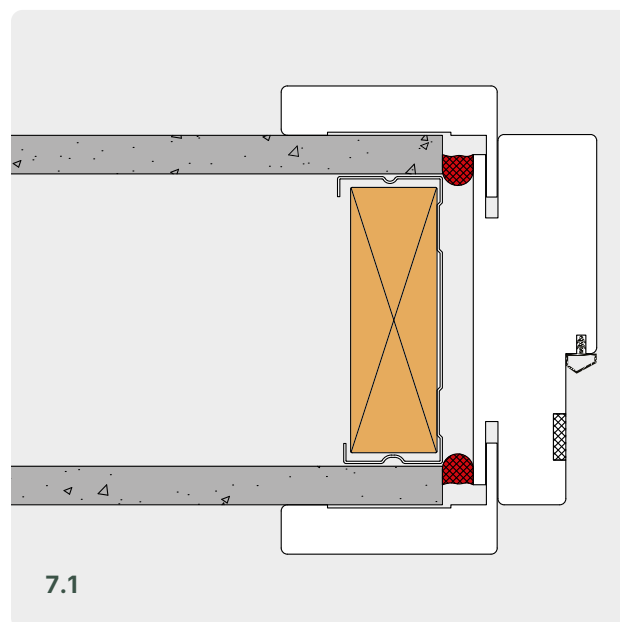


## 7. Fire stopping

### 1-10mm gaps

Gap must be sealed on both sides with a 10mm penetration to the full width of the gap with acrylic intumescent sealant, fire tested for this application to BS 476: Part 22:1987 or BS EN 1634-1.

Timber architraves may be fitted to one or both faces (7.1).

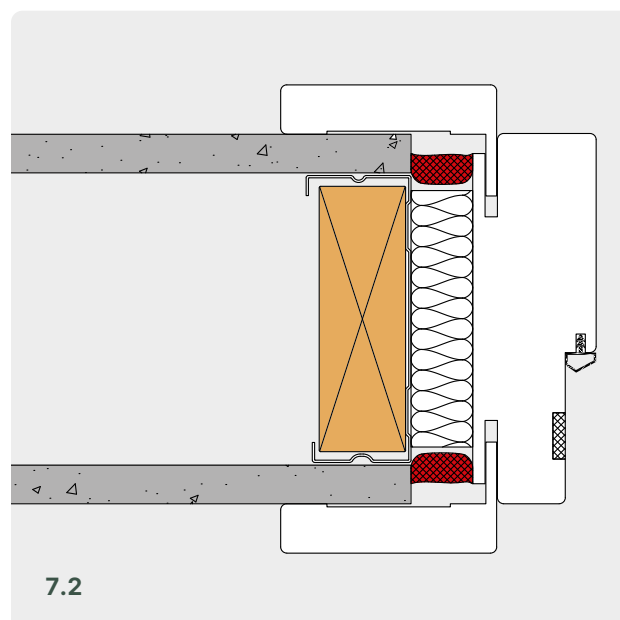


### 10-20mm gaps

Gap must be tightly packed with mineral fibre capped on both sides with a 10mm depth of acrylic intumescent mastic, (Fire tested for this application to BS 476: Part 22: 1987 or BS EN 1634-1).

Alternatively, as tested Nullifire FF197 fire rated PU Foam can be used (Must be full depth of the frame).

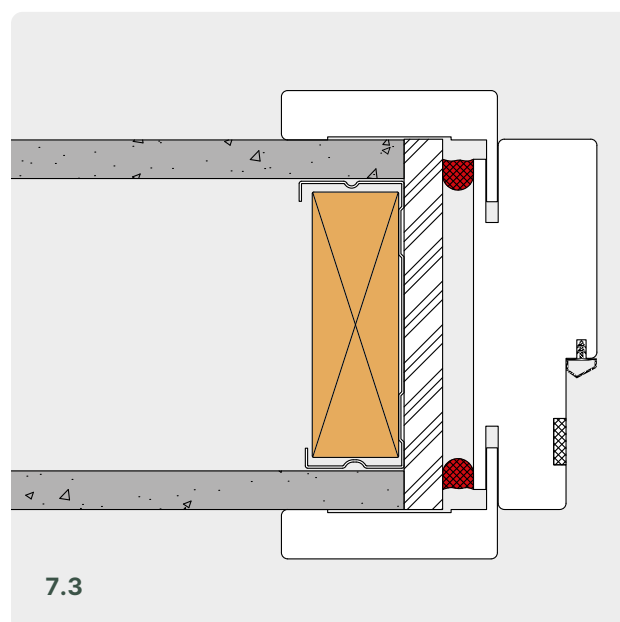
Timber architraves may be fitted to one or both faces (7.2).



