

Durabam® Bamboo Decking

Installation Instructions

This document provides comprehensive installation, maintenance, and user guidance for **Durabam® Bamboo Decking**, adapted for Australian conditions and best practice. Always comply with local building codes and council requirements.

1. Before Installation

1.1 General Requirements

- Ensure the decking installation complies with **local building regulations, Australian Standards, and council requirements.**
- Waterlogging beneath the deck must be avoided. Prepare a **water-permeable ground structure**, such as compacted sand layers with gravel dispersion.
- Support the sub-frame using **40-50 mm thick concrete/stone tiles or adjustable pedestals.**
- Install a **root barrier / weed membrane** beneath tiles or pedestals to prevent weed growth.

1.2 Drainage & Slope

- A **1-2% slope** is recommended to allow effective surface water drainage.
- Decking may be installed flat; however, water will remain on the surface longer, which may increase surface checking and cleaning requirements.
- Boards with a **curved surface profile** may be installed without slope, as the profile assists natural drainage.

1.3 Ventilation & Clearances

- Maintain **minimum 20 mm clearance** between decking and walls, posts, or fixed objects.
- Do not close off the sides of the deck; unrestricted airflow beneath the deck is essential.
- Where the ground surface below is slow-drying, ensure a **minimum 100 mm clearance** between the underside of the deck and the ground.

1.4 Sub-Frame (Joists)

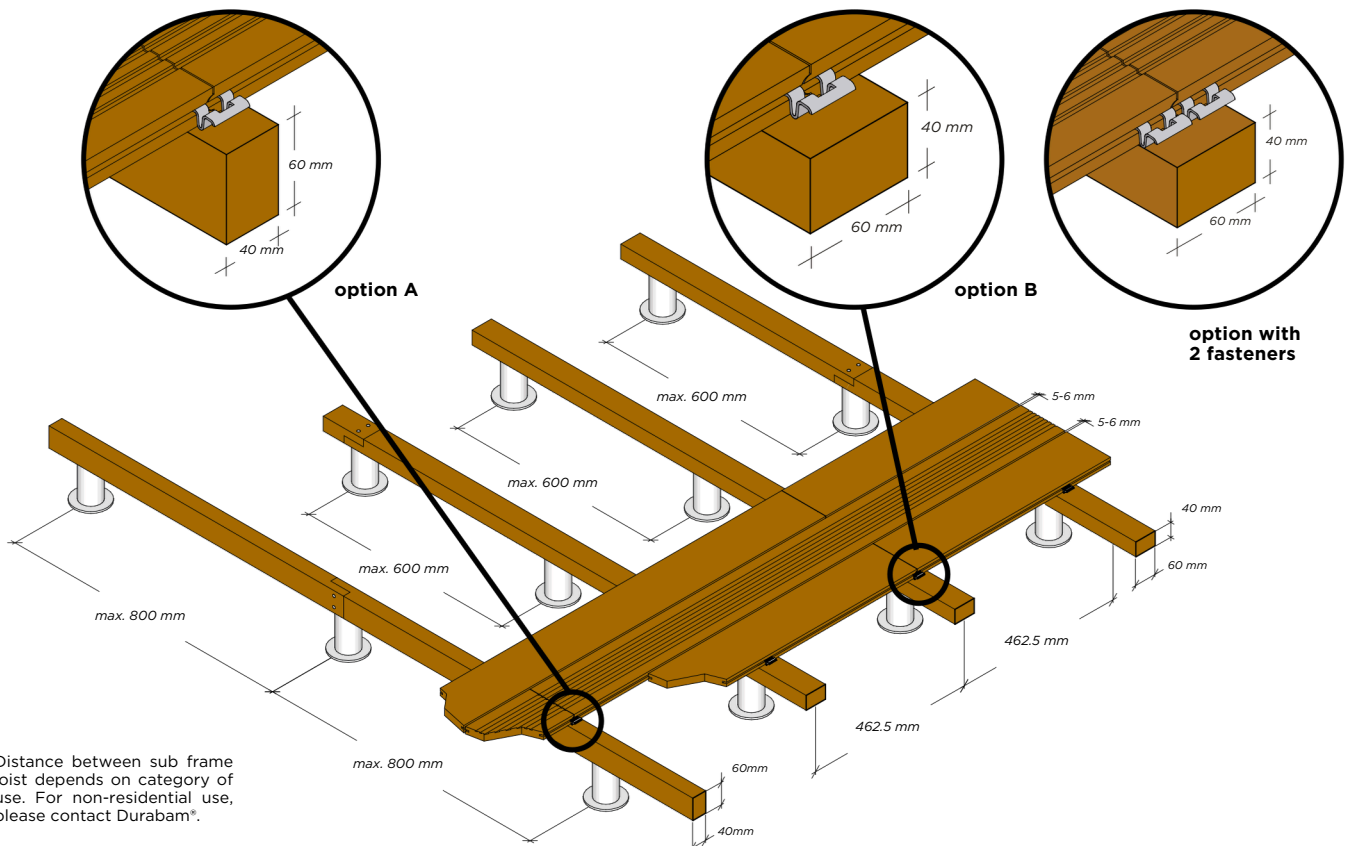
- Minimum joist size: **40 × 60 mm.**
- Recommended joists:
 - Thermally modified bamboo or hardwood joists of equal durability class
 - Aluminium sub-frame systems
 - Stable hardwood or treated pine joists (moisture content < **12%**)
 - Avoid direct contact between joists and soil.
 - Joists may be installed without gaps when fixed using exterior-grade screws and adhesive. Follow supplier instructions for alternative systems.
 - For structural stability, connect the perimeter frame to the ground or supporting structure at regular intervals, or install cross-bracing.

