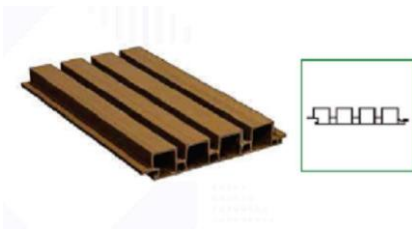




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INSTALLATION GUIDE

Biowood Castellated Profile for Facades
WPO18035



Congratulations on the choice you have made in the selection of this Biowood product. Biowood castellated wall panels profile will give you many years of lower maintenance. When installed in areas exposed to UV light, it must be coated with an Intergrain uv sealer range to prolong the colour of Biowood. Biowood will not move in thickness and width. Unlike timber, it will move in length depending on the length of the board.

How to install Biowood Castellated WPO18035

You will need:

- Measuring Tape
- Power Drop Saw or Fine-Tooth Hand Saw
- Cordless Screwdriver
- Philips Driver Gun
- Pencil
- Square
- String Line
- Fine Bristle Paint Brush or Lambswool Applicator
- 25x12x1.6 Aluminum Angle
- Soudalflex 40 FC adhesive (Polyurethane)
- Sandpaper 120g
- Intergrain Ultradeck
- Stainless Steel Wood Screws C/s Head
- 32x8g, 19x6g, 16x6g
- 6mm Galvanized Starter Strip JCG24
- Gal Clout 30 x 8g @ 600 c.c.
- 5mm Drill Bit
- ECTT13598 (For External Vertical Corners Tongue & Tongue)
- ECTG13598 (For External Vertical Corners Tongue & Groove)
- Ali Angle (For Horizontal Corners)

Setting Out

These boards can be laid horizontal, vertical and diagonally. This profile is a castellated profile with a 180mm actual cover and an 8mm wide x 6mm deep groove at joints. All boards are to be screwed twice and glued (3 beads application) to the structural elements to achieve a bonded fixing method at maximum span centers of 450 mm for Spotted Gum, Natural Oak, Driftwood, Ash White, Pine Wood and Golden Ash. **For Black Japan, Walnut, Weatherwood & Caoba colors, we recommend a maximum 300 mm span centers.**

If installed onto wooden battens, ensure that the battens are securely fastened and true to line to within a plus or minus tolerance of 3mm in 2m for both horizontal and vertical planes. All timbers frames are to be seasoned.

You can also use top hats from the manufacturer of Rondo or Studco. We recommend if using top hats to install in accordance to the manufacturer's recommendation.



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Colours and Finishes

Biowood prides itself in being able to achieve a natural wood appearances and finishes, textures, venations, colors and hues. Biowood Castellated Facade has a slight visible colour tone and hue difference across and along Biowood Castellated Facade Composite profiles simulating the grain, growth rings, and other natural wood features. Similar to natural timber, exact colour and pattern matches are virtually impossible

Biowood Castellated Façade WPO1803 profile is supplied finished appearance and must be uv sealed with an Intergrain UV Seal range to maximize the uv lasting once installed onsite. Biowood Castellated Façade WPO18035 is available in five standard natural wood grain colors.



Weather Wood



Spotted Gum



Driftwood



Deep Walnut



Natural Oak



Black Japan

**Colours and patterns shown are accurate within the limits of printing*

Site Storage and Handling

- Biowood Castellated Facade boards should not be dumped or dropped when unloading
- Biowood Castellated Facade boards should be unpacked, stored on a flat surface and supported at 600mm centers
- Biowood Castellated Facade boards should be stored under cover out of the weather and in the shade, until ready to install
- Biowood Castellated Facade boards should not be stored in the rain if covered with plastic cover sheets
- Biowood Castellated Facade boards should be carried on the edge for better support

Tools

Biowood Castellated Facade can be worked with ordinary woodworking tools.

- Circular saw
- Cordless drill and driver
- Cross miter saw
- Level and chalkline
- Carpenters square
- Tape measure

Cutting and drilling will produce some dust and it is good practice to work in well ventilated place and to wear protective safety equipment.



