

Hardwood Decking Guide

& BUILDING SOLUTIONS



# HARDWOOD DECKING GUIDE

Timber decking unlocks boundless design options and feature opportunities for your project, providing a natural extensions of your indoor living spaces that with care and maintenance, will grow more appealing over time.

JSC offers a wide variety of hardwood decking timber species, colours and grains in both standard and custom profiles, to cater to any aesthetic, functional, or architectural requirement. Suitable for both residential and commercial applications, JSC Hardwood Decking can also be enhanced with anti-slip protection and our factory coating system, to increase the overall performance and longevity of the timber.

#### PRODUCT RANGE AND SPECIFICATION

| Species        | Supplier<br>ReResponsibility<br>Status | Sizes   | Durability | Density                  | Colour and Grain   |
|----------------|--|---|------------|--------------------------|--|
| Vitex          | NEPCon<br>Legality                     | Smooth<br>65/90/115/140 × 19<br>140 × 32<br>65/90/115/140 × 42*<br>Drydek<br>140 × 20 | Class 2    | 700-800kg/m <sup>3</sup> | Straw creamy grey to dark grey.<br>Fine and even texture with slightly<br>interlocked grain.             |
| Garapa         | FSC® -<br>C003608                      | Smooth<br>90/140 × 19<br>140 × 32   | Class 2    | 900kg/m <sup>3</sup>     | Creamy gold to soft browns.<br>Medium to fine in texture.  |
| Purpleheart    | FSC -<br>C003608                       | Smooth<br>65/90/140 × 19<br>65/90/140 × 42*<br>Drydek<br>140 × 20                     | Class 1    | 900kg/m <sup>3</sup>     | Deep purple that greys off to beautiful silver. Medium to fine texture.                                  |
| Cumaru         | FSC -<br>C003608                       | <b>Smooth</b> 90/145 × 21   | Class 1    | 1100kg/m <sup>3</sup>    | Reddish brown to light brown.  Medium texture with interlocked grain and moderate lustre.                |
| Iroko          | FSC -<br>C003608<br>& VLO              | <b>Smooth</b><br>90/115/140 × 19  | Class 2    | 640kg/m <sup>3</sup>     | Yellow brown to dark chocolate brown. Medium to coarse texture with slightly interlocked grain.          |
| Kwila          | FSC -<br>C003608                       | Grip Tread/Smooth<br>90/140 × 19  | Class 2    | 870kg/m <sup>3</sup>     | Dark reddish brown with light goldy flecks. Moderately coarse texture; slightly interlocked grain.       |
| Spotted<br>Gum | PEFC                                   | <b>Smooth</b><br>90/130 × 25  | Class 2    | 950kg/m <sup>3</sup>     | Pale reddish browns and soft creams to rich green browns. Medium to coarse texture; frequent wavy grain. |

<sup>\*42</sup>mm thick profiles available on selected species.

More species and custom sizes available upon request. Contact us for more info TechHelp@jsc.co.nz.



#### **DESIGN ELEMENTS**

#### **Deck Framing**

JSC Hardwood decking shall be installed over deck framing compliant with NZS 3604.

#### **BOARD THICKNESS**

#### **Board Span**

Deck joists and bearers must be spaced to comply with NZS 3604. Table 1 shows maximum joist spacing required to install JSC Hardwood decking.

| Species        | 450mm max. joist centres       | 600mm max. joist centres       |  |
|----------------|--------------------------------|--------------------------------|--|
| Vitex          | 65/90/115/140 × 19<br>140 × 20 | 140 × 32<br>65/90/115/140 × 42 |  |
| Garapa         | 90/140 × 19                    | 140 × 32                       |  |
| Purpleheart    | 65/90/140 × 19<br>140 × 20     | 65/90/140 × 42                 |  |
| Cumaru         | 90/145 × 21                    |                                |  |
| Iroko          | 90/115/140 × 19                |                                |  |
| Kwila          | 90/140 × 19                    |                                |  |
| Spotted<br>Gum | 90/130 × 25                    |                                |  |

Table 1 - Joist maximum spacing and minimum required board thickness.

## **Board Spacing**

Allow a gap between hardwood deck boards to ensure draining and air circulation under and around the deck.

JSC recommends gaps between boards as per Table 2.

| Drying method | 65-115mm<br>wide profiles | 130-140mm<br>wide profiles |
|---------------|---------------------------|----------------------------|
| Kiln dried    | 4mm gap                   | 6mm gap                    |
| Air dried     | 3mm gap                   | 4mm gap                    |

Table 2 - Board spacing

The orientation of the decking boards dictates the layout of the subframe. Position the decking boards perpendicular to the direction of traffic to reduce the risk of slipping.

