Rigid core with i4F drop-lock technologies

Installation Guidelines

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General information

The product is suitable for common indoor use under constantly controlled climate in usual residential or commercial conditions. It is not designed for installation in unheated rooms with severe rapid changes of climate.

It is essential that this rigid core product is installed in accordance with these instructions as well as the applicable national standards and building codes for the installation of resilient flooring at the time of installation, to ensure a quality fit. Prior to installation, please check that this product is suited to the end use application. If in doubt, please contact your supplier. Any future changes to this guidance supersedes information presented, please check for updates to ensure you have the latest information.

This product is a floating floor with excellent acoustic, thermal and waterproof properties made rigid to assist installation over uneven subfloor surfaces. It will not absorb, swell or be damaged by water from above. Nevertheless, subfloor humidity has to be checked before any installation (see below "Moisture in Subfloors"). When installed properly and under normal use topical spills cleaned up promptly will not harm the performance of the floor. This product is not suitable for installation outdoors nor in rooms that will be continually wet. It is suitable for use in traditional residential bathrooms, kitchens, laundry/utility rooms.

Install permanent fixtures (e.g. fitted kitchen cabinets or similar) prior to installation of this product, leaving a space for expansion and contraction; see below.

Please refer to section **Installation procedure** as to when sealant is permitted in expansion gaps.

A separate underlay is not recommended; additional weak underlay may even negatively affect product performance.

National standards and building codes

United Kingdom: BS 8203

Pre-installation

It is the responsibility of the installer to visually inspect all materials frequently in optimal lighting to confirm it is the correct design, colour, batch, quality, free from defects and quantity as ordered. Colour and gloss matching can only be guaranteed within the same batch. If the material or batching is incorrect or where defects are apparent, the store of purchase must be contacted before the material is installed. Complaints and claims regarding clearly identifiable defects will not be accepted after installation. Preparation and installation should not begin until all other trades have completed their work.

Acclimatisation of material

All material must be acclimatised before starting the job to the local situation that represents the temperature and humidity conditions to be expected on average use at site after installation. Keep boxed product to condition in the room where the installation is to take place for at least 48 hours prior to installation. Boxes may be stacked but must remain flat and no more than 5 packs high, completely surrounded by air. Room temperature must be kept between 18-27°C.

Subjecting the product to extreme hot or cold conditions can cause the material to become too flexible or rigid, making the material difficult to install and potentially causing damage to the locking system.
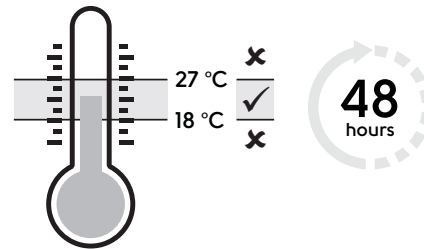
Arranging the planks / tiles

The design on this product is randomly distributed and can be heavier on some tiles/planks than others. To prevent heavy and light colour shading areas, the tiles/planks should be unboxed and shuffled. In particular when a design with high contrast colour or prominent design features, it is recommended to preselect to avoid repetition in unexpected positions.

Subfloors

Before this product may be installed, all subfloors should be solid and sound, smooth and level, clean and swept free of all debris. Any unevenness in the subfloor should be limited to a maximum of 5mm below the level for 3m in any direction. **Any isolated highpoints/ridges should first be removed** to avoid damage to the product.

Additional guidance on subfloor preparation is provided by the national standards and building codes for the installation of resilient flooring listed on page 1.

Moisture in subfloors

Moisture of the base subfloor (e.g. mineral screed, concrete, or similar) must be measured according to the relevant local standard:

• Hygrometer test = less than 85% RH.

Installation procedure

This product should be installed with a minimum expansion gap of 10mm around the perimeter of the room and all fixed objects, including pipes. Note: the minimum expansion gap is defined as the smallest gap between product and static fixture, that can be measured at ANY point around the perimeter.

To allow for thermal expansion, door frames should either be undercut, or an expansion gap left. Skirting/base boards should either be removed or undercut. Alternatively, a suitable edge trim should be used to cover the expansion gap. Mouldings or skirtings installed post floor installation should be fixed to the wall and NOT to the floor covering, leaving a 0.5mm clearance between these and the floor surface. Do not seal skirtings to the floor coverings surface!

Filling of expansion spaces with a flexible acrylic or flexible low modulus neutral cure silicone sealant is only approved to potential wet areas with a net area of $4m^2$ or less. These areas are to be isolated from the main field using an expansion joint system or similar at door junctions.

Where the flooring run exceeds 30.5m in width or length, a 10mm expansion joint should be used and repeated thereafter.

Use of adhesive

Adhering to the substrate is not permitted with rigid core products.

Sunrooms / conservatories / direct sunlight

Special care must be taken when installing this product in rooms that could be exposed to temperature fluctuations e.g. sunrooms/conservatories or direct sun through glass doors as incorrect use of expansion gaps can cause damage.

NOTE: Rigid core products should be protected from heat and/or prolonged exposure to direct UV /sunlight, as this may cause damage or discolouration. All rigid core products may expand or contract with extremes of temperature. Direct sunlight may heat up just a small area of the floor covering, especially in front of large windows or open terrace doors, which causes only the local floor area to expand. Hence the importance of expansion gaps.

Tools

For a successful installation, the following tools will be necessary – pencil, utility knife, tape measure, ruler/straight edge, carpenter's square, T-bevel, saw, jigsaw, spacers, hand roller, pull bar, tapping block, hammer, and rubber mallet. Drill and spade bit may be required for cutting around pipework.

