COMPOSITE SALES

PART OF THE PBSL GROUP

COMPOSITE PANEL CLADDING INSTALLATION GUIDE

WELCOME TO

OUR INSTALLATION GUIDE

Available in five distinct colours, our composite panel cladding is suitable for a wide variety of properties.

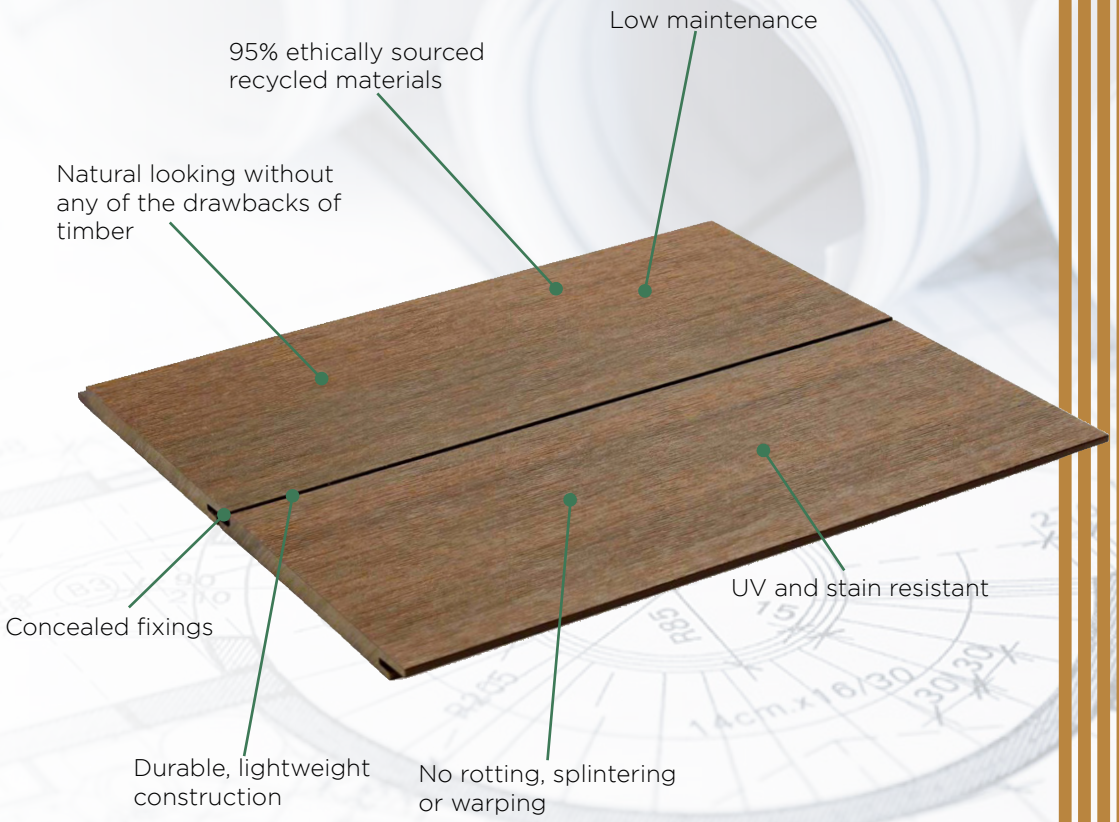
In contrast to Ecoscape's slatted cladding, the panel cladding favours a traditional style of building, mimicking the look of old-fashioned timber, with no need to paint, stain, or oil.

This versatile system offers flexibility and style while also maintaining the same environmentally friendly ethos. The composite panel range is made up of high quality recycled HDPE plastic and reclaimed wood fibres. Composite panel cladding products come with a 25-year warranty.

- FIRE RATING CLASS E
- LOW MAINTENANCE, NO NEED TO PAINT
- NO ROTTING, SPLINTERING OR WARPING
- 25-YEAR WARRANTY
- CE CERTIFIED
- ENVIRONMENTALLY FRIENDLY

The Board

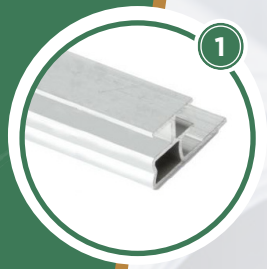
Our composite panel cladding boards are made from a combination of recycled high density polyethylene and reclaimed wood fibres. This composite of materials results in a high strength cladding system that is fully resistant to weathering.



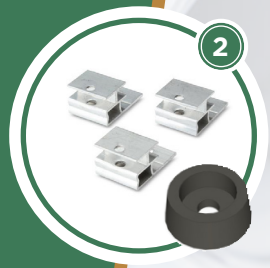
Each board is 142mm wide x 13mm thick x 3.6mtr long

Please note that the above product images show two cladding boards for reference purposes and are used for illustration purposes only. The actual product may slightly vary from the image supplied.

Accessories

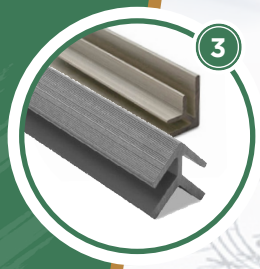


1. Starter bars, made from aluminium, are a crucial part of a composite cladding installation. They should be set in place before the first board of cladding is secured into it.

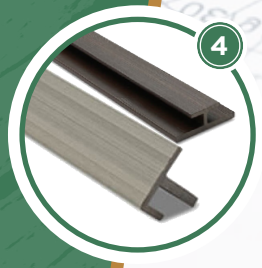


2. Cladding clips are used to fix and align composite cladding boards securely. We recommend using seven clips per cladding board, with them being placed at 500mm centres. Each pack of 250 clips will fix approximately 35 boards of cladding.

These plastic pads are used in conjunction with our cladding screws for starter bars to conceal the screw and create a clean fixing as well as protect the integrity of the starter bar.



3. Corner trims are used in an external cladding application in order to create an aestheticaly pleasing corner on a corner of a property by connecting the cut panel edges together at a 90 degree angle. Trims must be installed before fitting the composite cladding.



4. F trims are the solution to neatly fitting cladding around doors and windows and creating a break in a cladding run.

Joint trims, also known as “H” trims are used to connect two cladding panels together in a straight line by joining them at the ends.

5. Composite finishing boards are a versatile product, they are most commonly used as a method to provide a clean finish to the top or bottom of a wall of cladding.

Before you start

Whilst our composite materials are highly durable, we do recommend you follow the below guidelines for storage, handling, and installation to ensure products are kept in the best possible condition.

Materials should be covered until ready to install to ensure a clean surface. All products should be stored flat and supported above the ground at 500mm intervals starting at the ends. Battens used to separate and support the cladding material should be spaced no greater than 500mm. Supporting battens used in storage should align through the stack to equally transfer the load to the ground.

Allow the composite cladding to acclimatise for a minimum of 3 days prior to installation.

Use

Standard woodworking tools may be used. It is recommended that all blades have a carbide tip. Stainless steel or acceptable coated screws are recommended. Plan a layout for your cladding before starting to ensure the best looking layout is achieved. Pay particular attention to interfaces with doors, windows and soffits in order to determine the optimal starting position for the first boards. Boards must be supported by a compliant substructure and CANNOT be installed onto existing cladding boards. All fixings should be fastened at a 90 degree angle to the cladding system. Use white chalk, straight boards or string lines as templates. NEVER use coloured chalk on the boards as this can cause permanent staining.

Handling

Cladding materials should be placed and not dumped when unloading. Boards should be lifted and set down with care to avoid damage. Do not slide boards over one another. Cladding boards should be carried in the middle and on their edge for best support when moving. During installation, avoid sliding or dragging any equipment across the board to prevent the surface from tarnishing.

