



# Bambura® Wood Plastic Composite Decking

## Operations, Maintenance & Installation Manual

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This manual provides a comprehensive overview for the installation, operation, and maintenance of Bambura® Wood Plastic Composite Decking systems. This system is designed to establish a durable, low-maintenance and slip-resistant surface for outdoor living spaces, patios and walkways.

Bambura® ESSENTIAL DECK GREY WPC TRIM 50MM X 50MM X 3600MM LONG	COMPOSITE-DECK-1010
Bambura® ESSENTIAL DECK TEAK WPC TRIM 50MM X 50MM X 3600MM LONG	COMPOSITE-DECK-1020
Bambura® ESSENTIAL DECK CHOCOLATE WPC TRIM 50MM X 50MM X 3600MM LONG	COMPOSITE-DECK-1030
Bambura® ESSENTIAL DECK CHARCOAL WPC TRIM 50MM X 50MM X 3600MM LONG	COMPOSITE-DECK-1040
Bambura® ADVANCED DECK GREY WPC TRIM 50MM X 50MM X 3600MM LONG	COMPOSITE-DECK-2010
Bambura® ADVANCED DECK TEAK WPC TRIM 50MM X 50MM X 3600MM LONG	COMPOSITE-DECK-2020
Bambura® ADVANCED DECK CHOCOLATE WPC TRIM 50MM X 50MM X 3600MM LONG	COMPOSITE-DECK-2030
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Bambura® ADVANCED DECK CHARCOAL WPC FLAT FASCIA TRIM 140MM X 11MM X 3600MM LONG	COMPOSITE-DECK-2240
Bambura® ESSENTIAL DECK BOARD GREY 140MM X 25MM X 3600MM LONG	COMPOSITE-DECK-5010
Bambura® ESSENTIAL DECK BOARD TEAK 140MM X 25MM X 3600MM LONG	COMPOSITE-DECK-5020
Bambura® ESSENTIAL DECK BOARD CHOCOLATE 140MM X 25MM X 3600MM LONG	COMPOSITE-DECK-5030
Bambura® ESSENTIAL DECK BOARD CHARCOAL 140MM X 25MM X 3600MM LONG	COMPOSITE-DECK-5040
Bambura® ADVANCED DECK BOARD GREY 144MM X 21.5MM X 3600MM LONG	COMPOSITE-DECK-5050
Bambura® ADVANCED DECK BOARD TEAK 144MM X 21.5MM X 3600MM LONG	COMPOSITE-DECK-5060
Bambura® ADVANCED DECK BOARD CHOCOLATE 144MM X 21.5MM X 3600MM LONG	COMPOSITE-DECK-5070

**Disclaimer:** This guide is for informational purposes only. The installer is responsible for ensuring the installation complies with all relevant British Standards, UK Building Regulations, codes of practice, and site-specific risk assessments. While every attempt has been made to verify the accuracy of the content in this guide, we cannot accept liability for any losses or damages resulting from inaccuracies. All tasks outlined must be carried out by competent professionals. Any deviation from these instructions may nullify any warranty or liability from the manufacturer.

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**Contact:** For enquiries regarding the installation, operation or contents of the guide in relation to this product please direct your questions to : The Product and Drawing Office Manager, First Fence Ltd, Off Kiln Way, Swadlincote, South Derbyshire DE11 8EA. Or The Product and Drawing Office Manager [sales@firstfence.co.uk](mailto:sales@firstfence.co.uk) +44 1283 380054.

**Manufacturer and/or Reseller:** First Fence Ltd, Off Kiln Way, Swadlincote, South Derbyshire DE11 8EA. [www.firstfence.co.uk](http://www.firstfence.co.uk) +44 1283 380054.

**Competence:** This product must be installed by a person of competence, defined as an individual who possesses the necessary knowledge, skill and experience in the installation of decking.

**Liability:** This installation guide should be understood and followed before any installation activities commence. If any area of the installation is unclear, the installer must contact the manufacturer, outlined in 'Contact.' First Fence Ltd takes no responsibility for incorrectly installed systems, product, material or components.

