



Guansen WPC

COMPOSITE DECKING

INSTALLATION INSTRUCTIONS

2026

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Safety Information & Precautions

When working on any decking installation or construction project, appropriate safety measures must be followed to reduce the risk of injury or material damage.

Personal Safety

- Wear appropriate (PPE) protective equipment, including safety glasses, gloves, and protective clothing.
- Dust or fibres generated during cutting may cause temporary skin or eye irritation.
- In case of eye contact with dust, rinse with clean water. Seek medical attention if discomfort continues.
- For skin contact, wash with soap and cold water. Avoid rubbing irritated areas.



WARNING: Improper use of power tools or installation methods may result in serious injury. Always follow safety instructions.



WARNING: Decking boards are not structural components and must not be used to support loads or framing.



CAUTION: Sharp edges on fasteners and accessories may cause cuts. Handle with care.



CAUTION: Excessive heat exposure may cause surface damage or deformation. Avoid fire pits and reflective heat sources.



CAUTION: Concentrated loads (e.g. ladders) may damage decking if weight is not properly distributed.



CAUTION: Install only in accordance with the recommended spacing and ventilation guidelines to prevent performance issues.

LOCAL BUILDING CODES & REGULATIONS

All decking installations must be carried out in accordance with applicable local, state, and national building codes and regulations. The installer is responsible for ensuring that the substructure design, joist spacing, fixing methods, and overall construction comply with all relevant regulatory and structural requirements.

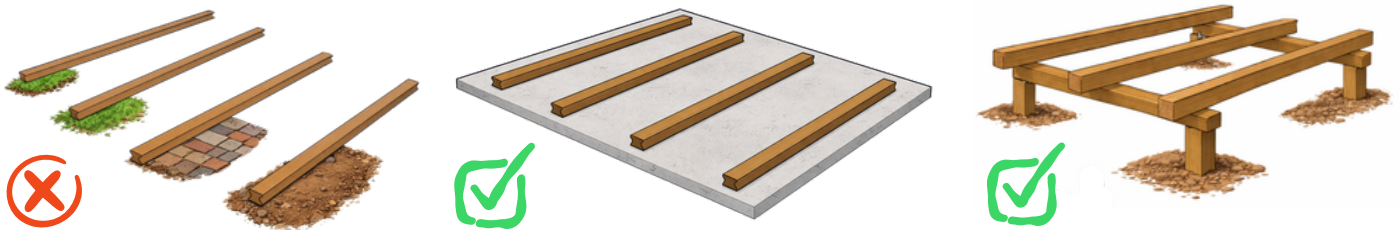
ACCLIMATION AND STORAGE

Store composite decking boards in their original packaging and keep them in a covered, well-ventilated area. If installation is delayed, boards must be placed on a flat, level surface, supported every 24 in. (609.6 mm), at all times to prevent deformation & to ensure safety. Do not store decking on uneven or sloped surfaces.

Keel/Joist Substructure Requirements

Joists must be installed on a **solid, stable, and properly constructed** substructure. Acceptable support methods include:

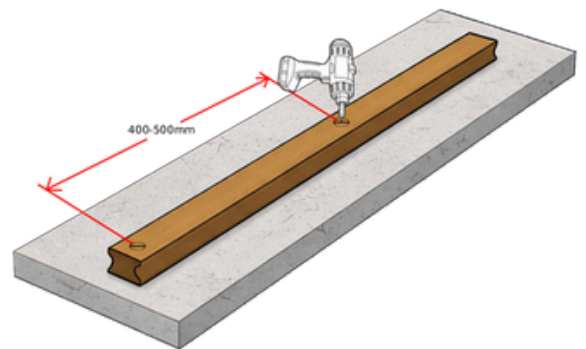
- Concrete slabs or footings, secured using expansion anchors or suitable fixing screws
- Bearer-and-post systems or other approved structural framing designed in accordance with local building codes.



Joists must be fully supported and level. **Do not install joists directly on grass, uneven bricks, loose paving, or unstable surfaces**, as these may shift over time and cause deck movement or failure.

