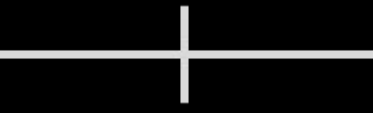


ESSENTIALS SERIES
ACOUSTIC DOORSETS



SILENTDOOR

Open the doors to endless possibilities



SilentDoor Rw[®]

ESSENTIALS

SilentDoor Rw[®] Essentials is a cost effective range of pre-hung acoustic doorsets developed for projects where performance and budget need to be carefully balanced.

Positioned below the standard SilentDoor range, the Essentials series offers a streamlined specification to reduce cost while still providing dependable acoustic and fire performance.

Selected configurations are available from stock for faster turnaround, with typical acoustic ratings from **30dB to 45dB** and **FD60S fire resistance as standard**.

The range is ideal for straightforward applications where compliance, practicality and value are key, without the need for a fully bespoke doorset solution.





HELP SILENTDOOR SUPPORT NATURE

For every door you buy, we invest directly into protecting and restoring natural habitats — safeguarding wildlife, biodiversity, and the future of our planet.

"Each door makes a lasting difference for wildlife in land and our oceans."

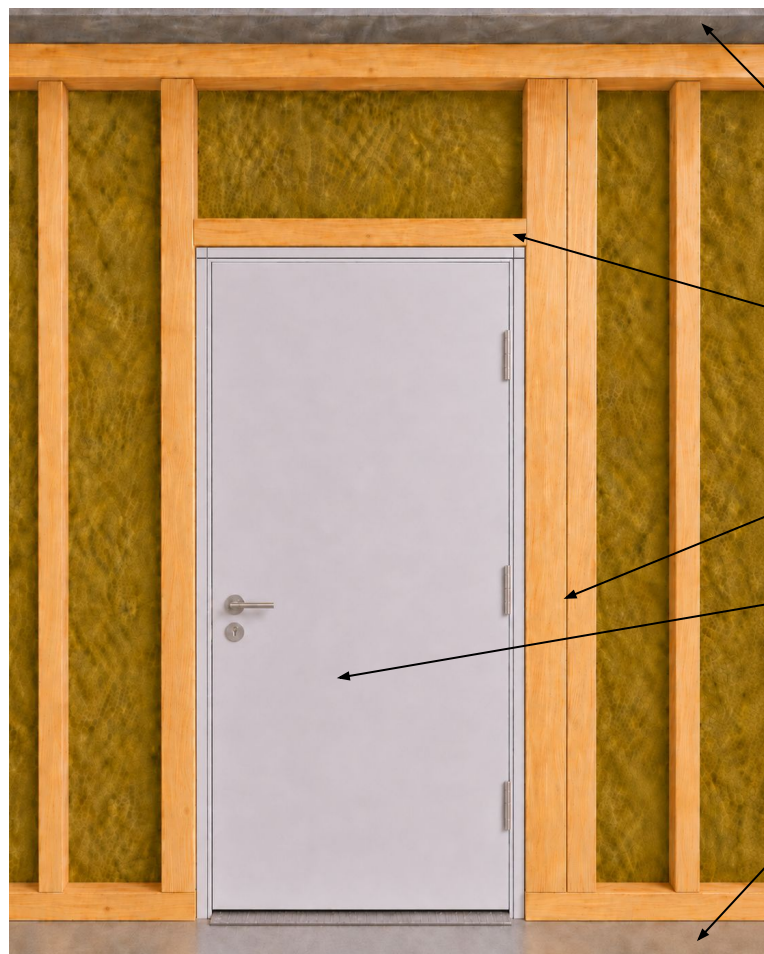


For every door you buy, we protect wild land and replant corals in reefs around the world.



SilentDoor Rw[®] Essentials Timber Doorset.

Indicative Timber Stud / Rugby Post Support Arrangement



Structural soffit.

100mm stud "rugby post" configuration.

Double stud on hinge side.

SilentDoor Rw[®] T or SilentDoor Rw[®] Essentials Series.

Structural floor.

Wall Detail.

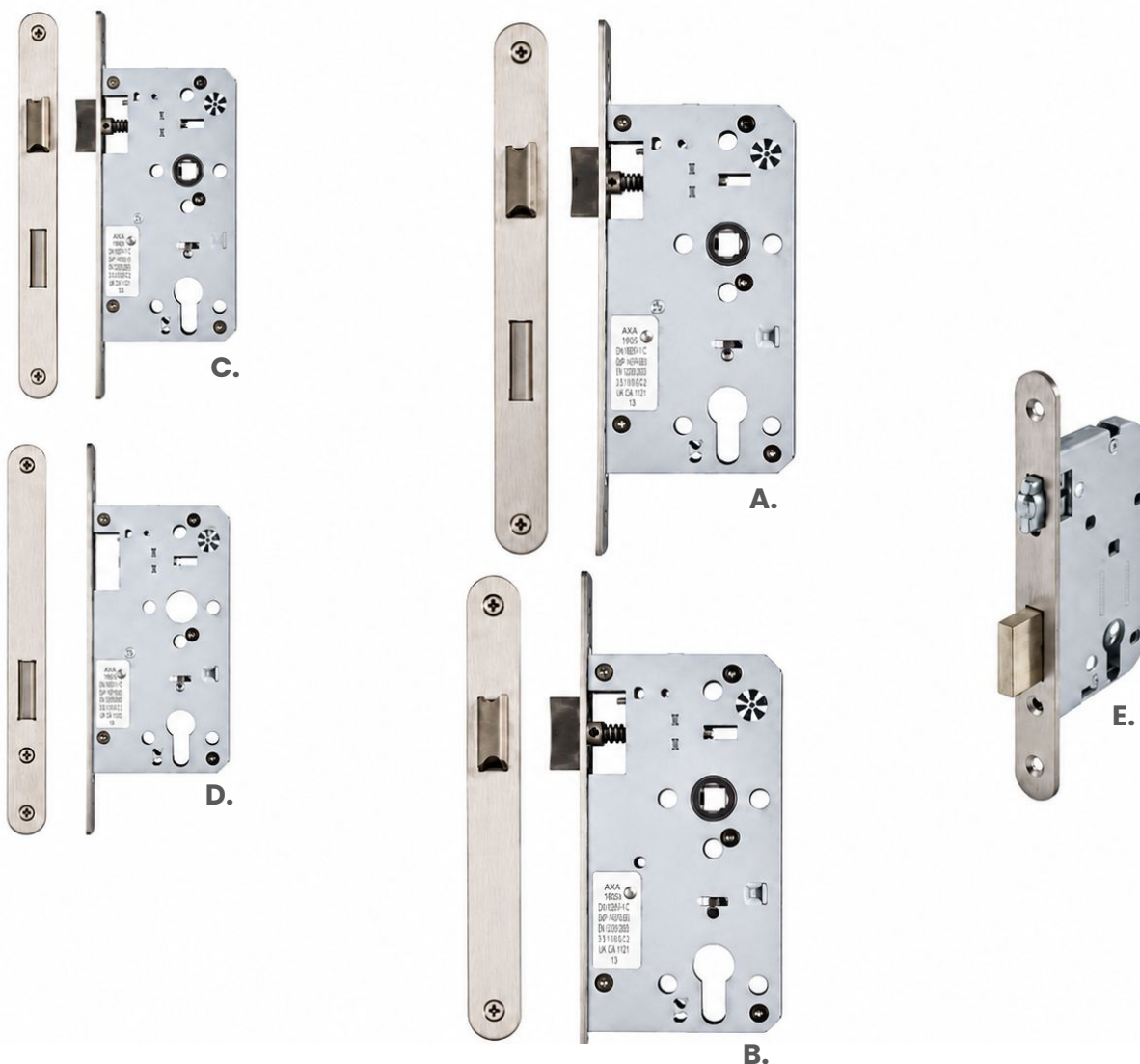
Note: The wall construction detail shown is for illustrative purposes only and does not constitute design advice. SilentDoor accepts no responsibility or liability for the design, suitability, adequacy or structural integrity of the supporting wall construction. Responsibility for the wall design and structural performance remains with the client's appointed structural engineer or suitably qualified project professional.

Key Installation Notes

- Timber support framing shown indicatively, final arrangement to suit the project wall type, doorset weight and structural requirements.
- Hinge side support should be suitably reinforced to minimise frame movement during door opening and closing.
- Door frame must be installed plumb, level and square, with fixings secured into suitable structural framing.
- Perimeter gaps around the frame should be treated in accordance with the required fire and acoustic installation detail.
- Architrave and final finishes to be installed only after the doorset has been correctly aligned, fixed and checked.

SilentDoor Rw® Essentials Locking Types.

Note: Acoustic doors require a suitable latch or locking mechanism to draw the door leaf firmly against the frame seals. This is essential to maintain consistent compression of the acoustic, smoke and fire seals. **Omitting this mechanism may result in poor seal contact**, reduced acoustic performance and compromised fire/smoke protection, and is therefore not recommended.



