

CLAD-DECK

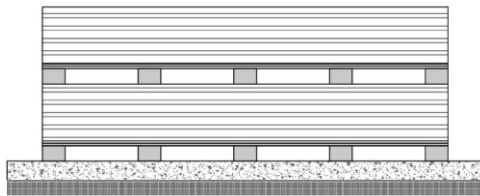
Decking Installation Guide

Before You Begin:

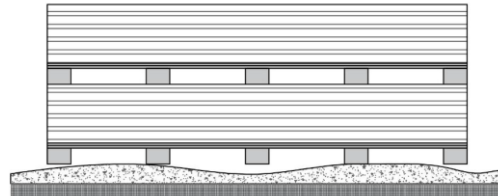
Check Local Building Codes: Ensure compliance with local building codes and regulations regarding deck construction, including permits and structural requirements.

Delivery/Storage

The correct way to store WPC decking is on a flat, solid surface such as joists or pallets. This method helps to prevent warping, bending, or damage to the decking boards by providing adequate support across the entire surface area. Storing the decking on joists or pallets also allows for proper airflow underneath the boards, which can help prevent moisture build up and mould growth. Additionally, keeping the decking elevated can protect it from potential water damage if the storage area experiences flooding or moisture infiltration. Overall, storing WPC decking on a flat solid surface ensures that it remains in optimal condition until it is ready for installation.



Correct storage method



incorrect storage method

Choose the Right Tools: Gather the necessary tools for installation, including a circular saw/ Plunge saw, chop saw, drill, measuring tape, level, pilot drills bits, and safety equipment such as gloves and goggles.

Plan Your Layout: Determine the layout and design of your deck, considering factors such as access points, traffic flow, and any existing structures or obstacles.

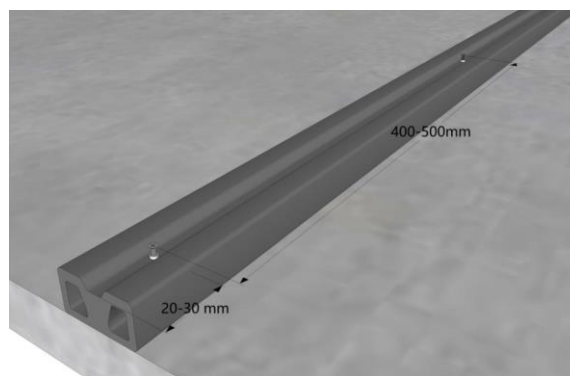
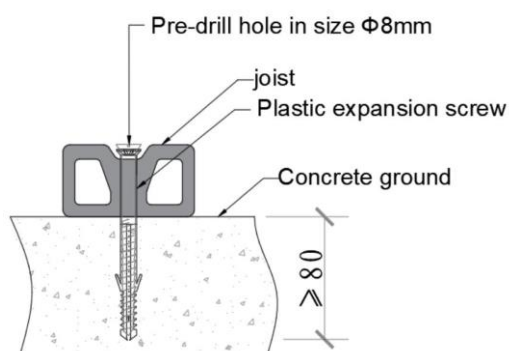
Prepare the Site: Clear the area where the deck will be installed, removing any vegetation, debris, or obstacles. Ensure the ground is level and compacted.

Installation Steps:

Flat Foundation: Composite decking should not be utilized as part of the foundation or substructure. The ground or supporting structure must possess sufficient strength to prevent shifting, collapse, or subsidence. A minimum thickness of 150mm of hardened cement is advised for the ground, with the cement being applied over a large area rather than in small tiles. Furthermore, it is imperative that the installation surface is level/the correct fall and flat. These measures ensure the stability and longevity of the decking installation.

Joist Material Selection: Joists must be fixed on hard ground. You have options including steel joists, hard wood joists, or WPC joists.

Spacing Requirements: Adequate spacing in the joists is required to prevent deck boards from bending. keep a space of two joists at 275mm centres.



Screw Length: Screw must be no less than 60mm in the cement. For example, if the joist thickness is 30mm, the screw should be 90mm in length.

Positioning of Screws: The first or last screw position should be 20-30 mm from the starter or end of the joist. The gap between each fixing should be less than 500mm

Post foundation: Selecting Materials: Choose durable materials for your post foundations that can withstand outdoor conditions. Common options include pressure-treated lumber, steel, or composite materials designed specifically for post support.