Before assembling the joists, **pre-drill all fixing points** to reduce stress on the material and prevent cracking or damage during installation.

When fixing joists to a concrete surface, install expansion screws at a spacing of **400–500 mm** to ensure proper load distribution and stability.



After installation, check that all expansion screws are fully tightened and firmly secured to prevent movement or loosening over time.

Local Building Codes and Regulation

All decking installations must comply with applicable state, local, and national building codes. It is the installer's responsibility to ensure the substructure design, spacing, and fixing methods meet local regulatory requirements.



Keel Spacings

Under normal residential or light commercial use, install joists at **300–350 mm** centres.

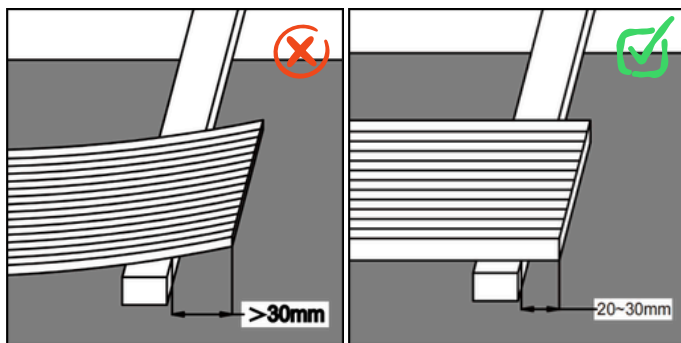
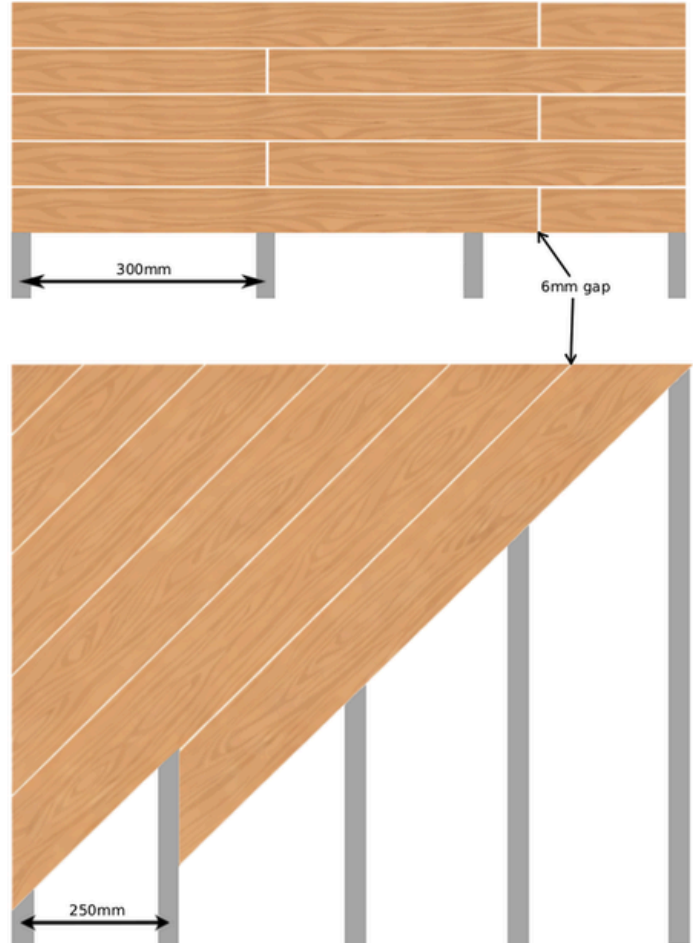
For best results, **300 mm** spacing is recommended.

In **high-traffic areas** such as public spaces, walkways, or tourist locations, reduce joist spacing to **200 mm or less** to increase load capacity and overall stability.