Types of subfloor

- Concrete/Screed: Where the subfloor is uneven an appropriate smoothing compound should be selected.
- Quarry Tiles/Mosaics/Terrazzo/Ceramics: Ensure the surface is firm, dry and free of wax, oil and dust particles. Fix any loose tiles. Installation is possible, if any height difference between single ceramic tiles does not exceed max.1mm, with a grout line width of 4mm and maximum grout line depth of 2mm.
- Timber Floors: These should be solid with minimal flexibility. All loose boards must be firmly fastened, gaps filled and undulations removed. Where necessary, overlay floorboards with flooring grade plywood or similar stable underlay.
- Woodblock/Parquet Floors: Make sure these floors are solid and fix any loose or broken areas. Wood block floors laid direct to earth/bitumen/pitch must be removed prior to installation.
- Metal and Painted Floors: Remove any loose paint or other finishes. To provide free movement please add a thin separating layer, for example paper or similar, else the Rigid core covering may stick.
- Linoleum/Thermoplastic/Vinyl/Cork: Make sure these floors are solid and fix any loose or broken areas. To provide free movement please add a thin separating layer, for example paper or similar, else the Rigid core covering may stick.
- Any existing floors installed with asphaltic tile adhesive (ATA or 'Cutback') must first be suitably covered/encapsulated or mechanically removed.
- All textile floor coverings (including carpet) must be removed.
- Laminate: It is normally recommended that this is uplifted.
- Asbestos: Some older resilient tiles and adhesives can contain asbestos. Asbestos and asbestos adhesive residue must be mechanically abated by a professional abatement company prior to installing any LVT. In case of doubt contact the relevant authority for advice on removal and disposal.
- Other Floors: Consult your supplier.

This product must always be installed over a solid base with a suitable damp proof membrane/moisture suppression system. Floating floors, cushioned backed flooring or acoustic underlays are not suitable substrates and must be removed.

Underfloor heating

Underfloor Heating: It is possible to install this product over floors incorporating underfloor heating, but these must be controlled to keep the temperature of the interface between the backing and subfloor surface at no more than 27°C.

Electrical Underfloor Heating: Please consult manufacturer to ensure their system is compatible with this flooring without damage. Mesh/wire systems must be installed according to the manufacturer's instructions.

Herringbone

Installation steps

Installation will begin at the centre of the room, against your starting wall and work outwards.

1. Determine room layout

Measure and mark the centre of the room on both the starting and ending wall. Snap a chalk line connecting the marks. This is your centre line.
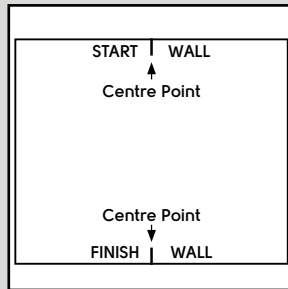

Fig. 1

2. Set working lines

From the centre line, measure 42.5mm to the left and to the right and mark along the line. Snap a chalk line connecting the marks down the entire length of the room. These are your working lines.
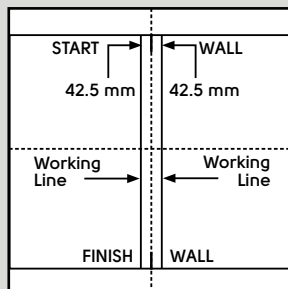
Fig. 2

3. Prepare for installation

Your product will come with A and B planks for installation. Separate out A and B Planks from 3-4 packs at one time to ensure a mix of pattern and shade for best results. A planks have a grey backing and B planks have a black backing.
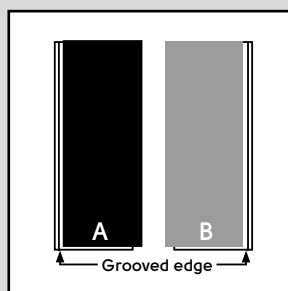
Fig. 3

4. Set starting V

Working a few feet from the starting wall, set your starting V. Position the long side of the first B plank over the short side of the first A plank, align the edge using the tongue of a spare or scrap plank. It is important for precise alignment of edges for a good, square installation. Tap the top of the B plank using a soft-faced hammer to fully lock the planks together.
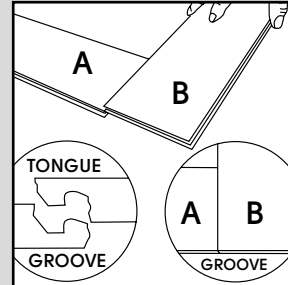
Fig. 4a
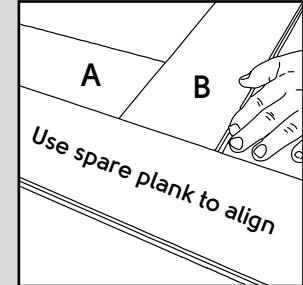
Fig. 4b
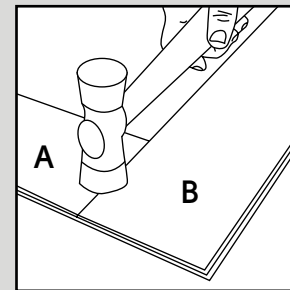
Fig. 4c