Lock Types for SilentDoor Rw® Essentials – Timber Door Sets

A	Sash Lock (Latch with Cylinder) With Lever Handle	Suitable
B	Latch Case (Only latch) With Lever Handle	Suitable
C	Bathroom Lock (Thumb Turn With Latch) With Lever Handle	Suitable
D	Deadlock (Only Cylinder) No Lever Handle	Suitable
E	Roller Lock (Roller Latch) Pull/Push Handle	Not Suitable for Fire/Acoustic Doors

SilentDoor Rw® Essentials Series.

Acoustic Doorsets

Product Datasheet

SilentDoor Rw® Essentials is available in **30dB, 35dB, 40dB and 45dB** variants.

The **SilentDoor Rw® Essentials** series is designed to simplify specification and reduce cost without compromising core performance. By focusing on the most commonly required configurations, the range removes the complexity and extended lead times often associated with fully bespoke doorsets.

Construction, finishes and ironmongery options are standardised to support efficient manufacture and consistent quality across each unit. With selected sizes and specifications held in stock, the Essentials series is well suited to fast-paced projects where availability and budget are key drivers.

Offering **30–45dB acoustic performance** alongside **FD60S fire resistance as standard**, SilentDoor Rw® Essentials provides a practical solution for offices, residential developments and commercial spaces where dependable performance is required in a more accessible, streamlined package.

Standard Acoustic Door

SilentDoor Rw® Essentials standard acoustic doorsets are cost-effective pre-hung configurations designed for projects where reliable acoustic performance, fire resistance and budget control are key considerations. Available in acoustic ratings from 30dB to 45dB, with FD60S fire resistance as standard, the range uses streamlined construction, finishes and ironmongery options to simplify specification, reduce lead times and provide a practical solution for everyday commercial, residential, education and healthcare applications.

Product Name	Approx Weight kg/m ²	Rated	Leaf Size	Fire Rating	Vision Panel	Finish
SilentDoor Rw® Essentials 30/FD60	38 kg/m ²	30dB*	(H) 2001 x (W) 760 x (T) 55mm	FD60S	No	Primed
SilentDoor Rw® Essentials 35/FD60	39 kg/m ²	35dB*	(H) 2001 x (W) 760 x (T) 55mm	FD60S	No	Primed
SilentDoor Rw® Essentials 40/FD60	41 kg/m ²	40dB*	(H) 2001 x (W) 760 x (T) 55mm	FD60S	No	Primed
SilentDoor Rw® Essentials 45/FD60	46 kg/m ²	45dB*	(H) 2001 x (W) 760 x (T) 55mm	FD60S	No	Primed

**Assumed performance: Estimated based on construction and comparable tested designs. Not independently tested as a complete doorset assembly.*

Part 'M' Compliant Acoustic Door

SilentDoor Rw® Essentials Part 'M' compliant acoustic doorsets are wider leaf configurations designed to support accessible use in line with Approved Document M guidance. In practical terms, they provide an improved clear opening width to **assist wheelchair users**, people with reduced mobility, and general building users moving through the doorway more easily. Part 'M' compliance relates to accessibility and ease of use, while acoustic and fire performance remain separate characteristics subject to the doorset specification, correct installation, suitable ironmongery and project-specific requirements.

Product Name	Approx Weight kg/m ²	Rated	Leaf Size	Fire Rating	Vision Panel	Finish
SilentDoor Rw® Essentials 30M/FD60 (Part M)	41 kg/m ²	30dB*	(H) 2001 x (W) 833 x (T) 55mm	FD60S	Yes	Primed
SilentDoor Rw® Essentials 35M/FD60 (Part M)	43 kg/m ²	35dB*	(H) 2001 x (W) 833 x (T) 55mm	FD60S	Yes	Primed
SilentDoor Rw® Essentials 40M/FD60 (Part M)	44 kg/m ²	40dB*	(H) 2001 x (W) 833 x (T) 55mm	FD60S	Yes	Primed
SilentDoor Rw® Essentials 45M/FD60 (Part M)	49 kg/m ²	45dB*	(H) 2001 x (W) 833 x (T) 55mm	FD60S	Yes	Primed

**Assumed performance: Estimated based on construction and comparable tested designs. Not independently tested as a complete doorset assembly.*

SilentDoor Rw® Essentials Series

High Performing Acoustic Doorsets

SilentDoor Rw® Essentials is a pre-hung acoustic doorset designed to deliver reliable sound reduction and fire protection for everyday applications. Engineered to achieve up-to 45dB acoustic performance and FD60S fire resistance as standard, it provides an ideal balance of safety, practicality, and value. Each doorset is factory-assembled for ease of installation and consistent performance, making it a dependable choice for offices, schools, hotels, and residential projects where essential acoustic control and fire compliance are required.

Note: The SilentDoor Rw® Essentials series only comes in a primed finish, unlike the classic range.

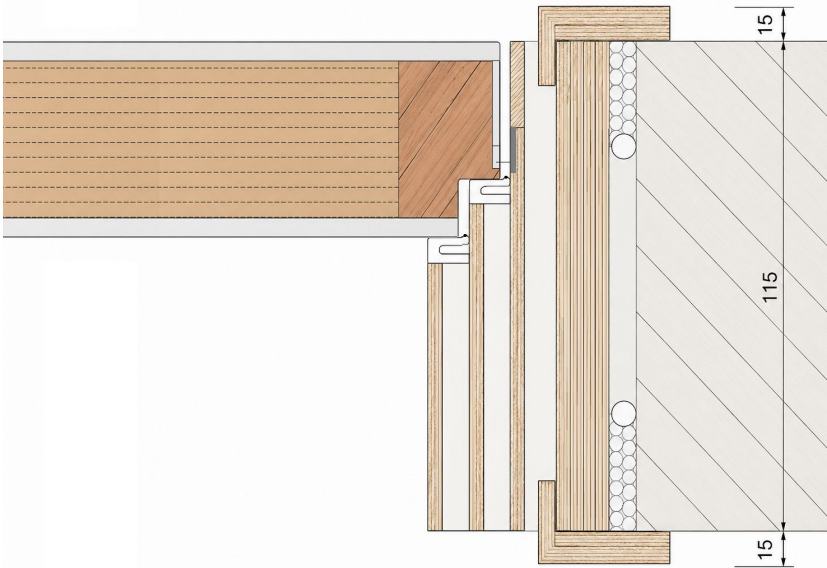
Product Name	Rated
SilentDoor Rw® Essentials 30dB	30dB*
SilentDoor Rw® Essentials 35dB	35dB*
SilentDoor Rw® Essentials 40dB	40dB*
SilentDoor Rw® Essentials 45dB	45dB*

**Assumed performance: Estimated based on construction and comparable tested designs. Not independently tested as a complete doorset assembly.*

Sections (Door, frame and threshold)

- 55mm thick door leaf with solid perimeter frame.
- Double Rebated doors (Three sides).
- Core constructed from timber and acoustic insulation materials.
- Mechanical drop seal.

Across the SilentDoor Rw® Essentials range, the overall doorset specification remains consistent, with standardised construction, finishes, and ironmongery. The only variable between variants is the core construction, which is adjusted to achieve the required acoustic performance. This streamlined approach ensures consistency in appearance and installation, while allowing different dB ratings to be offered in a cost-effective and efficient manner.





High performance, versatile acoustic doorset systems.

Closing.

Frequent Operation Cycle Classification	Rated
C5 (as standard with SilentDoor Rw®)	≥200,000 cycles
C4	≥100,000 cycles
C3	≥50,000 cycles
C2	≥10,000 cycles
C1	≥500 cycles
C0	1 – 499 cycles

The 'C' describes the self-closing property of the component and is derived from 'Closing'. The classes C0 to C5 define the self-closing cycles of the component. Class C5, for example, stands for very frequent operation. Class C3 stands for a moderate number of actuations mainly by persons with a certain motivation to handle with care. Class C2, for example, is widely used for fire doors: a low number of operations by persons with a high motivation for careful handling.

Fire Rating Explained.

The 'E' in this classification is derived from 'Etanchéité' and stands for room closure. This indicates the ability of a building component with a room-separating function to resist fire from an attacking side. The passage of fire to the non-flame side is prevented.

The 'I' (I₁, I₂) is derived from 'Isolation' and describes the ability of the component to limit the transmission of fire and heat to such an extent that there is no danger to persons or ignition of combustible materials on the side facing away from the fire. An average temperature rise of 140°C and a maximum temperature rise of 180°C must not be exceeded. I₁ differs from I₂ in the positioning of the sensors for the surface temperature during tests. For fire doors or gates in Europe, the usual requirement is I₂.

