

DECROBOND

Recommendations for Installation of Decrobond Ltd Products

It is the responsibility of the product installer to follow the fitting recommendations outlined in the document in full, failure to do so may invalidate your product guarantees with Decrobond Limited.

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HANDLING, STORAGE & PROTECTION

Installer Qualifications

It is strongly recommended that the installer of Decrobond products is a member of a recognised quality assured installation scheme to ensure correct practice is being followed at all times.

Products that are certified as fire rated may require evidence to the inspection authorities that the installation process complies with tested specifications and may include the following:-

- Intumescent systems and the required operating gaps between doors & frames.
- Intumescent protection around hardware being fitted.
- Glazing compliance (tested detail supplied by Decrobond).
- The quality of the prepared operating openings.
- The fixing methods of the installation.

Handling, Storage & Protection

Decrobond supply high quality products that require an appropriate level of protection when being stored on site.

Products are supplied in a white shrink wrap and this should remain on the product until the immediate point that the product requires installation.

Products should be installed after Wet Trades have finished and the building/area moisture levels have returned to normal.

Our products should never be stored outside or in areas with high levels of moisture humidity.

Products should ideally be stored for 2 to 3 weeks close to the final installation area or in a location with the same ambient conditions as the final location to allow the product to stabilise before fitting.



DO NOT STORE OUTSIDE!

Whilst allowing products to acclimatise to the intended environment is required, please be aware the product could still require adjustment when the building/area comes into use and the ambient conditions change.

Handling

Our Products are designed for forklift truck offloading / moving and are supplied in stacks for ease of distribution.

Our Products can be heavy/ difficult to lift and maneuver so you must take care to avoid injury to personnel. A manual handling assessment will be required when handling our products on your site.

Always work in strict accordance with your site manual handling policy.

Humidity Guidance within Timber Products:

Relative Humidity Rating %	Effects	Key
Below 40%	Materials are susceptible to "Case Hardening" (drying out), creating shrinkage, bowing and warping.	✘
40-60%	This is the optimal area condition for storing joinery products and the atmospheric moisture is at "equilibrium".	✔
Above 60-75%	Timber becomes "Hydroscopic" begins to absorb moisture creating expansion and swelling.	✘
Above 75%	Not suitable for joinery products.	✘

Joinery products should always be stored in a dry, enclosed environment – the relative humidity of the storage area and the finalised location should fall within 40-60% relative humidity. Moisture content of our products is between 10-12% on the doors and between 12- 14% on the frames. Products stored outside of our guidelines may shrink, swell and move and therefore will not be guaranteed by Decrobond.

Products should not be stacked directly onto the floor. Doors and doorsets should always be stacked horizontally with a minimum of 3x bearers set equally down the product length to prevent distortion/ deformation.



Products should **not** be stood upright on their ends; this will cause bowing, making the doorsets inoperable.

DO NOT

- Store outside
- Stack products upright
- Store near heaters
- Store in areas below 3°C
- Store in direct sunlight
- Store in damp areas
- Install prior to wet trades being completed.

Primed Grade Products



All primed grade products must be fully sealed within 1x week of reaching site with subsequent coats applied within a short time thereafter.

Particular attention should be given to the top and bottom edges of a door to prevent moisture ingress.

Do **not** paint over the product label on the top edge of the door.

Protection

It is the responsibility of the installer to ensure adequate protection is given to Decrobond products directly after installation and up until the point of project completion or site handover.

Adhesive tapes should not be applied to facings of a door, it can leave excessive residue or even damage the finished surfaces.

Where products are subjected to lots of direct sunlight and UV, care must be taken to ensure objects are not placed on product surfaces as this can create a silhouette as the veneer will fade or darken in direct sunlight.

Before you start!



Before fitting any product, it is the responsibility of the installer to ensure the correct product is being fitted into the correct aperture/opening.

Each product contains its own unique product code reference which is specified on its product label situated on the outer frame and on the top of each door leaf.

Product codes link to the contract drawings and schedules for cross referral purposes.

Customer:	BANK		12
Job Ref:	6559	Our Ref:	94766 / 14082
Handing:	Right Hung	Fire Rating:	None
Door No:	Plot 83 WC		2040 x 826
Location:	WC		
Door Finish	4 Panel Textured	Del Date	

Customer:	BANK		10
Job Ref:	6559	Our Ref:	94766 / 14082
Handing:	Left Door	Fire Rating:	None
Door No:	Plot 83 Wardrobe		2040 x 526
Location:	Wardrobe		
Door Finish	4 Panel Textured	Del Date	

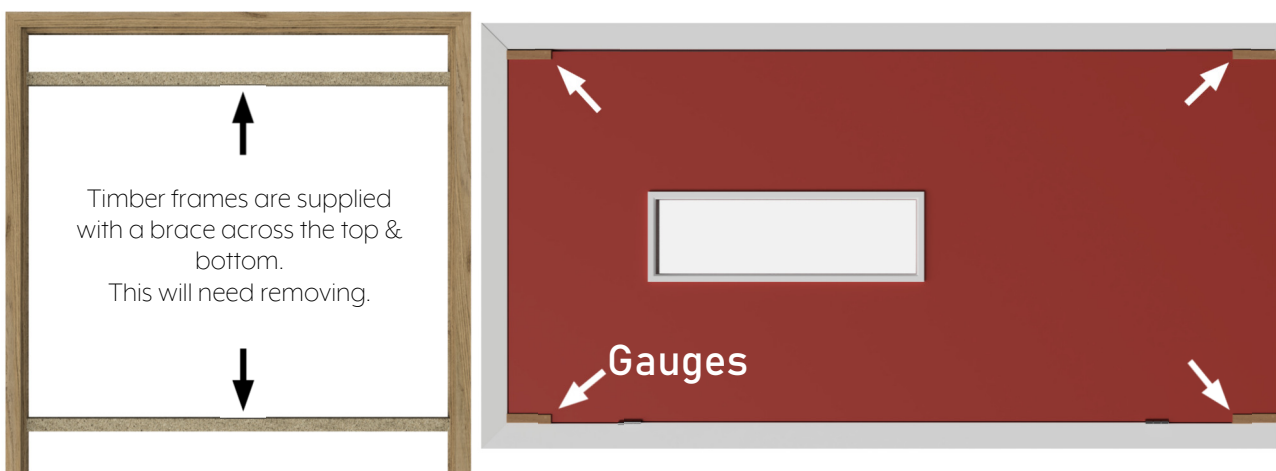
Ensure the structural opening is plumb and square before carrying out any installation. Decrobond doorsets are manufactured to a dimension of 7mm \pm 2mm less in height and 14mm \pm 2mm less in width than the specified structural opening dimensions given.