5. Starting first column

Slide your V up to the starting wall, making sure you are aligned on your working lines. The inside corner of your V as well as the bottom point of the plank should be on the right working line. The outside corner or joint should be aligned on your left working line. Place spacer between the wall and plank A. Notice that plank A is the only plank that is against the wall - this is normal.
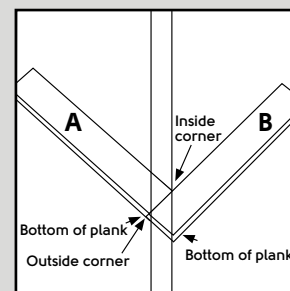
Fig. 5

6. Continue first column

Continue to install A and B planks, one after the other, until you complete the first column of your room. Continue to use your scrap plank to keep alignment. It is important when installing to start tapping down where the A and B planks cross, tapping your way out. Do not tap down the last few centimetres of the long sides. This will be tapped down when installing the next columns. Make sure you continue to keep your column straight on your working lines. Adjust as necessary.
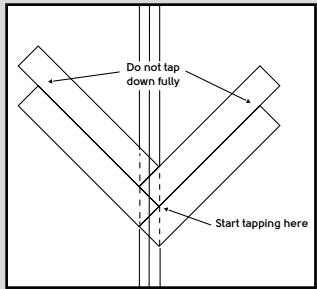
Fig. 6

7. Finish first column

When you cannot install any more full planks, you are finished with the centre column. You will install the cut planks at the end of the installation.
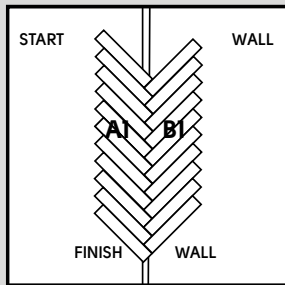
Fig. 7

8. Connect planks to left and right of centre column

Starting with the last full planks installed, connect A planks to B planks by lifting the untapped edge and sliding the planks under. Make sure the tongue and groove are precisely aligned and tap down joints to lock. Remember, do not tap down the last few centimetres of the planks in your next columns.
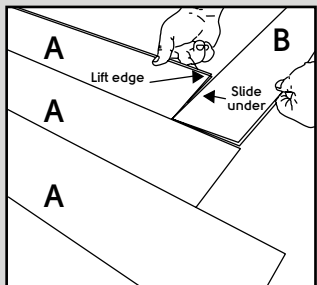
Fig. 8

9. Connect planks to left and right of centre column

Continue the installation on both sides of the centre column (connect A planks to B planks and B planks to A planks) working back towards the starting wall.
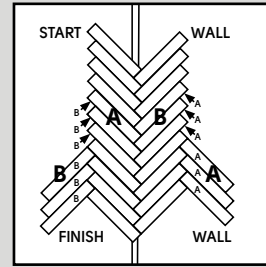
Fig. 9

10. Install remaining columns

Continue forming columns back and forth until you reach the outside walls and cannot install any more full planks. Make sure your pattern continues to stay straight on your centre column working lines. Once final cut pieces are placed, you will not be able to adjust the installation.

NOTE: If you need to remove a plank for whatever reason, gently push down on the plank with the groove while lifting the plank with the tongue. Be careful not to damage the tongue and groove. Tap down lightly on the plank with the groove if necessary.
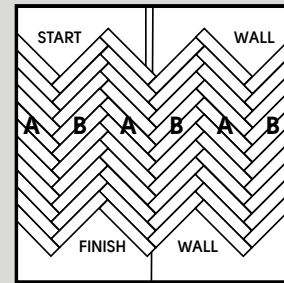
Fig. 10

11. Connect planks to left and right of centre column

Measure, mark, and cut final planks to fit to the wall leaving the required 10mm expansion space. A T-Bevel (angle finder) can be used to find the correct angle. When fitting small cut pieces, a small quantity of suitable adhesive can be applied to the groove to make sure product stays in place.

NOTE: Do not discard planks cut on angles. They may be used in other areas of the installation if layout permits. Stack in accordance of A and B planks.
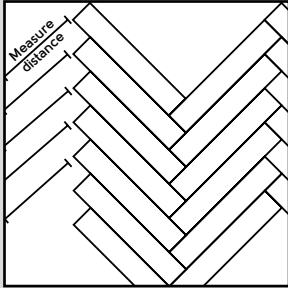
Fig. 11a
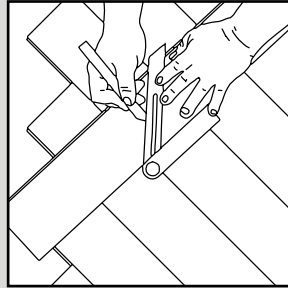
Fig. 11b

12. Finish the job

Remove spacers. Cover expansion space with suitable trim, being sure not to trap or pin down the floor.
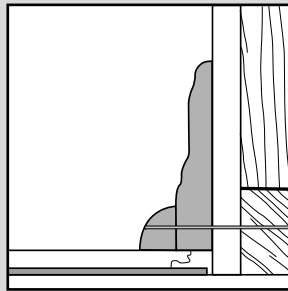
Fig. 12

Large Plank

Installation steps

Installation will move from left to right beginning in the left corner building columns and moving right.

