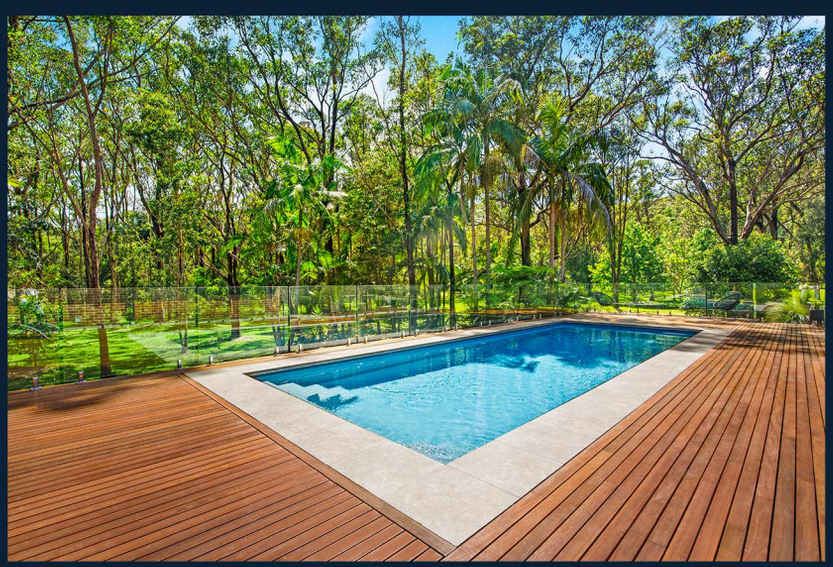
Simmonds Lumber

Timber importers & wholesalers

HARDWOOD DECKING SELECTION



... the Right Choice

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Available at your local timber retailer

KWILA

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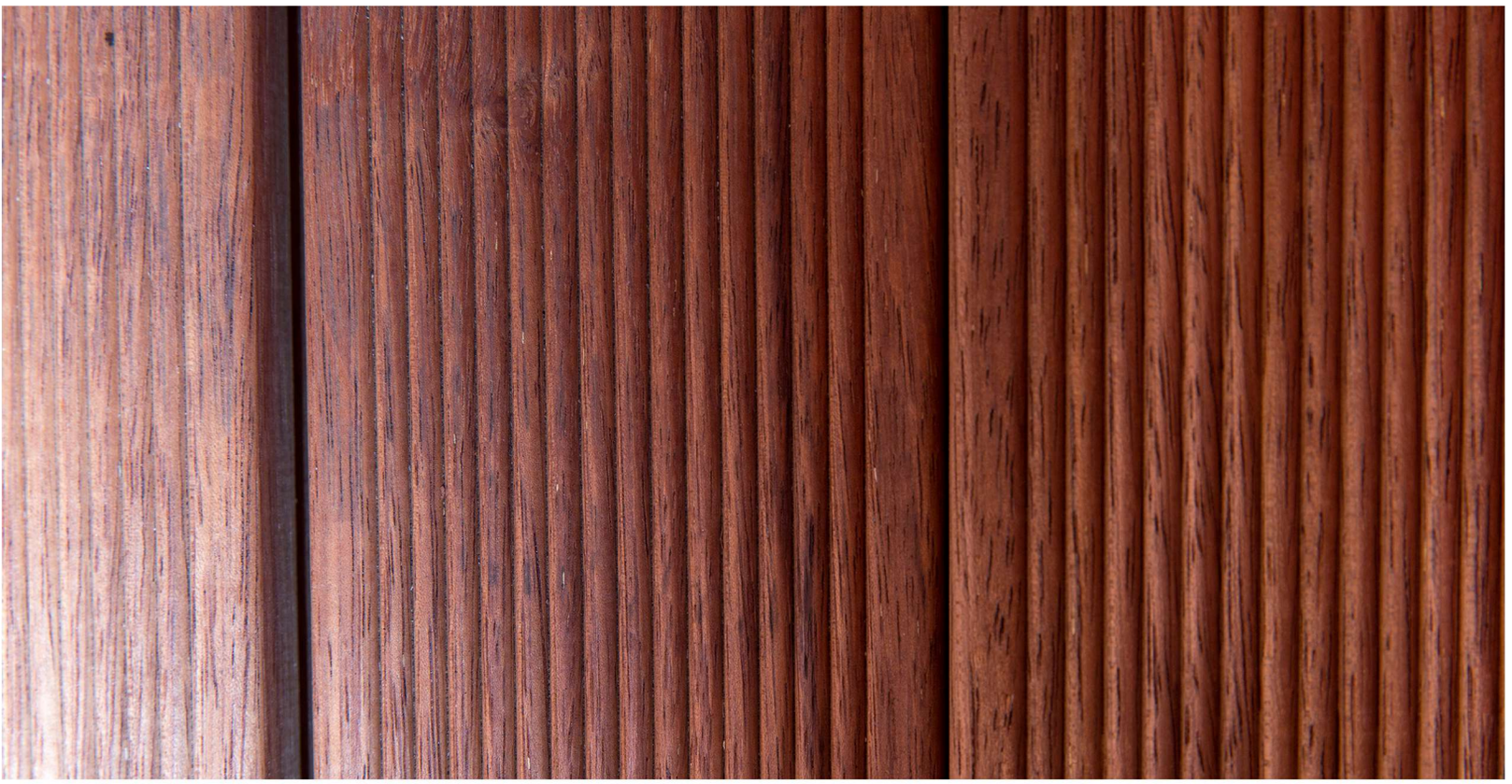