# 1.0 Safety & Tools

## Personal Protective Equipment (PPE)

The following minimum PPE is required for installation:


**Dust Mask**  
Must be worn, WPC can create fine dust when cut



**Eye Protection**  
Must be worn, especially when cutting or drilling



**Safety Gloves**  
For all material handling



**Foot Protection**  
Must be worn



## Risk Assessment

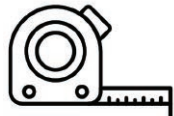
Installers are responsible for completing a site-specific risk assessment and complying with all local risk assessments before starting work. This responsibility includes, but isn't limited to, the following:

Activity	Risk Assessment Requirements and Not Limited to
Subframe Construction	Noise/Vibration Manual Handling Use of Power Tools
Decking Board Installation	Manual Handling Dust Inhalation Trip Hazards
Working at Height (for raised decks)	Fall Prevention Secure Access

## Tools & Equipment

### Tape Measure

For setting out and measuring distances



### Spirit Level

For plumb (vertical) and level installation



### Spade/Post Hole Digger

For excavating post foundations



### Fine-Toothed Saw

Suitable for cutting composite material



### Drill/Power Screwdriver

For securing fixings



### String Line & Pegs

To ensure a straight and level layout



### Packers/Shims

For levelling the subframe



### Cable Avoidance Tool

To identify hidden services embedded in the ground



## 2.0 Pre-Installation

### Site Survey & Preparation

**Planning Permission:** In the UK, decking is generally considered permitted development, provided it is no more than 30cm above the ground and does not cover more than 50% of the total garden area. For raised decks or properties with restrictions, always check with your Local Planning Authority (LPA).

**Foundation & Drainage:** The ground beneath the deck must be firm, stable, and have adequate drainage. The subframe should be built with a slight slope away from any adjoining property to ensure water run-off.

**Underground Services:** Identify and mark the location of any underground services, such as inspection covers, pipes, or cables, that may be located under the proposed deck area.

**Ventilation:** Ensure the design allows for adequate airflow underneath the deck to prevent moisture build-up.

### Materials Check

Unpack the kit and verify all components are present and undamaged, checking against the Bill of Materials (Section 4.0). Allow boards to acclimatise on-site for 48 hours before installation.

## Bambura® Wood Plastic Composite Decking

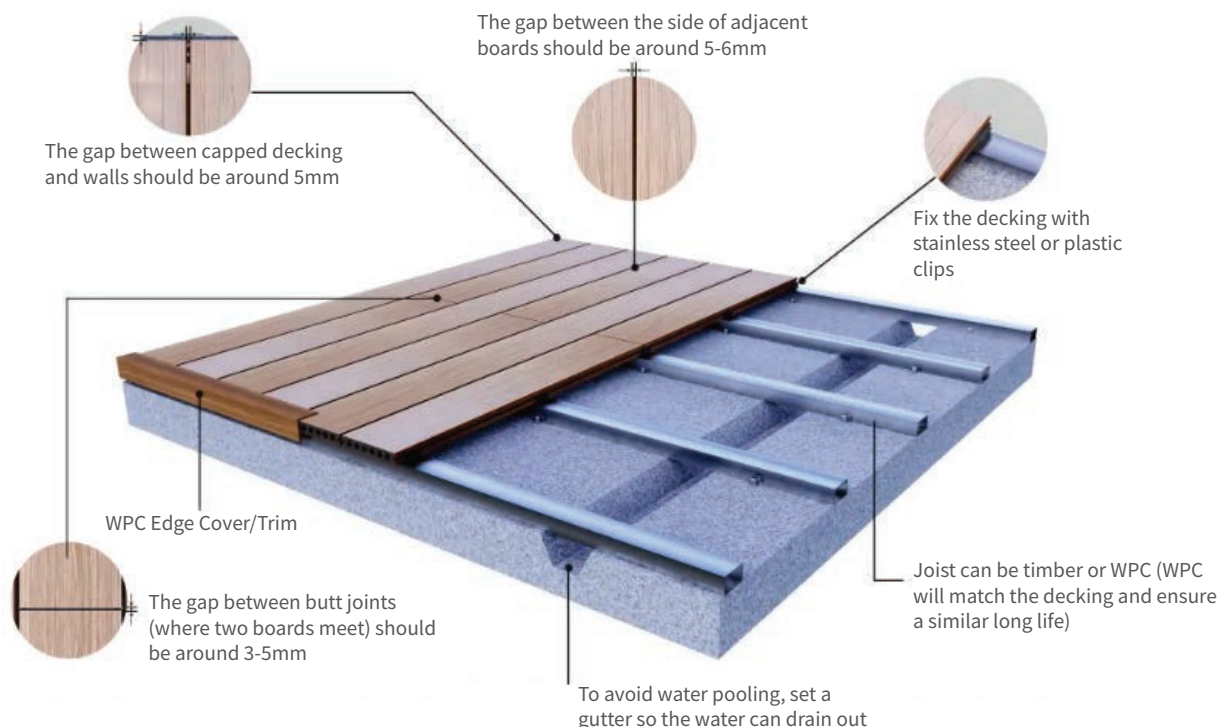
Bambura® Wood Plastic Composite (WPC) is a versatile hybrid material composed of bamboo fibres combined with thermoplastics such as polyethylene, polyvinyl chloride, or polypropylene. The result is a product that combines the natural warmth and beauty of wood with the durability and low maintenance of plastic.