1. Balance the room

Balance the layout by measuring and marking the centre-point on both sides of the room (Fig. 1a). Connect the marks using a chalk line to create the centre line of the area. (Fig. 1b) (For tile format installations, an additional perpendicular centre line may be necessary to ensure the room is properly balanced on all four sides.)
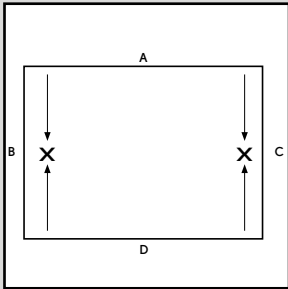
Fig. 1a
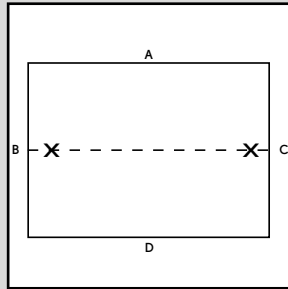
Fig. 1b

2. Establish the starting line

Starting at the centre line, assemble a column of material working toward the starting wall (wall A); continue until no additional full-width pieces can be laid. Place a mark on the substrate along the long edge of the last full-width piece, closest to the starting wall. (Fig. 2a) Snap an additional chalk line at this location while ensuring that it is perfectly parallel to the centre line. (Fig. 2b) (Note: If the perimeter pieces are less than half the width of a piece, offset the starting line by shifting away from the starting wall by a distance equal to half the width of a piece.)
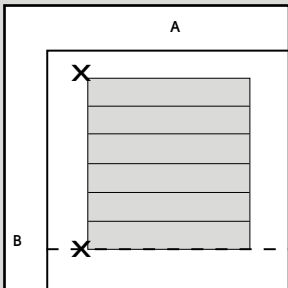
Fig. 2a
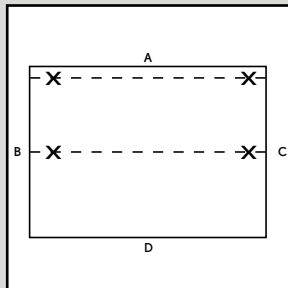
Fig. 2b

3. Position the first row

Place full pieces end-to-end along the starting line with the long tongue edge facing the starting wall, without engaging the short joints.
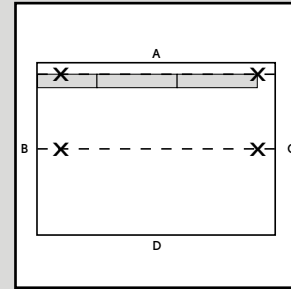
Fig. 3

4. Mark and cut first row

To transfer the contours of the starting wall onto the first row, a "scribing block" will be necessary. To create a scribing block, first determine the size needed by measuring the width of the flooring (excluding the locking profiles) plus an additional 10mm. Cut a piece of scrap flooring, plywood, or similar material to this measurement. Place the scribing block against the wall; mark a line at the edge of the scribing block. Slide the scribing block along the starting wall while continuing to mark. Carefully cut the marked material on the line, these pieces will be used for row #1.

NOTE: Maintain a minimum of 15cm stagger from row-to-row throughout the entire installation. (Tile format installations should be staggered in a brick-bond pattern with stagger equal to half of a tile.)
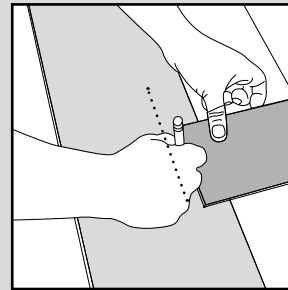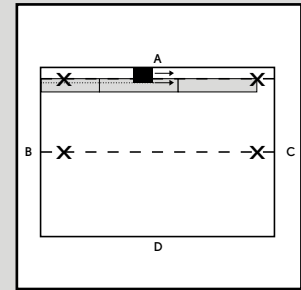
Fig. 4a

Fig. 4b

5. Sequence of installation

Installation will move from left to right, beginning in the left corner while facing the starting wall. The installation will alternate back and forth between rows one and two, for the first two rows only.
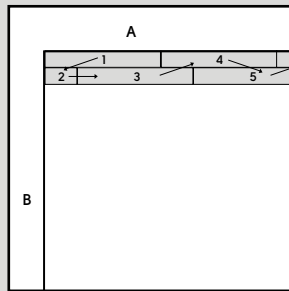

Fig. 5

6. Install starting rows

Place the first piece of row #1 several centimetres from the starting wall with the long cut edge facing the starting wall (Fig. 6a). Cut the first piece of row #2 to one- third its length. Interlock the long tongue-edge of the first piece of row #2 into the long groove-edge of the first piece of row #1, ensuring that there are no gaps (Fig. 6b). Using a hammer and a tapping block, carefully tap along the long groove edge to fully engage the joints (Fig. 6c). Install the second piece in row #2 by inserting the long tongue-edge into the long groove-edge of the first piece of row #1. With the piece angled slightly, slide the piece towards the first piece of row #2 until the edges align (Fig. 6d). Tap the long joint tight using a tapping block, then tap down on the short joint using the soft face hammer (Fig. 6e). Continue installing rows #1 and #2 until you reach the opposite wall and cannot install another full-length piece (Fig. 6f). Always make certain the long joints are fully engaged before tapping down the short joints using a soft face hammer.
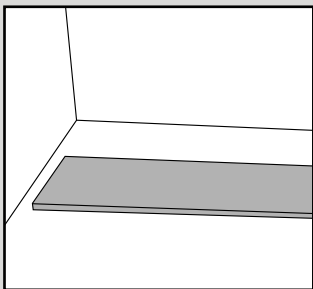
Fig. 6a
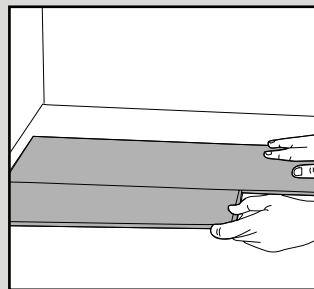
Fig. 6b
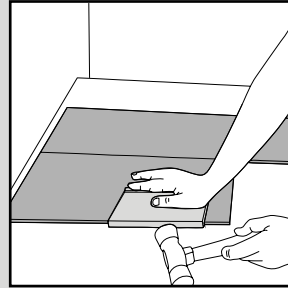
Fig. 6c
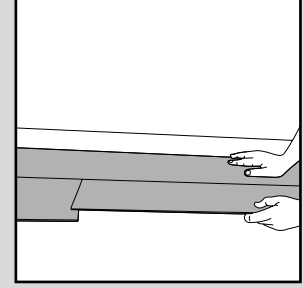
Fig. 6d
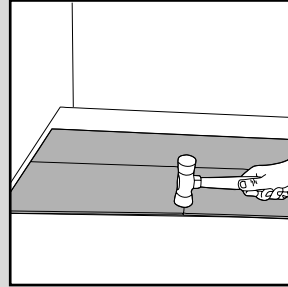
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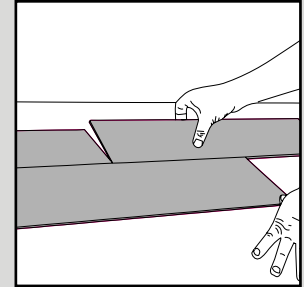
Fig. 6f

