

New generation **Pre-finished Engineered** Australian Hardwood Flooring

Specifications & Installation Instructions

Contents

Disclaimers and Caveats	2
Owner/Installer Responsibility	3
Product Description	4
Product Specifications	5
Design Data	6
Sub-Floor Preparation	7
Installation	9

Important Information

Colour Variation

The outstanding visual characteristic of flooring manufactured from Australian hardwood timbers is the variation in colour and texture between individual floor boards. The unique aesthetic appeal of the flooring lies in the harmonious combination of these variations, rather than uniformity of colour and grain. Even within the same timber species, colour and natural markings vary, so each board is imbued with its own appeal. This natural variation ensures that every installation is unique.

Packs of flooring should be opened prior to installation and the customer shown the colour variation that can be expected in the floor. Where practical, any boards that the customer is concerned about should be used in areas that are not main thoroughfares (in cupboards, etc.).

Natural Features

Another characteristic of Australian hardwood flooring is the occurrence of natural features such as gum veins, knots and small holes caused by borer activity. All trees exhibit these features, although they may be more dominant in one species or in one particular tree than another. These natural markings are part of the tree's history and add to the character and uniqueness of the floor. It is essential that the customer is aware that such features are to be expected.

Flooring Samples

Small sample boards provide only an approximate indication of typical boards in a particular species. When choosing a species, customers should always try to view larger installed showroom panels or, where possible, completed floors, to appreciate the variations that can be expected in the selected species. Photographs of completed floors can help but viewing an installed floor is best.

Big River's Responsibility

Under the terms of our warranties, Big River will undertake to repair or replace any defective products during the warranty period. The choice of remedy is at the discretion of Big River. A representative of Big River or the supplier of the material will usually be available to inspect any flooring product considered to be out of specification. Where the location makes this unreasonable, products must be shipped to a Big River location for evaluation at the purchaser's expense. All material should be thoroughly inspected before installation. Any material considered to be faulty or of poor quality must not be laid. No claims will be allowed for visible defects in material that has been laid.

NOTE: Material will not be replaced because of natural colour variations. Big River will not accept responsibility for colour variations in material that has been installed. Refer to the relevant Big River Warranty for detailed conditions and limitations of liability.



New Generation - Pre-finished Engineered Australian Hardwood Flooring

Owner/Installer Responsibility

Timber is a product of nature and therefore not perfect. Big River timber flooring is manufactured in accordance with accepted industry standards, which permit a defect tolerance of no more than 5%. The defects may be of a manufacturing or natural type.

- ◆ The installer assumes all responsibility for final inspection of the product quality. This inspection of all flooring should be done before installation. Carefully examine material for colour, finish and quality before installing. If material is not acceptable, do not install it; contact the supplier immediately.
- ◆ Before installation the installer must determine that the job site environment and sub-surfaces meet or exceed all applicable recommendations of the construction and materials industries. The manufacturer declines any responsibility for job failure resulting from or associated with sub-surface or job-site environment deficiencies.
- ◆ Before installation the installer/owner has final inspection responsibility as to grade and finish. The installer must exercise reasonable judgment and hold back or cut off pieces with defects, whatever the cause.
- ◆ Use of stain, filler or putty for defect correction during installation should be accepted as normal procedure.
- ◆ When ordering, a 5% cutting and grading allowance should be added to the total square metres.
- ◆ Should an individual piece be doubtful as to grade, manufacture or finish, the installer should not use the piece.
- ◆ In flooring applications the use of appropriate products for correcting subfloor voids should be accepted as normal industry practice.

Installers Please Note

As outlined above, please inspect all product before installation for visible faults, discolouration and extreme colour variation. If the product is not of the quality expected, contact your supplier for further information and advice before installation. Once the product has been installed, no claims will be allowed for material with visible faults, discolouration or extreme colour variation.

Big River engineered hardwood flooring can be laid over any flat surface (such as concrete or particle board) provided that the following criteria are followed:

- ◆ The sub-floor is adequately prepared to ensure it is stable, flat and level.
- ◆ If installed over existing flooring products such as tiles and vinyl, the product should be floated.
- ◆ Always use class D3 adhesive to join boards together.

Should the material that is underneath the Big River floor delaminate from the sub-floor then the Big River warranty will be null and void.



New Generation - Pre-finished Engineered Australian Hardwood Flooring

Product Description

Big River Australian hardwood flooring comprises a 4mm veneer of genuine Australian hardwood mounted on a rigid plywood base, ready to install. The hardwood veneer is harvested from managed forests, fully finished and coated. The hardwood plywood core has a simple tongue and groove connecting system. The ply core provides similar strength to a solid hardwood board but with greater stability.

Listed below are some of the benefits of the Big River Australian hardwood engineered flooring system.