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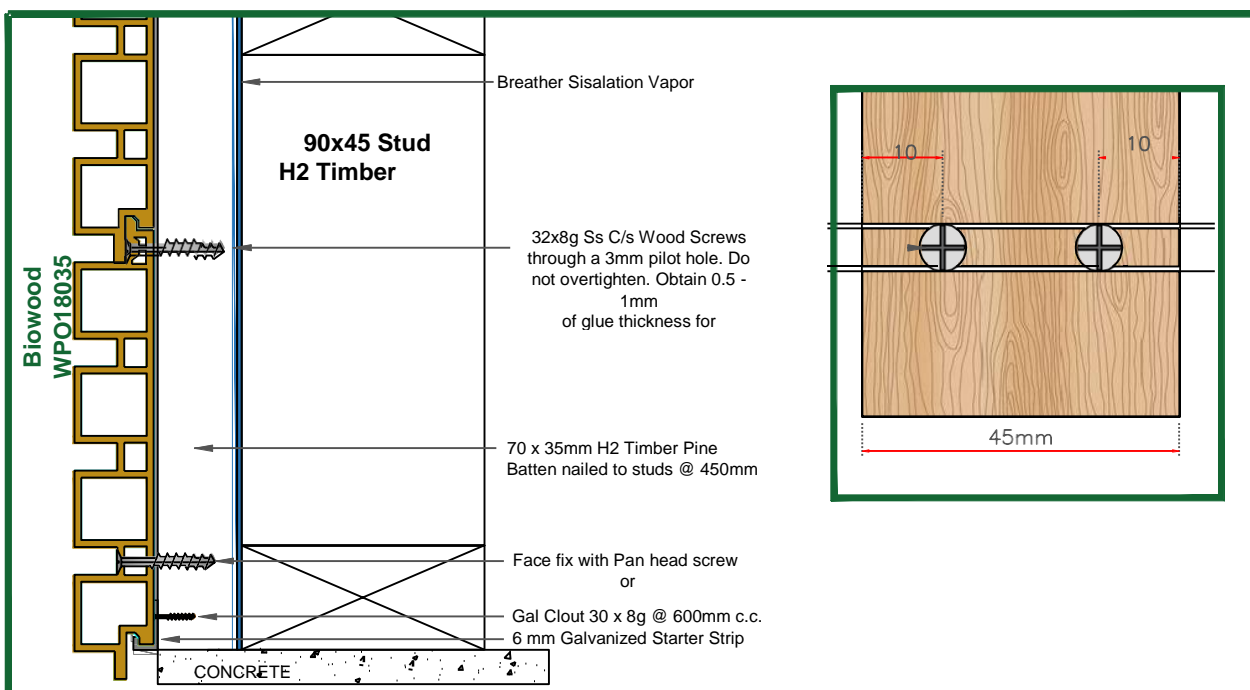
Biowood Castellated Profile for Facades
 WPO18035



Board Set Out-Horizontal laid boards

- Battens must be firmly fixed and true. Biowood panels will follow any unevenness against battens.
- Install vertical odd leg channel screw 38.7 mm (J track) to batten if abutting a vertical wall. (See Diagram 7. Detail A)
- Start laying boards from the base of the wall.
- Install a 6mm Galvanized starter strip JCG24 at base of wall to support and lock the first board place.
- Fix the starter strip using Gal Clout 30 x 8g at 600mm c.c., a minimum of 5mm from the edge and to straight line.
- Position the base of the starter strip 11mm above the bottom of the first board. (See Diagram 1/18035)
- Cut the first board and remainder of the boards to be fixed to this wall to desired length. The temperature of the boards should be about 18°C when cutting of lengths. It is most important that all boards are cut to length and installed at the same temperature when cut. If this is not observed the boards may expand and contract at different rates resulting in uneven board lengths. Leave a 5mm gap at the end of each of each board.
- Apply 3 beads application of Soudalflex 40 FC adhesive to the face of every stud for the full length of the board.
- Lay the first board with groove facing down and insert the inner leg into the starter strip.
- Fix the tongue in the countersunk groove with 32mm x 8g Stainless Steel screws through a 3mm pilot hole. Position the screws 10mm in from the stud edge. Do not over tighten the screws. Best results are between 0.5mm and 1mm of adhesive bed is achieved.
- Repeat this process for the remainder of the wall.
- If sarking is used, we recommend using double battens in order to apply the two screws and 3 beads of adhesive application.
- Spacing of battens at 450 mm c's is recommended when using Spotted Gum, Natural Oak, Driftwood and Golden Ash
- Spacing of battens at 300mm c's is recommended when using Black Japan, Weather Wood, Caoba and Deep Walnut.

DIAGRAM 1 / 18035. Biowood WPO18035 laid horizontal - Starter strip detail Vertical section.





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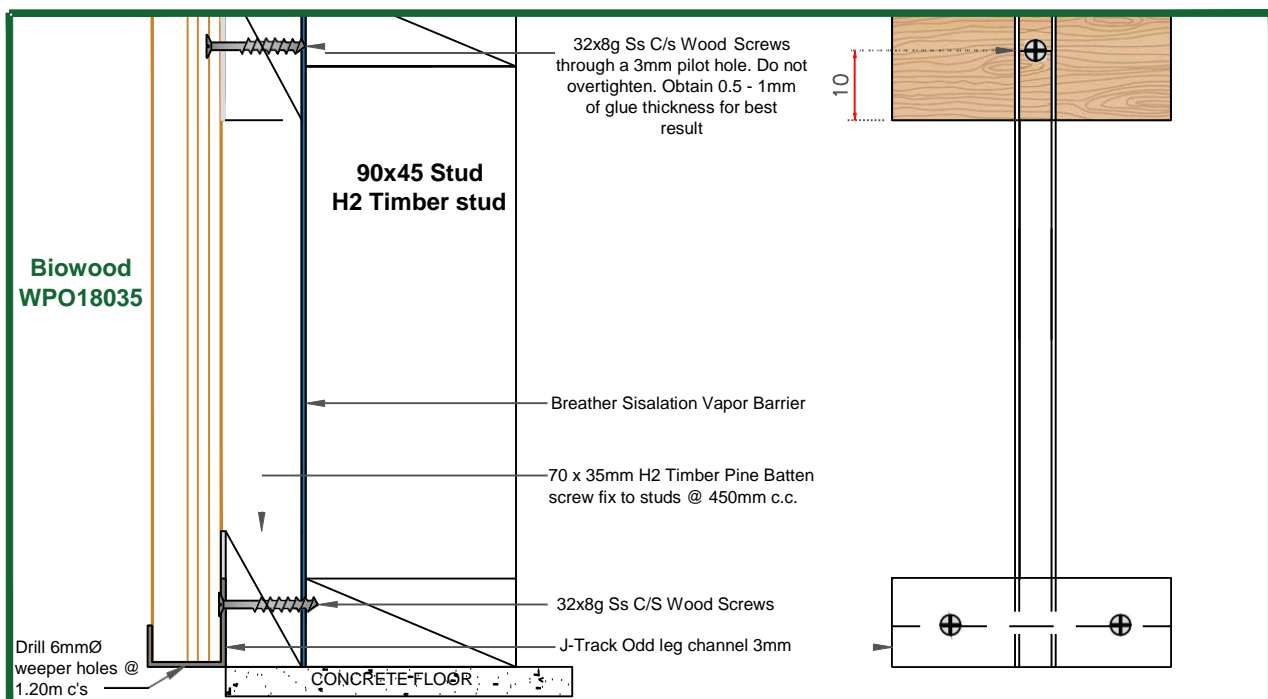
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 WPO18035