7. Install last pieces of rows 1 and 2

Measure, mark, and cut the final pieces of rows #1 and #2 ensuring both sides of the rows have proper expansion space. A 10mm expansion gap is required. Place appropriately sized spacers along the left, right, and starting walls. Slide the assembly over and against the spacers along the starting wall.
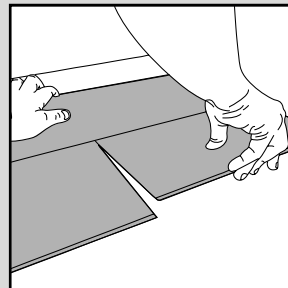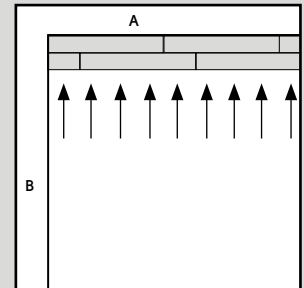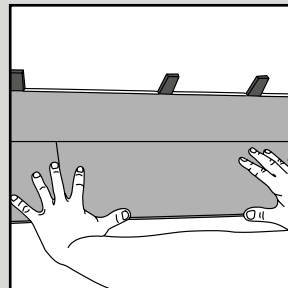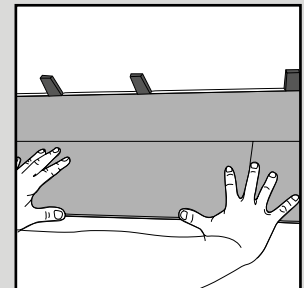

Fig. 7a

Fig. 7b

Fig. 7c

Fig. 7d

8. Install remaining rows

Install the remaining material, one row after another. Always tap the long joint tight using the tapping block before tapping the short joint down using the soft face hammer. Maintain the required stagger throughout the installation.
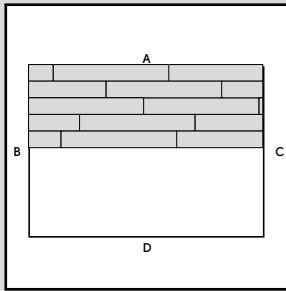

Fig. 8

9. Install the final row

Using the scribing block; mark, cut, and install the final row. Always ensure proper expansion is provided. Use a pull bar to fully engage the long joints. Do not use the pull bar on the short edges.
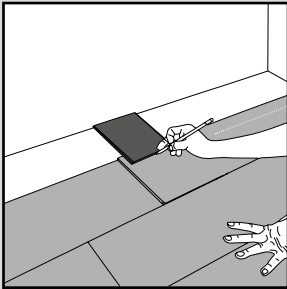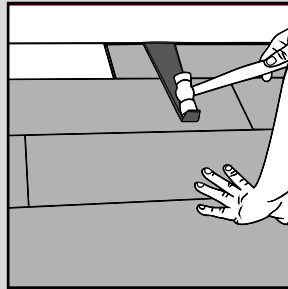

Fig. 9a   Fig. 9b

10. Finish the job

Remove spacers. Cover expansion space with suitable trim, being sure not to trap or pin down the floor.
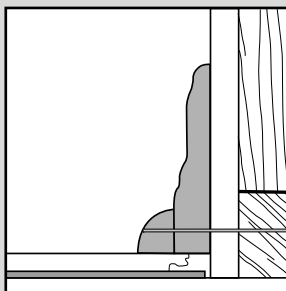
Fig. 10

Large Chevron

Installation steps

Installation will move from left to right beginning in the left corner with tongue side of long edge facing the wall.