Ensure you have at least 5mm clearance between the perimeter of the structural opening and the outer frame before starting.

All doorsets are fitted together in our factory and tested for functionality before dispatch.

The factory ensures that the gap between the door perimeter and inside frame edge is correct by using "GO" and "NO GO" gauges, these are left in the product for transportation purposes and validation of the check.

All intumescent seals are pre-fitted to your products in our factory.
Acoustic seals are supplied loose and require fitting by the installer.



If the frame is not completely plumb and square during installation, some on site adjustment to the hinges maybe required to maintain the correct gap – this is the responsibility of the installer!

Doorset Clearances



Fitting Gauges

All doorsets are fitted together in the factory and the operating gaps tested with plastic gauges before dispatch.

Doors that are removed from their frames during installation must be stacked horizontally and adequately protected until required as per the storage section.

Single doorsets are supplied fully assembled!

Pairs of doors are "dry fitted" and tested in the factory and supplied in unassembled format.

General Clearances

The following clearances between door and frame are required on fire rated doorsets to comply with fire certification and building control:

Perimeter of the door panel on the top and side edges should be between 3mm and 4mm.

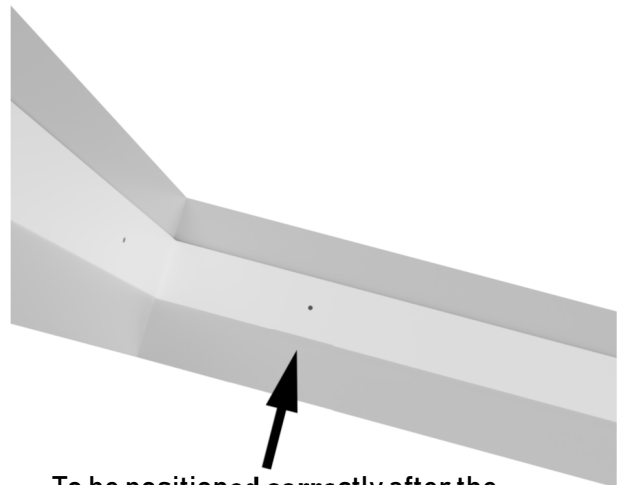
Gap between the meeting stiles on pairs should be between 3mm and 4mm.

Unless otherwise specified, Decrobond doors are manufactured to achieve a 10mm nominal clearance at the bottom of the door to comply with the requirements of BS 476 part 22.

To achieve smoke control and compliance with the requirements of BS 9999: 2008, the specifier/installer must satisfy themselves that when the installation is complete, a maximum clearance of no more 3mm has been achieved between the bottom of the door and the finished floor level! – Additional guidance can be found in BS 8214: 2008 "Code of practice for fire door assemblies".

Frames manufactured with Stop-lath`s are supplied with this item being **a removable feature**. If required, the installer may remove the Stop-lath as a potential on site concealed fixing point.

On completion of the frame installation and with door in final position, the door must operate and function correctly against the stop without visible gaps or binding against it and where applicable enabling acoustic seal systems to operate correctly.



To be positioned correctly after the frame is fitted by the installer!

Packer Material Requirements

FD30/Non-Rated: Softwood, Plastic, MDF. FD60: Hardwood, Plastic, MDF.

FD90/120: Non-combustible materials.

Recommended Installation Fixings

If fixing into brickwork/masonry: Raw plug F100 or similar.

If fixing into stud partitioning: a suitable length & gauge woodworking screw.

Installation

1. Position the frame centrally in the width of the structural opening. Pack between door frame and prepared opening immediately above each fixing point. Ensure the frame is both plumb and square and fixing points are securely packed and cannot be distorted when fixed with screws.

2. All fixings need to be in solid material with a minimum of 50mm of anchorage into the wall construction (70mm for heavy doorsets) soft mortar joints are not suitable fixing points.

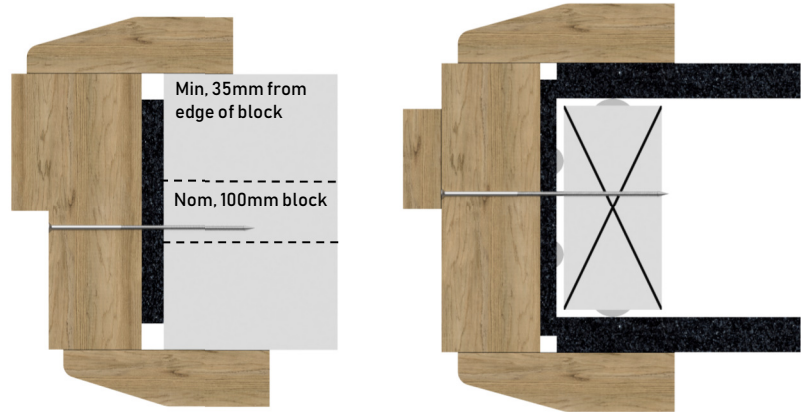
3. On heavy doorsets paired fixing will normally be required unless specialist fixings are used

4. Fixing should be kept in from the partition faces to stop the wall material breaking away. We recommend a minimum of 35mm.