Wood Plastic Composite (WPC) is manufactured through an extrusion process in which wood fibres and plastic polymers are blended, heated, and then forced through a die to achieve the desired shape. This method produces a material with uniform composition and consistent quality. During production, additives such as colour pigments, UV stabilisers, and anti-fungal agents can be incorporated to enhance the product's performance, improving its colour stability, UV resistance, and protection against fungal decay.

One of the main advantages of WPC is its low maintenance cost. Unlike timber that requires regular staining, painting or treating, WPC needs only occasional cleaning. Due to its durability and resistance to common issues like rot, warping and pest damage, repair costs are typically minimal.

**NOTE: WPC products will expand and contract slightly with temperature. Store the panels in the final environment (or similar conditions) for a minimum of 24 to 72 hours before installation to allow them to acclimatise. Do not lean them against a wall. Always stack them flat, supported, and covered.**

## Wood Plastic Composite Decking Components



# 3.0 Installation

## Step-by Step Installation Guide

### Prepare the Ground

Clear the area of all debris, weeds and roots. Ensure the ground or existing concrete slab is stable and flat. Drainage is essential; ensure a slight slope away from any adjacent buildings to prevent water pooling on or under the deck. Lay a weed-suppressant membrane if installing over soil.

### Construct the Subframe

Build a solid and secure subframe from either pressure-treated timber or a composite alternative. Joists must be level, correctly spaced (max 400mm centres, check product specification), and incorporate a slope for drainage. Joist spacing is generally 300mm to 400mm. Use tighter spacings for installations with higher use/footfall. Install double/sister joists where two deck boards will meet end-to-end to ensure both board ends are fully supported.

Secure the joists with appropriate fixings (for the recycled plastic subframe components from First Fence use heavy-duty wood screws like 6×90mm yellow zinc woodscrews, requiring a 5mm HSS pilot hole or, for extra rigidity, M8 cup square hex bolts with M8 × 30mm repair washers, M8 nuts, and M8 dome nuts).

### Install Starter Clips

Fix a continuous line of starter clips to the outer edge of the subframe, ensuring they are perfectly straight. These create a secure starting point for the first decking board. Leave space between the starter clip and wall, this can be about 10mm. Pre-drill pilot holes to prevent the WPC material from splitting or cracking when the fastener is driven in.

### Lay the First Decking Board

Push the grooved edge of the first Bambura® board firmly into the starter clips until it is secure. Use a rubber mallet to gently tap into place.

### Fix Subsequent Boards

Insert a hidden T-clip into the exposed groove of the installed board over each joist. Slide the next board into position, ensuring the T-clips fit snugly into its groove. Screw the T-clips into the joist at a 45-degree angle. Do not over tighten. Use a spirit level to ensure the boards are flat and level. If the last board is too wide, cut it down lengthwise using a fine-toothed saw. Secure the final board using end clips or by screwing directly into the board near the edge, then concealing the screw heads with the final trim.

### Maintain Expansion Gaps

It is critical to leave expansion gaps to allow for thermal movement. Leave a 6mm gap where the ends of boards meet, and a gap of at least 10mm where boards abut a wall or solid object.