1. Determine room layout

The project's layout should always be discussed and approved by the end-user. Define walls A, B, C, and D. (Fig. 1a) Measure and mark the centre point of the room near wall A, and again near wall D. (Fig. 1b) Snap a chalk line connecting these two points. (Fig. 1c) This is the centre line of the room.
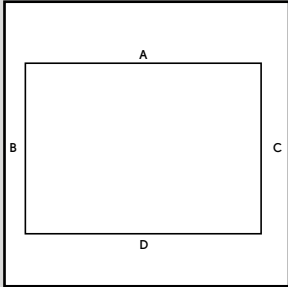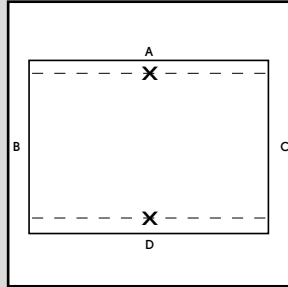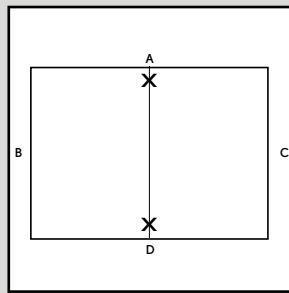

Fig. 1a

Fig. 1b

Fig. 1c

2. Determine the position of the columns

Begin at the centre line near wall A, measure and mark in increments the length of the column working toward wall B. Continue until no further increments can be marked. Repeat this process again near wall D.
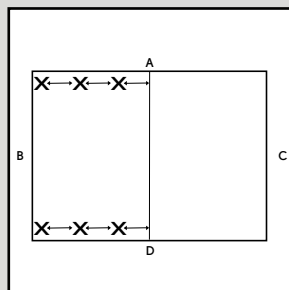

Fig. 2

3. Establish the starting line

The final increment marks nearest wall B will be used to create the starting line. Snap a chalk line connecting the last two marks. This line will indicate the centre of the first V column.

NOTE: Aesthetically, if the width of the first column is too narrow the starting line may be offset toward the centre line.
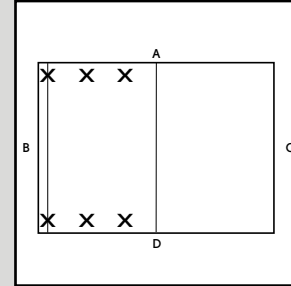

Fig. 3

4. Measure and cut the starting column

Measure and cut the starting planks equal to the distance from the starting line to wall B, allowing for the 10mm spacers. A T-Bevel (angle finder) can be used to find and mark the correct angle. Always measure twice before cutting. The material can be carefully cut using a variety of tools including: flooring shear, jig saw, circular saw, and table saw (be certain to follow proper tool usage and safety procedures).
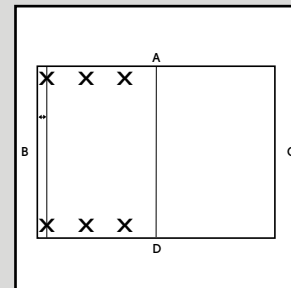

Fig. 4

5. Separate the planks

The chevron pattern planks are composed of two different shapes (mirror-images). These shapes are made easy to distinguish. One has a black backing, the other a grey backing. Separate grey backed and black backed planks from three or more packs and mix to ensure a blend of pattern and shade.
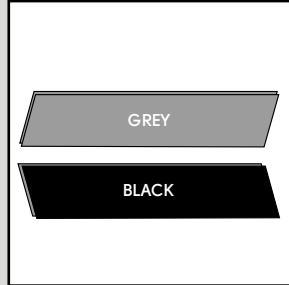
Fig. 5

6. Ensure expansion space

Create the required expansion by placing 10mm spacers between the flooring assembly and the walls. Do not remove the spacers until the installation is complete.
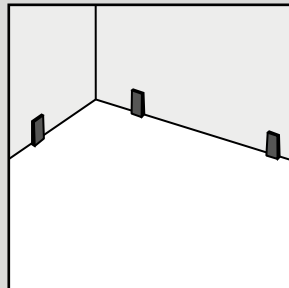
Fig. 6

7. Assemble the first V column

Align the short edge of plank #1 to the starting chalk line. Begin assembling the first V column with the point of the column 9cm away from wall A. Precisely align and overlap the end joints of plank #1 and plank #2. Gently tap the top plank using a soft-faced hammer to fully lock the joints together.
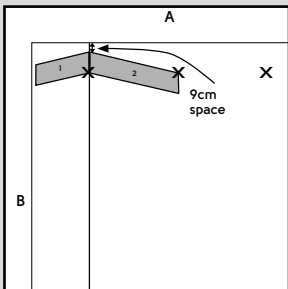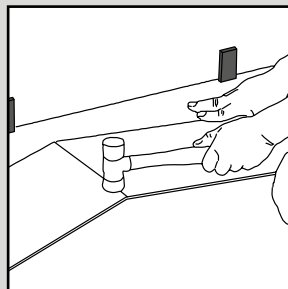
Fig. 7a

Fig. 7b

8. Installation of Plank 3

Cut the length of plank #3 for the second row. Insert the long tongue edge of the plank into the long groove of plank #1. Make sure there are no gaps. If necessary, carefully tap along the long groove edge of plank #3 using a tapping block to close any gaps.
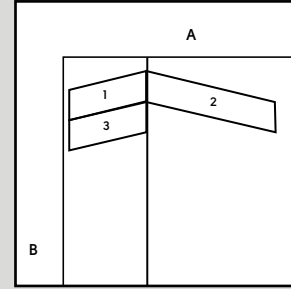
Fig. 8

9. Installation of Plank 4

While aligning corners, insert the long tongue edge of plank #4 into the long groove edge of plank #2. Fully engage the long side joint by carefully tapping the edge using a tapping block. Tap down the short joint with a lightweight soft-faced hammer.
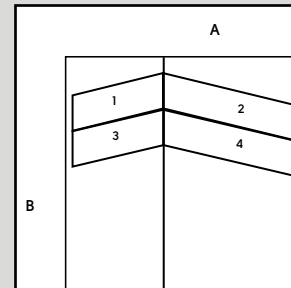
Fig. 9