### 20mm+ gaps

A non-combustible subframe/liner (up to 40mm thick) should be fixed to the surrounding structure to reduce the gap to below 10mm and then follow the 1-10mm fire stopping procedure.

Timber architraves may be fitted to one or both faces (7.3).



# Architrave installation

## Optional

The Architrave can be pinned or glued in place. If glued, use an adhesive that has been tested in the same situation.

### 8. Prepare Architrave

The **head architrave** is delivered pre-mitred (where applicable machined for Hoffmann® jointing).

The **jamb architraves** are mitred one end (where applicable machined for Hoffmann® jointing) and oversized for trimming by installer (8.1).

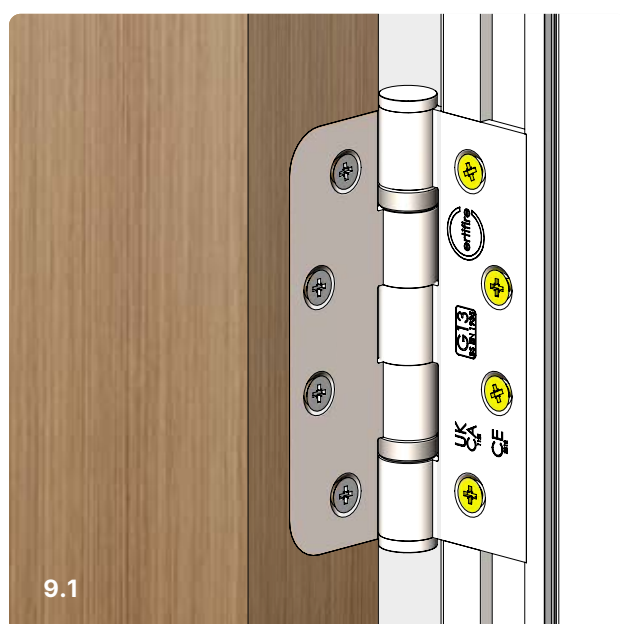
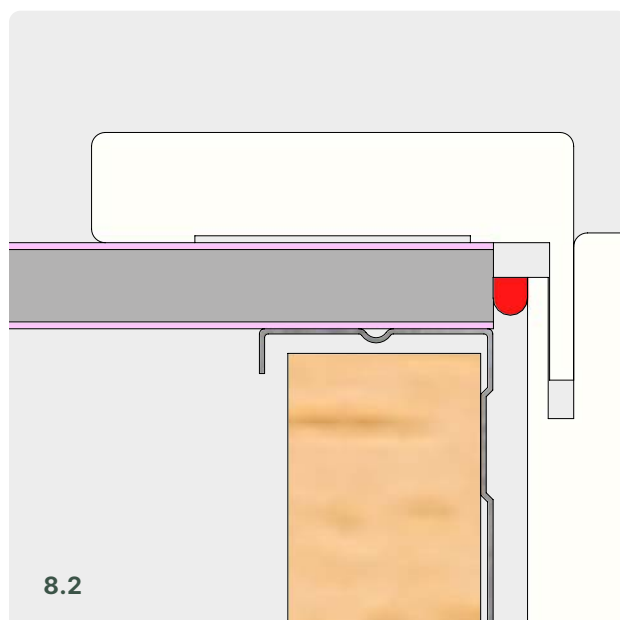
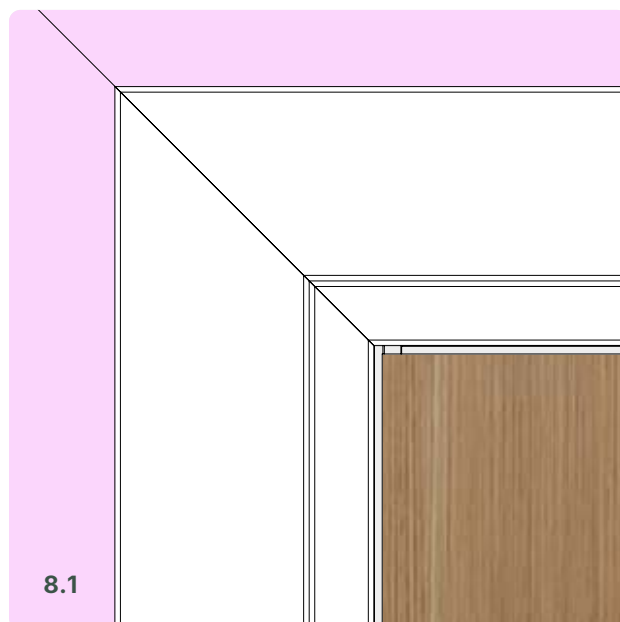
To install the architrave push the 'tongue' of architrave firmly into the frame groove. The architrave joints can be bonded with a suitable adhesive, remove any excess (8.2). **Adhesive must not go into the frame groove.**

### 9. Hinges and final adjustments

**Remove the temporary gold-coloured screws** fixing the hinge to the frame. Replace with the permanent stainless-steel screws **4.5×25mm** supplied (9.1). The longer screws will pick up the stud behind.