The number '60' represents the classification time of the fire doors and gates. Classification times must be given in minutes for each of the above characteristics, with classification times of (FD) 30, 60, 90 and 120 being the most common in Europe.

Hinges.

SilentDoor Rw® Essentials doorsets are supplied with factory-fitted single-axis hinges selected to suit the doorset weight, fire rating and intended application.

The hinge system is CE marked and tested in accordance with **BS EN 1935:2002 – Building Hardware – Single Axis Hinges – Requirements and Test Methods**, with suitability for use on fire/smoke compartmentation doors fitted with self-closing devices.

As part of the streamlined Essentials specification, hinge type and finish options are standardised to support cost-effective manufacture, reduced lead times and consistent doorset performance.

Finger Safety.

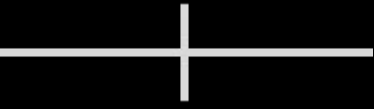
At SilentDoor we recommend the use of **Safehinge**. If you truly want to prevent fingers from being trapped in the gap at the hinge edge of a door then it's wise to eliminate the gap. The Safehinge **Alumax** incorporates a rounded aluminium profile to maintain a gap of just 2mm so that small fingers simply can't get in there. The ALU30 and the ALU60 is suitable for a fire rated door specification.

Threshold.

All of our SilentDoor Rw® timber range acoustic door leafs incorporate an automatic drop seal that will offer maximum performance if an aluminium threshold is fitted during installation. It is important to consider these where there are existing soft floor coverings or an uneven or rough floor surface. At SilentDoor we would recommend **Norseal** aluminium thresholds.

Safety, Aesthetics and Performance.

Version 1.2
Installation



SILENTDOOR 
Open the doors to endless possibilities

Essential Series .

Install Guidelines

TIMBER DOOR



INSTALLATION

SilentDoor Rw[®] Essential Series Installation Guide.

SilentDoor Rw Essentials[™]

Full installation guide...

FD60S

Rw45dB

**Pre-hung
doorset**

Fire & acoustic pre-hung timber doorsets for UK projects. Installer guidance and defect avoidance.



SilentDoor Rw[®] Essential Series Installation Guide.

1. Reception, Inspection and Storage

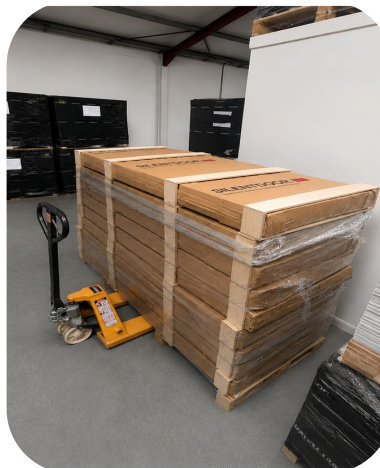
To ensure the doors are in good condition and meet the specified design requirements at the time of installation, it is essential to inspect and handle them correctly upon delivery. Within the first 24 hours of receiving materials on site, the following checks should be carried out:

- **Verify packaging integrity:** Ensure all packages are correctly labelled, intact, and free from damage.
- **Inspect for transport damage:** Check for signs of mishandling such as dents, scratches, or breaks along corners, edges, or faces of the product.
- **Confirm labelling and documentation:** Cross-check delivery notes and labels to confirm that the correct door type, rating, and size have been supplied.
- **Storage conditions:** Store doors flat, off the ground, in a dry, well-ventilated environment. **Protect from direct sunlight**, rain, or extremes of temperature.



Proper inspection and storage will help prevent installation delays and ensure SilentDoor products maintain their performance characteristics.

1.1. Typical SilentDoor Packing



All **SilentDoor Rw[®] Essentials** doorsets are securely packaged to provide protection during handling, storage and transportation. Door leaves and frame components are supplied within reinforced protective packaging, with timber protection rails fitted to reduce the risk of damage to exposed edges and corners.

Each doorset package should be carefully opened and fully checked before disposal of any packaging materials. Please ensure all supplied components, including ironmongery, seals, fixing packs and associated accessories, have been removed and accounted for before installation begins.

For multiple doorset deliveries, components may be supplied separately boxed or grouped together for safe transportation. Always check all pallets, cartons and protective packaging thoroughly on receipt to ensure no items are misplaced. Replacement components required due to discarded packaging may be chargeable.

SilentDoor Rw[®] Essential Series Installation Guide.

Scope and evidence control

Use this guide for

- SilentDoor Rw Essentials™ single leaf prehung doorsets supplied as a complete assembly.
- FD60S fire and smoke applications where the doorset is installed to the project fire strategy.
- Rw45dB acoustic applications where airtight perimeter and threshold detailing are required.
- New installations into prepared fire-rated partitions or masonry openings.

Do not use this guide for

- Substituting hardware, seals, frame sections or fixings without written approval.
- Site-modifying the leaf, frame or ironmongery preparation unless specifically permitted.
- Upgrading existing uncertified frames unless supported by specific evidence.
- Installations outside the tested / assessed size, configuration or wall type.

Golden rule

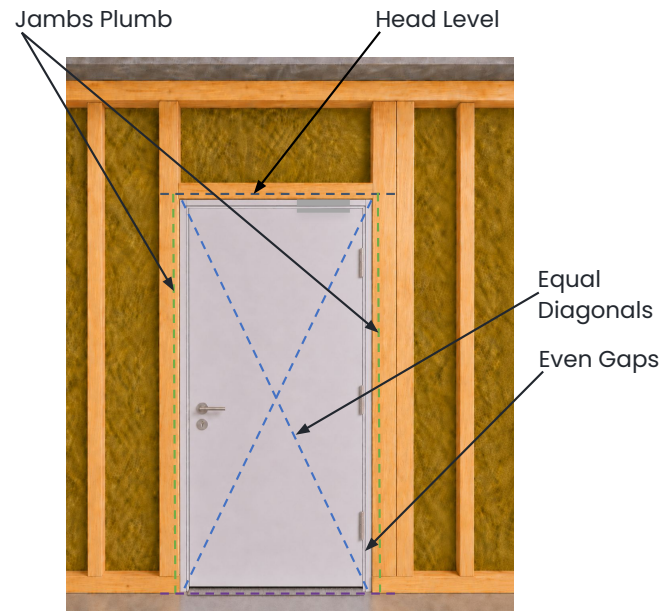
The fire and acoustic rating applies to the complete installed doorset, not to the leaf alone.

SilentDoor Rw[®] Essential Series Installation Guide.

UK Standards and project basis.

Confirm the latest project-specific evidence before starting work.

Fire Resistance	FD60S, based on doorset test or assessment evidence to the applicable UK/EN fire test route.
Smoke control	S-rated configuration using specified smoke seals, threshold detail and self-closing action.
Acoustics	Rw45dB acoustic performance is desktop calculated and reliant on correct installation, airtight seals and a compatible wall construction.
Installation	Current BS 8214 guidance, manufacturer's instructions and the project fire strategy take precedence.
Components	Hinges, latch/lock, closer, seals, glazing/vision panels and fixings must match the approved schedule.



Evidence hierarchy

1. SilentDoor project schedule
2. Fire certificate/assessment
3. Acoustic test evidence
4. Current BS guidance

SilentDoor Rw[®] Essential Series Installation Guide.

Doorset components supplied.



Pre-hung frame

Factory-prepared frame, stops and seal grooves.

FD60S leaf

Door leaf supplied to suit handed opening and hardware schedule.

Ironmongery

Hinges, latch/lock and closer as scheduled and rated.

Seals

Intumescent, smoke/acoustic perimeter seals and threshold/drop seal.

Fixing pack

Correct frame, hinge and closer fixings supplied with the set.

Architrave

Factory-prepared architrave supplied with this set.

Do not mix components

A lower-cost range still needs controlled parts to maintain FD60S and Rw45dB performance.

SilentDoor Rw[®] Essential Series Installation Guide.

Before the doorset arrives on site.

STAGE 1

Before the doorset arrives on site.



FD60S fire performance and Rw45dB acoustic performance are dependent on the complete installed doorset assembly, including the frame, seals, threshold detail, ironmongery, supporting wall construction and correct installation.

SilentDoor Rw[®] Essential Series Installation Guide.

Storage, handling and site protection.

To ensure SilentDoor products remain in optimal condition during site works and while multiple trades are active, appropriate handling and storage precautions must be observed.

A. Storage Instructions:

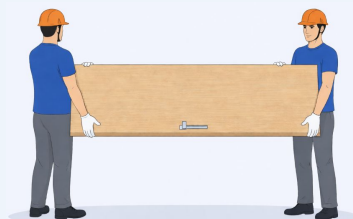
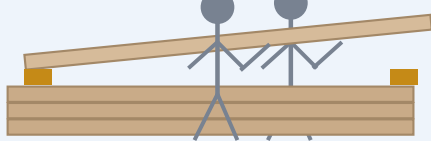
- Keep all packages **sealed and unopened** until required for installation.
- Protect the doors from climatic factors that may damage the timber, including:
 - Air currents
 - Direct sunlight
 - Water or high moisture exposure
- Store packages with a **minimum clearance of 0.5 m** from walls to allow ventilation.
- Stack packages **flat and level**, supported by at least four evenly spaced bearers (e.g., timber strips or pallets) to ensure uniform support and avoid warping.
- Maintain relative humidity in the storage area between **30% and 65%**.