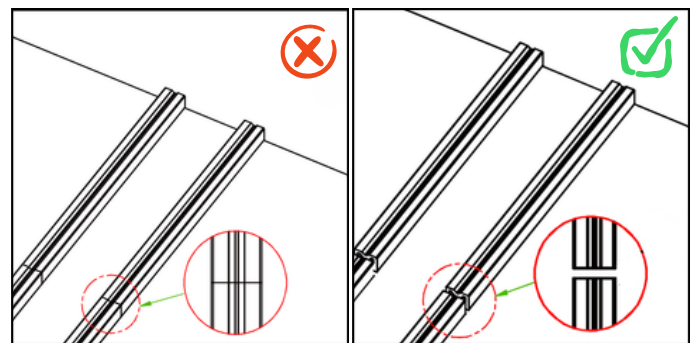
45° Board Installation

When decking boards are installed at a **45° angle** to the joists, reduce joist spacing to **200–250 mm** centres for both residential and commercial applications to ensure adequate support and long-term performance.

Leave a **6 mm gap** between adjacent decking boards to allow for thermal expansion, drainage, and proper ventilation during temperature and weather changes.



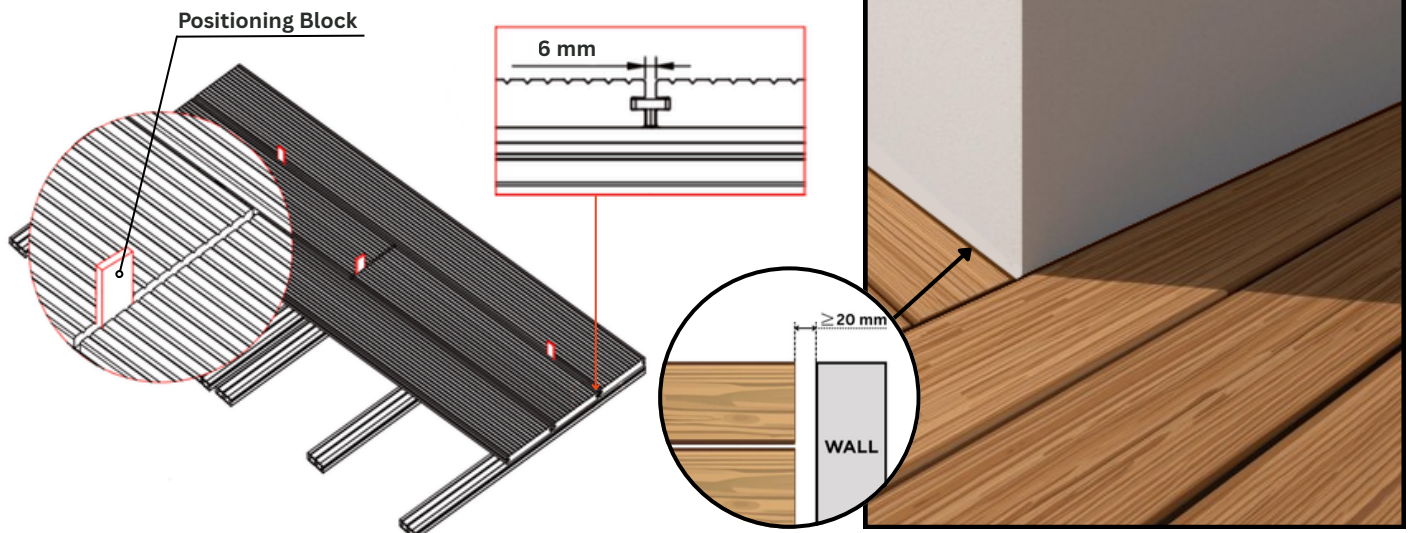
Ensure that both ends of each decking board are **fully supported by joists**. The overhang at the end of the board must **not exceed 30 mm**.



When two joists meet end to end, leave a **10–15 mm gap** between them to allow for expansion and proper movement.



Decking Board Installation



Expansion Gaps Between Boards

Maintain a **6 mm gap** between adjacent boards using a positioning block or spacer to ensure consistent spacing across the deck

Allows for thermal expansion and proper ventilation and drainage when installing WPC decking.