Scientific Name: **Intsia bijuga, Palembanica**
Other Names: **Merbau, Vesi, Ipil**

Origin: **Indonesia, Papua New Guinea**

Native to Southeast Asia and the Pacific islands, Kwila is a dense and durable hardwood that is resistant to rot, termites, and weathering, making it a popular choice for outdoor applications such as decking, fencing, and furniture.

Characteristics:

Rich, reddish-brown colour that deepens over time
Distinct attractive look

Benefits:

Natural termite resistance
Easy to work with
Can be cut, drilled, and sanded to fit specific design requirements

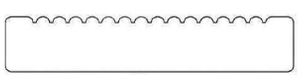
Technical Data:

Density (kg/m3): **870**
Durability **Durable (Class 2 above ground)**
MOR (MPa): **139 MOE (GPa): 16.5**
Drying Method: **Kiln Dry**
JANKA (kN): **8.4**
Shrinkage Green to 12% M.C. Tangential 4.0 Radial 2.0

Sizes and Profile:

90 x 19 Reeded One Face
140 x 19 Reeded One Face

Random Length 1.8 - 5.7m



Note: Simmonds Lumber sources only legally harvest Kwila that is endorsed by FSC / PEFC.

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VITEX

Scientific Name: **Vitex cofassus**
Other Names: **Vasa, New Guinea Teak**

Origin: **Solomon Islands, Papua New Guinea**

Vitex is a Solomon Islands tropical hardwood used for decking in New Zealand for over three decades. Also known as New Guinea teak, Vitex is an affordable alternative to teak. It is a durable and stable wood that is resistant to rot, termites, and weathering, making it an excellent choice for outdoor applications such as decking, cladding, and furniture.

Characteristics:

Light to medium brown colour
Fine and uniform texture that can be straight or interlocked
Moderate high density and hardness

Benefits:

Resistant to wear and tear
Relatively easy to work with
Resistant to staining and fading - Minimal maintenance *
Natural termite resistance

Technical Data:

Density (kg/m3): **700 - 800**
Durability **Durable (Class 2 above ground)**
MOR (MPa): **113 MOE (GPa): 14**
Drying Method: **Fan Dry**
JANKA (kN): **5.6**
Shrinkage Green to 12% M.C. Tangential 6.0 Radial 3.5