- ◆ Big River is a wholly Australian owned and operated company.
- ◆ Australian quality standards certified.
- ◆ Lifetime guarantee on the structural integrity of the product in domestic applications.
- ◆ 20-year wear guarantee in domestic installations.
- ◆ Big River warrants its products in accordance with the statutory requirements of the relevant authorities.
- ◆ Manufactured using hard-wearing Australian face veneers.
- ◆ Surface veneer manufactured from hardwood timber sourced from sustainably managed regrowth and plantation forests.
- ◆ The product is a total hardwood construction.
- ◆ Floor can be laid directly on to concrete slab. Does not need battens, etc. (see installation instructions).
- ◆ Available in a range of four species.
- ◆ Because it is cross-laminated it is dimensionally stable.
- ◆ Can be re-sanded.
- ◆ No acclimatisation period needed.
- ◆ Good strength and impact resistance.
- ◆ Excellent sound proofing qualities.
- ◆ Supplied in plank widths of 133mm.
- ◆ Timber product ideal for allergy or asthma sufferers.



New Generation - Pre-finished Engineered Australian Hardwood Flooring

Product Specifications

Description of Product

The Big River timber flooring is produced on behalf of the Big River Group in China. Green rough sawn Australian species timber flitch is processed into flooring faces; these faces are glued to plywood, and the panels are then converted into pre-finished engineered flooring in accordance with the Big River specifications outlined below.

The face veneer determines the species of the flooring. The entire construction is manufactured using hardwood veneers. The multi ply base is manufactured using Eucalyptus plywood.

Product Dimensions

Board Length	Maximum 1830mm, plus random lengths
Width	133mm
Thickness	15mm
Face Thickness	3mm
Bevels	Manufactured with 0.3mm bevel on all four sides
Box Size	10 pieces per carton (4 layers), 2.434m ² per pack. Boards nested with foam protection.
Pack Weight	Approximately 25kg

Installation

This product can be used in a floating floor application or it can be glued directly to a concrete or timber sub-floor.

NOTE: This flooring product should not be installed using secret nail fixing of any type. Installation in this manner will void the Big River warranty

Species/Colours

- ◆ Blackbutt (Eucalyptus pilularis)
- ◆ Brushbox (Lophostenon confertus)
- ◆ Spotted Gum (Corymbia maculata)
- ◆ Australian Chestnut (mixture of species)
- ◆ Tasmanian Oak



New Generation - Pre-finished Engineered Australian Hardwood Flooring

Design Data

Properties of Timber Species (Face Veneer)

Species	Average density (kg/m ³)	Colour	Hardness (JANKA kN)
Blackbutt	900	Pale brown	9.1
Spotted Gum	950	Light brown to light reddish brown	11.0
Brushbox	900	Heartwood reddish brown to pinkish grey	9.5

Note: The above data refer to the face veneer species only.



New Generation - Pre-finished Engineered Australian Hardwood Flooring

Sub-Floor Preparation

Place a straight edge (1500mm to 3000mm) along the surface of the sub-floor. Check that no depressions deeper than 3mm are evident below the straight edge.

If the sub-floor levels exceed the 3mm recommended by Big River, the sub-floor must be levelled either by grinding and filling (for a concrete sub-floor) or by sanding and/or laying hard underlay (for a timber sub-floor).

NOTE: Out-of-tolerance sub-floors are the major cause of movement during installation. Big River will not accept claims resulting from inadequate sub-floor preparation.

Grind the concrete sub-floor using a machine suitable for the size of the project.

Fill, using a suitable levelling agent from a reputable manufacturer in accordance with the manufacturer's recommendations.

Levelling compound should be durable, compatible with the substrate and flooring, resistant to cracking and delaminating, be self-levelling and include primers and bonding agents as required.

Sand timber sub-floors using a machine suitable for the size of the project.

Floating Floors

Big River hardwood flooring can be installed as a floating floor over existing floors such as tiles or vinyl, provided the existing floor is stable and properly adhered. If any materials underneath the Big River flooring delaminate from the subfloor, the Big River warranty is void.

Sub-floor Moisture Content

The moisture content of a concrete sub-floor should not exceed the maximum of 70% relative humidity (hygrometer) or 5.5% (electrical resistance meter).

If the moisture content exceeds Big River's recommendations, a suitable physical or chemical moisture or vapour barrier system from a reputable manufacturer must be used. Follow the manufacturer's instructions at all times.

Sub-floor Ventilation

Where the sub-floor is fully enclosed by brickwork or concrete, it must be constructed so that it provides adequate cross-flow ventilation. If the sub-floor spaces are exposed to the ground (e.g., soil) ventilation shall be in accordance with building authority's requirements. Generally, a minimum ground clearance of 400mm at the base of the bearers should be provided, with sufficient drainage to prevent water build-up.