B. Protect People – Lifting Sequence:

- Assess the leaf weight, size, route and final landing point before touching the stack.
- Use a trolley, door lifter, vacuum / suction aid or other mechanical assistance where available.
- If manual handling is still required, use a suitable team lift with one person leading the commands.
- Stand close to the leaf, feet apart, one foot slightly forward, and keep the load close to the body.
- Raise the top leaf cleanly, **man either side** – do not twist, snatch or drag it sideways across the leaf below.
- Move in unison, rotate by moving the feet, and place the leaf immediately onto padded bearers or a trolley.

Recommended movement



Top leaf lifted clear WITHOUT sliding across the leaf below.

C. Protect the Door Leaf and the Leaf Below:

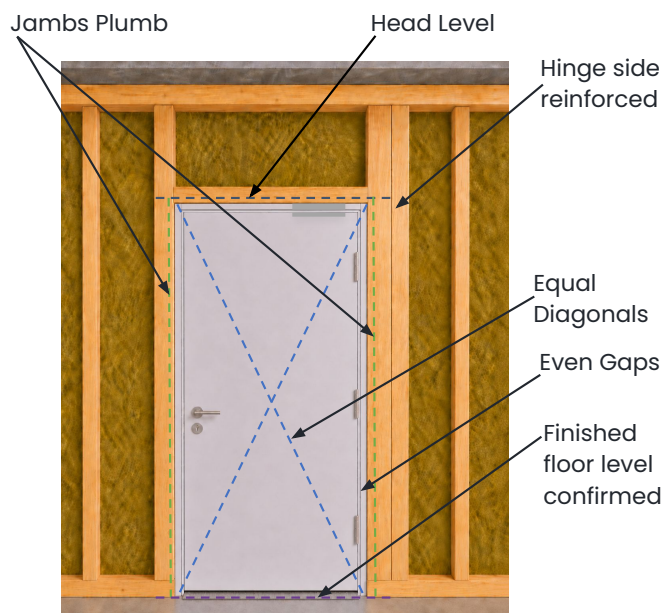
- **DO...Lift the top leaf cleanly**, keep edges clear, use gloves with good grip, and land onto padded bearers / an A-frame / trolley.
- **DO NOT...**drag the top leaf across the stack, lever on corners, drop onto hard surfaces, or rest unprotected edges against masonry.

By following these guidelines, the doors will remain stable, undamaged, and ready for installation when required.

SilentDoor Rw[®] Essential Series Installation Guide.

Opening survey prior to installation.

Opening size	Check structural opening width and height against the SilentDoor schedule and frame allowance.
Wall type	Confirm the wall or partition is the same type as the approved fire/acoustic detail.
Jamb support	Stud partitions must have adequate framing, noggins and fixing support at both jambs and the head.
Substrate	Masonry, steel or timber support must be sound, dry, plumb and capable of taking fixings.
Services	No unsealed service penetrations or unsupported linings around the opening.
Access	Clear working area both sides of the opening for frame fixing, packing and sealant work.



Before installation, confirm that the structural opening is correctly sized, level, plumb and square. The head, jambs and hinge side must be adequately supported, with a complete and stable wall construction capable of accepting the frame fixings. Any defects should be corrected before the doorset is installed.

Installer Note(s)



The opening must be structurally sound and suitable for the specified fire and acoustic doorset prior to installation.



Do not force the doorset into a defective opening, correct the opening first

SilentDoor Rw[®] Essential Series Installation Guide.

Wall and substrate requirements.

Stud partitions

- Jamb studs must be adequate, stable and securely tied into the partition structure.
- Provide timber or metal fixing grounds where the doorset evidence requires them.
- Do not rely on plasterboard edges alone to carry the doorset load.
- Maintain the fire-rated wall build-up around the full opening.

Masonry or concrete

- Check that reveals are flat, plumb and free from loose material.
- Use the specified anchors and embedment depth for the substrate.
- Avoid fractured brick edges or weak mortar joints at fixing points.
- Make good any voids so firestopping can be installed continuously.

Acoustic point

Rw45dB performance can be lost through flanking paths around the frame. Treat the wall-to-frame junction as an airtight detail.

SilentDoor Rw[®] Essential Series Installation Guide.

Floor, threshold and swing zone.



- Finished floor level must be confirmed before installation starts.
- The swing zone must be flat enough for the leaf and seals to operate without binding.
- Any rise, hollow or ramp must be corrected before the door is commissioned.
- Threshold plates, drop seals and floor finishes must match the fire/acoustic schedule.
- **Do not** trim the bottom of the leaf to mask an uneven floor unless the evidence specifically allows it.

FD60S smoke-control check

Threshold gaps and seals must be as tested/assessed. Where a drop seal is used, adjust it to make continuous contact without preventing closure.

SilentDoor Rw[®] Essential Series Installation Guide.

Unpack and verify doorset.

Check the set

- Door tag, label or project reference matches the schedule.
- Handing, swing, lock side and closer position are correct.
- Leaf, frame, seals and hardware are undamaged.
- All intumescent and acoustic seals are present and continuous.
- Fixing pack is present and unopened.

Hold the installation if

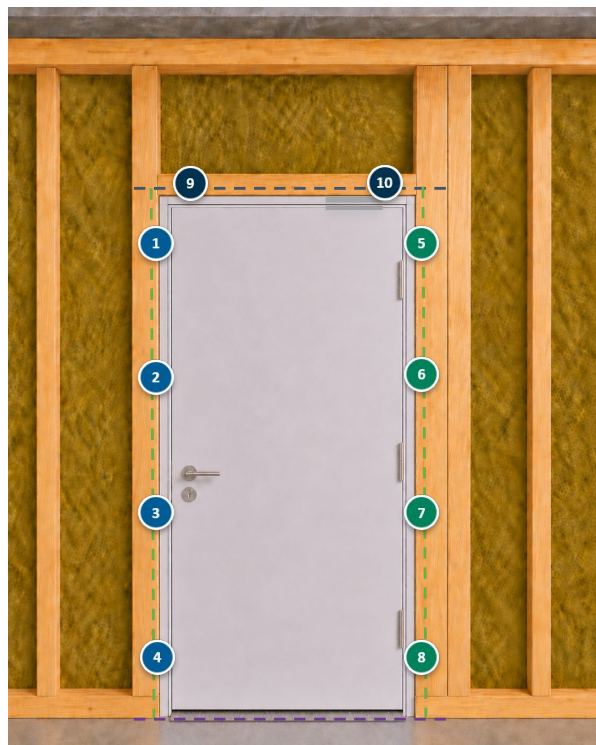
- The label or project reference does not match the schedule.
- The frame is twisted, dented or out of square on delivery.
- The leaf has been cut, drilled or damaged on site.
- The supplied fixings, seals or hardware are missing.
- There is uncertainty over wall type or fire strategy.

SilentDoor Rw[®] Essential Series Installation Guide.

Fixings and package screws.

!! Use only the supplied SilentDoor fixing pack or a written, approved equivalent !!

- **Factory-fitted transit or package screws in hinges and closers are for transport only.**
- Remove transit screws before final installation and replace them with the correct supplied fixings.
- Do not use plasterboard screws, undersized wood screws, mixed screw types or non-rated substitute anchors.
- Pilot drill where required to avoid splitting and to maintain the correct fixing line.
- Every hinge, closer bracket, strike and frame fixing point must be tight and seated correctly



Supplied fixing pack only

Standard Fixing Pack Contents

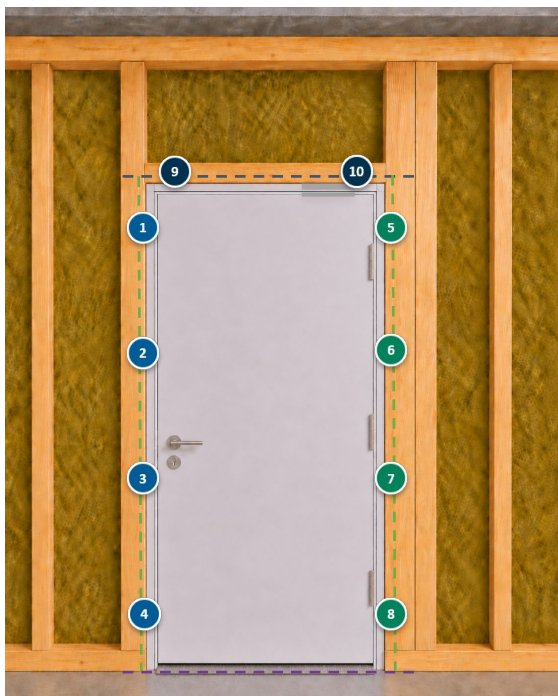
Item	Screw size / type	Qty
Hinge screws to door leaf	4.5mm x 50mm CSK steel screws	12 + 2 spare
Hinge screws to frame	4.5mm x 40mm CSK steel screws To Check	12 + 2 spare
Integral closer screws	4.5mm x 50mm CSK steel screws To check	1 full closer fixing set + spares if supplied
Frame fixings to timber/CLS	6.0mm x 100mm frame screws	10 + 2 spare
Latch keep / strike plate screws	4.0mm or 4.5mm CSK steel screws To check	2 + 1 spare
Solid packers / shims	1 & 2mm thickness	30-40 pieces
Threshold plate screws	CSK steel screws (if supplying threshold plate?)	4 + 2 spare

Note: Quantities are based on a standard single doorset with 3 hinges.