#### Ventilation

Air circulation under the decking is very important to help minimise cupping and warping. Proper ventilation ensures the potential difference in moisture levels between the top face and the underside of the board is reduced and extends the life and performance of the deck.

The sub deck should have at least 450mm

clearance from the ground. This in conjunction with suitable spacing, should allow for adequate ventilation.

In wet areas or over water, additional clearance is recommended. In membrane decks, minimum falls and threshold must comply with E2/AS1 to allow drainage and avoid water accumulating under the decking. Failure to provide for suitable ventilation is a major cause of early decking failure.

Other steps that can be taken to minimise moisture differential are:

- A ground level vapour barrier (with slit drainage)
- · A suitable surface coating on all four sides of the decking boards (refer to coating section)

It is important that the perimeter of the deck is not fully enclosed and remains open to airflow. Decking should be installed with a 12mm minumum gap beteween the face of the cladding and the decking. Completely enclosing the sides of the deck will inhibit proper ventilation and compromise the performance of the decking.

#### Sealing

End sealing will help minimise splitting and checking at the ends of the boards. JSC recommends the boards to be end-sealed with a high quality penetrating oil as soon as possible after cutting and before final installation.

In order to minimise surface checking, cupping and discolouration we recommend decking to be coated on all four sides. Proper coatings can vastly decrease the maintenance required on your decking.

NB: Boards should be free of all surface marks and stains before coating. We recommend that a "clear" decking oil is used. Clear oil coating won't prevent decking from silvering/greying-

#### **PRE-INSTALLATION**

#### Storage and Handling

Decking should be kept dry and out of the weather until installation. Hardwood boards should be kept clear off the ground on dry, clean bearers and covered to protect from sun and rain.

#### **INSTALLATION**

## **Fixings**

Predrilling all fixing holes is essential to reduce the risk of splitting.

Fixing placement to be 20mm from the edges of the boards.

JSC recommends that all hardwood decks are fixed using stainless steel countersunk screws. Fixings must achieve a minimum of 35mm framing penetration.

| Decking Size       | 12g x 65mm Stainless Steel<br>Hex Drive Countersunk<br>Screw | 14g x 75mm Stainless Steel<br>Hex Drive Countersunk<br>Screw | 14g x 90mm Stainless Steel<br>Hex Drive Countersunk<br>Screw |
|--------------------|--|--|--|
| 65/90/115/140 × 19 | 2 fixing points per decking board (20mm from edges)          |  |  |
| 140 × 20           | 2 fixing points per decking board (20mm from edges)          |  |  |
| 90/145 × 21        | 2 fixing points per decking board (20mm from edges)          |  |  |
| 90/130 × 25        |  | 2 fixing points per decking board (20mm from edges)          |  |
| 140 × 32           |  | 2 fixing points per decking board (20mm from edges)          |  |
| 65/90/115/140 × 42 |  |  | 2 fixing points per decking board (20mm from edges)          |

Table 3 - Fixings

NB: JSC does not endorse the use of hidden fixing systems with this product.



## **FIXINGS AND ACCESSORIES**

## **Decking Screw Options**

- 12g x 65mm Stainless Steel Hex Drive Countersunk Screw
- 14g x 75mm Stainless Steel Hex Drive Countersunk Screw
- 14g x 90mm Stainless Steel Hex Drive Countersunk Screw

#### Specifications:

- · Premium T316 Grade Stainless Steel
- · Type 17 Point

NB: When installing boardwalk decking use Stainless Steel Hex

**Drive Bugle Head Screws** 



## **Pre-drilling and Countersinking Tool**

Designed specifically for use when installing hardwood decking and when using JSC Stainless Steel Hex Decking Screws.

NB: Pre-drilling and countersinking is essential when working with hardwood decking







## MAINTENANCE

## **Cleaning and Washing**

Hardwood decking should be cleaned annually.

Use a soft brush with water and mild detergent. Do not direct high pressure water on any part of the hardwood timber.

Where a coating is applied, periodic recoating is required to ensure its integrity is sustained.

Some hardwoods can bleed extratives when they are first installed. The run-off varies in extent and colour according to the species and degree of weathering, and may stain nearby surfaces if left unattended. Refer to maintenance and species information for further details.

NB: Vitex run-off is water soluble.

DISCLAIMER: JSC's Hardwood Decking is manufactured with care and inspected to ensure quality. It is a natural wood product and subject to variations in weight, density, colour, grain and performance. Care must be taken at all times. Some swelling, shrinkage, movement and checking are normal occurrences in timber decking.

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