5. We recommend that you have fixings no more than 100mm from the top and bottom of the doorframe jambs and a maximum spacing between them of 600mm centres.

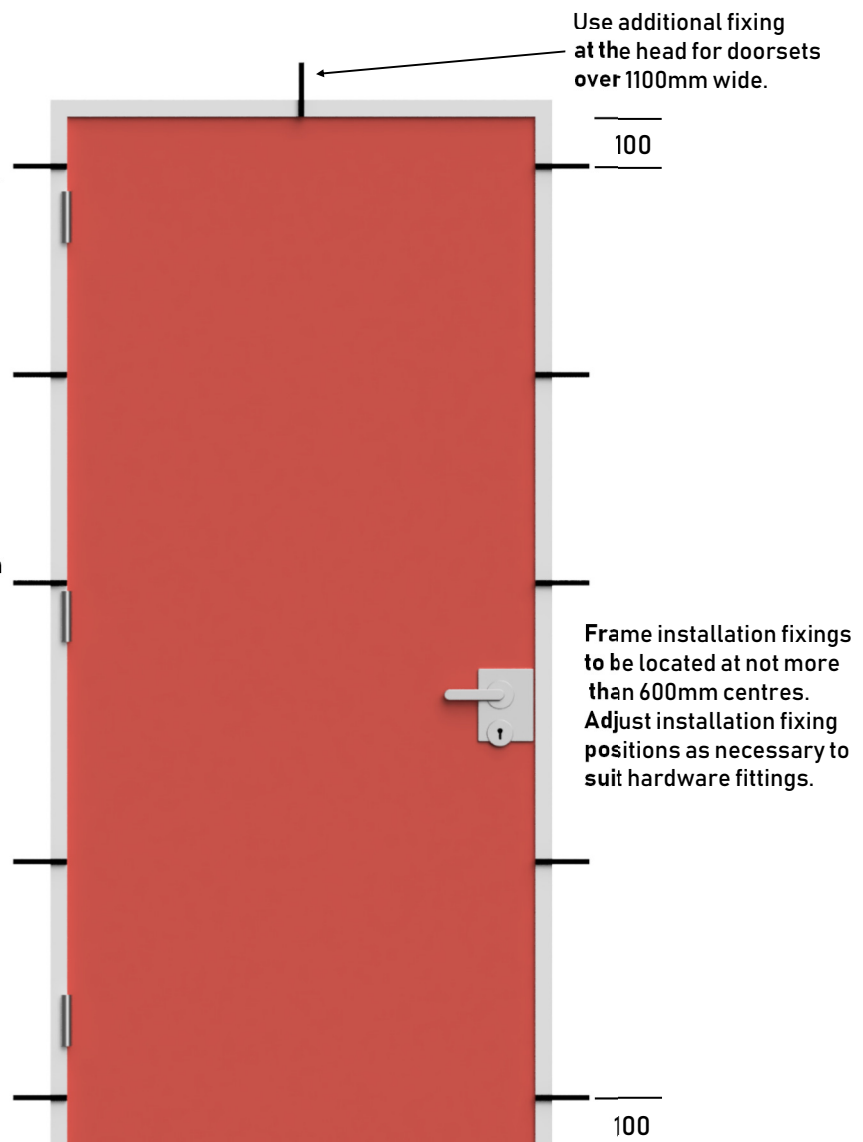
6. On frames above 1100mm wide, we recommend additional fixing points in the frame head to prevent bowing.

Decrobond do not supply Fixing items. Specialist fixings must be approved by the fixing manufacturer to operate in line with the door weight.



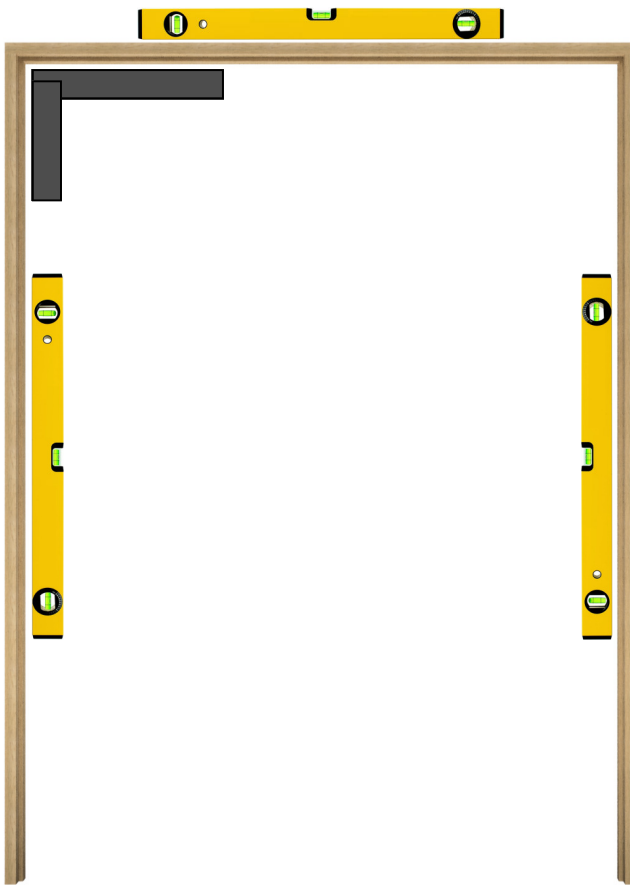
Secure fixing zone

Timber Stud Filler



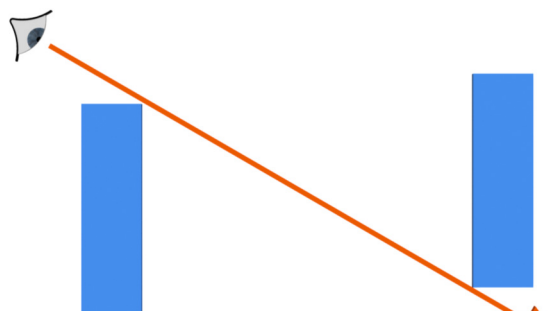
General Doorset Installation Steps

1. Drill and fix the hanging jamb checking at all times it is plumb and free from bow and twist.



2. Check the head is square to the hanging jamb and packed tightly above each jamb leg. If the frame is above 1100mm wide then an additional packing is required in the middle fixing point.