Failure risk: Incorrect screws can compromise the closer, hinge load capacity, fire evidence and acoustic alignment.

SilentDoor Rw[®] Essential Series Installation Guide.

Alternate Frame Fixings.



Important: The timber/CLS frame fixing pack is supplied as standard unless otherwise specified. Alternative fixing packs for masonry, concrete, reinforced steel stud or lightweight block must be selected to suit the supporting wall construction. All frame fixings must pass through solid packers and into a suitable structural opening. Do not rely on foam, sealant or architrave to restrain the frame.

Substrate-Specific Frame Fixing Options

Wall / opening type	Frame fixing type	Typical size	Qty per doorset	Notes
Timber / CLS structural opening	Frame screws	6.0mm x 100mm	10 + 2 spare	Standard supplied fixing pack. Fix through solid packers into structural timber.
Masonry / brickwork	Masonry frame screws / concrete screws	7.5mm x 100/120mm	10 + 2 spare	Optional masonry fixing pack. Drill size and embedment to fixing manufacturer's instructions.
Concrete	Concrete screws or approved frame anchors	7.5mm x 100/120mm or M6/M8 anchor	10 + 2 spare	Optional concrete fixing pack. Anchor type to suit concrete strength and edge distances.
Reinforced steel stud	Self-drilling steel frame screws	5.5mm or 6.3mm x 70/90mm	10 + 2 spare	Only suitable where steel stud is reinforced or includes suitable backing. Do not fix heavy fire/acoustic doorsets into unsupported lightweight stud.
Lightweight / aerated block	Specialist lightweight block fixing or resin anchor	Project specific	Project specific	Not included as standard. Must be selected to suit block strength and manufacturer's evidence.

Note: Quantities are based on a standard single doorset with 3 hinges.

Failure risk: Incorrect screws can compromise the closer, hinge load capacity, fire evidence and acoustic alignment.

SilentDoor Rw[®] Essential Series Installation Guide.

Guidance based on BS 8214:2016, Approved Document B and doorset manufacturer's test evidence.

Typical Fixing Layout

- 1 – 4 Lock side fixings
Top, intermediate and bottom fixings.
- 5 – 8 Hinge side fixings
Top, intermediate and bottom fixings.
- 9 – 10 Head side fixings
One fixing near each end.

Quantity

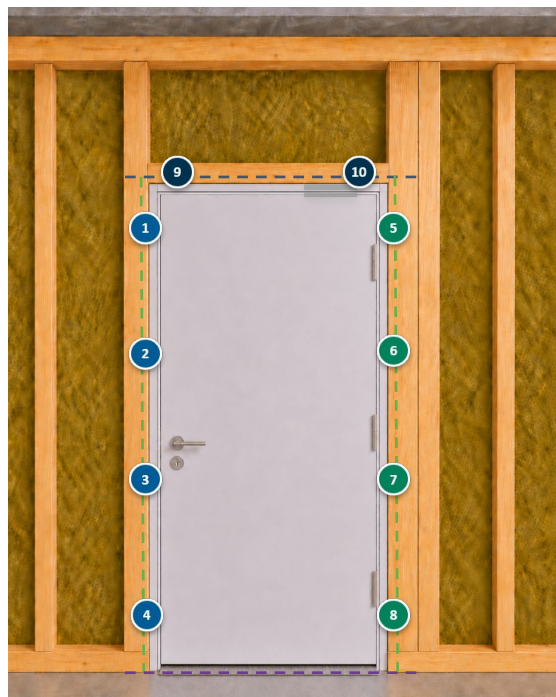
- 4 fixings to lock jamb.
- 4 fixings to hinge jamb.
- 2 fixings to head.

Screw Guidance

- Fix to structural timber.
- Minimum 4.5 dia' screws.
- Minimum 50mm screw length.
- Do not distort the frame.
- Frame to be plumb, level and square.

Installation Notes

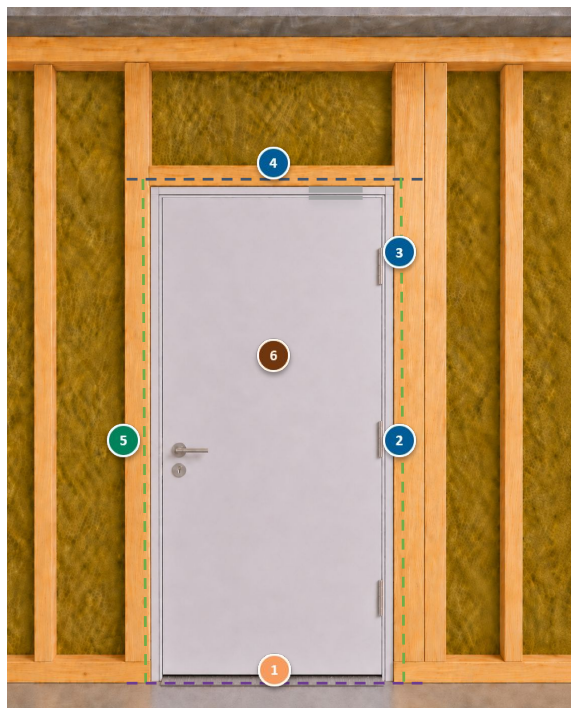
- Confirm final fixing positions against the doorset fire/acoustic evidence
- Perimeter voids to be packed with suitable mineral fibre
- Fire/acoustic sealant to be applied to both faces where required
- Do not rely on expanding foam as the primary fire/acoustic seal
- Threshold and drop seal to be checked after final fixing



Supplied fixing pack only

SilentDoor Rw[®] Essential Series Installation Guide.

Recommended frame fixing sequence.



Supplied fixing pack only

Sequence

1. Position the pre-hung doorset on the correct finished floor/threshold level.
2. Pack behind each hinge-side fixing point and apply a temporary central hinge-side fixing. Do not fully tighten.
3. Check the hinge jamb is plumb, then fix the hinge jamb top and bottom progressively.
4. Check the head is level and confirm equal diagonals before fixing the head.
5. Pack and fix the lock jamb progressively from top to bottom, checking gaps and latch alignment.
6. Gradually tighten all fixings and complete final checks before perimeter sealing.

Final Alignment Checks

Final checks before sealing:

- Jambs plumb and parallel
- Head level
- Equal diagonals
- Door gaps even
- Latch engages correctly
- Seals compress evenly
- Drop seal engages with threshold plate

Important: fixings must pass through solid packing into the structural opening. Do not rely on foam or sealant to restrain the frame.

SilentDoor Rw[®] Essential Series Installation Guide.

Install the pre-hung frame.

STAGE 2

Install the pre-hung frame.



Set the pre-hung frame into the prepared opening, pack behind each fixing point and fix progressively without pulling the frame out of line. Check that the head is level, the jambs are plumb, the diagonals are equal and the frame is not twisted before final tightening. Once aligned and secure, seal the perimeter gap in accordance with the specified fire and acoustic detail.

SilentDoor Rw[®] Essential Series Installation Guide.

Plumb, level, square and in wind.

Head level

Check that the frame head is horizontal before final fixing.

1

Jambs plumb

Use a long level to confirm both jambs are upright and vertically true.

2

Equal diagonals

Measure corner to corner to confirm the frame is square. Both diagonal measurements should be equal.