Location and Spacing: Determine the location and spacing of your post foundations according to the layout of your decking. Typically, posts are spaced evenly along the perimeter of the deck and at intervals along any support beams or joists, this is determined by the type of materials that are being used.

Excavation: Dig holes for the post foundations using a post hole digger or auger. The depth and diameter of the holes will depend on the size and load-bearing requirements of your decking structure. Ensure that the holes are deep enough to provide adequate support and stability.

Setting Posts: Set the posts in the holes, ensuring they are plumb and level/ the correct fall. Use temporary bracing to hold the posts in position while you backfill the holes with concrete.

Pouring Concrete: Mix and pour concrete into the post holes, filling them to ground level. Use a level to check the alignment of the posts and adjust as necessary before the concrete sets.

Allowing Cure Time: Allow the concrete to cure according to the manufacturer's recommendations before proceeding with decking installation. This typically takes at least 24 to 48 hours.

Continuing Deck Installation: With the posts/foundations in place, you can proceed with installing the decking boards, railing systems, and any other components of your composite decking structure.

Constructing the Deck Frame:

Begin by constructing the frame for your deck using pressure-treated lumber/composite or steel joists. These materials provide the structural support necessary for your composite decking.

Ensure the frame is square and level at the start to the correct fall of 1:100. This will provide a stable base for the decking boards and allow the right angle for water to flow off efficiently.

Follow local building codes and regulations regarding proper support and spacing for the frame, including the use of footings or piers where necessary.

Installing Support Beams or Joists:

Once the posts are in place, install support beams or joists on top of the posts or fixed to the sides, depending on your design.

Ensure that the support beams or joists are level/have the correct fall and properly aligned before securing them in place.

Use appropriate fasteners, such as lag screws hangers, to secure the support beams or joists to the posts or frame.

Securing the Frame:

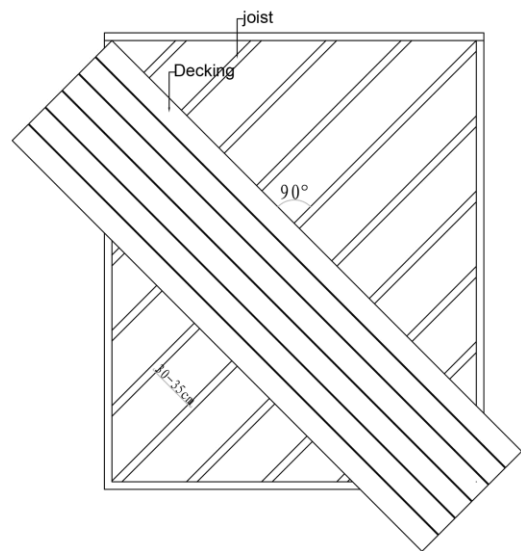
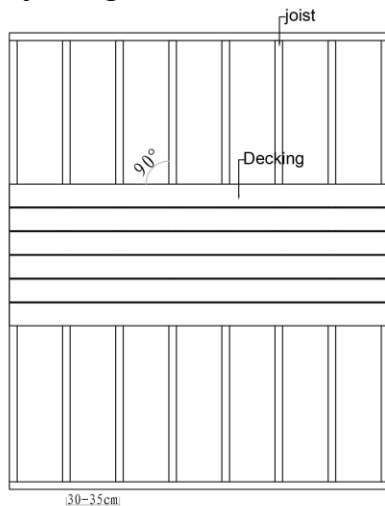
Secure the frame together using screws, ensuring all connections are tight and secure.
Double-check the alignment and levelness/fall of the frame, making any necessary adjustments before proceeding with decking installation.

Spacing and Layout:

Pay attention to the spacing and layout of the support beams or joists, ensuring they are evenly spaced and aligned to support the decking boards properly.

This can change depending on your final design finish. spacing from 250-300mm is required, we recommend 275mm centres to flow evenly with the 2.2m lengths.

Use a tape measure and level to verify the spacing and alignment, adjusting as needed.



Weatherproofing:

Consider applying a weatherproofing sealant or coating to the frame to protect it from moisture and weather damage, especially if using pressure-treated lumber.