Board Set Out-Vertical laid boards

- Battens must be firmly fixed and true. Biowood panels will follow any unevenness against battens.
- Install vertical odd leg channel 38.7 mm screw to batten if abutting a vertical wall. (See Diagram 7. Detail B)
- Start laying boards from the base of the wall.
- Install a 3mm J-Track odd leg channel at base of wall to support and lock the first board place.
- Fix the J-Track using 32mm x 8g Stainless steel screws at 120mm frequency, at the center of the taller side of the J-Track and to straight line.
- Cut the first board and remainder of the boards to be fixed to this wall to desired length. The temperature of the boards should be about 18°C when cutting of lengths. It is most important that all boards are cut to length and installed at the same temperature when cut. If this is not observed the boards may expand and contract at different rates resulting in uneven board lengths. Leave a 5mm gap at the end of each board.
- Apply 3 beads of Soudal 40 FC adhesive to the face of every stud for the full length of the board.
- Install the first board vertically, insert the panel inside the J-Track. (See Diagram 2 / 18035)
- Fix the tongue in the countersunk groove with 32mm x 8g Stainless Steel screws per board through a 3mm pilot hole. Position the screws 10mm in from the horizontal stud edge. Do not over tighten the screws. Best results are between 0.5mm and 1mm of adhesive bed is achieved.
- Repeat this process for the remainder of the wall.
- If sarking is used, we recommend using double battens in order to apply the two screws and 3 beads of adhesive application.
- Spacing of battens at 450 mm c's is recommended when using Spotted Gum, Natural Oak, Driftwood and Golden Ash
- **Spacing of battens at 300mm c's is recommended when using Black Japan and Deep Walnut.**

DIAGRAM 2 / 18035. Biowood WPO18035 laid vertical - J Track detail Horizontal section.





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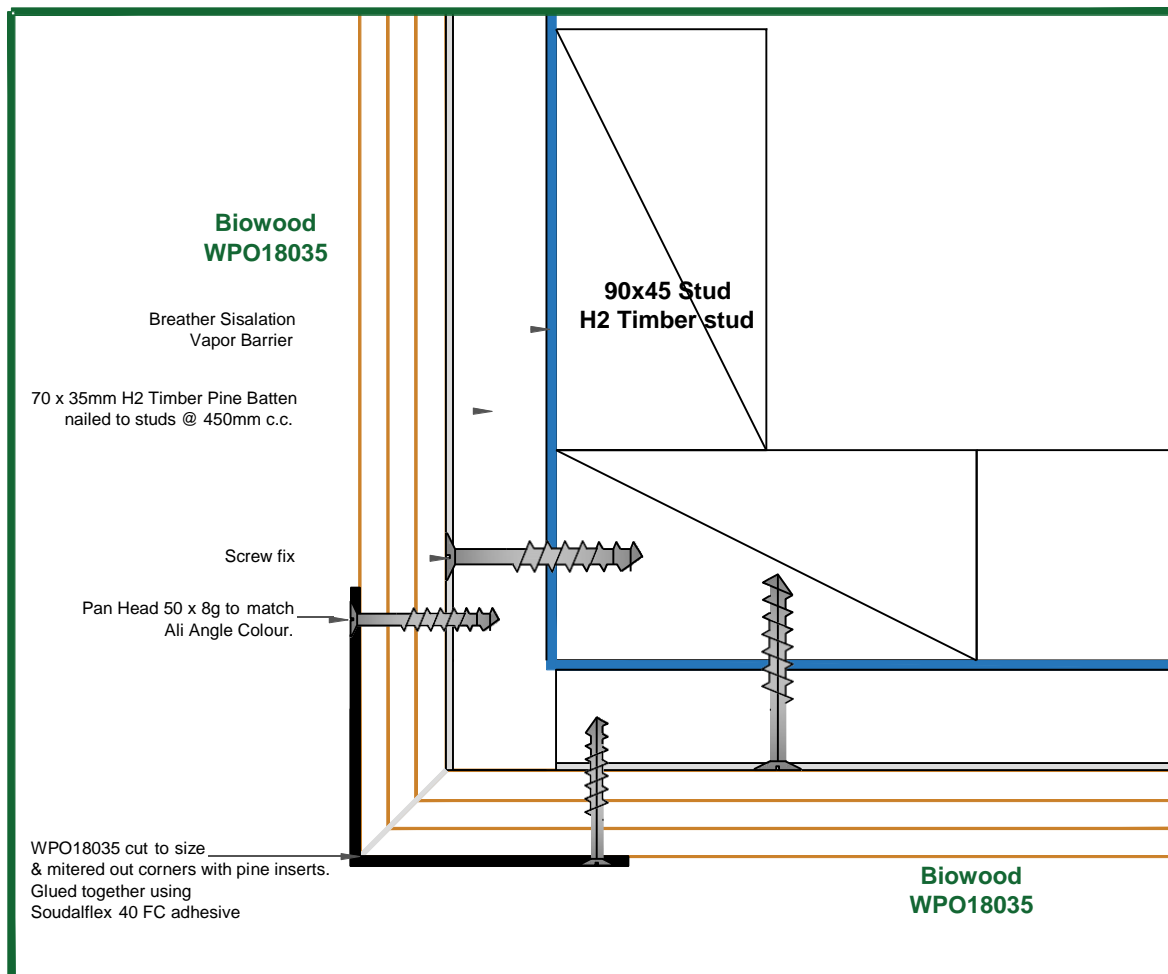
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External Corner - Horizontal Laid Boards