Safety

Personal protection equipment (PPE) should be worn at all times when installing composite cladding.

We recommend to wear gloves, protective eye wear, and a dust mask.

BEFORE YOU START

PRE INSTALLATION NOTES:

SPACING BOARDS & BATTENS:

•Cladding board ends should have a 3mm gap between adjoining boards.

•Timber battens should be installed with a 20mm gap between ends.

•Provide a 15mm gap between the lowest cladding board and the ground.

•A clear cavity of no less than 25mm should be provided between the rear face of the cladding and the outer wall/surface of the structure being clad to allow sufficient airflow.

•Battens should be no more than 500mm from centre to centre.

•Extra care is required in order to provide sufficient battening around windows, fascias, soffits, guttering, ventilation points and corners of walls. These locations should be planned and co-ordinated with the Panel Cladding system to ensure alignment with the composite fascias and trims. This will allow fixing of the fascia & trims back to the Battens.

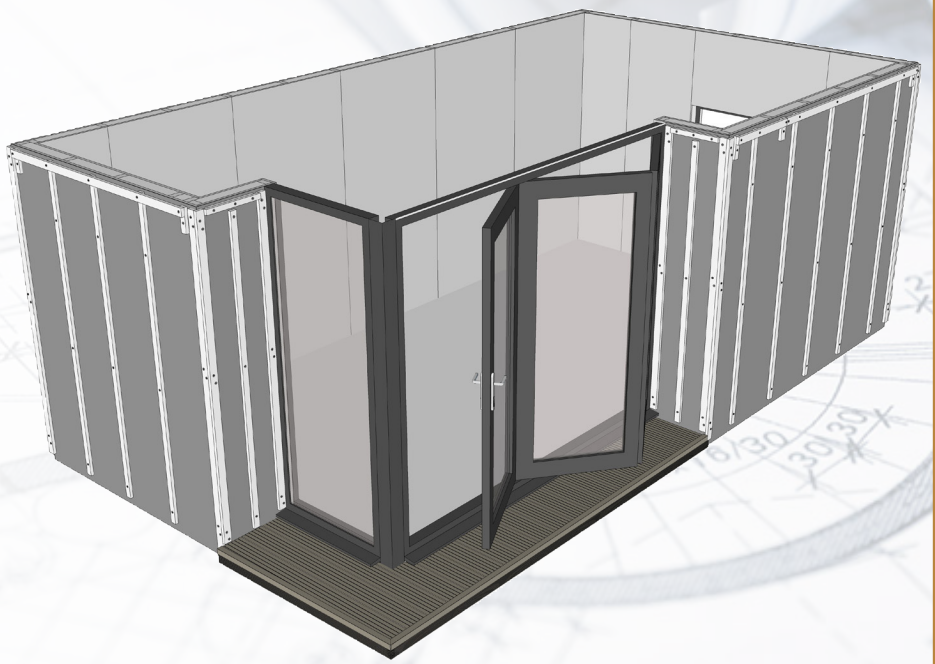
•A double Batten arrangement will be required for mid panel joints and at corners to allow the Joint Trims to be seated and fixed to both Battens.

CLADDING BATTEN LAYOUT:

Battens are fixed directly to the outer wall once a waterproof membrane / vapour barrier is in place. This is the most common method for boards installed horizontally.

If the wall is uneven or cannot bear additional loads, the cladding may be fixed to battens on a self-supporting frame.

Below is an example of a typical installation and will be used to demonstrate the installation of the Panel Composite Cladding System:



BEFORE YOU START

PRE INSTALLATION NOTES:

BATTEN SPECIFICATION:

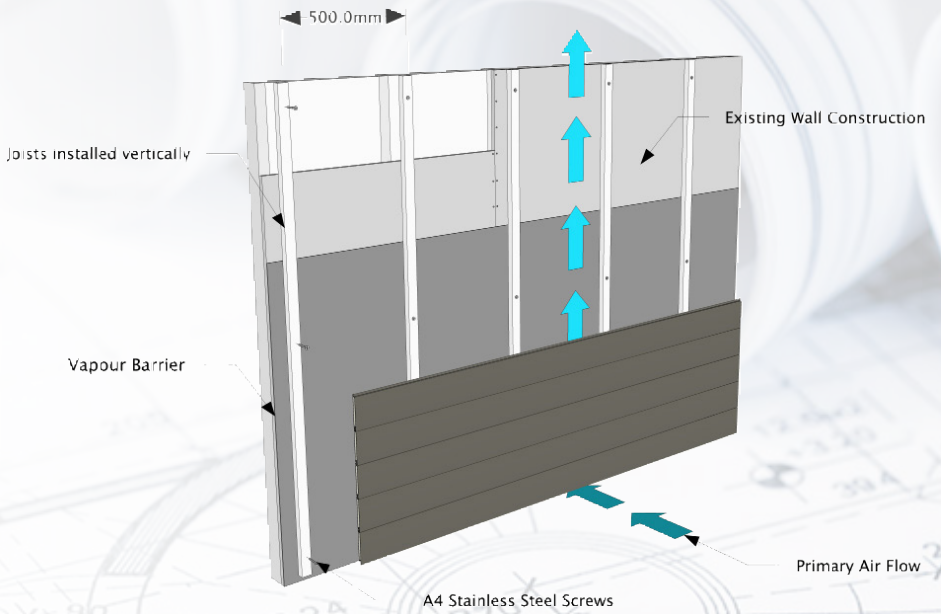
Cladding can be fixed to pressure treated softwood timber battens (in accordance with BS8417) or Aluminium battens depending on design requirements.

Battens should be fixed into position at 500mm centres using suitable A4 stainless steel countersunk wood/ masonry screws. All battens need to be fixed in a minimum of 3 places.

All Battens need to be minimum 25mm thick, flat and levelled against the wall. Use shims as required.

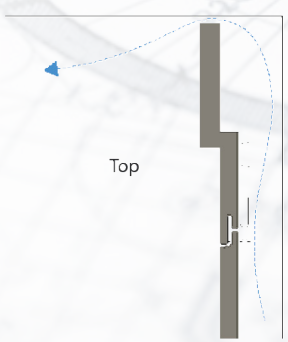
Battens to be used at external corners should be at least 50mm wide to accommodate the external angle trim and provide space for the aluminium Cladding Clips to be fixed.

- External Corner Joists: 25mm thick x 50mm wide
- Standard Joists: 25mm thick x 38mm wide
- Finishing Board Batten: 19mm thick x 32mm wide

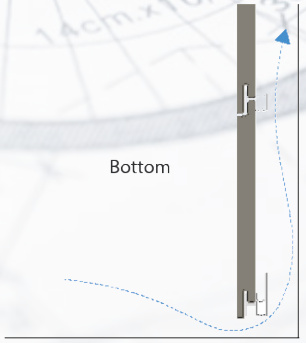


VAPOUR BARRIER:

A building professional should be consulted regarding vapour barriers and insulation for your project. Where a vapour barrier is to be used, it should be a breathable type and must be positioned behind the joists to allow the cladding a minimum 25mm airflow. It is essential that a barrier/ coating is installed to prevent water penetration.