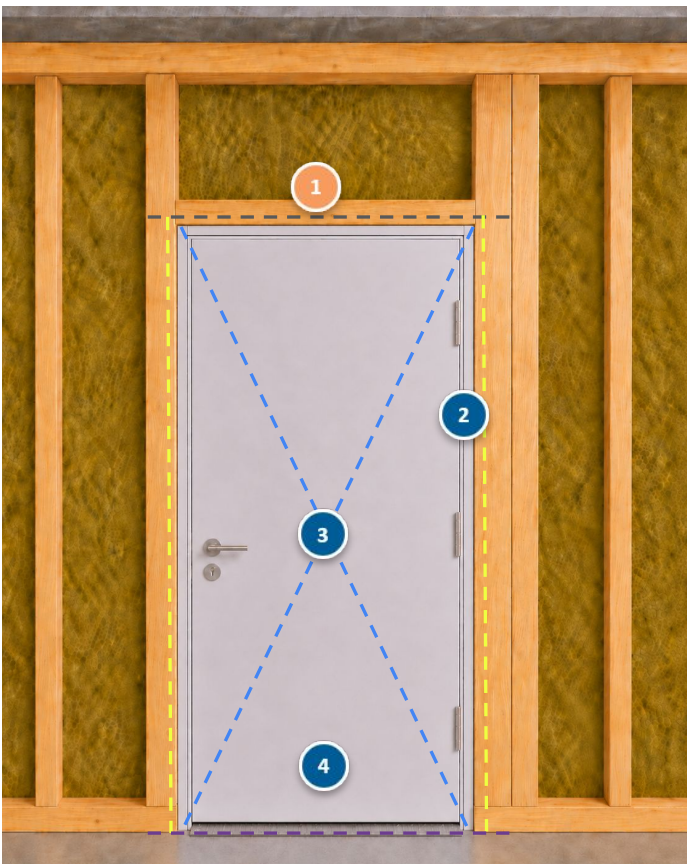
3

Not twisted / In wind

Sight through the frame to confirm both jambs sit in the same flat plane, with no front-to-back twist.

4

Alignment target



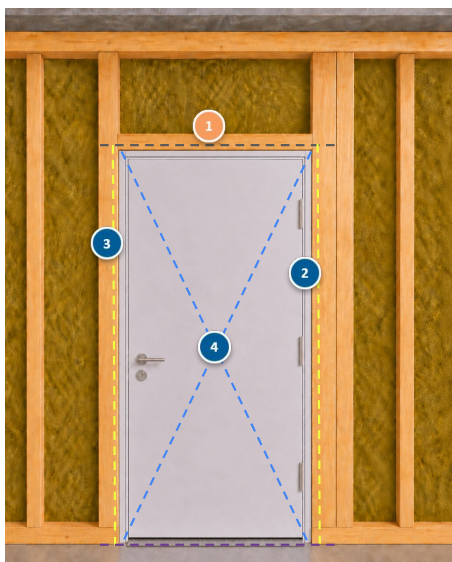
Tolerance target

Aim for 3mm uniform head and jamb gaps, with the frame plumb, level, square and not twisted within 1-2mm. Final tolerances must always follow the doorset manufacturer's fire/acoustic evidence. For fire doors, UK government fire door guidance states the gap around the top and sides should not exceed 4mm, except at the bottom where it should be as small as practicable.

- **Tolerance target: within 1-2mm** for head level and jamb plumb.
- **Tolerance target: diagonals equal within 2mm** for square.
- **Tolerance target: no visible twist, within 2mm front-to-back** for in wind.

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Setting the frame into the opening.



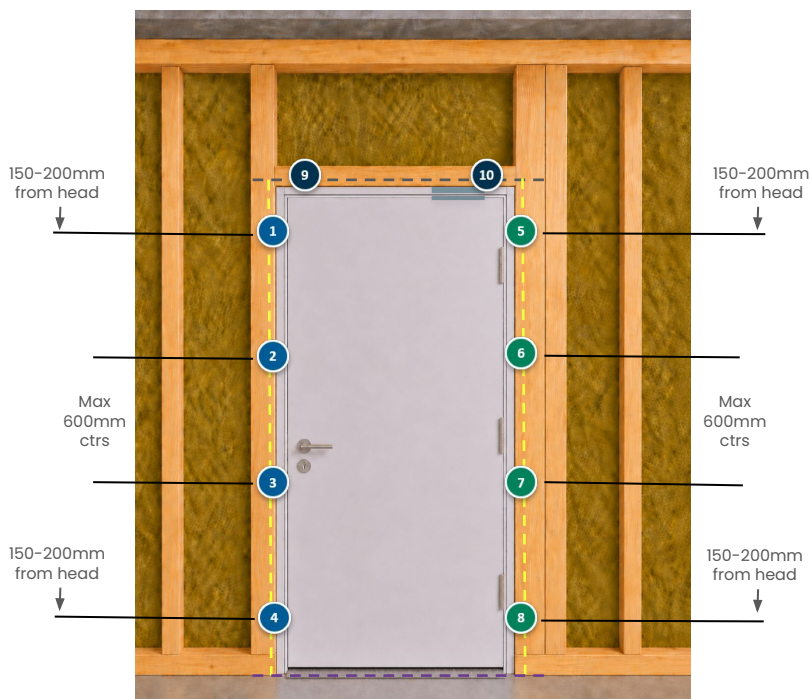
Set-out sequence

1. Head level.
2. Hinge jamb plumb.
3. Lock jamb parallel.
4. Diagonals checked.
5. Fix progressively.

Installer actions

- Offer the pre-hung frame into the opening, do not force it.
- Set to the confirmed finished floor / threshold level.
- Use non-compressible packers at each fixing point.
- Maintain the designed perimeter void for fire-stopping and acoustic sealing.
- Check the leaf swing before final tightening.

Typical fix point Layout



Site rule

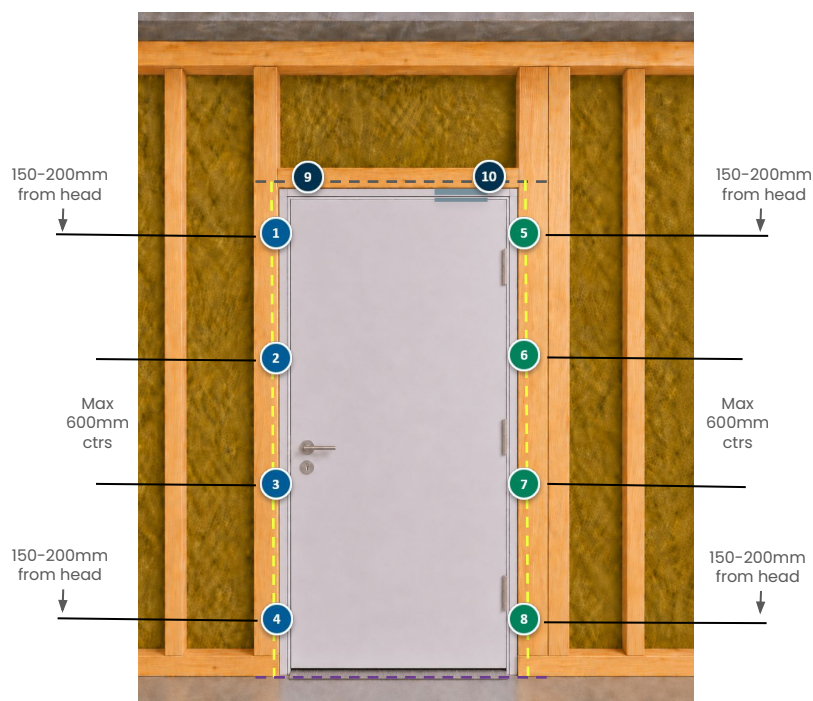
If the frame needs force to fit, correct the opening before installation. Do not plane, twist or pull the frame to compensate.

Fixings must pass through solid packers into a suitable structural opening.

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Fixing points and solid packers.

Typical fix point Layout



10 frame fixings + 2 spare

Fixing sequence

1. Hinge jamb 5-8

Pack tight behind each fixing. Set top and bottom first, then centre points.

2. Head 9-10

Fix after confirming head level and equal diagonals.

3. Lock jamb 1-4

Pack and fix parallel to the hinge jamb. Check latch alignment as you go.

4. Final tighten

Tighten gradually, do not pull the frame out of line.

Defect avoidance

Packers must be fitted directly behind each frame fixing point and must remain in place after fixing. **Do not rely on foam alone to restrain the frame.** Screws should be tightened firmly but not overtightened. Excessive tightening can pull the frame out of line, distort the doorset and cause poor alignment, uneven gaps, latch issues or reduced seal contact.

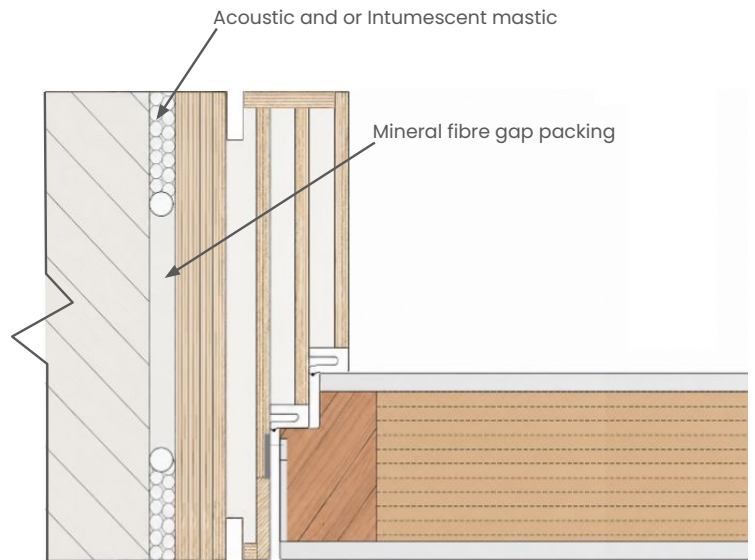
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Frame-to-wall and acoustic sealing.