### Managing Cuts and Joins (Expansion Gaps)

When butting two boards end-to-end, leave a small gap (3mm-5mm is standard) to allow for length expansion. Board ends should be resting on doubled-up/sistered joists for full support. Use a circular/mitre saw with a fine-toothed blade to cut boards to length. Cut off the factory end to ensure a clean butt joint.

### Fit Fascia and Edge Trims

Cut and fix fascia boards or edge trims to the perimeter of the deck to conceal the subframe and board ends, providing a clean and professional finish. Fascia boards are usually screwed directly into the joist structure. Ensure you pre-drill holes to prevent the composite material from splitting.

# Installation: Expansion Gaps & Spacing

## Key Concept

WPC Boards expand and contract with temperature changes

### Joist and Clip Spacing

The recommended spacing between clips is **30cm**

The joist spacing should be **30-35cm** to ensure proper load-bearing and stability.

### Expansion Gap Between Boards

When connecting two boards end-to-end, you must leave an expansion gap of **5–10 mm**.

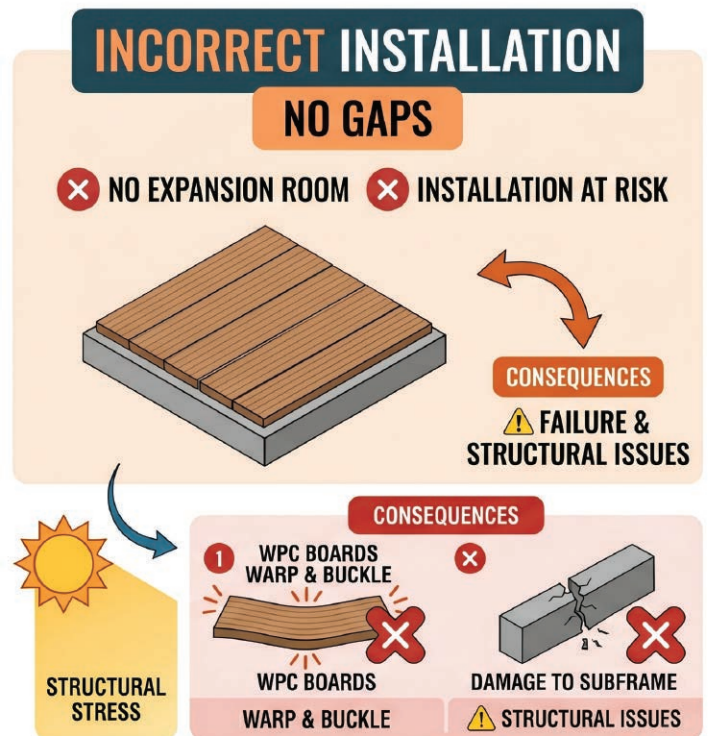
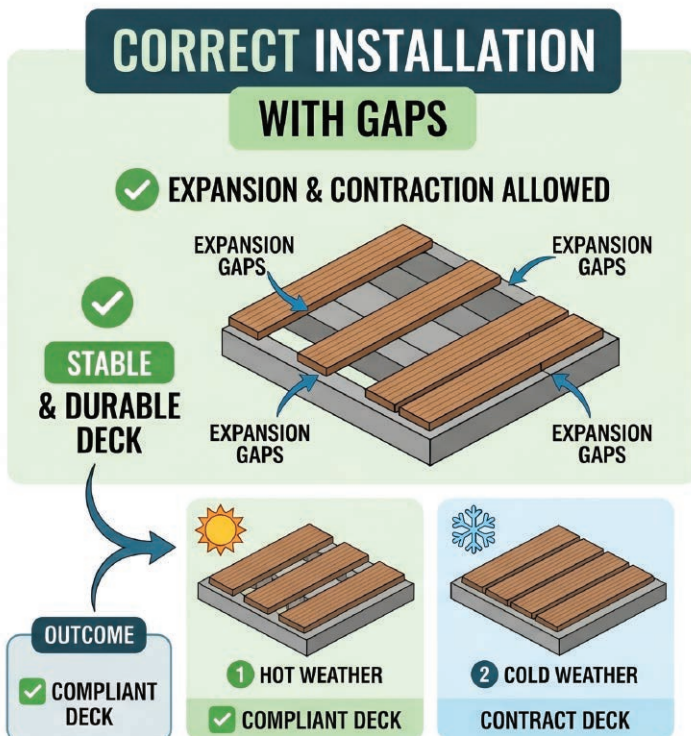
This space allows for natural thermal expansion and contraction of the decking.