3. Drill and fix the closing jamb making sure it is plumb and free from bow and twist. Sight through both legs edges to ensure they are plumb and parallel with each other.



4. On doorsets above 1100mm in width, a fixing in the centre of the head is required to prevent it bowing.

5. Re-hang the door in the frame.

6. Ensure a 3mm up to 4mm gap is achieved around the door/s against the frame rebate. To achieve the correct gap, some adjustment to the frame packing maybe required. It is the responsibility of the installer to ensure the correct amount of clearance has been achieved.

7. If fitting a loose Stop-lathed frame, the Stop should now be fixed into the correct position. Ensure the door is in its final closed position and then position the Stops up to the door face. The installer must check that the door can operate and function correctly against it the Stop without leaving any visible gaps or binding against it.

8. When positioning the Stop, ensure you have set the rebate depth correctly to allow for the acoustic seals to contact with the door face and function correctly (see acoustic section).

9. Stop-Laths can be glued and pinned or alternatively can be screwed and glued into place. Where wide Stop-Laths have been specified, it may be necessary to apply parallel side by side fixings.

Adjusting Door Sizes

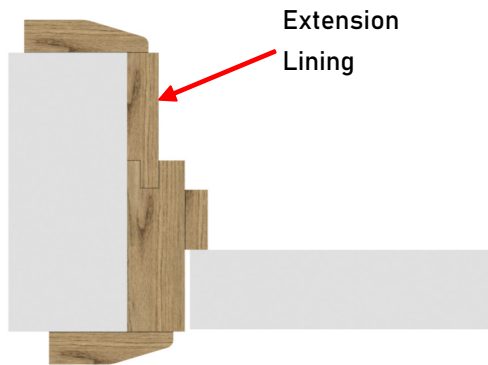
Decrobond doorsets are a made to measure product, therefore the doors cannot be cut down / adjusted dimensionally on site.

Unless specified, our doors are manufactured with a 10mm edge lipping. Doors requiring adjustment for fitting into existing frames can only be reduced by 2mm on each edge lipping - 4mm maximum in both height and width! If more adjustment is required, a larger lipping will be required.

Where lift-off hinges are fitted, architraves must be set back 10mm from the frame edge to allow the door to lift clear of the hinge pin.

Frames with Extension Linings

Extension linings fit into the grooves on the frame and can be slid in or out slightly to suit the opening thickness.



Extension linings should be fixed in the same way as the main part of the frame section.

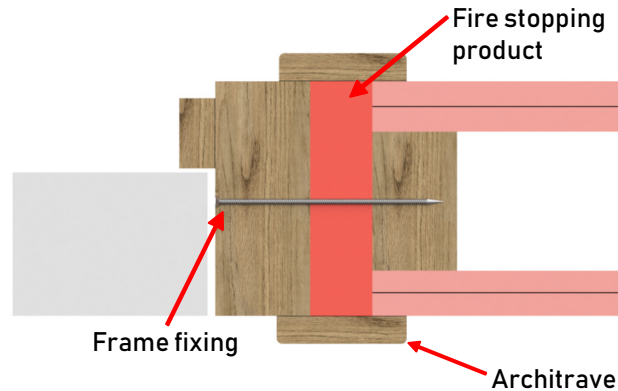
Standard Frames Back Filling Requirements

Non-Rated
Back filling not required

Fire – Rated
Gaps up to 10mm
Require a bead of intumescent sealant set to a minimum depth of 10mm on both sides of the frame that has been tested for this application to BS 476: Part 22 1987 or BS EN 1634-1: 2008. The joint must be fitted with 15mm architrave overlapping at least 15mm each side.

Gaps up to 20mm

Filled with a proprietary fire stopping product (e.g. expanding PU foam filler or preformed compressible intumescent foam). Products must be tested for this application to BS 476: Part 22: 1987 or BS EN 1634-1: 2008. The joint must be fitted with 15mm thick architraves overlapping at least 15mm each side.



Guidance for various methods of sealing frames to structural openings is given in BS 8214: 2008, "Code of practice for fire door assemblies", which may be referred to where appropriate.

Split Frames

Integral architrave and therefore prior to fixing the 2nd section, the 1st section must be back filled as detailed above.

Acoustic

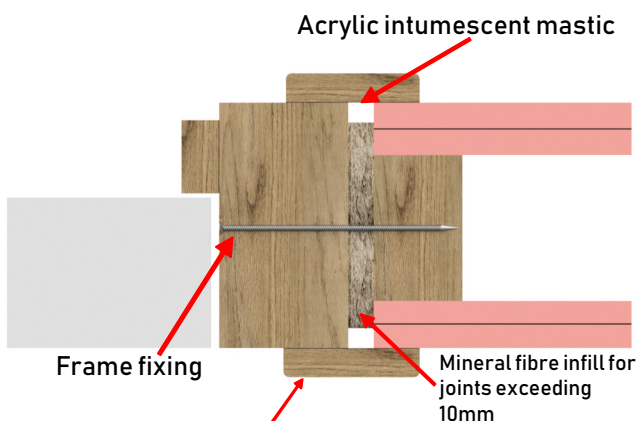
To prevent sound transfer back filling is required. Please ensure in both cases that the bottom of each jamb is sealed with silicone or mastic to the floor.