Clearance at Walls and Fixed Structures

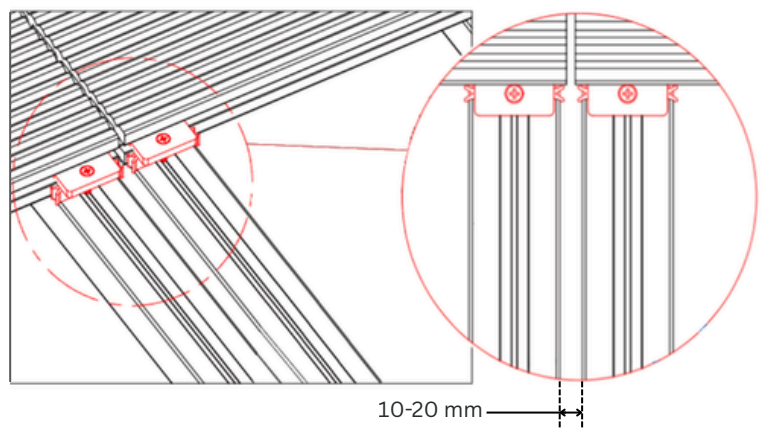
When decking is installed near walls or other fixed structures, leave an expansion gap of **at least 20 mm** between the decking and the structure to allow for movement and to prevent deformation.

Board End-to-End Joints

Where two decking boards meet end to end, **double joists must be installed** to fully support both board ends.

Maintain a spacing of **10-20 mm** between the two joists.

Fix each decking board independently to its respective joist. This prevents stress buildup and reduces the risk of board damage or lifting.



Clip Installation

When installing G&S decking clips, **do not** drive screws directly into the WPC joists. **Pre drill the joists** using a drill bit approximately **1 mm smaller** than the screw diameter, then fasten the clips lining up with the pre drilled holes.

This helps to prevent material damage and ensure a secure fixing.

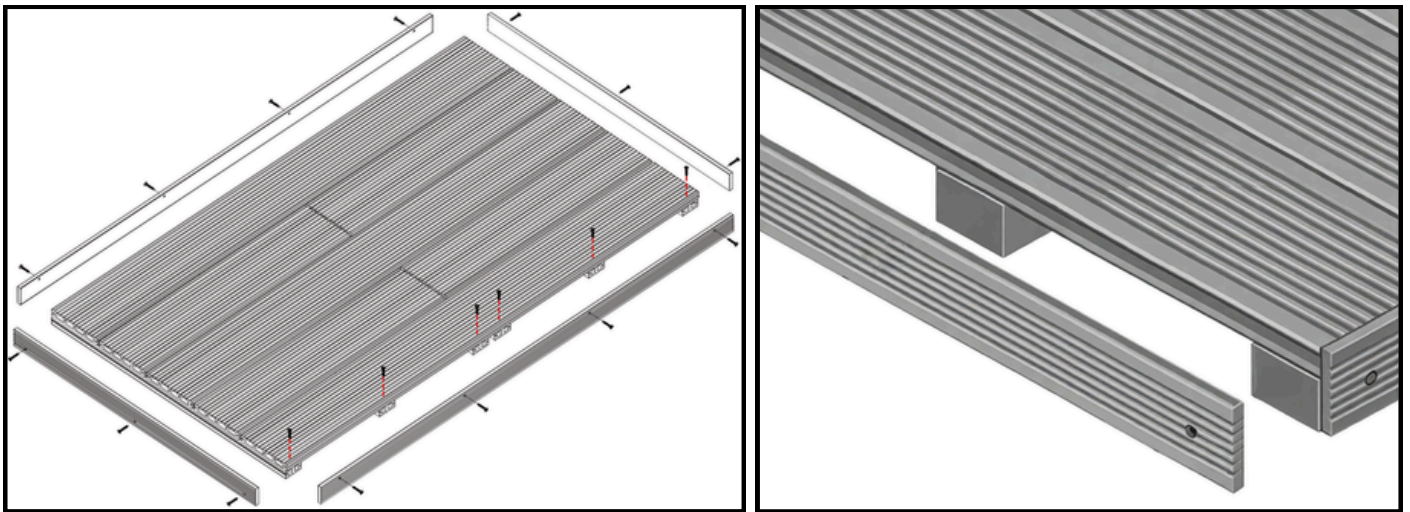




Decking Trim & Finishes

Fascia Installation & Fixing Guidelines

Fascia boards are used to conceal exposed joists, board ends, and expansion gaps, providing a clean and professional finished appearance.