An impervious membrane may be required if the ground below the flooring is regularly subject to damp conditions.



New Generation - Pre-finished Engineered Australian Hardwood Flooring

Sub-Floor Preparation

Below Grade Applications

If the soil surrounding any part of the dwelling is 75mm or more above the level of the floor, the floor is considered to be below grade. The soil and drainage should always be sloped to ensure moisture is directed away from the building.

If the flooring is to be laid below grade it is impossible to ensure that all precautions are taken to prevent moisture from penetrating to the timber floor.

These precautions can include extra moisture protection to the floor and walls of the building.

Pre-Installation

If required, remove skirting boards, quarter-round or doorway thresholds. These items can be refitted after installation is complete. Doorway architraves should be undercut to allow the flooring to fit neatly. This is best done using an electric under-cut saw. If using a hand saw, a piece of underlay and flooring placed against the architrave can be used as a height guide.

NOTE: Ideally, before installation begins, the building where the floor is being laid should be in the final stages of completion, with all trades having left the site. If this is not the case, installation is not recommended.

When installing Big River hardwood flooring as a floating floor, use an underlay recommended by Big River. Ensure all underlay meets the requirements set out in the Building Code of Australia with regard to sound transmission. Suitable products are available from Big River.

Unroll the underlay so that all ends butt neatly against the walls.

Seams between lengths should also butt together, with no overlaps.

To prevent overlaps, tape the ends, sides and seams of the underlay.

Grading and Colour Variation

It is important that the customer is fully aware of the natural colour variations between floorboards of the same species. Packs of flooring should be opened prior to installation and the customer should be shown the colour variation that can be expected in the floor. Where practical, any boards that the customer is concerned about should be used in areas that are not main thoroughfares (in cupboards, etc.).

If the installer or customer is not happy with any boards that have been included in the packs, contact Big River to arrange for an inspection or for replacement of the material if it is considered to be out of specification.

NOTE: Material will not be replaced because of natural colour variations. Big River will not accept any responsibility for colour variations in material that has been installed.



New Generation - Pre-finished Engineered Australian Hardwood Flooring

Installation

General Installation Procedures

The following general information is an important part of the Big River engineered flooring installation process.

NOTE: Installation must be carried out according to the Big River engineered flooring installation instructions. Failure to do so can void the warranty.

The final grading process is to be carried out on-site. This final inspection is to be made by the installer of the product, except in the case of checking for colour variations, which should be carried out in conjunction with the owner of the floor.

Site Conditions

It is the responsibility of the installer and the owner to ensure that the job site conditions and the sub-floor are environmentally and structurally acceptable before installation commences.

Big River does not accept responsibility for any issues arising from failures caused by the sub-floor or site conditions being outside the relevant Australian Standards.

It is the responsibility of the installer to ensure that the work site is safe. If there are any safety concerns, the installer should cease work immediately and not continue the installation until the work site is completely safe.

The timber flooring installation should always be the last service on to the site. If this is not possible, foot traffic on the finished product should be limited to a minimum.

Drainage should always be directed away from the building.

Timber flooring should only be delivered if the worksite is enclosed, dry and in a lockable condition.

The flooring should be installed under the "in-situ" conditions in which it is to be used. This should include heating and/or air-conditioning. Do not install and finish the floor if the ambient conditions are extreme; always wait for suitable conditions.

NOTE: Commencement of installation is considered to be acceptance by the installer of the job site conditions. If the site is not acceptable, installation should not commence.



New Generation - Pre-finished Engineered Australian Hardwood Flooring

Installation

Setting Out

Accurately setting out the floor prior to laying the material can prevent problems during installation. It is critical to establish a primary working line for the project; this is usually through the longest continuous area of the floor. This then becomes the reference for the project.

NOTE: Initial alignment of the floor is critical. A misaligned starting row can cause side and end gaps to appear in the proceeding rows of flooring.

To achieve the best “look” for the floor it is important to “rack out” the flooring to achieve a random appearance. Start the floor by using either the random planks supplied or by cutting the boards to a pre-determined length. Joints between boards should be located randomly. Allow at least 400mm between adjacent end joints. This will avoid “clustered” joints. To avoid repeated patterns, randomly cut starting boards to different lengths.

Pre-installation Inspection

Inspect all material before installation. Any material considered not to be of the correct quality must not be laid. If there is any doubt that the quality is to the required standard, contact the supplier of the material for further information. No claims will be allowed for visible defects in material that has been laid.

NOTE: Care should be taken at this stage to ensure that colour and grain variations between the boards are randomly mixed throughout the finished floor. Big River uncoated flooring products come in large packs, so it is important to unpack the material prior to installation and sort according to colour and grain variations. Using boards of differing lengths results in a more natural appearance.