### Board End Joint Support

Use separate joists for each board end—do not share joists or clips, and do not leave ends unsupported.

### Joint Extension Method

Stagger joist extensions—do not align or join them in a straight line, as this can cause thermal expansion to warp the decking.



# Installation: WPC Decking Fixings Table

This table calculates the **estimated** number of clips required based on common deck dimensions. Calculations include a 10% contingency for waste or lost screws

Deck Area (m <sup>2</sup> )	Approx. Dimensions (m)	Joist Centres	Estimated Clips/Screws
5m <sup>2</sup>	2.0 x 2.5	300mm	110 - 120
10m <sup>2</sup>	4.0 x 2.5	300mm	220 - 240
15m <sup>2</sup>	5.0 x 3.0	300mm	330 - 360
20m <sup>2</sup>	5.0 x 4.0	300mm	440 - 480
25m <sup>2</sup>	5.0 x 5.0	300mm	550 - 600
30m <sup>2</sup>	6.0 x 5.0	300mm	660 - 720
40m <sup>2</sup>	8.0 x 5.0	300mm	880 - 950

If your deck size isn't listed above, you can use this formula to find your requirements:

$$\text{Total Clips} = \left( \frac{\text{Deck Length (mm)}}{\text{Board Width + Gap (mm)}} \right) \times \left( \frac{\text{Deck Width (mm)}}{300\text{mm Joist Spacing}} + 1 \right)$$

## Practical Rule of Thumb

For WPC decking with 300mm joist centres, you typically need 20 to 22 clips per square metre.

## 4.0 Bill of Materials

Illustration	Component Name	Component Code	Quantity
	BAMBURA® ESSENTIAL DECK BOARD GREY 140MM X 25MM X 3600MM	COMPOSITE-DECK-5010	6
	BAMBURA® ESSENTIAL DECK BOARD TEAK 140MM X 25MM X 3600MM	COMPOSITE-DECK-5020	6
	BAMBURA® ESSENTIAL DECK BOARD CHOCOLATE 140MM X 25MM X 3600MM	COMPOSITE-DECK-5030	6
	BAMBURA® ESSENTIAL DECK BOARD CHARCOAL 140MM X 25MM X 3600MM	COMPOSITE-DECK-5040	6
	BAMBURA® ADVANCED DECK BOARD GREY 140MM X 25MM X 3600MM	COMPOSITE-DECK-5050	6
	BAMBURA® ADVANCED DECK BOARD TEAK 140MM X 25MM X 3600MM	COMPOSITE-DECK-5060	6
	BAMBURA® ADVANCED DECK BOARD CHOCOLATE 140MM X 25MM X 3600MM	COMPOSITE-DECK-5070	6
	BAMBURA® ADVANCED DECK BOARD CHARCOAL 140MM X 25MM X 3600MM	COMPOSITE-DECK-5080	6

	BAMBURA® ESSENTIAL DECK GREY WPC TRIM 50MM X 50MM X 3600MM	COMPOSITE-DECK-1010	10
	BAMBURA® ESSENTIAL DECK TEAK WPC TRIM 50MM X 50MM X 3600MM	COMPOSITE-DECK-1020	10
	BAMBURA® ESSENTIAL DECK CHOCOLATE WPC TRIM 50MM X 50MM X 3600MM	COMPOSITE-DECK-1030	10
	BAMBURA® ESSENTIAL DECK CHARCOAL WPC TRIM 50MM X 50MM X 3600MM	COMPOSITE-DECK-1040	10
	BAMBURA® ADVANCED DECK GREY WPC TRIM 50MM X 50MM X 3600MM	COMPOSITE-DECK-2010	10
	BAMBURA® ADVANCED DECK TEAK WPC TRIM 50MM X 50MM X 3600MM	COMPOSITE-DECK-2020	10
	BAMBURA® ADVANCED DECK CHOCOLATE WPC TRIM 50MM X 50MM X 3600MM	COMPOSITE-DECK-2030	10
	BAMBURA® ADVANCED DECK CHARCOAL WPC TRIM 50MM X 50MM X 3600MM	COMPOSITE-DECK-2040	10