Ventilation zone behind cladding



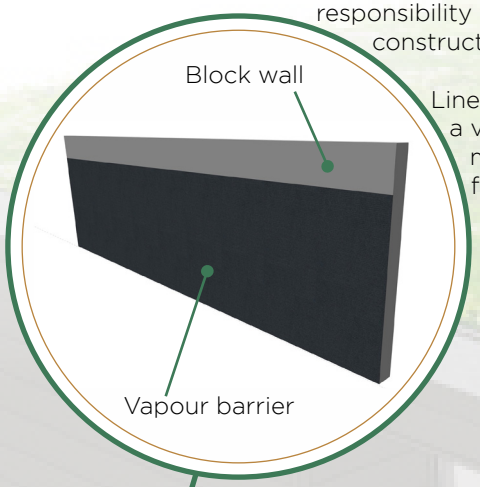
Primary ventilation from bottom

LOCAL BUILDING CODES:

Prior to installing any composite cladding system it is recommended that you check with local building codes for any special requirements or restrictions. The diagrams and instructions outlined in this guide are for illustration purposes and are not meant or implied to replace a licensed professional.

HORIZONTAL

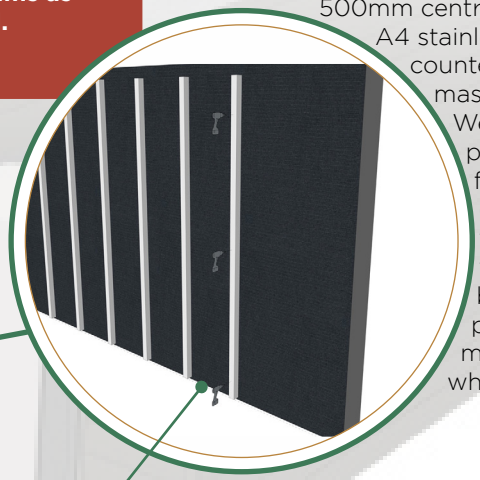
STEP 1 Ensure the wall is in suitable condition for the system to be fixed onto. PBSL Group cannot take any responsibility for inadequately constructed walls.

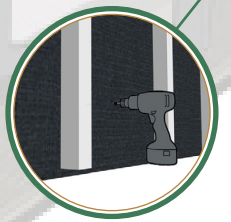


Line the wall with a vapour barrier membrane and fix in place.

All battens should be flat and levelled against the wall, using shims as required.

STEP 2 Fix treated timber battens 25 x 38mm to the wall to create the sub frame. Joists should be spaced at 500mm centres using suitable A4 stainless steel, countersunk wood/masonry screws. We recommend pre-drilling and fixing the battens every 500mm, try to fix into the centre of the blockwork or panel and avoid mortar joints where possible.

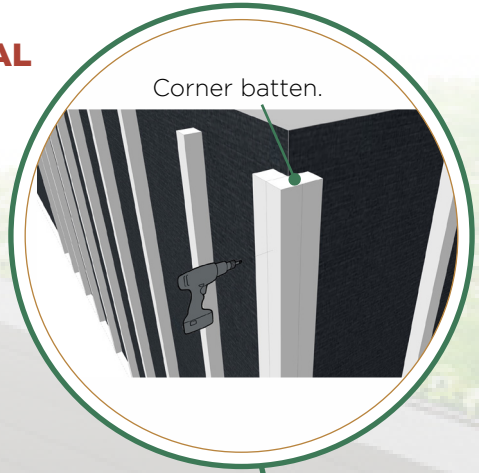




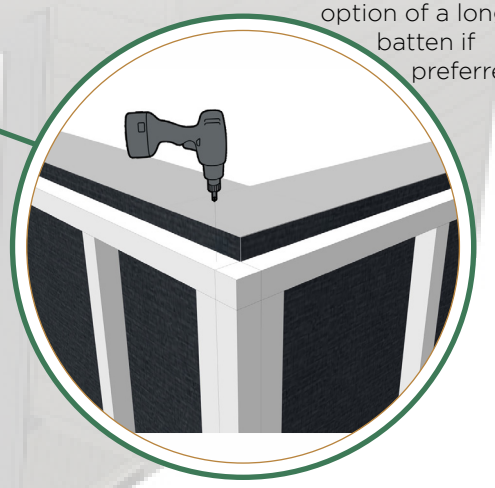
Allow the composite cladding to acclimatise for a minimum of 3 days prior to installation.

HORIZONTAL

STEP 3 Install battens 25 x 50mm to the corners to allow the trims to be fixed later.



STEP 4 Install top battens 19 x 32mm where end trims are to be used. The top batten is not vital, you do have the option of a longer vertical batten if preferred.

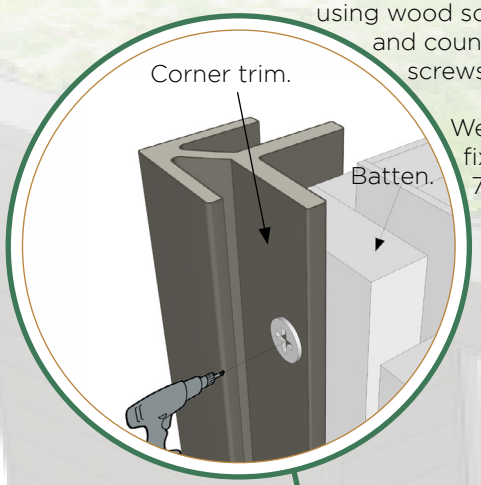


It is recommended that one complete section is installed at a time to help align boards and ensure consistency.

HORIZONTAL

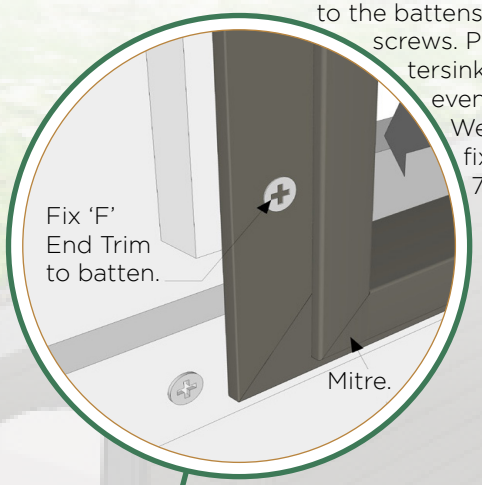
STEP 5 Before the cladding boards can be installed, you must first fit the corner trims. Fix these to the battens using wood screws. Pre-drill and countersink the screws for even finish.

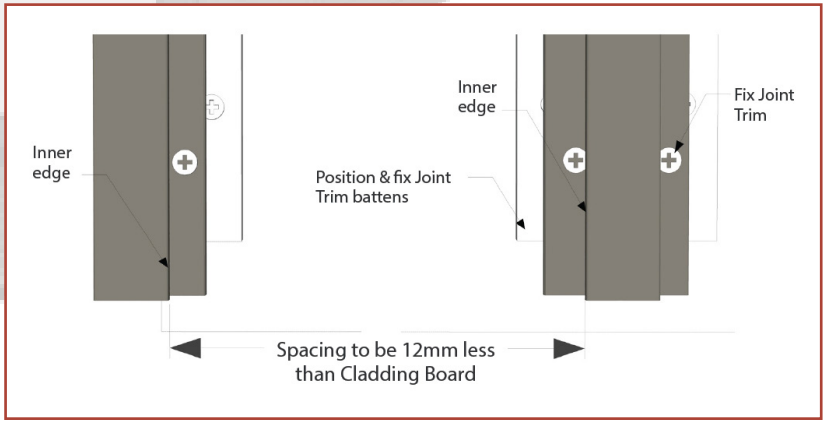
We recommend fixing points every 750mm.



STEP 6 Before the cladding boards can be installed, you must first fit the vertical joints and end trims. Fix these to the battens using wood screws. Pre-drill and countersink the screws for even finish.

We recommend fixing points every 750mm.