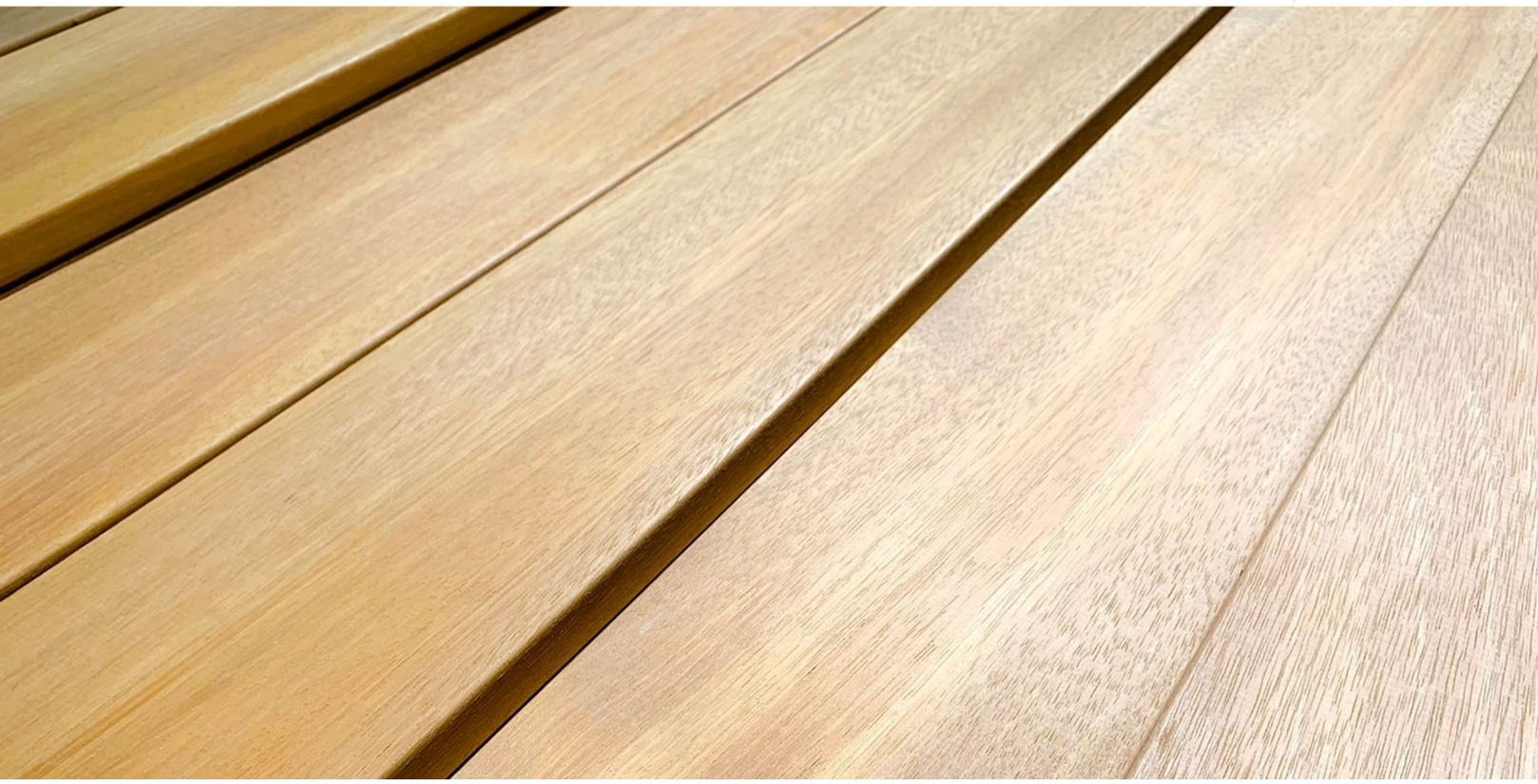
Sizes and Profile:

140 x 19 Smooth Pencil Round Edges

Random Length 1.8 - 5.1m

* While Vitex requires minimal maintenance, it is still essential to apply a protective finish to the wood to ensure its longevity and to maintain its appearance over time.

GARAPA



Scientific Name: **Apuleia mollaris**
Other Names: **Brazilian Ash, Muira-Juba, Ferro** Origin: **South America**

Garapa is sourced from the tropical forests of South America. Also known as Brazilian Ash, Garapa is a dense and durable hardwood that is resistant to rot, termites, and weathering; making it an excellent choice for outdoor applications such as decking, fencing and siding.

Characteristics:

Warm, golden-brown colour that can darken over time, giving it a rich and attractive appearance
Has a straight grain and fine texture

Benefits:

Resistant to splintering
Relatively easy to work with
Natural resistance to slipperiness

Technical Data:

Density (kg/m3): **900**
Durability **Durable (Class 2 above ground)**
MOR (MPa): **138 MOE (GPa): 16.2**
Drying Method: **Kiln Dry**
JANKA (kN): **7.4**
Shrinkage Green to 12% M.C. Tangential 6.0 Radial 3.5

Sizes and Profile:

140 x 19 Smooth Pencil Round Edges

140 x 21 Watershed Profile

Random Length 1.8 - 6.1m

Note: Simmonds Lumber sources only legally harvested Garapa that is endorsed by FSC / PEFC.