- Diagram 3/18035 shows the recommended method of creating an external corner for horizontal laid boards.
- Install the WPO18035 cut to size & mitered out corners first as set out in diagram 3/18035.
- When mitered cutting, with the hollow core, you are able to insert pine for better cover area when applying our recommended adhesive.
- Fix the ali angle to the board using pan head & 50 x 8g to match ali angle.

DIAGRAM 3 / 18035. Vertical Section - External Corner Detail for WPO18035 for Horizontal laid boards.





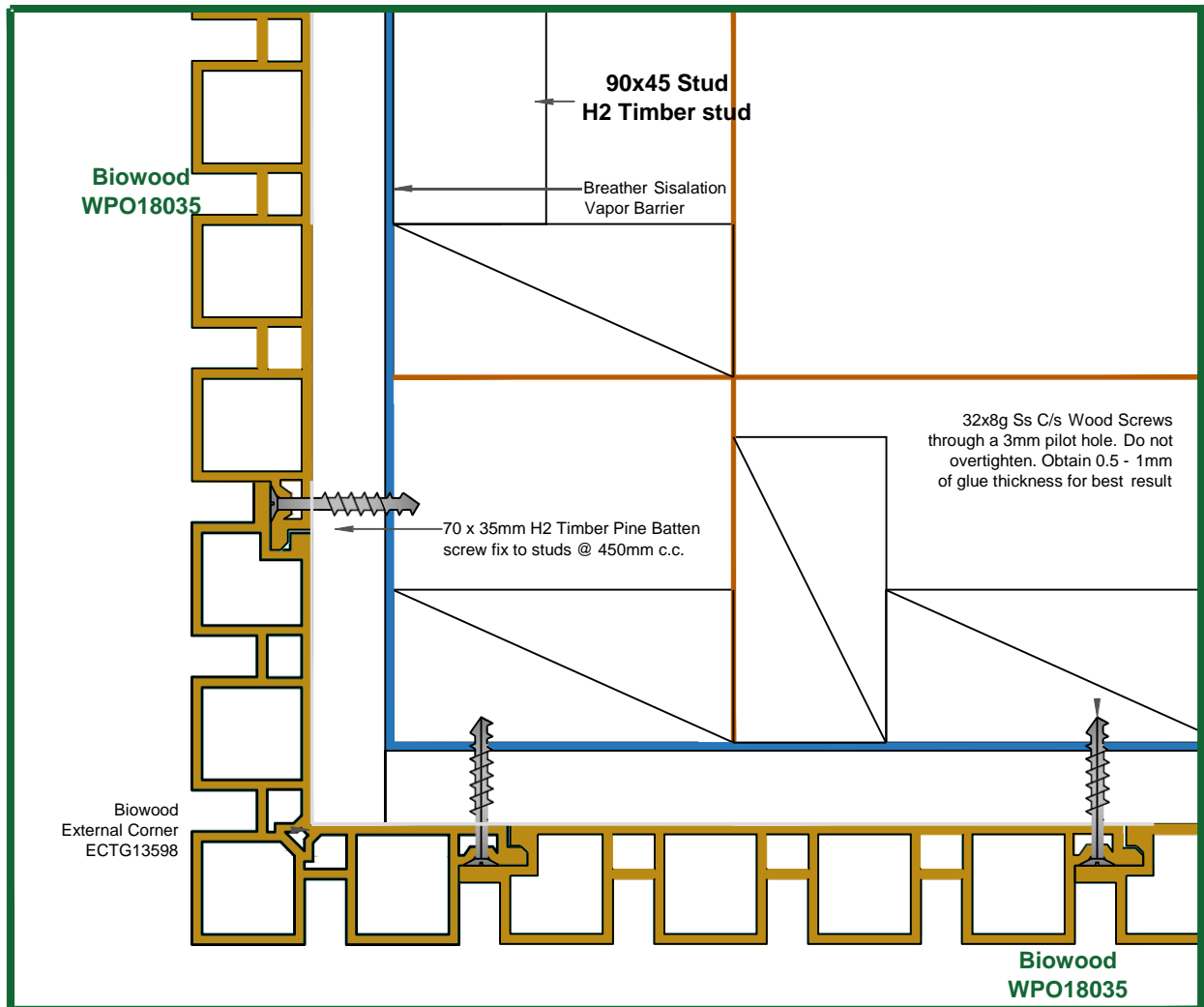
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DIAGRAM 4 / 18035. External Corner (ECTG13598) Detail for WPO18035 for Vertical laid boards.