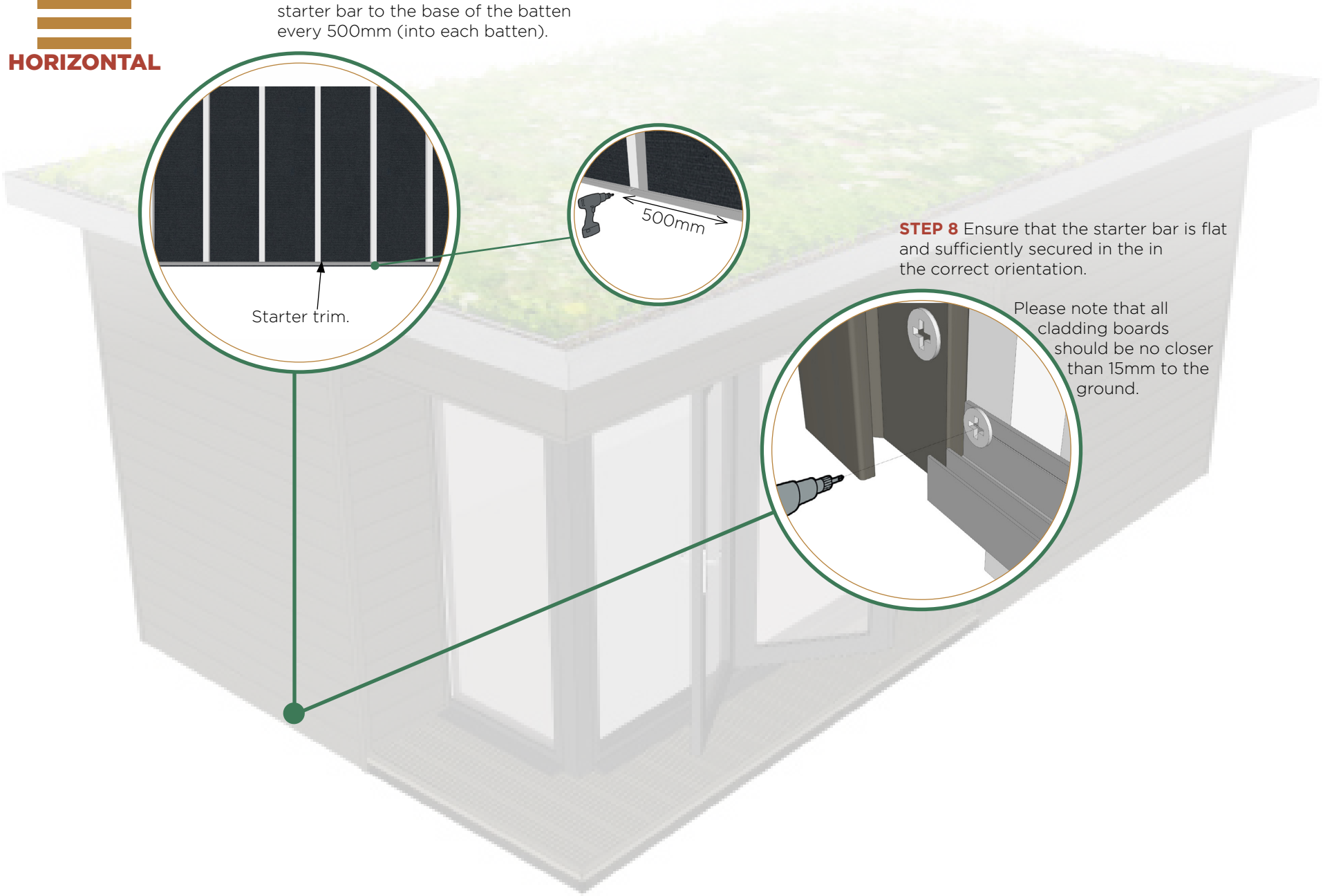




The aim is to ensure that 6mm of the cladding board is housed within the Trim at both ends.

HORIZONTAL

STEP 7 Fix the aluminium cladding starter bar to the base of the batten every 500mm (into each batten).



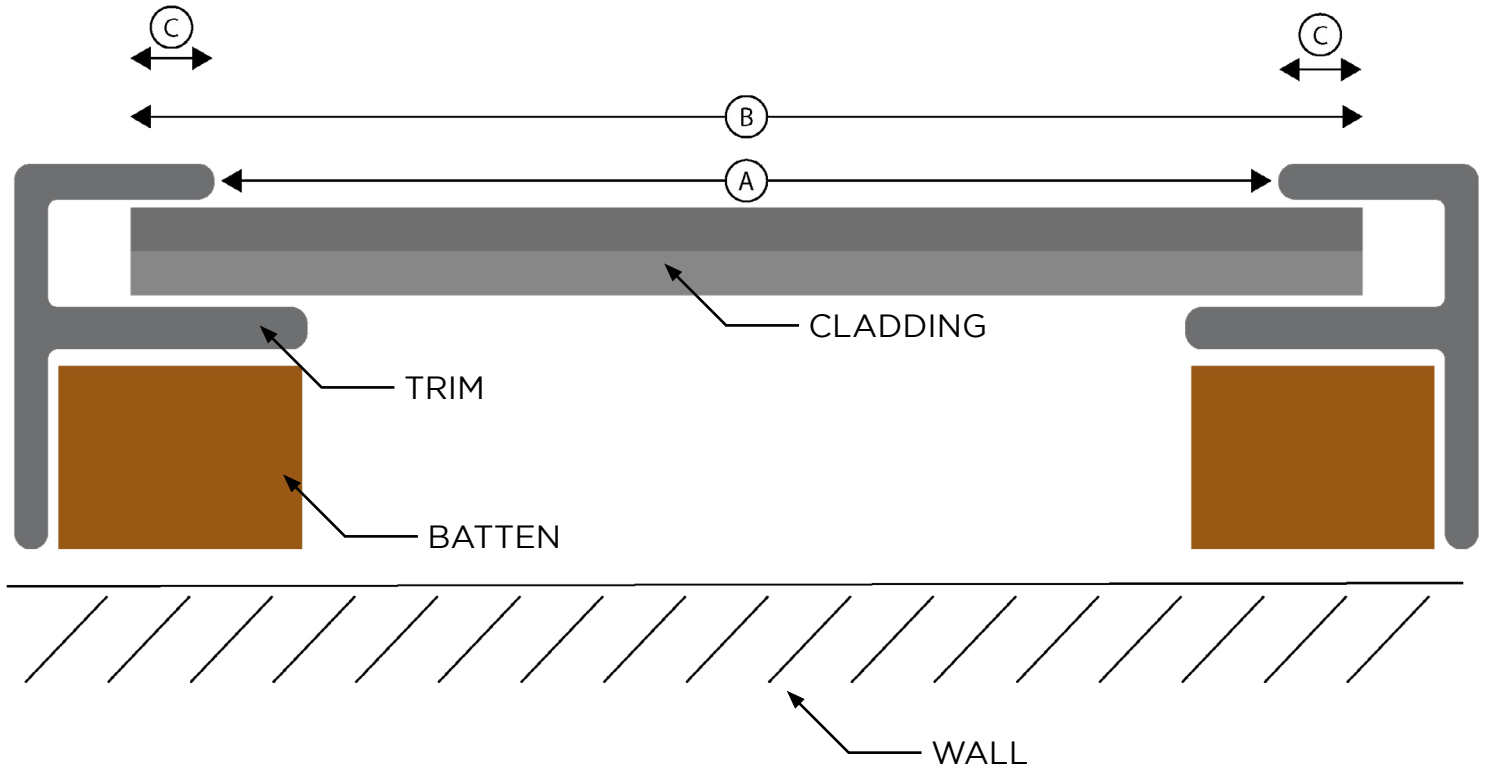
STEP 8 Ensure that the starter bar is flat and sufficiently secured in the in the correct orientation.