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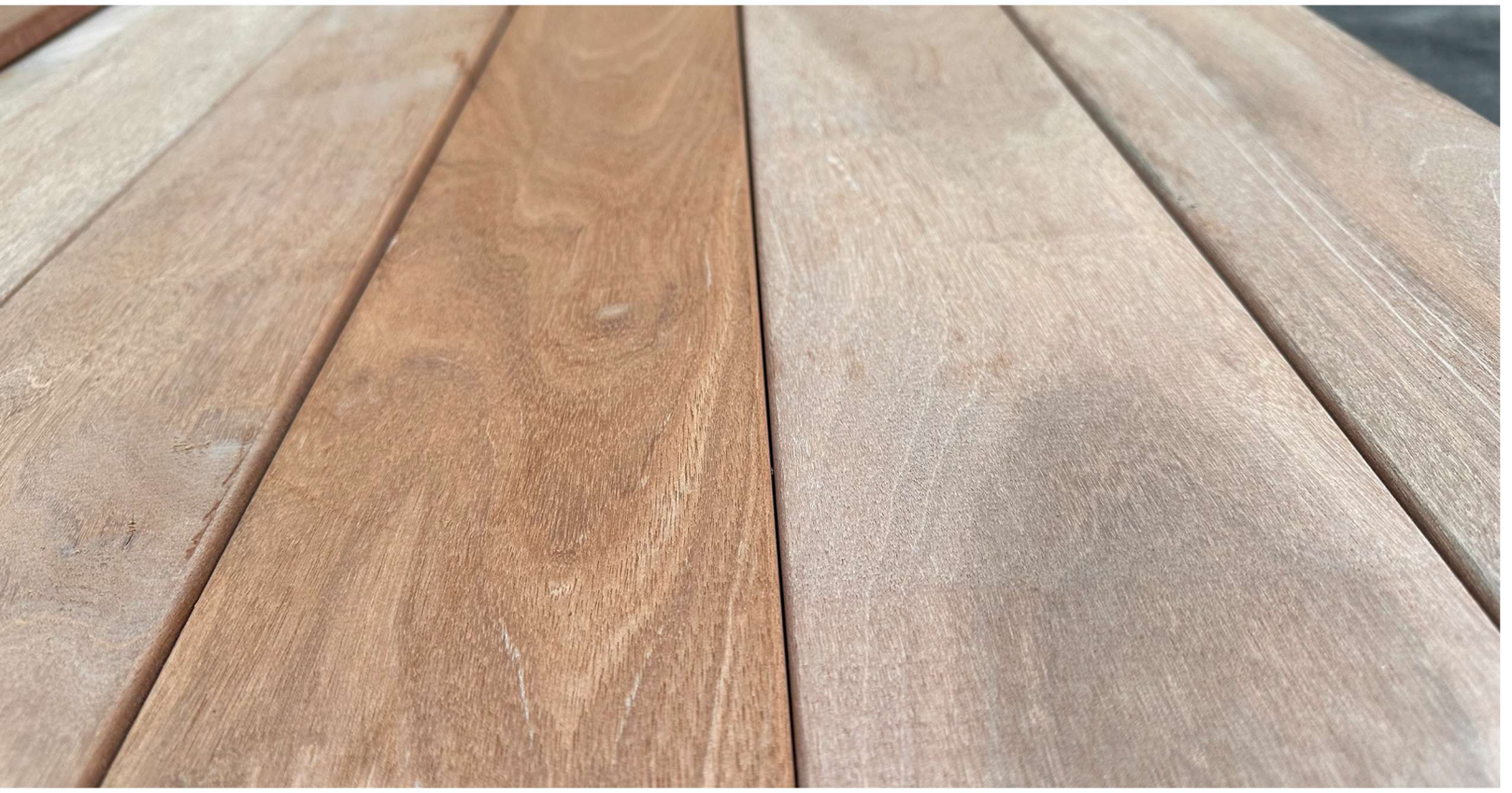
RED BALAU



Scientific Name: **Shorea ochrophloia**
Other Names: **Kayu Batu, Selangan Batu**

Origin: **Southeast Asia**

A native of Southeast Asis, Red Balau decking is much more colour consistent than other tropical decking species like Meranti, Ipe and Cumaru. Red Balau has a natural resistance to slipperiness, making it a safer choice for outdoor areas such as decks and patios.

Characteristics:

Rich, reddish-brown colour that can darken over time, giving it a warm and inviting appearance
Has a straight grain and fine texture

Benefits:

Relatively easy to work with
Resistant to splintering
Colour consistent
PEFC Certified sourced

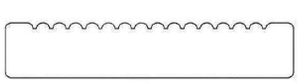
Technical Data:

Density (kg/m3): **850**
Durability **Durable (Class 2 above ground)**
MOR (MPa): **122.3 MOE (GPa): 16.95**
Drying Method: **Kiln Dry**
JANKA (kN): **7.2**
Shrinkage Green to 12% M.C. Tangential 10.1 Radial 5.5

Sizes and Profile:

140 x 21 Reeded One Face

Random Length 1.8 - 5.7m



SPOTTED GUM

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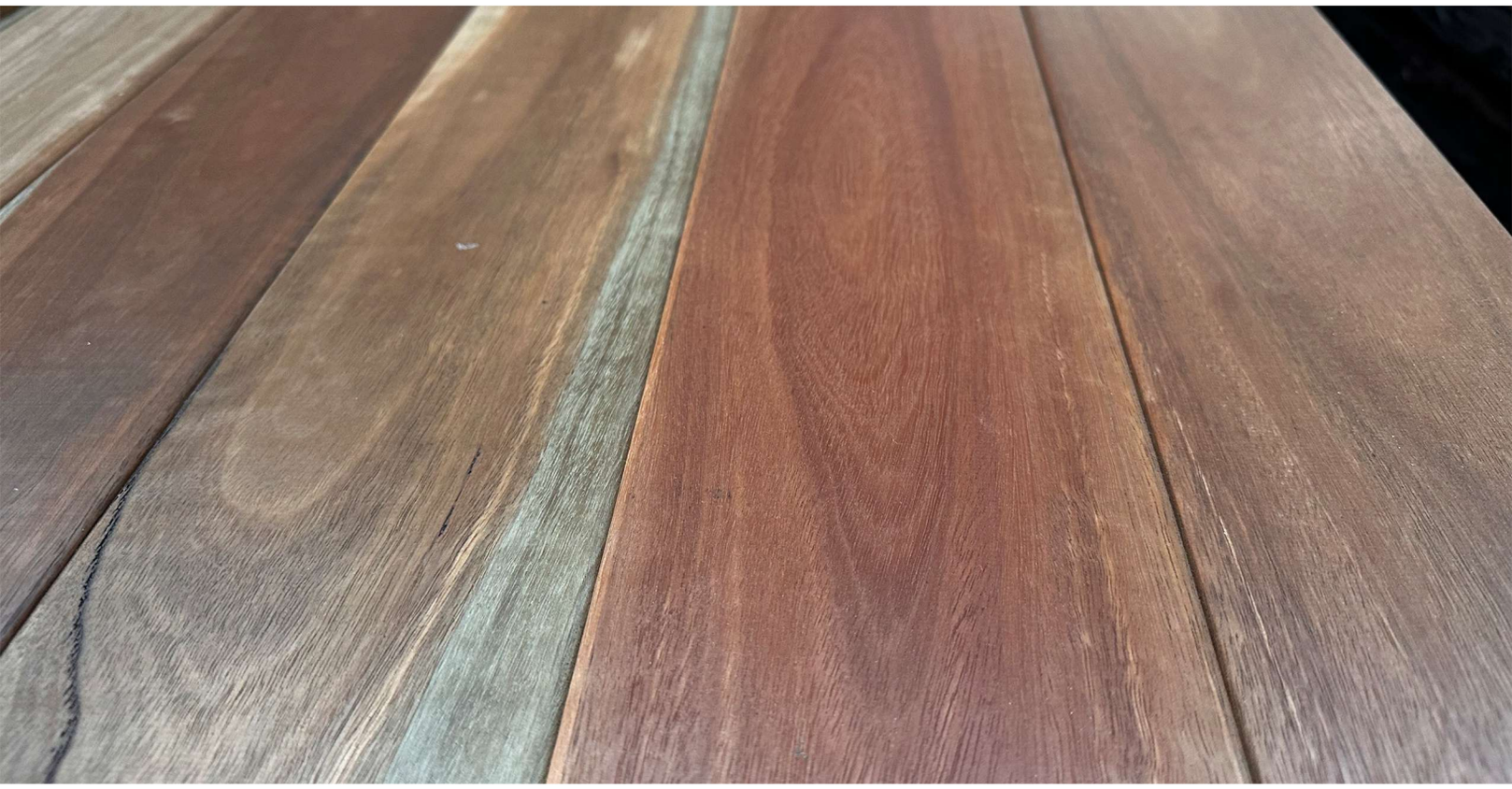

Scientific Name: **Corymbia maculata**
Origin: **Australia**
Other Names: **Irongum, Lemon-scented gum, Eucalyptus maculata**

Spotted Gum is a strong and durable timber with good amounts of natural oils. Many people favour Spotted Gum because of its way grain, which can produce an attractive fiddle-back figure. Due to its natural durability and strength, Spotted Gum has long been in use in engineering applications such as wharf and bridge construction. It is versatile, and can beused for framing, florring, lining, decking and cladding.