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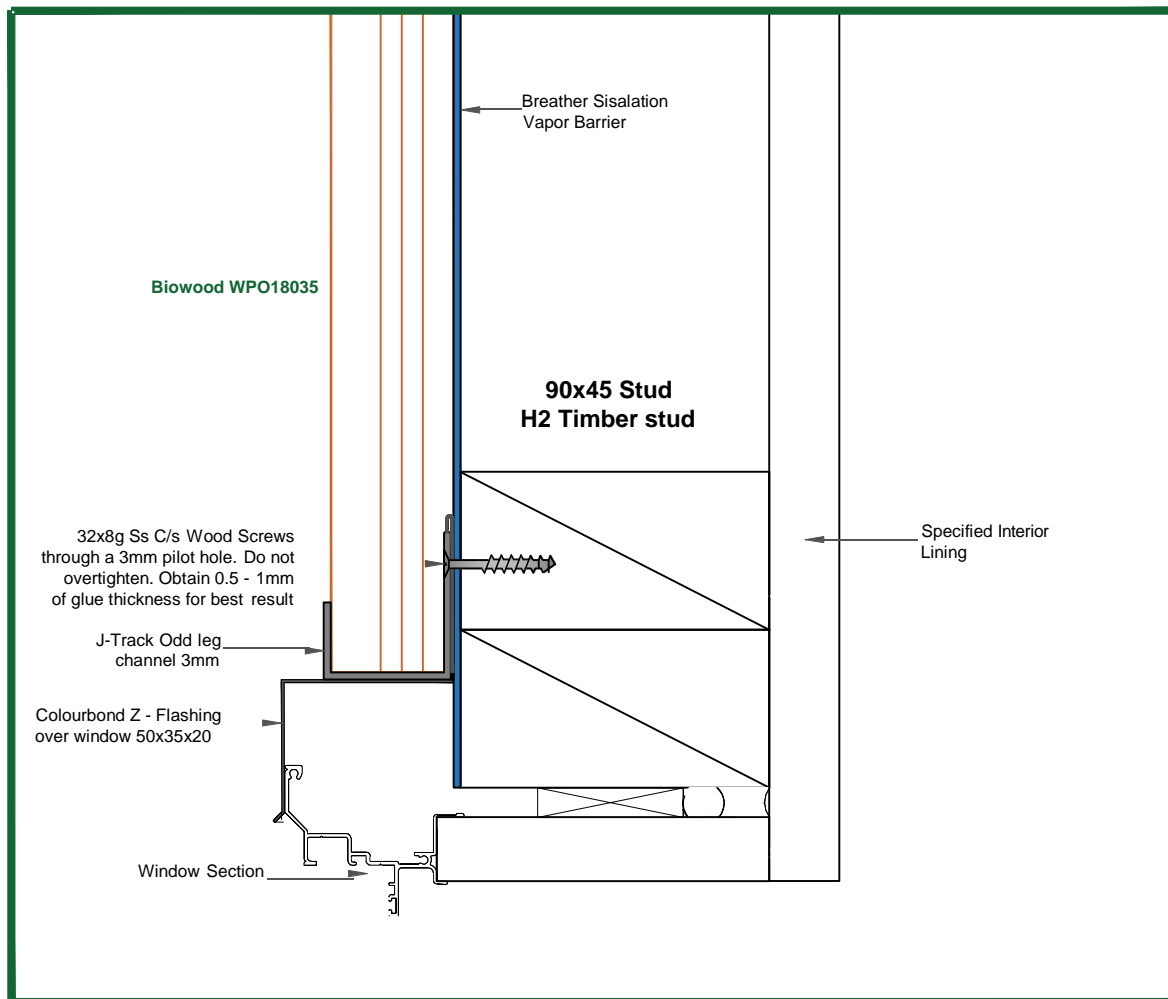
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Window Reveals - Vertical & Horizontal laid boards

- For reveals, fix the J Track (odd leg channel 38.7 mm) over the Colourbond Z Flashing on to the H2 Timber stud.
- Use 32 x 8g Ss C/s screws. See Diagram 5 / 18035.