10. Maintain alignment

Continue forming the V column. Ensure the centre of the V column is always aligned with the starting line. Install planks and maintain joint alignment until no additional full pieces can be installed within the V column.
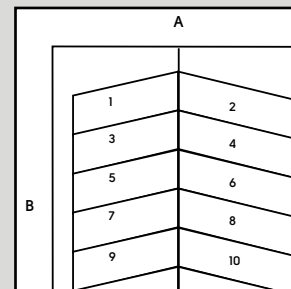
Fig. 10

11. Trim cuts near Wall 'A'

Measure, mark, and cut pieces near wall A. These cuts will be installed by positioning the long groove edges into the long tongue edges. If necessary, use a pull bar to lock the long edges together for the fill pieces at the walls. (Note: a pull bar should only be used against the cut edges and never against the plank edges / profiles.)
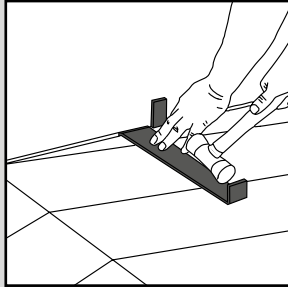

Fig. 11

12. Trim cuts near Wall 'D'

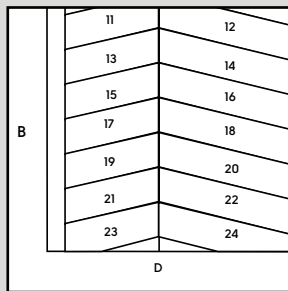Measure, mark, cut and install the fill pieces near wall D.

Fig. 12

13. Subsequent columns

Continue building the subsequent V columns using the same placement order. Install planks within the V columns until no additional full pieces can be installed. Cut the fill pieces at walls A and D as needed.
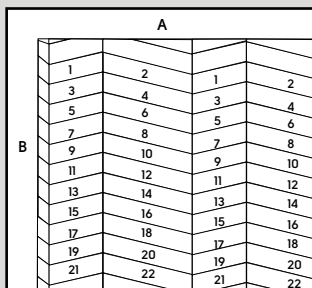

Fig. 13

14. Final column

Build the final column using the same placement order, beginning near wall A and finishing near wall D. Measure, mark, and cut the fill pieces at walls C followed by cutting fill pieces at walls A and D.
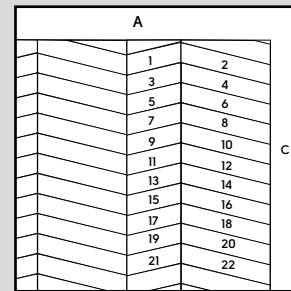

Fig. 14

15. Finish the job

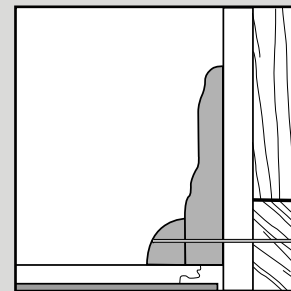Remove spacers. Cover expansion space suitable trim, being sure not to trap or pin down the floor.

Fig. 15

Chevron

Installation steps

Installation will move from left to right beginning in the left corner with tongue side of long edge facing the wall.

1. Set spacers

Create the required expansion space between the perimeter planks and the wall using spacers. Place spacers equalling the thickness of the required expansion between plank and wall on short and long ends of plank. Do not remove the spacers until the installation is complete
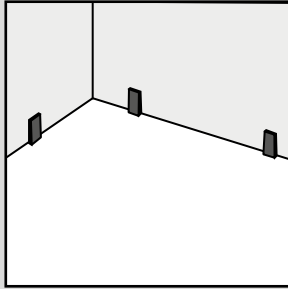

Fig. 1

2. Balance the layout of the room

Identify the direction the chevron planks are to be installed lengthwise. Divide the width of the room by the width of one plank. This gives you the number of rows of planks. If one row is less than a full plank, you may need to trim the first and last row to balance out the room.
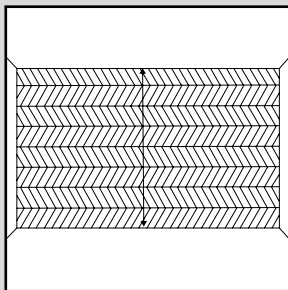

Fig. 2

3. Prepare for installation

Your product will come with A and B planks for installation. Separate out A and B Planks from 3-4 packs at one time to ensure a mix of pattern and shade for best results. A planks have a grey backing and B planks have a black backing.

The starting planks should have the angled edge trimmed off and be cut to the appropriate size so the pieces on all sides of the room have a balanced appearance.
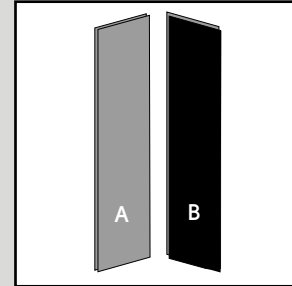

Fig. 3

4. Install the first two planks

Starting in the left corner of the room, take a full "A" and "B" plank and remove the angle from the tongue edge of both planks (Fig. 4a). Position the "A" plank with long tongue edge against the spacers previously placed along the starting wall (Fig. 4b). Interlock plank "B" by inserting the tongue into the groove of plank "A".