**Failure to replace the temporary screws will mean that the door is not fire-rated. Ensure intumescent pads are not removed during this stage.**

Hinge alignment/location can be assisted by temporarily loosening the leaf hinge screws. Ensure all gaps to the top and vertical edges of the door leaves are between **2-4mm**.





# Intumescent

Prior to fitting the intumescent, ensure that the grooves are clean, dry and free of any dust or grease.

## 10. Fit Frame Seals

The self-adhesive intumescent strips are **15mm wide**.

Trim intumescent to length and peel off release paper. Insert into groove and press firmly to ensure full contact along length. Butt intumescent tight to each other (**10.1**).



## 11. Adjust meeting edges

### Double door only

ModuCore BB door leaves are provided with **ABS edgings (1.5-2.0mm) which cannot be trimmed**. Check with your schedule or supplier to clarify the lipping type.

If provided with a ModuCore PB leaf, the lipping can be reduced to a minimum thickness of **8mm**. **Please check your lipping size before machining**.

A **2.5° chamfer** is permitted to assist with operation (**11.1**).



## 12. Fit Door Seals

### Double door only

**FD30** - The active leaf should have **two strips of 10mm wide intumescent** on the **leading edge**.

**Smoke Rated** - The active leaf should have **two strips of 10mm wide intumescent, one plain and one with rubber blade**. The rubber blade intumescent must be in the groove closest to the pull face of the leaf.

Trim intumescent to length and peel off release paper. Insert into groove and press firmly to ensure full contact along length. Butt intumescent tight to each other (**12.1**).

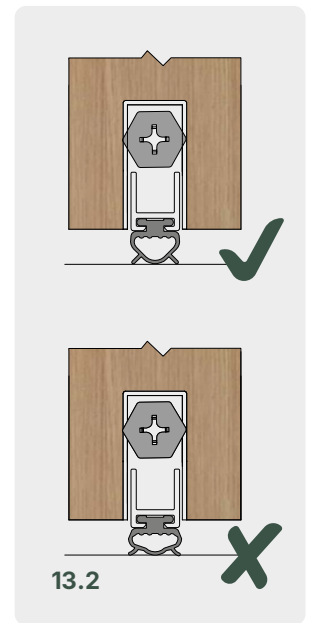


# Final checks

It is important to complete the following final checks and adjustments to complete the installation of your doorset.

## 13. Dropseal

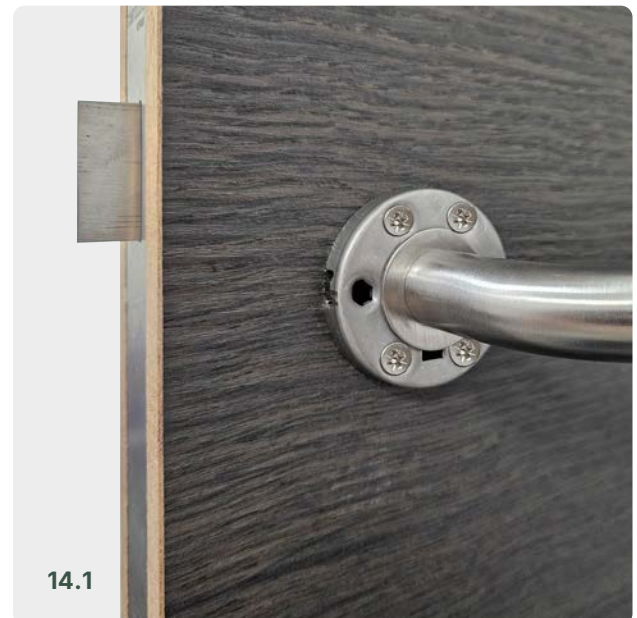
If a dropseal is fitted, after installation of the final floor covering, adjust the dropseal travel by rotating the nylon screw (13.1) at the hinge edge of the door, ensuring it drops sufficiently when the door is closed (13.2).



## 14. Ironmongery

Where using 'bolt through' fixings for pull handles the hole must be **no more than 1mm larger than the bolt diameter**.