DIAGRAM 5 / 18035. Window Reveals - Detail Typical





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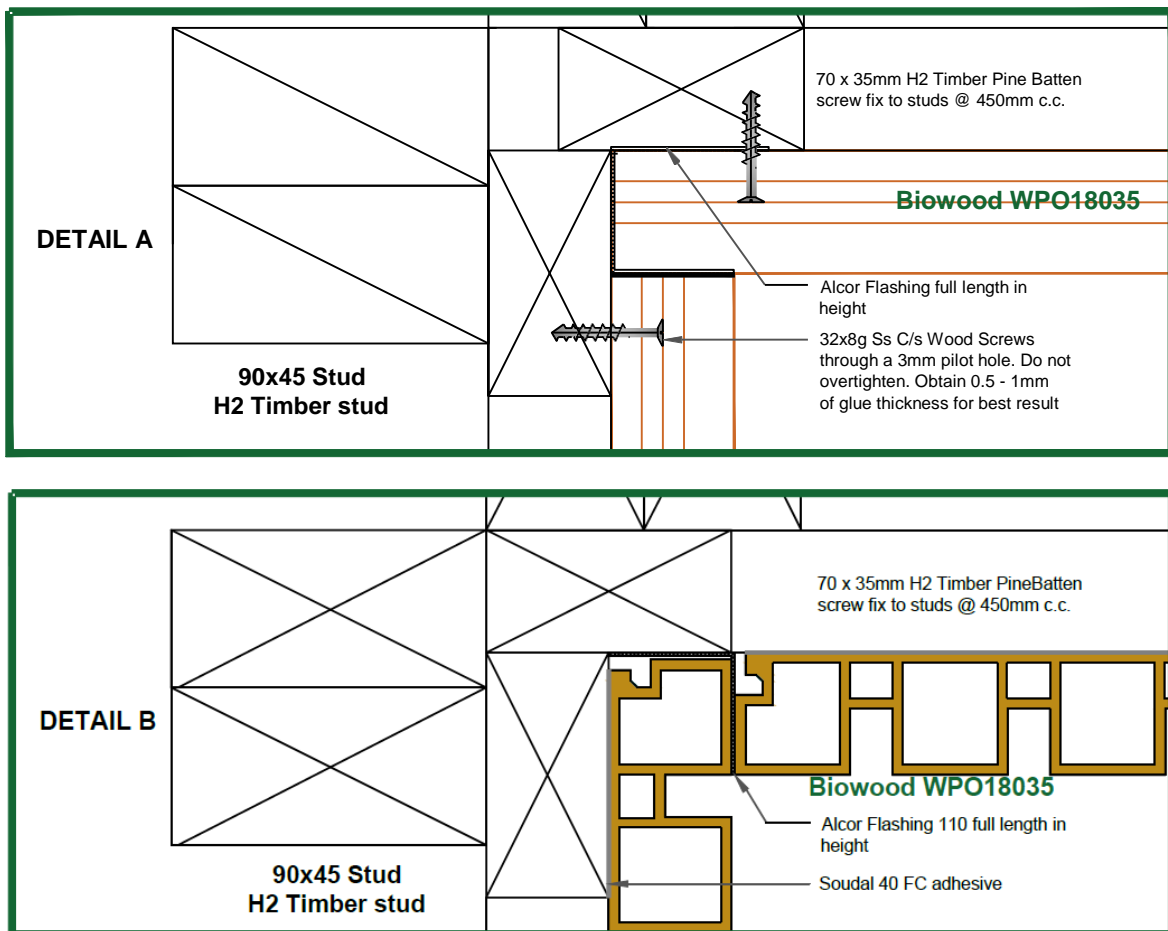
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Internal Corner - Vertical & Horizontal laid boards

- Butt Joint of WPO18035 is recommended for an internal corner laid horizontal or vertical.
- See Diagram 6 /18035: Detail A & B.

DIAGRAM 6 / 18035. Horizontal & Vertically Laid WPO18035 Butt Joint Detail





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DIAGRAM 7 / 18035. Edge & end details