Please note that all cladding boards should be no closer than 15mm to the ground.

HORIZONTAL

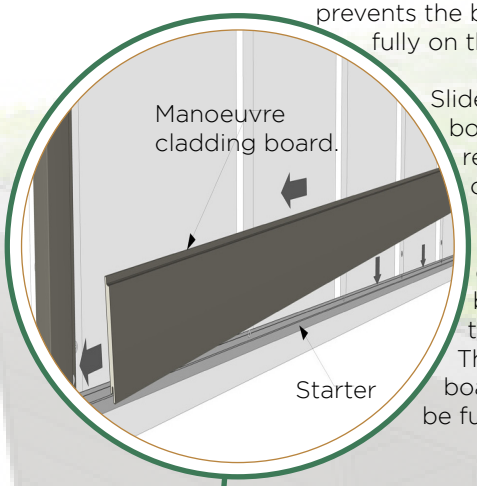
MEASURING CLADDING FOR CUTTING:

1. Measure the distance between the inner edge of your trims. **(A)**
2. Add 12mm to **(A)** to find the value of **(B)** the length required for your Cladding.
3. Measure and cut your cladding to the correct size.
4. Insert cladding into the trims, see page 6 - steps 9 to 11.
5. Adjust the cladding within the trims to achieving 6mm cover to both ends. **(C)**



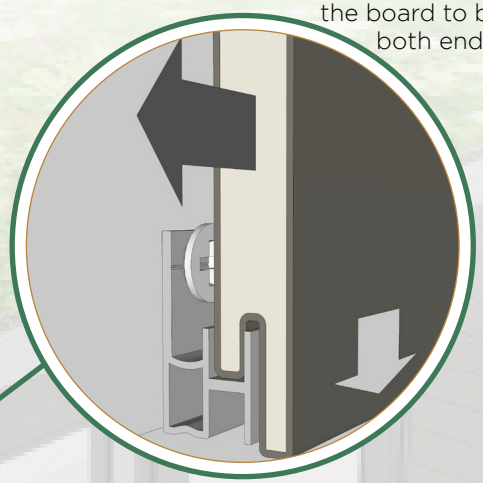
HORIZONTAL

STEP 9 Take a Cladding board and place the side with the lip down onto the starter bar. You will find the 2nd trim prevents the board from sitting fully on the Starter Bar.



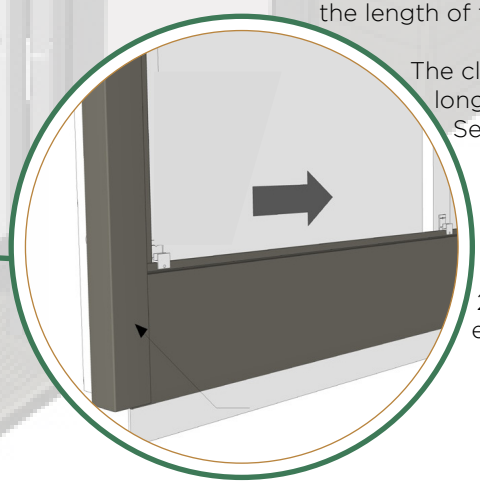
Slide the cladding board fully into the recess of the 1st composite trim, bringing the opposite end of the cladding board down onto the Starter Bar. The cladding board should now be fully seated.

STEP 10 We now need to draw the cladding board back out of the 1st trim by 6mm and into the 2nd trim to allow the board to be fully housed at both ends.



STEP 11 The aim is to ensure that 6mm of the cladding board is housed within the Trim at both ends. It is recommended that the distance between the outer faces of both Trims is equal to the length of the cladding board minus (-) 12mm.

The cladding board will therefore be 12mm longer than the gap between the Trims. See diagram below.

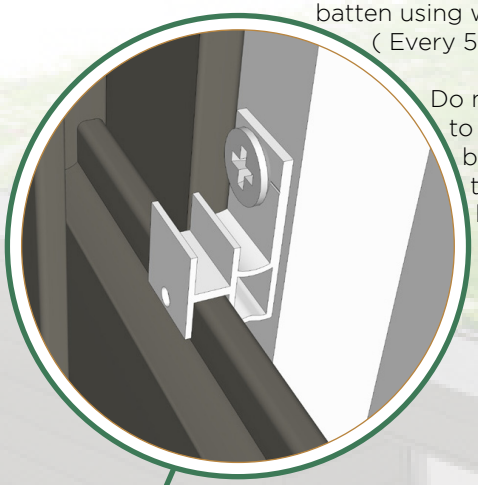


This will allow the cladding board to be fully pushed into the 1st Trim and then drawn back 6mm to fit within the 2nd Trim, achieving 6mm cover to both ends.

HORIZONTAL

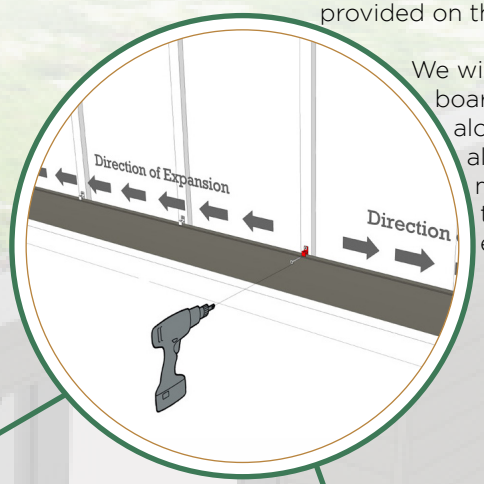
STEP 12 Next, take the aluminium cladding clips and put them on top of the board, fixing them directly to each batten using wood screws. (Every 500mm)

Do not fix the clips to the cladding board itself, just the batten.



STEP 13 Now we need to lock the board and control expansion and contraction. We will do this by using the extra hole provided on the cladding clips.

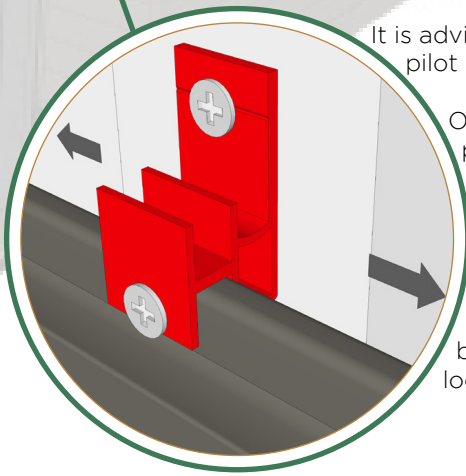
We will be locking the board down half way along its length to allow for even movement to take place either end of the board.



STEP 13a Using the wood screws fix the Aluminium Cladding Clip to the cladding board.

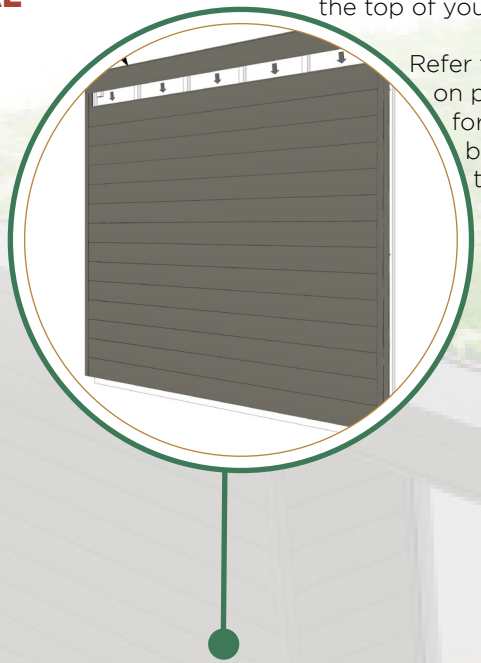
It is advised to pre-drill pilot holes.