1.5 Joist Spacing

- Standard installation: **462.5 mm centre-to-centre**, providing support on **5 joists per board.**
- Board ends must always land **directly on a joist.**
- Random board layouts: joist spacing ≤ **300 mm centre-to-centre.**
- Cut boards must be supported by **minimum 3 joists.**
- For non-residential or high-load applications, consult Durabam technical support.

2. Product Characteristics & Natural Behaviour

- Durabam® Bamboo Decking is a **natural product**; variations in colour, grain, and texture are normal.
- Colour will transition from dark brown to lighter brown or grey depending on exposure and maintenance.
- Occasional colour bleeding may occur initially during wet conditions and will diminish over time.
- Surface checking, end cracks, splinters, and increased surface roughness may develop due to moisture movement—this is normal for exterior timber products.
- Dimensional change or minor cupping may occur after installation.
- Flat-side installations may show deformation more visibly than grooved surfaces; this is not a defect.
- In semi-enclosed areas with limited airflow (e.g. pergolas, verandas), superficial fungal growth may appear and can be removed with cleaning. Adequate ventilation is essential.



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3. Installation

3.1 Board Spacing

- Maintain **5-6 mm gaps** between boards across the width.
- When using Durabam® concealed fasteners, spacing is automatically achieved.
- Due to the stability and end-matched profile, **no expansion gap is required at board ends.**

3.2 Board End Sealing

- All cut ends **must be sealed** with an approved **end-grain sealer** to prevent water ingress.

3.3 Oiling After Installation

- For pre-oiled boards: apply **1 maintenance coat.**
- For unfinished boards: apply **2 coats.**
- Best timing: **3-4 months after installation** or after the first winter, when the surface pores have opened.

4. Installation Methods

4.1 Concealed Fastener Installation

- Determine the exposed surface (grooved or flat).
- Insert the hooked side of the fastener into the board edge groove.
- Pre-drill joints **30 mm deep.**
- Bamboo joists: use **3.5 mm drill bit, 110 mm length.**
- Drive screws **vertically** with low torque and slow speed.
- Slide the next board under the waved side of the fastener.
- Typical fastener usage: **13-20 fasteners per m²,** depending on board width.
- Where tongue-and-groove joints meet over a joist, use **1-2 fasteners.**
- Use **stainless steel decking screws** supplied or specified for bamboo/wood joists.