Characteristics:

Rich, warm colour that vary from light to dark brown
Characteristic markings and patterns

Benefits:

Resistant to wear and tear
Moderately high density and hardiness
PEFC certified sourced

Technical Data:

Density (kg/m3): **990**
Durability **Very Durable (Class 1 above ground)**
MOR (MPa): **142 MOE (GPa): 19**
Drying Method: **Kiln Dry**
JANKA (kN): **11**
Shrinkage Green to 12% M.C. Tangential 6.1 Radial 4.3

Sizes and Profile:

135 x 19 Smooth Pencil Round Edges

Random Length 1.8 - 5.4m

Note: Simmonds Spotted Gum Decking is standard and better grade.

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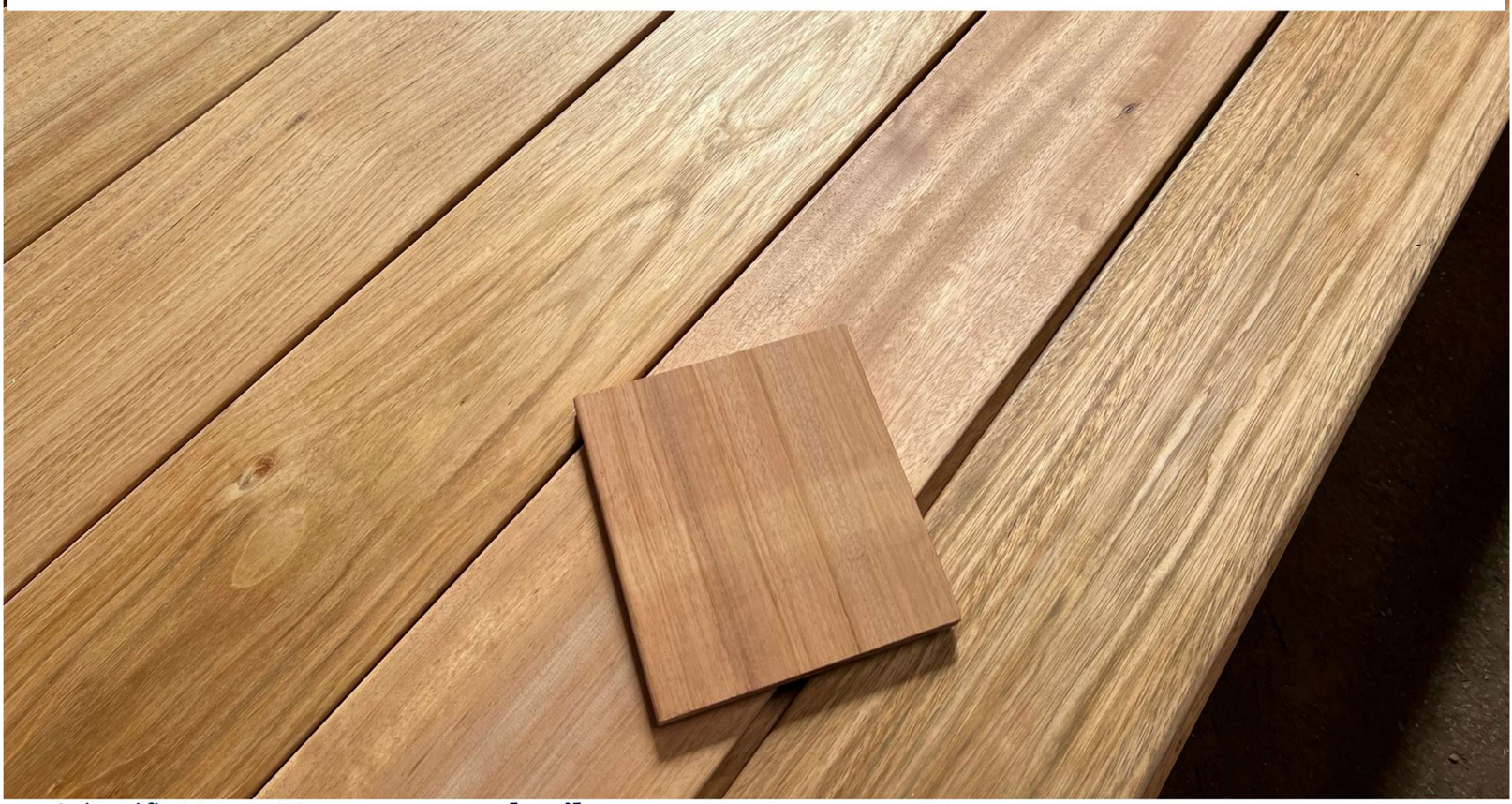
JATOBA



Scientific Name: **Hymenaeacourbaril**
Other Names: **Locust, Courbaril, Brazilian Cherry**
Origin: **Central and South America**

Jatoba, also known as Brazilian Cherry, is a dense and hard hardwood that is naturally scratch- and shock-resistent; and is also very durable in regard to rot, termites, and most other insects, making it an excellent choice for both indoor and outdoor applications such as decking, flooring, and funiture.