Only one locking point is required for each cladding board and centrally located (approx) as shown in red below. Each board must be locked in place.



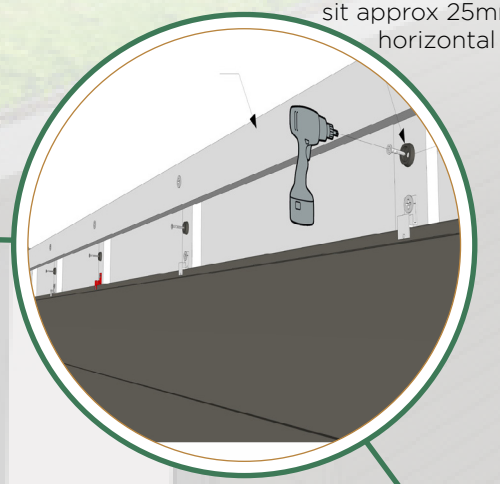
HORIZONTAL

STEP 14 Repeat steps 9 to 13a on pages 6 and 7 and install all the cladding boards until you have reached the top of your wall.

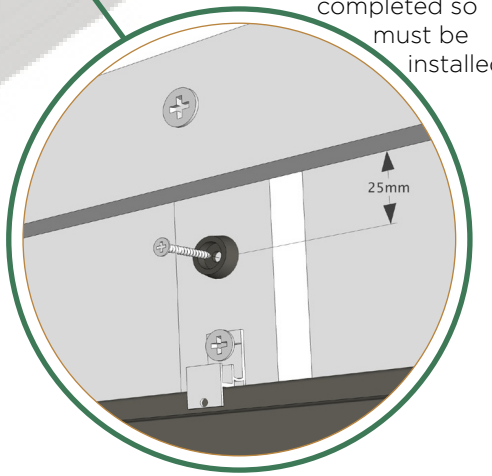


Refer to Step 15 to 19a on pages 8 to 10 for the final board beneath the eaves.

STEP 15 The Aluminium Cladding Clips will not be used for the top board, instead fix the Plastic Pads to the joists so that they sit approx 25mm below the horizontal batten.



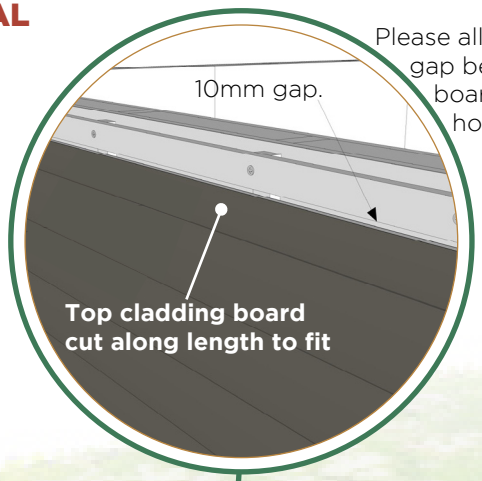
STEP 15a These pads will prevent the board rattling once the installation is completed so must be installed.



Don't forget to continually check your cladding is aligned.

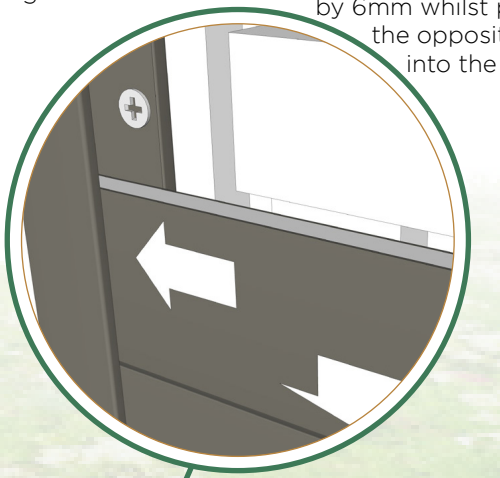
HORIZONTAL

STEP 16 Measure and cut the cladding board as required to fit beneath the top horizontal joist.



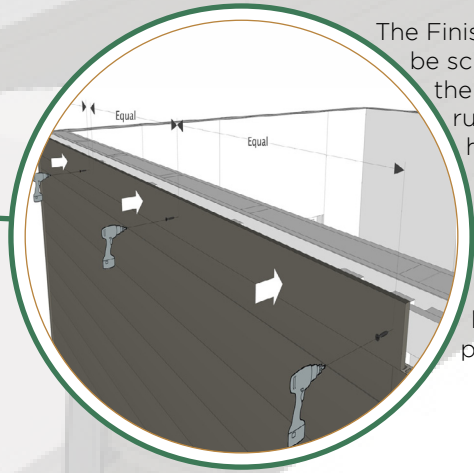
Please allow a max 10mm gap between cladding board and horizontal joist.

STEP 17 The top cladding board should now be installed. Slide the board into the 1st Trim, draw back by 6mm whilst pushing the opposite end into the 2nd Trim.



STEP 18 A final finishing board will be used to cover the top of the final cladding board.

The Finishing Board will be screwed back to the timber batten running horizontally beneath the eaves as installed in Step 4. Colour coded screws should be used for this purpose.