	BAMBURA® ESSENTIAL DECK GREY WPC FLAT FASCIA TRIM 140MM X 11MM X 3600MM	COMPOSITE-DECK-1210	5
	BAMBURA® ESSENTIAL DECK TEAK WPC FLAT FASCIA TRIM 140MM X 11MM X 3600MM	COMPOSITE-DECK-1220	5
	BAMBURA® ESSENTIAL DECK CHOCOLATE WPC FLAT FASCIA TRIM 140MM X 11MM X 3600MM	COMPOSITE-DECK-1230	5
	BAMBURA® ESSENTIAL DECK CHARCOAL WPC FLAT FASCIA TRIM 140MM X 11MM X 3600MM	COMPOSITE-DECK-1240	5
	BAMBURA® ADVANCED DECK GREY WPC FLAT FASCIA TRIM 140MM X 11MM X 3600MM	COMPOSITE-DECK-2210	5
	BAMBURA® ADVANCED DECK TEAK WPC FLAT FASCIA TRIM 140MM X 11MM X 3600MM	COMPOSITE-DECK-2220	5
	BAMBURA® ADVANCED DECK CHOCOLATE WPC FLAT FASCIA TRIM 140MM X 11MM X 3600MM	COMPOSITE-DECK-2230	5
	BAMBURA® ADVANCED DECK CHARCOAL WPC FLAT FASCIA TRIM 140MM X 11MM X 3600MM	COMPOSITE-DECK-2240	5

	BAMBURA® STARTER CLIP 100 PACK	COMPOSITE-DECK-6000	100
	BAMBURA® STARTER CLIP SCREW 100 PACK	COMPOSITE-DECK-6050	100
	BAMBURA® DECK BOARD JOINING CLIP FOR 2-3MM GAP	COMPOSITE-DECK-6100	100
	BAMBURA® DECK BOARD JOINING CLIP FOR 5-7MM GAP	COMPOSITE-DECK-6150	100
	BAMBURA® END JOINING CLIP	COMPOSITE-DECK-6200	100

## 5.0 Installation Sign-Off Checklist

Action	Description	Pass/Fail
Subframe Integrity	Subframe is level, secure, has an adequate slope and meets joist-spacing requirements.	
Board Fixing	All decking boards are securely fixed using the correct clip system on every joist.	
Expansion Gaps	Sufficient expansion gaps are present at board ends and against all fixed objects.	
Finishing	All fascia boards and trims are securely and neatly installed. The surface is free of hazards.	
Site Clean Up	Installed area is clear of surplus materials, offcuts, tools and debris.	

**Sign Off Declaration:**

I hereby confirm that this product has been assembled and installed in accordance with the above requirements and any remedial works have been carried out before the final sign off:

Site Supervisor

Sign Off Date

Relationship to the Client

\_\_\_\_\_  
Signature

## 6.0 Maintenance Schedule

Regular inspection is recommended to ensure the system remains safe and functional.

Check Area	Recommended Action	Frequency	Reference
General Cleanliness	Sweep regularly to remove loose debris. Clean spills immediately. Perform a deeper clean using warm soapy water and a soft brush.	Semi-Annually or as required	Manufacturer's Spec
Structural Integrity	Check the subframe and boards for any signs of movement, damage or loosening. Ensure the deck remains level.	Annually and after adverse weather	Good Practice
Gaps & Drainage	Ensure the gaps between boards are free of leaves and debris to allow for proper water drainage and ventilation.	Semi-Annually	Good Practice
Fittings & Fixings	Visually inspect fixings and trims to ensure they remain tight and secure.	Annually	Manufacturer's Spec

### Take the hassle out of your maintenance schedule

First Fence Limited offers an annual inspection programme for your system. Contact our sales team today to include this quote onto your sales order.

[highsecuritymaintenance@firstfence.co.uk](mailto:highsecuritymaintenance@firstfence.co.uk)