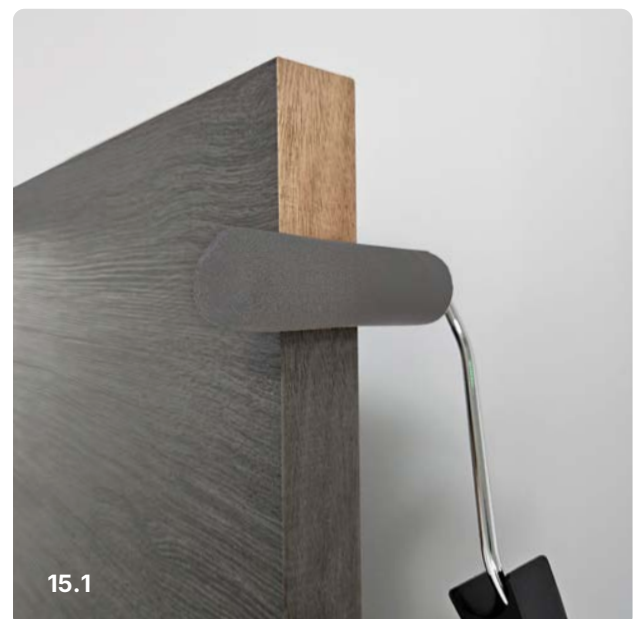
Fit surface mounted ironmongery in accordance with instructions ensuring that all fixing screws and bolts are used (14.1).



## 15. Finishing and protection

Modulo doors are suitable only for internal use in a dry environment. **Any cut or unfinished surfaces/edges should be coated** to provide protection from small amounts of moisture that may be present (15.1).

**Do not paint over fire labeling pre-applied to the door.**

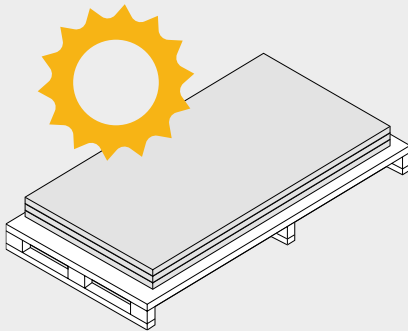
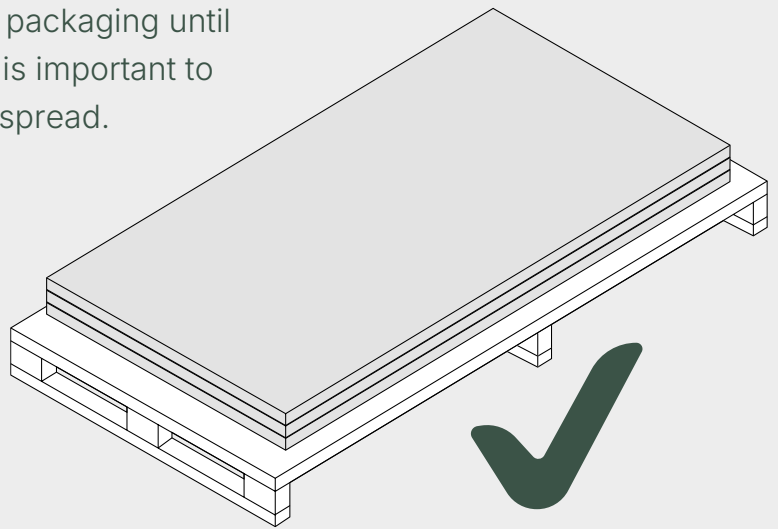


## Storage requirements

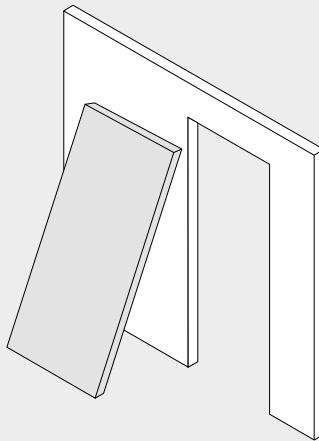
All components are provided in protective packaging for transit, they may be stored in their transit packaging until ready for installation. Once unwrapped it is important to lay components flat with the load evenly spread.

**Always lay the Doors FLAT with the load spread evenly.**

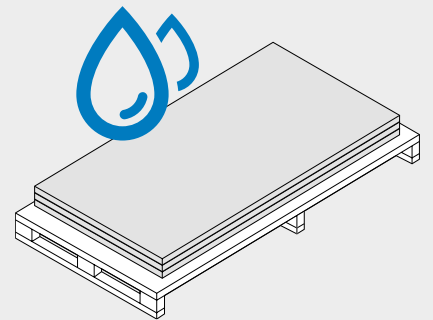
**Incorrect storage could result in your Doors warping, twisting or bowing.**



**Avoid excessive temperatures**



**DO NOT leave Doors leant against wall**



**Avoid moisture and damp environments**