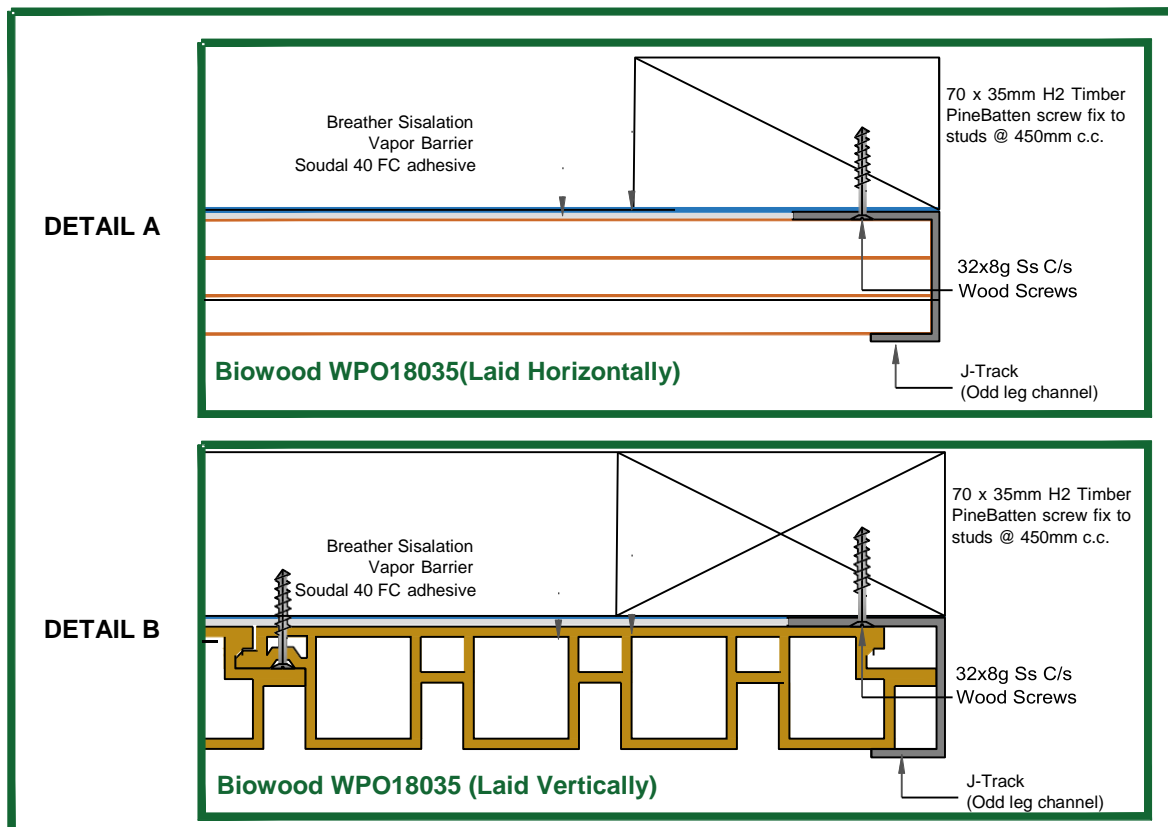
Soffit & Ceiling Lining

The installation of Biowood WPO18035 as a soffit or ceiling lining is carried out in the same method as the wall installation. We recommend Studco or Rondo framing systems for commercial ceiling or soffits lining application.

We recommend if using top hats to install in accordance with the manufacturer's recommendation.

End of profile detail

- Where the end or the long edge of Biowood WPO18035 will be inside and covered by the Biowood J-Track (Odd leg channel).
- See Diagram 7 / 18035 A & B.





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Butt joints and control joints

Biowood will expand and contract in length due to weather conditions. Although this movement will be minor, it is important to make allowances in your design to accommodate this movement.

At each end of every board an expansion gap must be allowed of widths varying from a minimum of 3mm to a maximum of 6mm. See below tables 1 and 2.

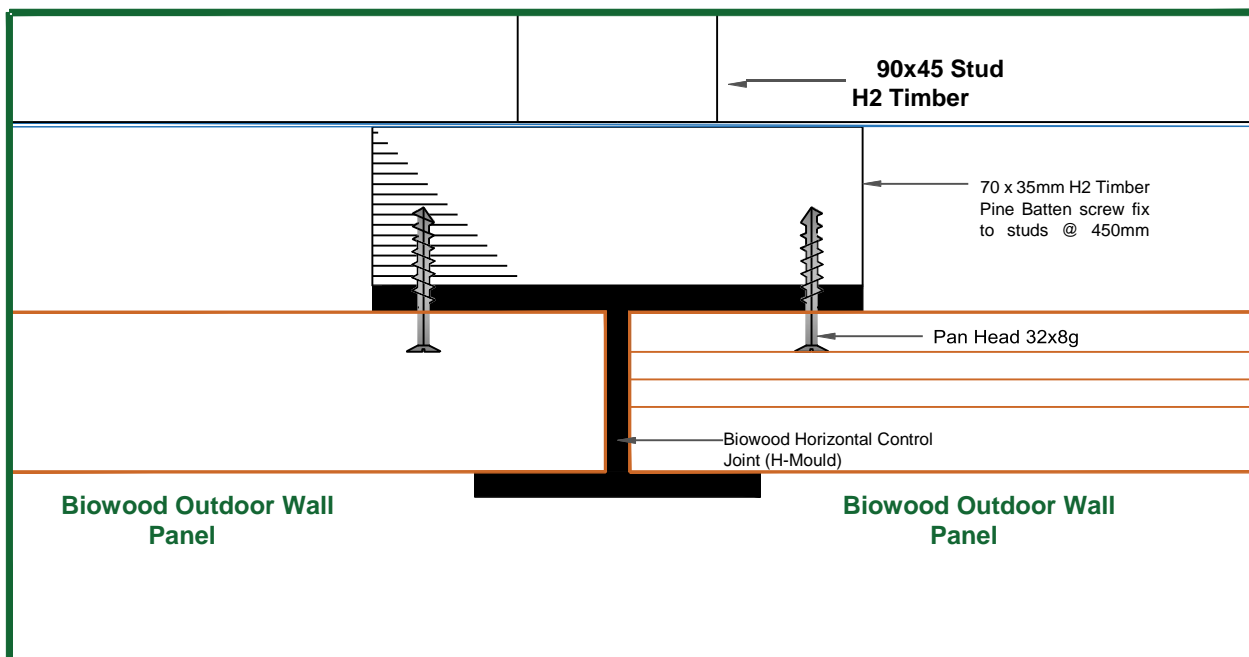
TABLE 1. Single Board Run Expansion Gaps

BOARD LENGTH	GAP AT EACH END
1000mm to 3000mm	3mm
3001mm to 4500mm	4mm
4501mm to 5850mm	5mm