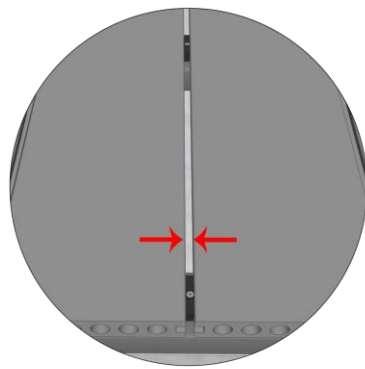
Quality Check:

Conduct a final quality check of the frame, verifying that all connections are secure, level, and properly aligned.

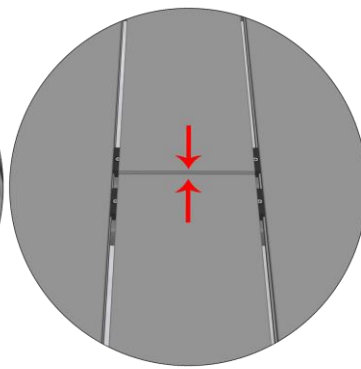
Make any necessary adjustments before proceeding with the installation of composite decking boards.

Lay the First Decking Board:

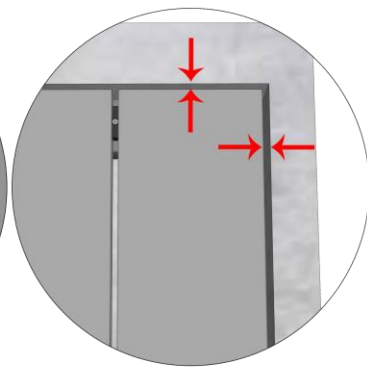
Start by laying the first decking board along the outer edge of the deck, ensuring it is properly aligned and supported. Use stainless steel screws or hidden fasteners to secure the board to the joists, following the guidelines for spacing and placement.



Side to side 4-8mm



End to end 3-5mm



Side to solid object min 5mm

Key tips:

Seasonal Variation: Decking installed during winter should have slightly wider gaps between boards compared to installations in summer. This is because decking materials tend to contract in colder temperatures and expand in warmer temperatures. By allowing for more space during installation in winter, you can prevent buckling or warping of the boards as they expand in the warmer months.

Time of Day: Similarly, decking installed in the morning or at night should have slightly wider gaps between boards compared to installations at noon or during the warmer parts of the day. This is because decking materials may expand slightly as they warm up throughout the day, and contracting as they cool down at night. Allowing for more space during installation at cooler times can accommodate this natural fluctuation in size.

Support at Board Ends: Where two board ends meet, place two pieces of joists and buckles under each board end. Ensure that the space between the two joists is at least 3-5mm. This provides adequate support and spacing to prevent bending or warping of the decking boards at the joints.

Securing the First and Last Boards: The first or last decking boards should be secured using starting clips or fixed with self-tapping screws on the joist. The first screw or buckle should be positioned 15-40mm from the starter of the planks. This ensures that the first and last boards are securely attached and properly aligned.

By adjusting the gap between decking boards based on seasonal variation and time of day, you can ensure that the decking maintains its structural integrity and aesthetic appeal throughout the year, minimizing the risk of damage from expansion and contraction.

Continue Installation: Continue installing decking boards, working your way across the deck surface. Use a carpenter's square or spacer to maintain consistent spacing between boards. Cut boards to size as needed using a circular saw.

Fasten Boards: Secure each decking board with screws or hidden fasteners, ensuring they are firmly attached to the joists. Pre-drill holes for screws near the ends of boards to prevent splitting.

Trim and Finish Edges: Trim any excess decking material from the edges of the deck using a saw, leaving a clean and finished appearance. Install decking or cladding along the perimeter of the deck to conceal the substructure and provide a polished look. Corner trim can be used to finish the edges where step nosing hasn't been used.

Install Railing and Accessories: If desired, install railing systems, balusters, and other accessories to enhance the safety and aesthetics of your deck. Follow the manufacturer's instructions for installation and attachment methods.

Final Inspection: Once the decking is installed, conduct a final inspection to ensure everything is properly aligned, secured, and finished. Make any necessary adjustments or corrections before using the deck.

Maintenance Tips:

Regularly clean the deck surface to remove dirt, debris, and stains.
Inspect for loose fasteners or damaged boards and make repairs as needed.
Apply a composite deck cleaner periodically to maintain appearance and longevity.
Trim back vegetation to prevent moisture build up and ensure proper airflow.
Follow guidelines for maintenance to preserve warranty coverage.

By following this installation guide and implementing proper maintenance practices, you can enjoy a flawless and durable composite deck for years to come.