Acoustic Non-Rated

Gaps <6mm
Requires a bead of dense silicone sealant to a minimum depth of 10mm on both sides of the frame the filling any gaps behind the frame and structural opening.

Gaps larger than 6mm

Filled with a proprietary fire stopping product (e.g. expanding PU foam filler or preformed compressible intumescent foam) and capped with a dense silicone sealant to a minimum depth of 10mm on both sides of the frame the filling any gaps behind the frame and structural opening.

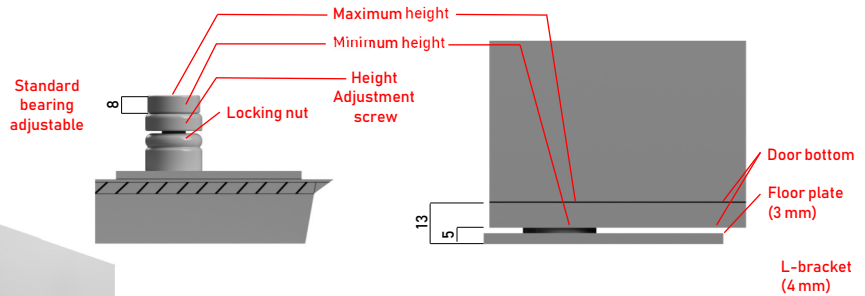
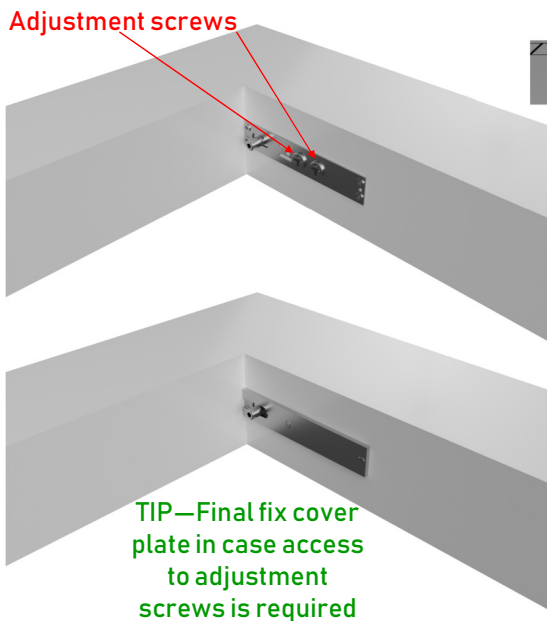


Architrave for joints not filled with mineral wood and optional for filled joints

Integral Finger Guard

1. To release the door from the frame. Open the door to 90° and whilst the door is being held open and steady, loosen and retract the top pivot pin and then carefully remove the door from the bottom pivot bracket.

IMPORTANT: Do not operate the adjustment screws with power tools.



IMPORTANT: Ensure the thread of pivot bearing is securely engaged with the threaded boss bottom pivot.

After height adjustment has been made, securely tighten locking nut against thread.

This will require a flat head screwdriver and spanner.

6. To re-fit the door, position the door in a 90° open position and tilted slightly, lift the door and carefully locate the bottom strap cup onto the pivot bearing. When this has been located, raise the door to align the retracted top centre pivot pin. Using a handheld screwdriver extend the pivot pin to locate it in the bearing.

IMPORTANT: Do not operate the adjustment screws with power tools.

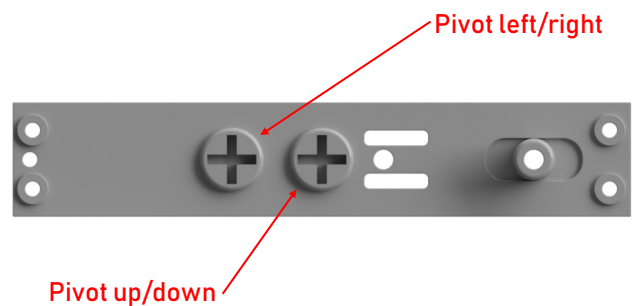
2. Install the frame assembly into the structural opening as per the General Installation Instructions on pages 7&8.

3. Take particular care to ensure the hanging jamb is set straight as this will influence the finger-safe gap between the door and the frame.

4. Using the supplied screws and plugs to fix the bottom pivot in position. Always fix the L-bracket to both floor and frame.

IMPORTANT: Care should be taken to position correctly as this will influence the finger-safe gap between the door and the frame.

5. Determine the desired gap at the threshold and then set the height of the bottom pivot bearing accordingly.



7. **IMPORTANT:** Ensure the pin is fully extended and securely located in the top strap bearing (this requires approximately eight full turns of the “retract/extend” adjustment screw).

Additionally, on the top center adjustment ruler, look for the markers - these should be visible when the pin is fully down. If required, a half turn in the “retract” direction (after fully extending) can ease the “hanging edge gap” adjustment screw.

8. Check the gap at the threshold hanging side is as required. If height adjustment is necessary, remove the door, adjust the floor plate and then re-hang the door in accordance with Steps 4 – 5.

9. The finger safe gap (hanging edge) should be 2-3 mm. Adjust the “pivot left/right” adjustment screw on top centre until this dimension is achieved at the top of the door. Check the gap is consistent the full height of the door.

10. Check the door is swinging correctly. Check that gap sizes around the perimeter are correct and that there is no excessive rubbing on the hanging side. Make necessary adjustments. Fix the cover plate in position over the top centre pivot when complete.

Fire Doors Rated to 120 Minutes

These doorframes are made of non-combustible mineral core to achieve the high fire performance.

The material is strong but is also brittle and care is needed when moving the frames into position.

The frame jambs can snap if too much force is used to bend/move them.

The doors are always supplied on lift off or loose pin hinges, as the mineral core will break down if screws are repeatedly inserted and removed.

If a screw hole becomes worn and the core breaks down, a plastic plug bonded with epoxy adhesive can be used to form a new fixing point. This method of repair can be used for any fixing on the doorset.