Installation Requirements

- Ensure all decking boards are **fully installed and securely fixed** before installing trims or fascia.
- Trims and fascia boards must be installed on a **stable, continuous substructure** (joists, bearers, or blocking) to ensure adequate fixing support.
- Allow for thermal expansion of WPC materials when installing trims and fascia.

Fascia boards must be securely fixed to a solid structural backing. This may be achieved by fixing directly to aligned joist ends, to perimeter blocking, or to a rim joist where required by local building codes.

Fixing Method

- **Pre-drill all fixing holes** in the trim/fascia boards to prevent cracking or deformation.
- Use corrosion-resistant screws suitable for outdoor use (stainless steel or coated screws recommended).
- **Do not over-tighten screws.** allow slight movement to accommodate expansion and contraction.
- Recommended fixing spacing: approximately **300–400 mm** centres, **or as required** to ensure a secure fit.

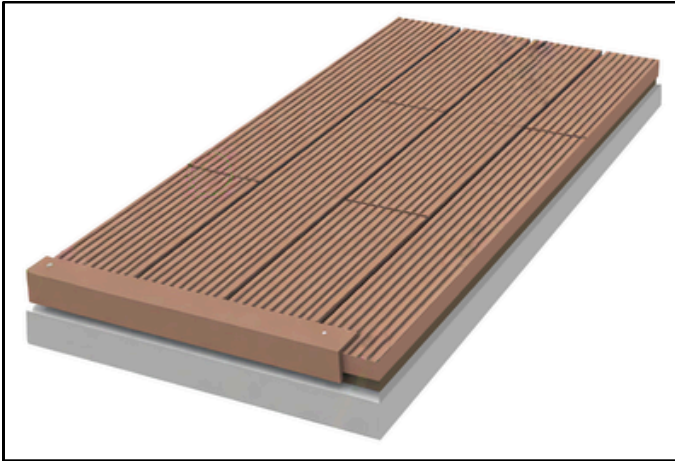
Expansion & Clearance

- Leave an expansion gap of **3 mm** between adjoining trim or fascia boards.
- Maintain a minimum clearance of **10–20 mm** between fascia boards and ground level to allow ventilation and prevent moisture buildup.
- Where trims meet walls, posts, or other structures, allow sufficient clearance to avoid restriction of board movement.



Decking Edging / L-trim Fixing Guidelines

Decking edging (also referred to as edge trim or L-trim) is another method used to finish exposed deck edges, conceal the ends of decking boards and joists, providing a complete look.



Installation Guidelines

- Decking edging must be installed after all decking boards are **fully fixed and aligned**.
- Ensure the deck perimeter is **straight and level** before fitting edging profiles.
- Leave an expansion gap of **6-7 mm** between the decking boards and the edging to allow for thermal movement.
- Edging profiles should be **fixed to a solid substructure** such as joists, perimeter bearers, or blocking installed behind the edge.

Fixing Method

- **Pre-drill all fixing holes** in the edging to prevent cracking or deformation.
- Use stainless steel or corrosion-resistant screws suitable for outdoor use.
- Fixings should be spaced at **~300-400 mm** centres along the length of the edging, or as necessary.
- Do not over-tighten screws. Allow the edging to sit firmly while still permitting minor expansion and contraction.

Corners and Joints

- Mitre edging at corners for a neat finish, or butt-joint where mitres are not practical.
- Where two edging pieces meet end-to-end, leave a **2-3 mm** expansion gap.

Drainage and Ventilation

- Do not fully seal the bottom edge of the deck with edging.
- Maintain sufficient ventilation and drainage beneath the deck to prevent water build-up and moisture retention.



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