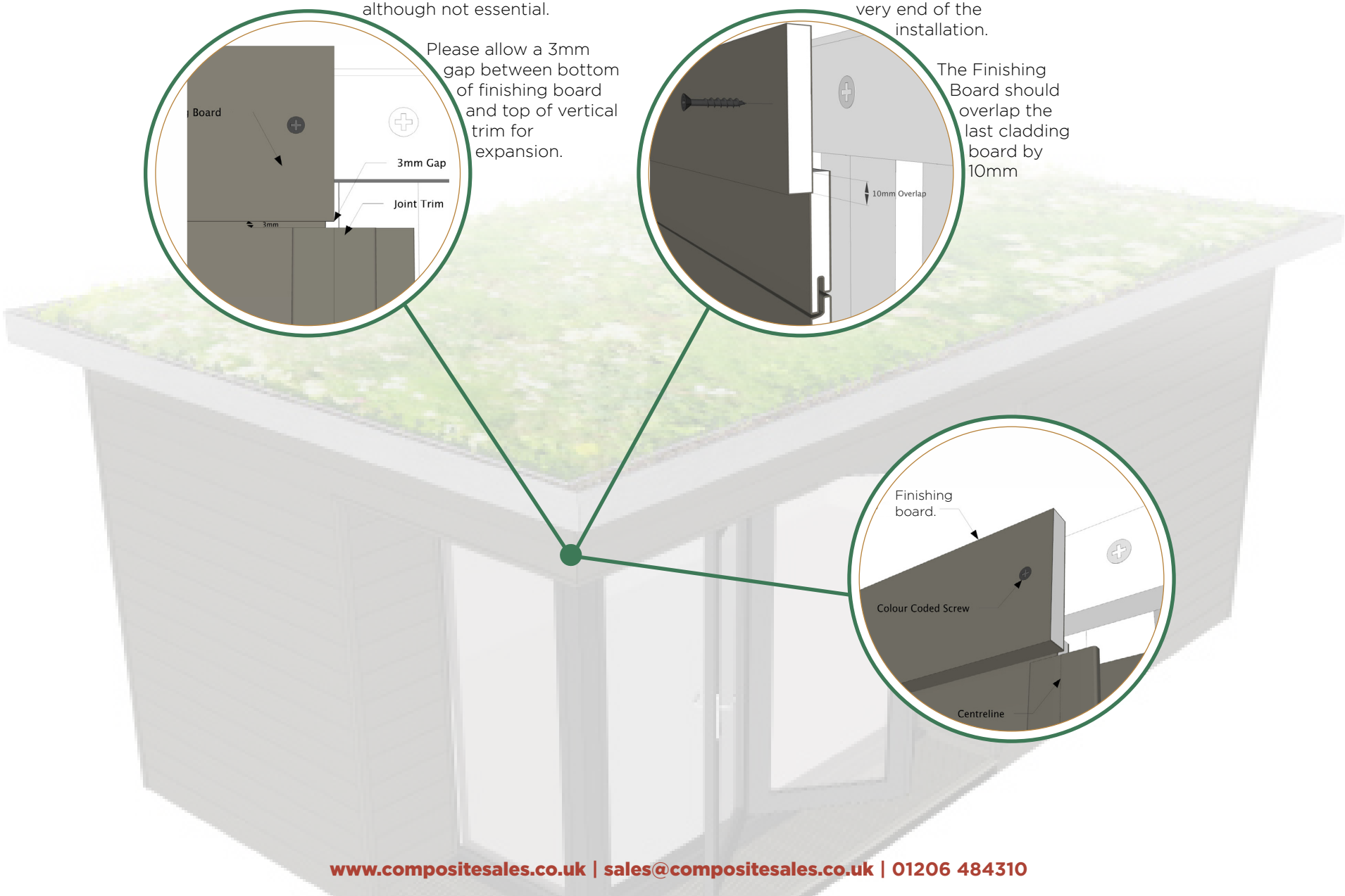
HORIZONTAL

STEP 19 It is recommended that the ends of the finishing boards align with the centreline of the vertical trims, although not essential.

Please allow a 3mm gap between bottom of finishing board and top of vertical trim for expansion.

STEP 19a The Finishing Board can be installed after each portion of cladding is completed or at the very end of the installation.

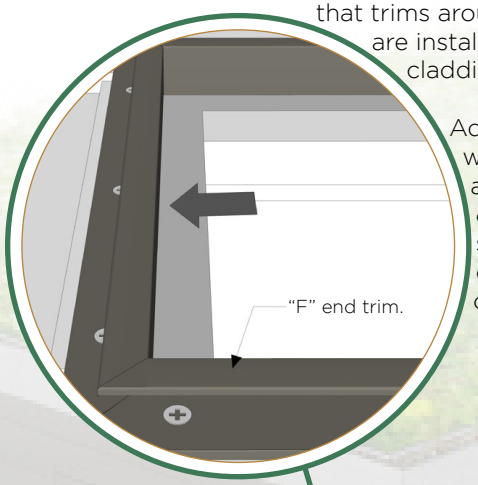
The Finishing Board should overlap the last cladding board by 10mm



HORIZONTAL

STEP 20 Where doors, windows or other features need accommodating in the cladding system please ensure that trims around the openings are installed before the cladding boards.

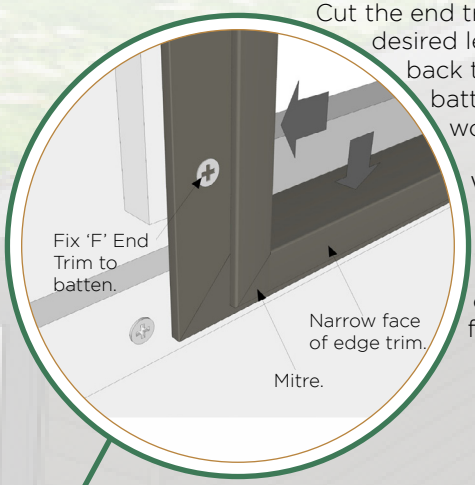
Additional joists will be required around windows & doors to fully support the corner trims and cladding.



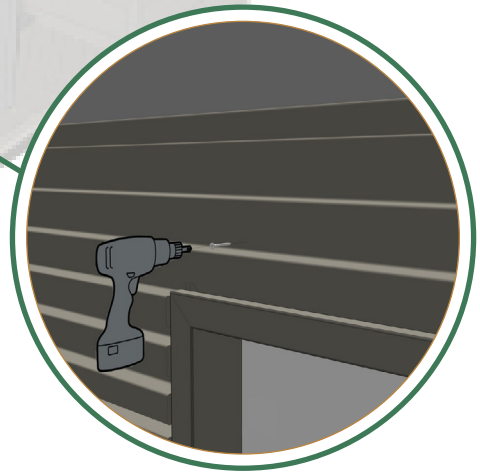
STEP 21 For this example we will use the 'F shape' end Trim to form the edges and reveals to a window.

Cut the end trims to the desired length and fix back to the timber batten using wood screws

We advise forming mitre joints to all corners for a clean and neat finish.

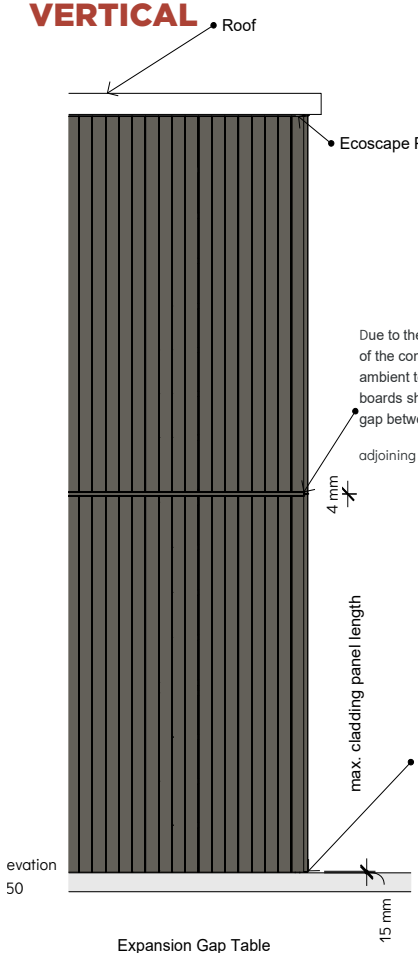


STEP 22 Once the edges around the Window have been fixed continue to install the cladding boards



Installation complete.