Door handles and pull bars should be fixed with bolt through fixings only.

Fix architraves to doorframe with pins and glue.

Security doorsets

All our security doorsets require deeper frame fixing anchorage in to the surrounding wall construction to a minimum depth of 70mm and the wall must be of a construction to match the doorset security performance level.

Finishing Instructions

Our frames are supplied un-drilled for site drilling. Pellets can be provided if requested these will be supplied bagged separate to the frames.

Screw fixings to lacquered timber frames will require pellets to be fitted. These will be glued into place over the fixing point, making sure the grain direction matches the frame.

Please note timber is a natural product and therefore the colour and grain pattern may vary from frame to frame, the pellets will therefore need matching to the frame for the best possible match.

Any remaining projecting pellet will need paring down flush to the frame, taking care not to mark the finished jamb.

Finish the pellet head with a 20% clear gloss lacquer to match in with the rest of the frame on site.

Screw fixings to primed timber frames can be finished as above with pellets or filled with non-shrinking wood filler and sanded flat and painted over.

Pin fixings to lacquered timber stops and architraves should be filled with a matching coloured wax or coloured wood filler.

Pin fixings to painted timber stops and architraves should be filled with non-shrinking wood filler.

Decorators caulk is not suitable for Plastic wrapped products.

Finishing

Where products are to be painted on site, they will be delivered factory-primed and will require de-nibbing by lightly sanding before painting. Factory primed doors may require undercoating and multiple top coats, consult your decoration specification.

Top and bottom edges of doors must be painted.

Under no circumstances should the product certification labeling or Fire Plugs be painted over.

Glazing

Apertures cannot be cut into our fire rated doors on site. We strongly recommend that all aperture preparation is carried out in our works and cannot accept responsibility for later problems caused by site cutting of apertures.

Ancillaries

Overpanels

Wherever possible overpanels are supplied factory-fitted, however with some doorsets this may not be practical due to weight and size. In these cases the Overpanel will be supplied factory prepared for site fixing and delivered separately. Overpanels will require fixing prior to frame installation.

Ironmongery

Air transfer grilles

Air transfer grilles must be installed in accordance with the manufacturer's installation instructions.

Apertures cannot be cut into our fire rated doors on site. Non-Fire rated doors can have apertures cut, but we would advise that you check with Decrobond on the door construction prior to starting any work which could cause problems on site.

Ironmongery installation

Ironmongery falls into two specific categories: essential and non-essential.

Essential ironmongery is required to enable the doors to perform its fire resisting function.

Nonessential ironmongery may be needed to enable other functions to be achieved, but the elements involved could prejudice fire resistance.

It is therefore vitally important to consider the influence that all ironmongery may have on fire resistance and establish that products being used/considered are compliant.

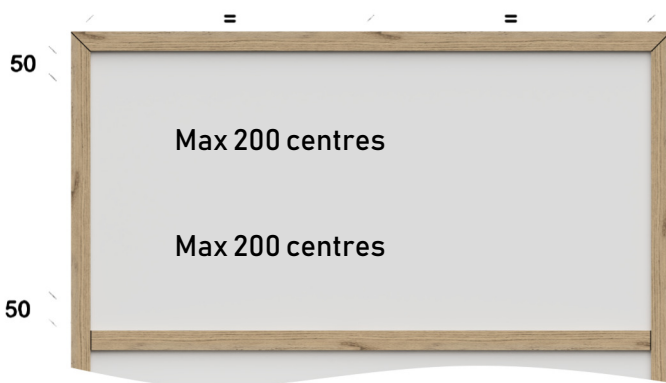
Ironmongery supplied by Decrobond is installed in our factory and supplied with the required level of intumescent protection around each fitting as necessary.

Where required surface mounted hardware is supplied loose with your delivery.

Care should be taken to ensure that when installing ironmongery with the use of battery operated tools, the correct torque settings should be applied to the tools to minimise the risk of overtightening or spinning of screw fixings.

Please take care to unpack all contents ensuring no loose items are lost/discarded, in particular any intumescent protection. These must be installed to maintain the fire certification.

Take care when installing ironmongery into 120 Minute Fire-Rated Doorsets; this product has a mineral based core and screw threads are liable to break up the construction if they are removed or replaced repeatedly.



Overpanel should be positioned so it will line through with the door leaf.

If supplied with a veneered pattern, check the pattern alignment through with the door leaf.

Secure the panel in place by drilling and screwing it through the back of the frame with fixings 50mm in from the corners then fixings no greater than 300mm apart across the top and sides and across the transom (if fitted).

Use a 6mm shank diameter screw, (screw length must give 30mm of anchorage into the overpanel).

Overpanels supplied for a double door set will be supplied rebated to enable the doors to close against them.

Some FD30 & all FD60 doorsets and above require intumescent protection to hinges in order to meet fire certification. If not fitted, fire certification is invalidated.

All fire door keeps need to be bedded on Imm interdens/graphite in order to meet fire certification.

When fitting concealed door closers such as the Geze Boxer or Dorma ITS 96, please ensure the supplied intumescent/seal packs are fitted as instructed. This is critical to achieving the product's fire rating.

Without fitment of the intumescent in the door and frame, certification is invalid. The door and/or frame constructions will need to have been upgraded to receive this type of ironmongery to meet fire certification and mechanical strength test data.

Flush fitting – Flushbolts/Locks

If installing any flushbolts or locks not supplied by Decrobond into fire rated doors, please ensure that the entire intumescent is fitted around the product.

All Ironmongery should be CE marked on fire rated doorsets.

Decrobond supply Hardware providing ironmongery solutions for any required application.

**Call our Estimating Department for hardware enquiries and
advice. 01924 224900**

Timber Screens

Handling & Storage

Timber Screens where possible are palletised for forklift truck off-loading. In certain instances, where a screen is oversized these may require sending as individual items and will require a degree of manual handling.