TABLE 2. Expansion joint of multiple board run

MAXIMUM BOARD LENGTH	GAP AT BUTT JOINT
5850mm	6mm

DIAGRAM 8 / 18035. Cross Section: Typical Expansion Joint





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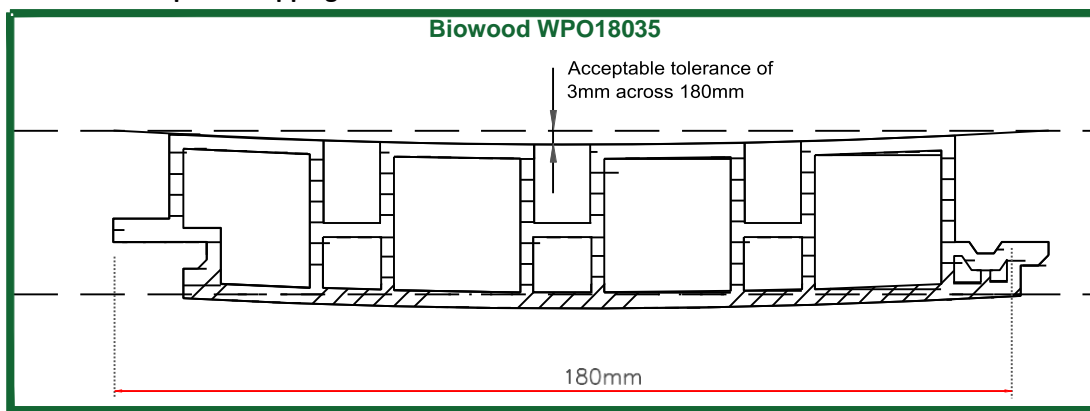
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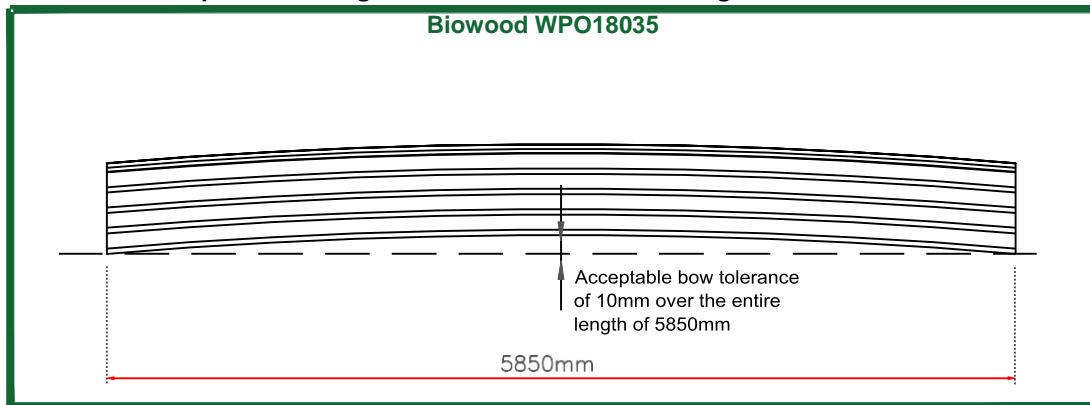


Detailed plan of acceptable tolerance of WPO18035:

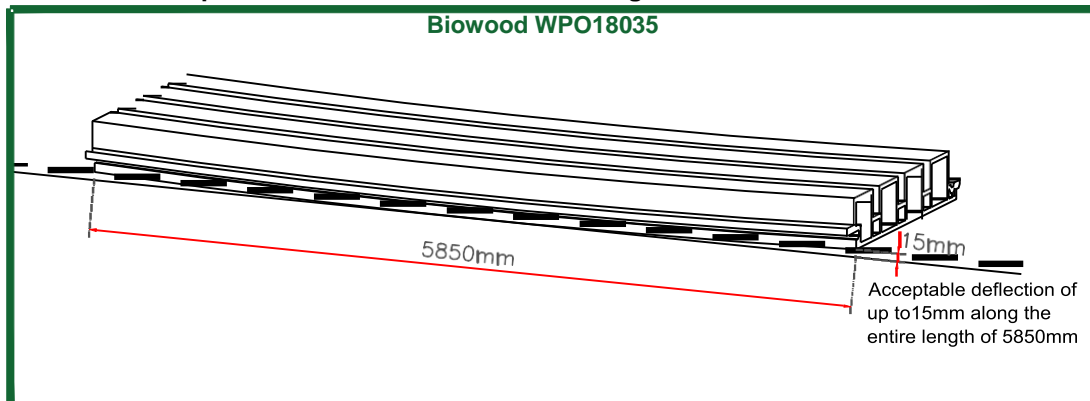
DETAIL A: Acceptable cupping tolerance across 180mm



DETAIL B: Acceptable bowing tolerance over the entire length of 5850mm



DETAIL C: Acceptable deflection over the entire length of 5850mm





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UV sealing of boards

When exposed to UV light, Biowood must be uv sealed to control colour fading. Biowood product consist of 70% wood fiber and will turn grey if left unsealed with uv.

In order to maintain the best appearance of your wall panels, Biowood must be uv sealed once installed onsite with Intergrain uv seal range in Natural for Spotted Gum, Charcoal Stain for Black Japan, Grey Stain for Weather Wood, Light Grey Stain for Driftwood, Golden Oak Stain for Natural Oak, Natural for Deep Walnut and Rich Chocolate Stain for Caoba.

When two coats are applied in the correct thickness or microns, it is to be expected 5% colour reduction within 3 to 5 years for cladding or façade application depending on exposure. Apply Intergrain range uv sealing in accordance with instructions on the can and printed literature.

Maintenance

Your Biowood castellated profile will deliver many years of carefree maintenance. To maintain your pride in the beauty of this product. It is recommended the whole wall is washed down with clean tap water and lightly brushed with a soft hair, brush or broom every three months. This action will remover dust, dirt, debris and atmospheric fall out which accumulate on the shiplap shoulder where board have been laid horizontal (see diagram G).

Vertically laid boards are naturally self-cleaning. Wash every 6 months.

DIAGRAM 9 / 18035. Cross Section: Joint