VERTICAL

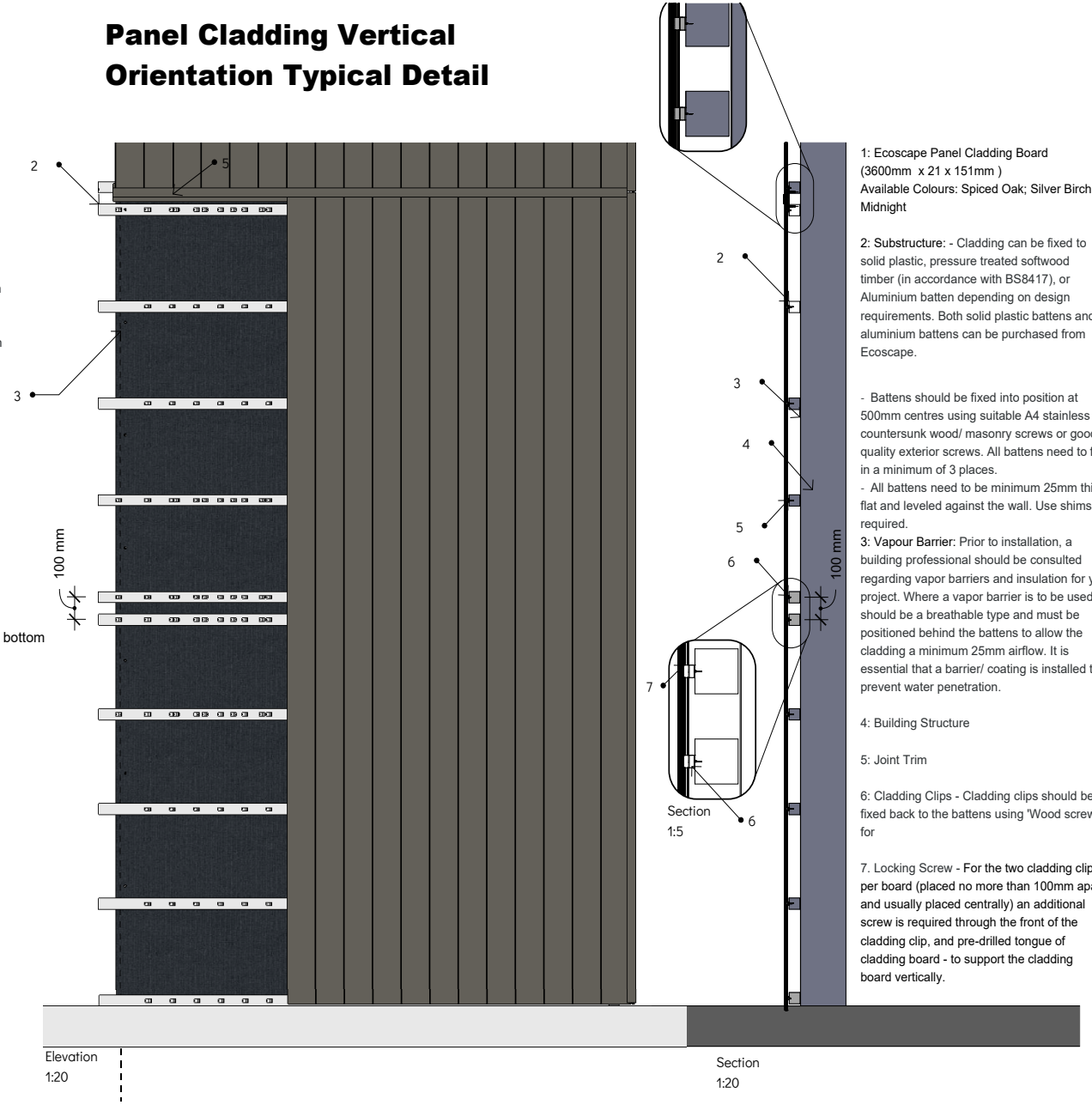


Expansion Gap Table

Length (Meters)

	1	2.44	2.8	3	3.66	3.9	4	4.88	5.4	
-10	2.4	5.9	6.7	7.2	8.8	9.4	9.6	11.7	13.0	Gap (mm)
-5	2.2	5.4	6.2	6.6	8.1	8.6	8.8	10.7	11.9	
0	2.0	4.9	5.6	6.0	7.3	7.8	8.0	9.8	10.8	
5	1.8	4.4	5.0	5.4	6.6	7.0	7.2	8.8	9.7	
10	1.6	3.9	4.5	4.8	5.9	6.2	6.4	7.8	8.6	
15	1.4	3.4	3.9	4.2	5.1	5.5	5.6	6.8	7.6	
20	1.2	2.9	3.4	3.6	4.4	4.7	4.8	5.9	6.5	
25	1.0	2.4	2.8	3.0	3.7	3.9	4.0	4.9	5.4	
30	0.8	2.0	2.2	2.4	2.9	3.1	3.2	3.9	4.3	
35	0.6	1.5	1.7	1.8	2.2	2.3	2.4	2.9	3.2	
40	0.4	1.0	1.1	1.2	1.5	1.6	1.6	2.0	2.2	

Panel Cladding Vertical Orientation Typical Detail



1: Ecoscape Panel Cladding Board (3600mm x 21 x 151mm)
Available Colours: Spiced Oak; Silver Birch; Midnight

2: Substructure: - Cladding can be fixed to solid plastic, pressure treated softwood timber (in accordance with BS8417), or Aluminium batten depending on design requirements. Both solid plastic battens and aluminium battens can be purchased from Ecoscape.

- Battens should be fixed into position at 500mm centres using suitable A4 stainless steel countersunk wood/ masonry screws or good quality exterior screws. All battens need to fixed in a minimum of 3 places.
- All battens need to be minimum 25mm thick, flat and leveled against the wall. Use shims as required.

3: Vapour Barrier: Prior to installation, a building professional should be consulted regarding vapor barriers and insulation for your project. Where a vapor barrier is to be used, it should be a breathable type and must be positioned behind the battens to allow the cladding a minimum 25mm airflow. It is essential that a barrier/ coating is installed to prevent water penetration.

4: Building Structure

5: Joint Trim

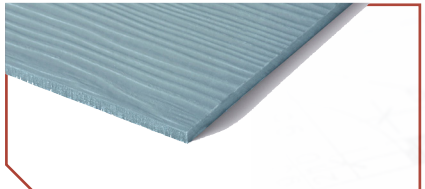
6: Cladding Clips - Cladding clips should be fixed back to the battens using 'Wood screws for

7. Locking Screw - For the two cladding clips per board (placed no more than 100mm apart and usually placed centrally) an additional screw is required through the front of the cladding clip, and pre-drilled tongue of cladding board - to support the cladding board vertically.

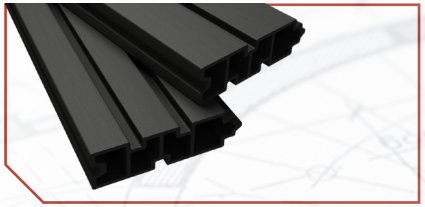
ALSO AVAILABLE:

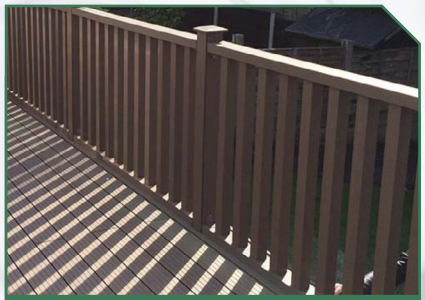
COMPOSITE SLATTED CLADDING

CEMENT FIBRE CLADDING

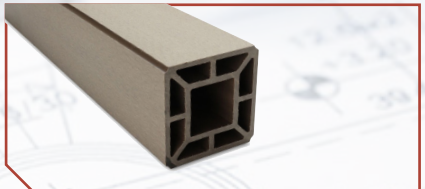


COMPOSITE FENCING

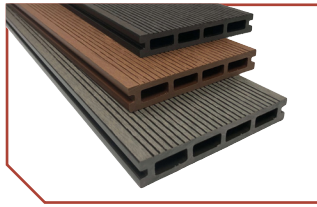




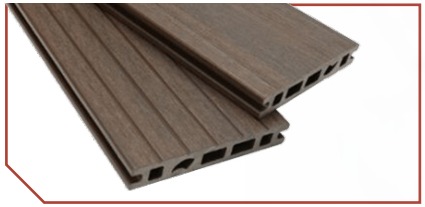
COMPOSITE BALUSTRADES

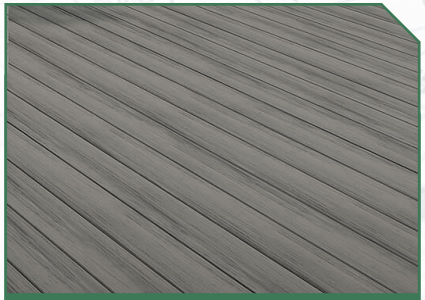


STANDARD COMPOSITE DECKING



PREMIUM COMPOSITE DECKING





MINERAL DECKING

DECKING ACCESSORIES

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