Timber Screens can be heavy/difficult to lift and manoeuvre so you must take care to avoid injury to personnel. A manual handling assessment will be required when handling our Timber Screen products on your site.

Due to the size and weight of certain glass panels, on occasions we may supply heavy/bulky panels loose on a stillage for ease of handling on site.

Always work in strict accordance with your site manual handling policy.

Storage

Timber Screens should always be stored in a dry, enclosed environment – the relative humidity of the storage area and the finalised location should fall within 40-60% relative humidity.

Moisture content of our screens is between 12- 14% and products stored outside of our guidelines may shrink, swell and move and therefore will not be guaranteed by Decrobond.

If glass has been supplied loose, it must be stored on either a purpose made stillage or stored upright with each piece supported correctly to prevent damages.

Glass must be kept in a dry environment and should never be stored outside or exposed to the outdoor elements.

Water ingress can damage fire rated glass panels.



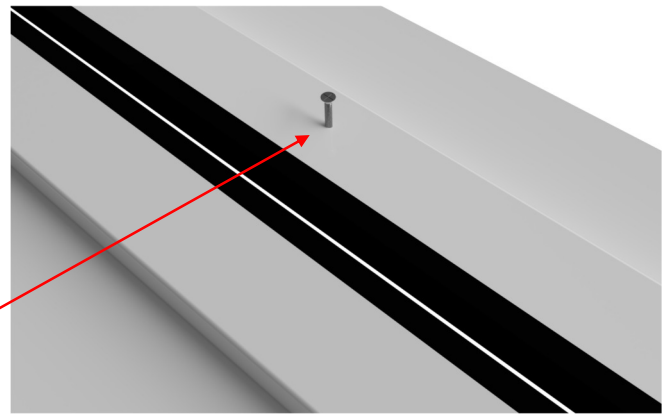
Installation Process

Glazing Bead

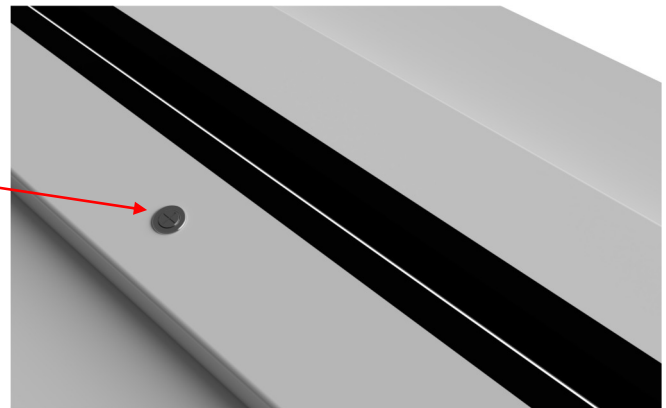
Screens are supplied with different bead fixing methods to achieve fire rating compliance, either steel pinned or steel screwed.

All beads are pre-fitted in the factory, 1x side is permanently fixed in place to provide the datum and the opposite side is loose pinned for removal and re-fitting on site. Pins shall be positioned at 150mm centres (see illustration).

Where screw fixed bead is required, the screws will be supplied with a cup fitting. Screw centre positions will vary between 200mm & 300mm depending on fire rating (see illustration).

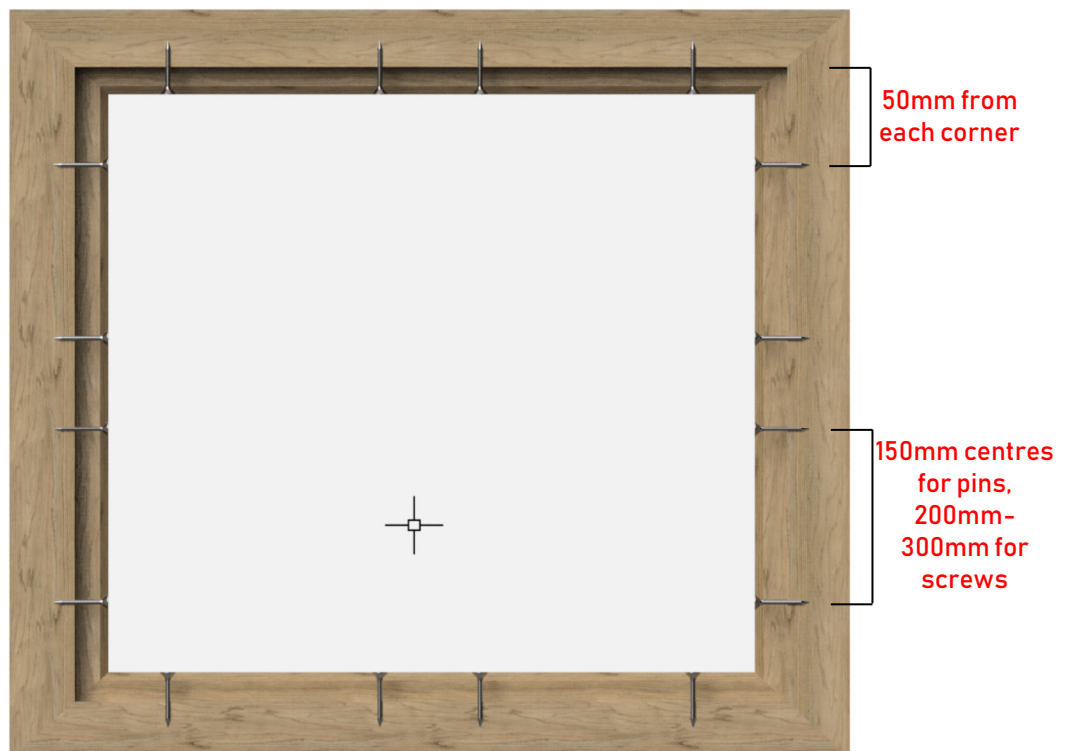
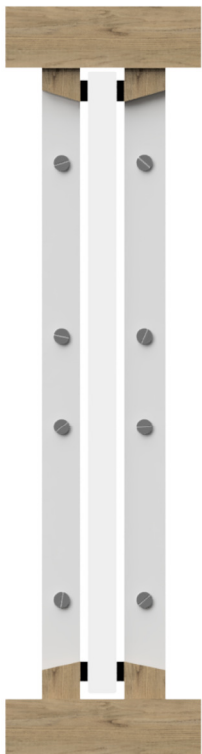
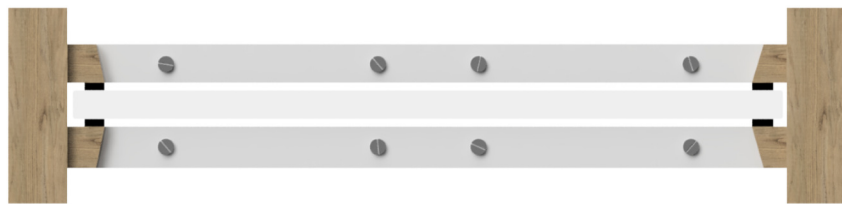