Seal the perimeter

- Clean the void before installing backing material and sealant.
- Fill the approved gap continuously, with no open corners.
- Use the specified mineral fibre, fire foam, mastic or tested system.
- Seal both faces where required by the project detail.
- Do not rely on architraves for fire-stopping or acoustic sealing

Typical section



Acoustic warning

Even small air paths around the frame can noticeably reduce acoustic performance. For Rw45dB doorsets, the frame-to-wall junction must be treated as an airtight detail, with the perimeter gap fully packed and sealed in accordance with the specified installation method.

Perimeter voids must be packed and sealed before they are covered.

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Packers and frame restraint.

Correct packer use

- Use non-compressible packers at every fixing point.
- Support hinge, closer and latch loads.
- Keep packers clear of seal grooves and ironmongery.
- Fire-stop around packers so the perimeter void remains continuous.

Common faults

- No packer behind hinge or closer loads.
- Over-tightened fixings pulling the frame out of line.
- Loose packers dropping out after fixing.
- Base of frame left unsupported.
- Unsealed packer voids hidden behind architraves.

Sign-off point

The frame must be restrained by fixings into structure, not by foam, sealant or architraves.

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Leaf, hardware and seals.

STAGE 3

Leaf, hardware and seals



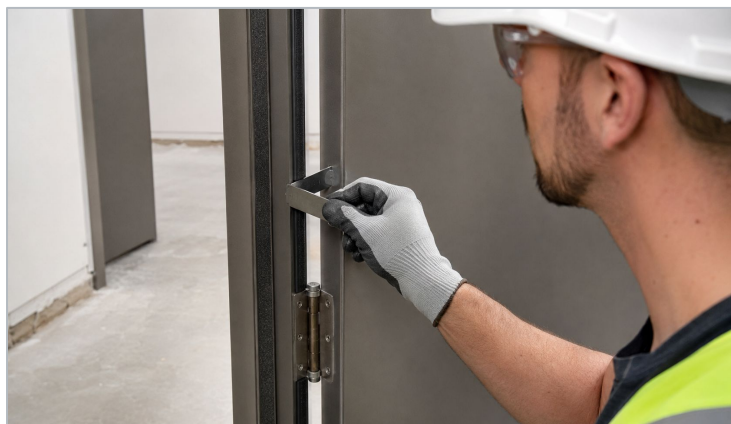
Once the doorset is fully fixed and sealed, check that all moving parts operate smoothly and without obstruction. Open and close the door several times to confirm that the leaf swings freely, the hinges are secure, the latch engages correctly and the handle returns properly.

Check that the acoustic, smoke and intumescent seals are correctly seated and make consistent contact where required. Adjust the drop seal so that it engages evenly with the threshold plate when the door closes, without excessive compression or drag.

Confirm that the integral closer returns the door from the open position to the fully closed and latched position. The door must close smoothly, without slamming, binding or stopping short. Any adjustments should be made before the installation is signed off.

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Leaf operation and hinge checks.



Check before sign-off

- Leaf swings freely without rubbing the frame, floor, seals or wall.
- Hinges are tight, aligned and fixed with the specified screws.
- Hinge knuckles are clean and not forced out of line.
- No cardboard, timber slivers or unapproved packing behind hinge leaves.
- If gaps move while tightening, release and correct the frame.

Pre-hung principle

The doorset is supplied as a matched pre-hung assembly, with the door leaf, frame, seals, hinges, closer and specified ironmongery designed to work together as a complete system.

Do not trim, re-machine, drill additional fixing holes or substitute hardware on site unless confirmed in writing by SilentDoor. Any unauthorised alteration may affect the relationship between the leaf, frame, seals and hardware, and could invalidate any supporting fire and acoustic evidence.

The doorset must be installed as supplied and in accordance with the approved installation instructions.

Swing free

Hinges seated

Correct screws

No binding

No site trimming

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Intumescent, smoke and acoustic seals.

Area	Requirement
Head and jambs	Seals must be continuous, undamaged and fully seated in the correct groove.
Corners	No cuts, gaps, crushed sections or missing seal returns. Corners must remain continuous.
Threshold / drop seal	Adjust the drop seal to contact the threshold evenly, without lifting the leaf or preventing latch engagement.
Ironmongery cut-outs	Fit the required intumescent kits or pads behind hinges, lockcases, keeps and closers.
Decoration	Do not paint over smoke/acoustic fins, compression seals or moving drop seal components.

Seal continuity

Fire, smoke and acoustic performance all rely on uninterrupted seal contact around the doorset.

Record

Photograph any damaged, missing or altered seals before handover.

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Closer, latch and strike commissioning.

Closer setup

- Fit the closer, arm and any required intumescent packers exactly as specified in the doorset and closer manufacturer's instructions.
- Do not omit, alter or substitute closer fixings, packers or protection materials.
- Adjust the closing speed, latching speed and backcheck after the doorset has been installed and final floor finishes are complete.
- The door must self-close fully and latch correctly from 5°, 30°, 90° and full opening travel.
- Check that the leaf does not bind on the frame, floor, seals or threshold plate during operation.
- Avoid excessive slam or closing force that could damage the frame, latch keep, seals, hinges or closer.

Latch and strike

- Check that the latch bolt engages positively into the keep without needing to lift, pull or push the door leaf by hand.
- The latch keep / strike plate must sit flush within the frame recess and be fixed using the specified screws.
- Do not file, enlarge or alter the keep to compensate for a misaligned frame or incorrect latch position.
- When latched, the acoustic and smoke seals should be compressed evenly, but not crushed or over-compressed.
- If the latch does not engage correctly, check frame alignment, door gaps and seal compression before making any adjustment.

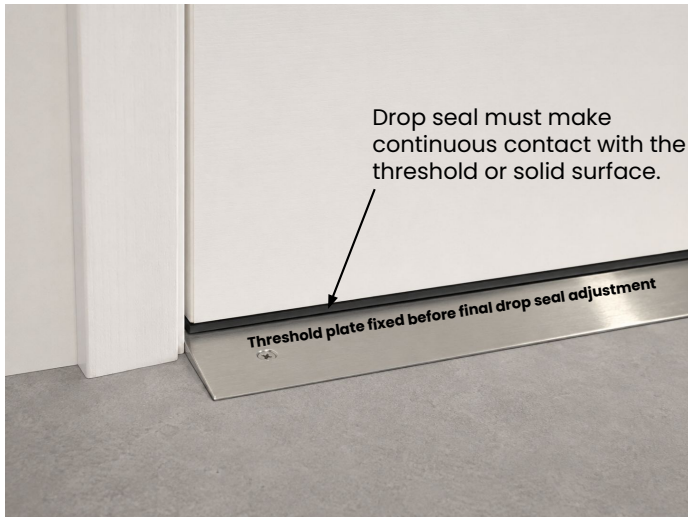
Pass test

- The door must self-close fully and latch from the required opening positions.
- The latch bolt must engage positively without lifting, pulling or pushing the leaf by hand.
- The designed head and jamb gaps must remain even after latching.
- Acoustic and smoke seals must make consistent contact, without being crushed or preventing the door from closing.
- The pass condition is achieved when the door closes, latches and maintains the designed gaps and seal contact.

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Threshold and drop seal adjustment.

Threshold and drop seal set-up



Adjustment sequence

1. Set the threshold plate before final drop seal adjustment.
2. Adjust the drop seal to make full-length contact when closed.
3. Avoid over-compression, it can stop the door latching.
4. Re-check after carpets, mats and transition strips are installed.
5. Record threshold gap and drop seal operation.

Rw45dB detail

The threshold is one of the most sensitive acoustic leakage points. Leave no open line of sight under the door.

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Final checks and handover.

STAGE 4

Final checks and handover



Before handover, complete a final inspection of the installed doorset and record the results. Check that the door operates correctly, self-closes and latches reliably, and maintains the specified gaps and seal contact. Photograph the completed installation, including the frame, threshold, seals, hinges, closer and any areas of concern. Issue the completed handover record to confirm that the doorset has been installed, tested and commissioned in accordance with the project requirements.

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Final gap measurement.