4.2 Screw-Down Installation (Face Fixing)

- Pre-drill holes **20 mm from board edge** using a drill bit approx. **80% of screw diameter.**
- Always fix **both sides** of each board.
- Use **A2-grade stainless steel screws:**
- 5 × 50 mm (20 mm thick boards)
- 5 × 70 mm (30 mm thick boards)

4.3 Chevron / Pattern Installation

- Chevron or patterned layouts are possible.
- Follow Durabam® technical guidance for layout, joist spacing, and fastening methods.

5. Edge Profiles & Stair Installation

5.1 Edge Profiles

- When installing edge profiles, ensure the **hooked side of the fastener** engages the edge groove.
- Edge profiles may also be used for stair nosings.

5.2 Stair Installation Sequence

- Fix inner corner edge profiles to the sub-structure using concealed fasteners at **≤ 462.5 mm centres.**
- Slide horizontal tread boards into place (do not fully fix).
- Install vertical riser boards and partially fix.
- Install outer edge profiles with concealed fasteners.
- Fully tighten all previously unsecured fixings.

5.3 Typical Run / Rise Dimensions

- Dimensions vary depending on board width and orientation.
- Ensure compliance with **local stair code requirements.**

6.2 Unfinished Decking

- Decking may be left to weather naturally; expect greying and increased surface texture.
- Annual cleaning with a silicon carbide broom/disc is mandatory.
- Oiling is recommended to retain darker colour and reduce splinter formation.

6.3 Cleaning Procedure

- Wet the deck thoroughly and allow water to soak for **-10 minutes.**
- Do **not** use high-pressure cleaners.
- Scrub lengthwise with cleaner and silicon carbide tools.
- Rinse well and allow **24 hours drying** before oiling.

6.4 Oil Application

- Apply only in dry weather, avoiding direct sunlight.
- Apply thin, even coats.
- Wipe off excess oil after **5-10 minutes.**
- Allow **24-48 hours curing** before exposure to water.

⚠ **Fire Risk Warning:** Oil-soaked cloths may self-ignite. Soak in water and dispose in sealed containers.

6. Cleaning & Maintenance

6.1 Oiled Decking

- Clean **at least once per year** using exterior wood cleaner and a **silicon carbide broom or disc.**
- Rinse thoroughly and allow to dry.
- Apply **1-2 coats of exterior wood oil** annually or biannually, depending on exposure.
- Regular sweeping is recommended to remove dirt and debris.

7. Storage

- Store boards in a **cool, dry, shaded location.**
- Protect from moisture, direct sunlight, dirt, and dust prior to installation.

8. Use Around Swimming Pools

- Regular oiling and cleaning are required due to salt and chlorine exposure.
- Increased weathering and bleaching may occur near pools.
- Ensure deck drainage does not allow surface water to flow directly into the pool.

9. Normal Phenomena (Not Defects)

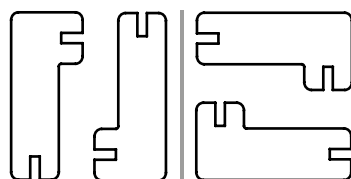
- Surface and end cracking
- Colour bleeding during wet conditions
- Surface roughening and minor splintering
- Dimensional movement or cupping
- These characteristics do **not** affect structural performance or durability.

10. Disclaimer

Installation conditions vary by site and are beyond Durabam®'s control. This guide is provided as general guidance only. Always follow local building codes and consult qualified professionals where required.

Durabam® reserves the right to update these instructions without notice.

Run/rise dimensions



vertical orientation run (board 2)
 137 mm = 189 mm
 155 mm = 207 mm
 178 mm = 230 mm
rise (board 3)
 137 mm = 259 mm
 155 mm = 277 mm
 178 mm = 300 mm

horizontal orientation run (board 2)
 137 mm = 259 mm
 155 mm = 277 mm
 178 mm = 300 mm
rise (board 3)
 137 mm = 189 mm
 155 mm = 207 mm
 178 mm = 230 mm