Characteristics:

Warm, reddish-brown colour
Distinctive grain pattern
Glues well, good screw holding, but nails badly
Stains well, but does not take a high polish

Benefits:

Natural resistance to rot, termites and weathering
Exceptionally stiff, strong, dense and hard
FSC certified sourced

Technical Data:

Density (kg/m3): **910**
Durability **Moderately Durable (Class 2 / 3 above ground)**
MOR (MPa): **155.2 MOE (GPa): 18.93**
Drying Method: **Kiln Dry**
JANKA (kN): **11.9**
Shrinkage Green to 12% M.C. Tangential 8.0 Radial 4.2

Sizes and Profile:

140 x 19 Smooth Pencil Round Edges

Random Length 1.8 - 6.1m

Note: Jatoba has a moderate blunt effect on tools; which must be kept sharp; and a reduced cutting angle of 20 degrees will provide a smooth finish on the interlocked grain.

Hardwood Decking Installation Guide

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When purchasing and installing hardwood decking, it is important to check the installation area before determining the best practices required for installation.

Storage & Handling: Pre-drilling and countersinking are essential to avoid end splits. Decking should be kept dry and out of the weather until installation. On site, each pack should be kept off the ground by placing it on dry, clean bearers and covered to protect from sun and rain. installation Span Decking 19mm should be installed at maximum 450mm joist centres. For 32mm thick decking, this can be increased up to 600mm joist centres. Given that Radiata pine joists are softwood, the joists should be clean and sound. The Screws should penetrate at least 45mm into the joists to achieve good holding.

Spacing: In average New Zealand climate conditions, kiln dried decking will expand slightly whereas air-dried decking will shrink. Kiln dried (i.e. 18% moisture content) decking will need extra spacing or gaps to allow for expansion as the decking absorbs ambient moisture.

For kiln dried decking, we recommend 90x19mm be spaced 4mm apart and 140x19mm be spaced 6mm apart. For air-dried decking, the gap can be reducd to 3mm for 90x19 and 4mm for 140x19mm. The specified gap will allow the deck to drain and air to circulate under and around the decking.

Do note these are recommendations only. Allowance for regional climate conditions should also be factored in.

Ventilation: Free air circulation under the decking is very important to help minimise cupping and warping. Proper ventilation ensures the potential difference in moisture levels vetween 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 will allow for adequate ventilation. In wet areas or over water, additional clearance is recommended.

Failure to provide for adequate ventilation is a major cuase of early decking failure.

Other steps that can be taken to minmise moisture differential are:
1. A ground level vapour barrior (with slit drainage)
2. A suitable surface coating on all four sides of the decking boards (refer coating section). It is important that the perimeter of the deck is not fully enclosed by a surround and remains open to airflow. Completely enclosing the sides of the deck will inhibit proper ventilation and compromise the performance of the decking.

End Sealing: End sealing will help minimise splitting and checking at the ends of the boards. We recommend the boards be end-sealed with a quality penetrating oil as soon as possible after cutting and before final installation.

Coating: In order to minimise surface checking, cupping and discolouration, we recommend decking to be coated on all four sides. This will slow moisture transfer into and out of the wood, thus maintaining even moisture content through the piece. Face coatings on installed unoiled decking will promote cupping and moving. Proper coatings can vastly decrease the maintenace required for your decking.

Note: Boards should be clear of all surface marks and stains before coating. We recommend that a clear decking oil is used as clear decking oils will not prevent decking from silvering/ greying-off.

Fastening: It is firmly advocated that all hardwood decks are face fixed with screws. Screws are essential for 140x19 decking. We recommend stainless steel screws 12x65mm through the predrilled and countersunk face of eaach board, two per joist, 20mm from the ends and edges. Care should be taken to not over-drive screws. Do not use self-drilling screws or screws with small heads.

Fixings & Accessories: Hex Drive Decking Screw specifically for use when installing hardwood decking, with a larger head to minimise pull through. Screws offer superior fixing srength and an unique, aesthetically pleasing look to your deck.