Check point	Requirement	Tick
Head gap	Measure in at least two positions. Target 2-4mm unless evidence states otherwise.	☐
Hinge jamb	Measure top, middle and bottom. Gap must remain even.	☐
Lock jamb	Measure top, middle and bottom. Leaf must not bind on latch side.	☐
Threshold	Measure at latch, centre and hinge side to suit the smoke/acoustic detail.	☐
Seal contact	Confirm full perimeter and threshold seal contact when latched.	☐
Door stop	Leaf closes against stops without bounce or obstruction.	☐

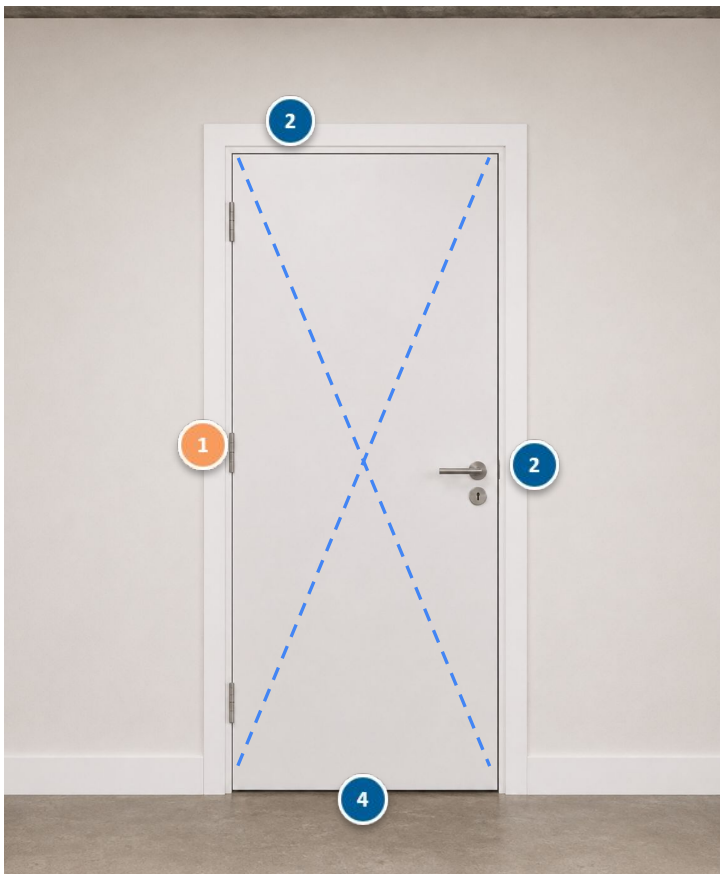
Record it (if applicable)

Photograph measured gaps and threshold seal contact for the O&M file before cover-up.

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Final operational test.

Final alignment checks



Pass criterion

The door self-closes and latches while maintaining the required gaps and seal contact.

Swing

Leaf opens freely to the required angle without binding.

1

Close

Closer shuts the door from multiple positions.

2

Latch

Latch engages positively without assistance.

3

Seal

Perimeter and threshold seals make full contact.

4

Inspect

No visible damage, missing fixings or unsealed voids.

5

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Defect avoidance.

Do not do this...

Wedge or prop open

Damages hinges/closer and leaves fire compartment unprotected.

Trim or plane leaf

May remove fire lippings, seals or acoustic mass. Seek written approval first.

Substitute hardware

Unapproved hinges, closers, latches or seals can invalidate evidence.

Leave perimeter voids

Open voids create fire and sound leakage paths around the frame.

Over-tighten fixings

Can twist the frame and cause latch, gap and seal failure.

Paint over seals

Can stop smoke/acoustic fins and drop seals working correctly.

Site rule

Protect the doorset as a life-safety product, not as a normal internal door.

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Troubleshooting guide.

Symptom	Likely cause and action
Leaf rubs frame	Likely frame twist, over-tightened fixing, high floor spot or hinge misalignment. Re-check plumb, level and in wind.
Will not latch	Likely strike misalignment, closer setting or seal over-compression. Adjust frame, strike and closer.
Gap too large	Likely out-of-square opening, loose fixing or leaf sag. Re-set the frame, do not mask it with wider seals.
Drop seal drags	Likely uneven threshold, over-adjusted seal or changed floor finish. Re-level threshold or reset seal.
Poor acoustic result	Likely open perimeter void, threshold leakage, unsealed services or flanking path. Inspect and seal all junctions.

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Handover pack.

Issue to client / main contractor

- Door schedule and SilentDoor reference for each opening.
- Fire evidence and assessment details supplied for the project.
- Acoustic evidence for the relevant configuration.
- Ironmongery data sheets and closer instructions.
- Final gap, closer, latch and seal sign-off sheet.
- Photographs before cover-up.

Maintenance advise

- Inspect fire doors regularly in accordance with the building fire risk assessment.
- Keep seals clean, intact and free from paint or debris.
- Do not alter hardware, cut the leaf or add accessories without approval.
- Check closer action after floor finish changes.
- Report damage immediately at hinges, threshold and frame joints.

O&M file (if applicable)

Keep project evidence, photos and sign-off records together for future inspection.

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Installation sign-off checklist.

Evidence	Door reference, fire rating and acoustic rating checked against schedule.	☐
Opening	Wall type, reveal, floor and structure confirmed suitable.	☐
Frame	Plumb, level, square, in wind and fixed with approved fixings.	☐
Perimeter	Frame-to-wall void filled and sealed continuously to approved detail.	☐
Hardware	Hinges, latch, closer, strike and accessories fixed with approved fixings.	☐
Seals	Intumescent, smoke/acoustic and threshold/drop seals fitted and undamaged.	☐
Gaps	Head, jamb and threshold gaps measured and recorded.	☐
Operation	Door self-closes, latches and seals from multiple positions.	☐
Handover	Photos, evidence and maintenance guidance issued.	☐

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Maintenance, records and controlled changes.

STAGE 5

Maintenance, records and controlled changes.



If applicable, Keep the evidence trail complete after installation by recording the final condition of the doorset before handover. Photograph the installed leaf, frame, seals, hinges, closer, latch/keep, threshold, drop seal and any fire/acoustic sealing details.

Retain the completed checklist, fixing record, photographs and any relevant product documentation with the project handover file. This provides a clear record that the doorset was installed, tested and commissioned in accordance with the SilentDoor installation instructions and project requirements.

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Maintenance and inspection.

Routine checks

- Inspect in line with the building fire risk assessment.
- Check closer action, latch engagement and seal condition.
- Confirm threshold/drop seal still makes full contact.
- Repair damaged architraves, seals or frame finishes promptly.
- Record defects and remedial action.

Project performance

- Do not paint over seals.
- Do not wedge the door open.
- Do not drill, cut or add accessories without approval.
- Keep firestopping and acoustic seals protected during later works.

Inspection focus

Hinges, closer, latch, seals, gaps and threshold condition are the key recurring checks.

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First-month re-check.

Why re-check

- New floor finishes, decoration, building movement and closer bedding-in can alter gaps or seal contact.
- Early correction prevents minor movement becoming a performance defect.

Check again

- Open, close and latch from 5°, 30°, 90° and full travel.
- Check seal contact around the perimeter.
- Re-check threshold/drop seal contact.
- Photograph and record any adjustments and retained settings

Good practice

Schedule a first-month review where high-use doors or new floor finishes may affect operation.

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Replacement parts and approvals.

Controlled parts

- Hinges, closers, latch/lock, strike, seals, drop seal, threshold and fixings must match the approved schedule or written SilentDoor approval.

Do not substitute

- No different hinge type or grade.
- No unapproved closer or latch set.
- No wider seals used to hide poor gaps.
- No alternative threshold or drop seal type.
- No mixed or undersized fixing pack.

Unapproved changes can affect fire, smoke and acoustic evidence.

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Photo record for O&M file (if applicable).

Opening

Structural opening before the frame is installed. ☐

Packers

Frame fixing and packed locations before cover-up. ☐

Perimeter

Frame-to-wall backing and sealant before architraves. ☐

Threshold

Threshold plate and drop seal contact. ☐

Hardware

Hinges, closer, strike and screws before fitting covers. ☐

Final gaps

Head, jamb and threshold gap measurements. ☐

Why photographs matter

Photos document concealed details and protect the installation record before architraves, trims and decoration cover up the work.

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Completion declaration (if applicable).

Installer	Name, company, date and signature recorded.	☐
Door reference	Door tag / opening reference matched to the schedule.	☐
Evidence	Project-specific fire and acoustic requirements checked.	☐
Work complete	Fixing, sealing, hardware, gaps and operation completed.	☐
Exceptions	Any defects, omissions or outstanding works recorded.	☐
Client handover	O&M photos, sign-off sheet and maintenance advice issued.	☐
Final status	Door accepted, door under review, or remedial works required.	☐
Record kept	Signed copy retained by installer and issued to client.	☐