Example of loose pinned beading in screen



Example of screw and cup fixed beading in screen

Example of screw/pin position for screen beading.

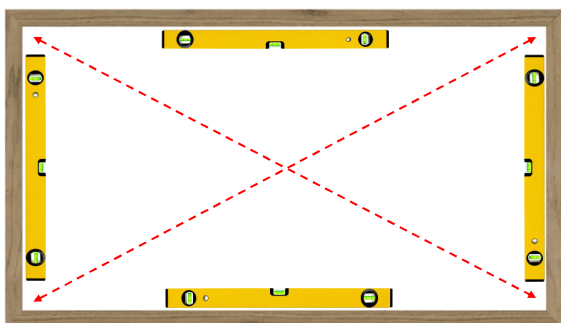


Single Screen Fixing

Ensure the structural opening is plumb and square before carrying out any installation.

Decrobond screens are manufactured to a dimension of 14mm \pm 2mm less in height and in width than the specified structural opening dimensions given.

Ensure you have at least 5mm clearance between the perimeter of the structural opening and the screen frame before starting.



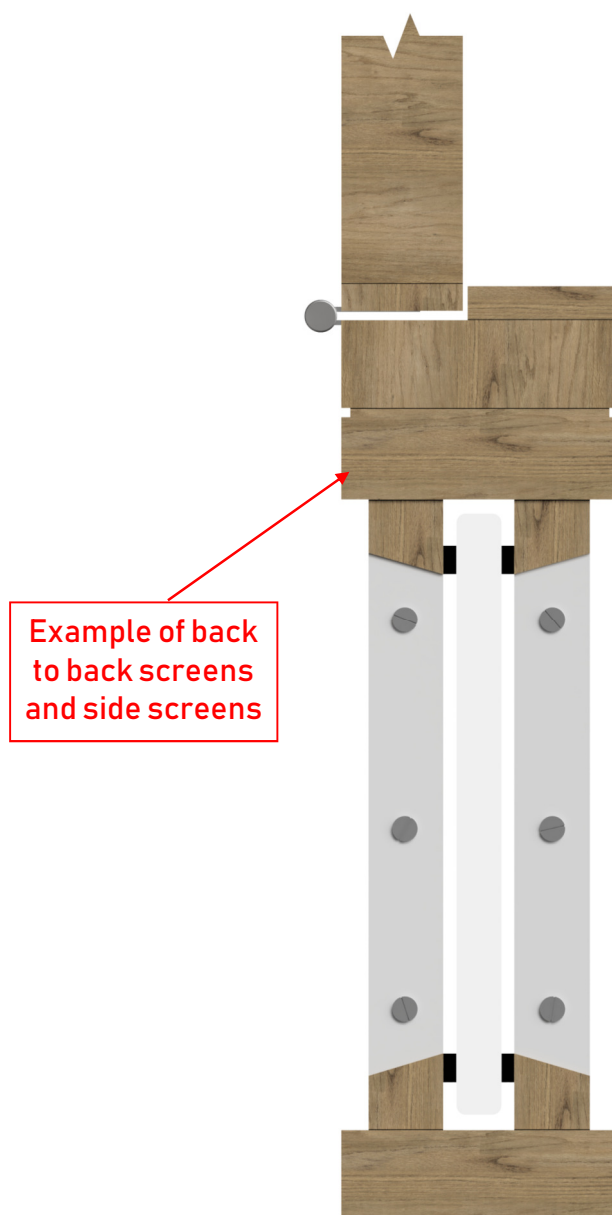
1. Position the screen centrally in the width of the structural opening. Use appropriate packers between screen frame and prepared opening immediately above each fixing point.
2. Ensure the screen frame is both plumb and square and fixing points are securely packed and cannot be distorted when fixed with screws.
3. All fixings need to be in solid material with a minimum of 50mm of anchorage into the wall construction (70mm for heavy doorsets) soft mortar joints are not suitable fixing points.
4. Fixing can be positioned behind the glass panel and bead to conceal them however you must satisfy yourself that the fixing points are robust enough.
5. Heavy/bulky screens may require paired fixings and we recommend that your fixings are 100mm in from each corner and no more than 600mm at centre points.

6. Fire rated screens will require back-filling, please refer to page 9 for back-filling methods.

Back to Back Screen Fixing

When using separate screen frame sections as shown below, each section must be suitably fixed to one-other using appropriate steel screws and glued using Urea Formaldehyde or polyurethane.

Screws must be fixed at 600mm centres and locate to approximately 2/3 depth of the adjacent timber section. It is permitted to have a 3mm x 3mm shadow gap between frames however joints must be tight with no gaps evident.



Contact Number:
01924 224900 if you require any further technical assistance.