Allowing for Floor Expansion

To start the first row, place 10mm-thick spacers between the boards and the wall, approximately 600mm apart or near the board ends. A gap between the floorboards and the walls allows for slight movements caused by structural movement of the building or by seasonal changes in relative humidity. The gap between the floorboards and the wall should be covered by either the skirting boards or a suitable cover strip. A minimum gap of at least 10mm must be left around the perimeter of the floor and around any fixed furniture such as island benches etc. Intermediate expansion should also be allowed in floors that are over 15 metres in length and 8 metres in width.

Gluing the Tongue-and-Groove Joint

Always apply glue to the top of the groove. Wipe off all excess glue immediately using a damp cloth; it can be very difficult to remove cured glue from the finished floor. Always use a tapping block on the tongue of the board to lightly tap the boards together. Tapping too hard or using a hammer can damage the tongue and increase the chance of damage to the floorboard.

A class D3 adhesive must be used in the tongue and groove joint on both the side and end joints when installing as a floating floor.



New Generation - Pre-finished Engineered Australian Hardwood Flooring

Installation

Installing First Row of Boards

Lay the first row of boards with the groove facing the wall and with glue applied to the grooves. Using a tapping block and hammer, tap the boards together firmly. At the end of the row, use an installation bar to tap the last board into place. Cut the last board in the row so there is a 10mm expansion gap on the end.

To ensure a random pattern of boards, start the second row with a board at least 500mm shorter than the first board in the first row. Again, using the tapping block and hammer, firmly tap the adjacent boards together until no gap is visible.

Continue installing the floor, repeating the process until the last row is ready for installation.

Installing the Final Row

The final row of boards, in most installations, will need to be ripped lengthwise to fit. The cut must allow for the expansion clearance or gap between the wall and the flooring, as well as compensate for uneven walls.

Allow a minimum of 12 hours for the glue to cure before allowing foot traffic on the floor.

Direct Glue Applications

Where boards are glued directly to the sub-floor, the adhesive should be a durable, moisture-cured polyurethane, selected for the product and site conditions. It should be sufficient to hold the boards in place, ensure rigidity and be able to transmit the required load.

The adhesive should be compatible with the substrate and flooring, be non-staining and resistant to ageing, oxidation and ultraviolet light.

Use adhesive in accordance with the manufacturer's instructions, allowing for the appropriate field and perimeter expansion.

Follow sub-floor preparation instructions above. Spread a thin, even measure of polyurethane adhesive using a 3mm V-notch trowel. Adhesive should be applied without bubbles or lumps under finished surfaces or edges. Clean excess adhesive progressively. Remove all excess adhesive on completion.

Follow fixing and installation procedure above.



New Generation - Pre-finished Engineered Australian Hardwood Flooring

Installation

Final Floor Inspection

When installation is complete the floor should be cleaned thoroughly using the appropriate cleaning products. The floor should always be left in the best possible condition.

Any imperfections in the floor should be filled with the appropriate colour matched caulking product; this includes hot wax repairs. Any minor scuffing or scratches left by the installation process should be repaired using the appropriate materials. If the floor has been damaged and cannot be repaired to an acceptable condition, the individual board or area of flooring should be replaced.

On completion of the sanding and coating the process as outlined under Post Installation (above) should be implemented.

Achieving the Best Results

To achieve the best result, the following important points should be considered when laying a Big River floor:

- ◆ Always tap boards from the tongue side; never tap on the groove.
- ◆ Never “over tap” the boards; over hitting will cause damage to the floor by disrupting the groove and in some cases wedging the groove open.
- ◆ Always use a class D3 adhesive to glue the boards together.
- ◆ The glue should be run in a continuous bead on the top side of the groove on both the side and the end of the board.
- ◆ Remove excess glue that is squeezed out of the joint with a clean, damp rag before it dries. Change rags and water often to avoid leaving a residue on the boards.
- ◆ To achieve a uniform appearance for the whole floor, Big River recommends working from several packs at once, dry-laying the flooring and mixing the board lengths to avoid the end joints being too close together. Joints should be spaced a minimum 400mm apart.
- ◆ Always allow for a wastage factor when quoting on a floor. This could be as little as 5% on a simple floor and 10% or more on complicated areas.
- ◆ Fixtures should not be installed on floating floors, including kitchen benches and other heavy items. This will restrict the movement of the floor.
- ◆ It is important to ensure that the customer knows how to clean and maintain the floor. It is good practice to include a cleaning kit in the quote. These products are available from Big River, along with a full maintenance program. Maintenance is critical to ensure the floor is kept in the best possible condition and to maximise longevity of the floor.