Pay close attention when lining up the Chevron pattern alignment (point to point). Make sure there are no gaps and the points line up perfectly. Tap along the long-groove edge using a profiled tapping block and soft-faced hammer to ensure the joint is closed fully (Fig. 4b).

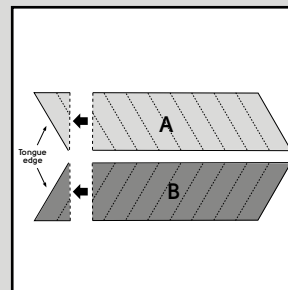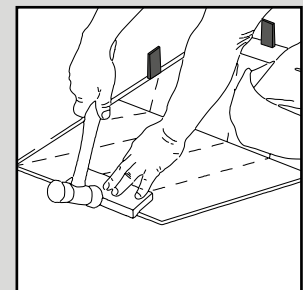NOTE: Always square long side joints BEFORE tapping down short joints.

Fig. 4a

Fig. 4b

5. Continue installing first two rows

Take another "A" plank and align the short tongue side onto the groove of the first "A" plank. Points must be properly aligned. Tap on the top of the joint using a soft-faced hammer to fully lock the planks together (Fig. 5a).

Select a full "B" plank and position the long tongue into the groove of the second plank in the first row. Drop and lock the end joints together (Fig. 5b). Repeat the same installation pattern until you reach the opposite wall and cannot install another full plank (Fig. 5c).
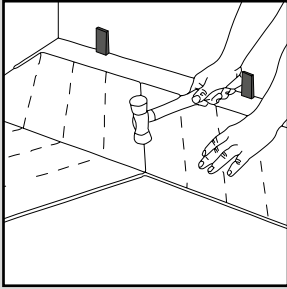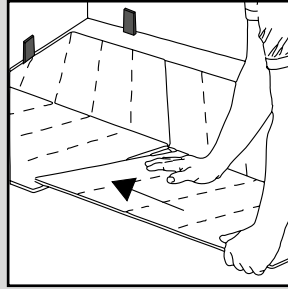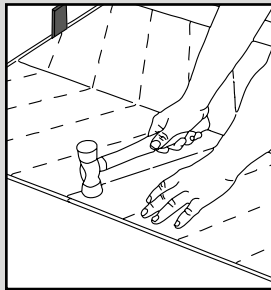

Fig. 5a

Fig. 5b

Fig. 5c

6. Install last two pieces of row 1 and 2

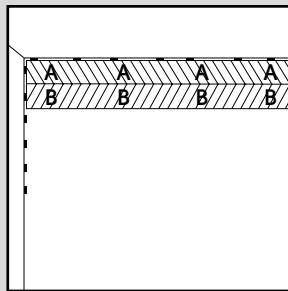Install the last two pieces of rows 1 and 2 by cutting to fit. Maintain the expansion gap and install as before.

Fig. 6

7. Install remaining rows

Install the remaining material, in alternating rows of "A" and "B" planks. Drop and lock the end joints together and keep square throughout the install.
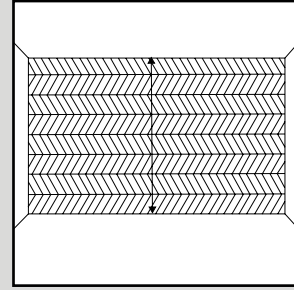

Fig. 7

8. Install the last row

Cut the final row of planks to fit along the wall. Use a pull bar to lock the long edges together. Do not use the pull bar on the short edges.
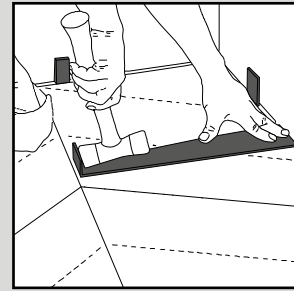

Fig. 8

9. Finish the job

Remove spacers. Cover expansion space suitable trim, being sure not to trap or pin down the floor.
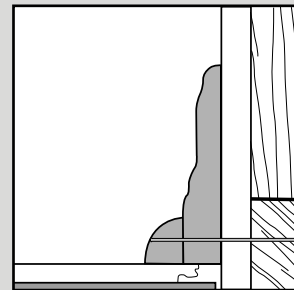

Fig. 9

Maintenance

- Regularly sweep the floor to remove loose dirt or grit as these can cause fine scratches.
- For a thorough clean, a range of pH neutral cleaning products are available ('Clean', 'Remove' and 'Refresh'). Avoid the use of regular household cleaners and bleach-based detergents. These could make the floor slippery or cause discolouration.
- Always mop up spills as soon as possible, to reduce the risk of slipping and possible staining.
- Use entrance mats to protect against grit and moisture. Ensure they are of non-staining variety (not rubber-backed) to prevent any discolouration of the floor.
- Avoid sliding or dragging furniture or other objects across the floor - use floor protector pads to prevent scratching.
- Use large castor cups or other means to protect against indentation from heavy furniture.
- Maintain room temperature between 18-27°C for optimum performance.
- Do not subject this product to standing water. This this will present a slip hazard.
- Care must be taken when using underfloor heating to avoid damage to the floor caused by localised 'hot spots/thermal blocks'. Care must also be taken in placing rugs, and items of furniture which do not allow hot air circulation.
- The floor must be protected from excessive heat and/or prolonged exposure to direct sunlight as this may cause damage to your floor.
- Floor care guides are available from your supplier or the website. Refer to your supplier should floor tiles/planks become damaged.

For product questions, please contact the flooring dealer where you made your purchase.