Installing around pools or near saltwater: If installing Simmonds hardwood decking around pools or near saltwater, it is important to note the following:

- Timber boards need to be well coated on all six sides before installation to help minimise cupping.
- Moisture uptake by timber is likely when installing within 1/5 metres of a pool or near saltwater.
- Fxings needs to be a minimum of 12g 65mm hot dip galvanised/ stainless steel screws for 19mm decking.
- We recommend 3 coats to the top face and 2 coats to the bottom face when installed near water.
- Ensure an 8mm gap between boards wider than 86mm for residential decks installed less than 450mm above ground.

Wood leaching: Wood leaching refers to the process where natural compounds present in wood are released and cause discolouration or staining on surrounding surfaces. This can happen when wood is exposed to moisture or other environmental conditions such as rain, snow, or high humiditty, that can trigger the release of these compounds.

The primary natural compounds in wood that can cause leaching are tannins and lignin. Tannins are a class of organic compounds responsible for the natural colouration of wood and other organic materials. Lignin is a complex organic polymer that provides structural support to wood and helps bind its fibres together.

Leaching can occur in many types of wood, but is more commonly observed with certain hardwood species that contain higher levels of tannins, such as Merbau or Teak. The leaching process can cause staining on surrounding surfaces such as concrete, stone or other porous materials.

To prevent wood leaching, it is important to properly seal and finish the wood; especially if it will be exposed to moisture. A high quality oil-based sealer or stain can help to penetrate the wood and provide long-lasting protection against leaching, while preserving the natural beauty of the wood.

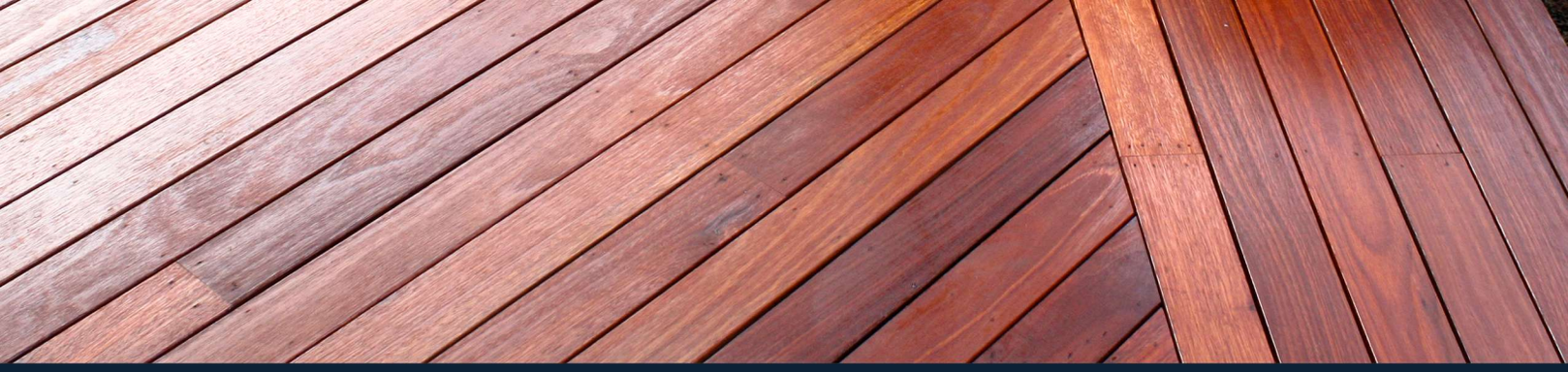
Regular maintenance, including cleaning and reapplication of protective finishes, can help to prevent leaching and extend the life of the wood.

Maintenance, Cleaning & Washing: Hardwood decks should be cleaned with a stiff brush at least once a year to clear gaps and remove surface mould, which can be a slip hazard in wet weather. It is also important, for the life of the deck, to keep it clear of leaf litter, moving pot plants or other large objects that may hold moisture to the top of the deck.

Washing/ Brushing the deck down with a mild solution of Janola and water (1:16), or suitable equivalent, will remove any build-up of resin or extractives that may leach out of the timber as the pieces season in situ. There are also various chemical cleaning agents available, ranging from detergents to acids. Follow manufacturers' instructions and be conscious of the chemical run off. The amount of run off will depend on the specie, how dry it is before the decking is laid and how expose the deck is to the weather.

Note: Vitex run-off is water soluble.

DISCLAIMER: 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 occurences in timber decking.



Simmonds Lumber is commited to sustainability and responsible timber production.

Our products are sourced from sustainably managed Australian, New Zealand, Asian, North & South American forests.

Our offices in Auckland, Brisbane, Melbourne, Sydney, and Surabaya offer localised knowledge, service and support.

For stock enquiry and more information, please contact your local timber retailer.

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