

# The Story of Kayu Canada

I, Jim Labelle, discovered this product while on a Mexican Cruise vacation in the winter of 1991. The entire ship was decked in an exotic hardwood that I had never seen before. I knew I was walking on a surface that went beyond utility to luxury. The decking also appeared to have withstood the test of time.



While on the cruise, I sat with the Ship's Engineer all week during dinner and he was able to give me the information I needed. He told me the wood was Philippine Mahogany from South East Asia.

At the time, I had been running my own contracting business for several years and I knew my clientele would love this wood if they had the chance to see it. In 1995 I was able to source this unique product through leading suppliers of exotic hardwood. Kayu Batu literally means Stone Wood

in the Malay language. The popularity of the Kayu Batu skyrocketed, so much so, that I was forced to shut down my contracting business in order to concentrate my efforts in marketing the Red Balau Batu, Yellow Balau Bangkirai and Dark Red Meranti throughout Canada.

In a very short time, Kayu Canada Inc, has become a leader in supplying exotic hardwoods across Canada. Kayu Canada Inc has expanded its business from decking to supplying a full line of products which you will find in this catalogue.

If you are looking for a product that sells itself, is very competitively priced and is stocked and available through out the year in Vancouver, Toronto and Calgary then look no further than Kayu Canada. This is the best product for not only exterior decking but also fencing, soffit and siding. It is also now available for interior hardwood flooring which comes in 3' - 7' random length.

Please view this catalogue and if you have any questions, contact Jim Labelle at (1-877) 666- KAYU (5298) Toll Free or in Calgary at (403) 541-9009

Look no further for your decking and other hardwood needs than Kayu Canada. This world class hardwood needs nothing but admiration lavished upon it.



Best regards,

Jim Labelle  
President  
Kayu Canada Inc.



**Kayu™**  
CANADA INC.

Bay # 8 6304 Burbank Road S.E.  
Calgary, Alberta T2H 2C2  
Phone: 403.541.9009  
[www.kayu.ca](http://www.kayu.ca)



Yellow Balau Bangkirai decking, Vancouver BC



# When only the Best Choice in decking will do!

Choose Kayu Canada's line of Tropical hardwood products.

*Below products are stocked year-round in Calgary, Vancouver and Toronto.*

## **IPE (Brazilian Walnut)**

Ipe is one of the densest hardwoods on the planet. Its extreme durability and beauty make it perfect for any exterior or interior project.

## **Red Balau Batu**

Uniquely beautiful Red Balau Batu with dark red mahogany hues that darken in time to a classic walnut tone. If left raw it will weather to a beautiful silver patina.

## **Yellow Balau Bangkirai**

Yellow Balau Bangkirai initially starts with tones similar to teak but will darken with UV. Weathers beautifully to a silver patina and has similar density & durability to Ipe.

## **Meranti**

Also known as Philippine mahogany, Meranti comes with a lot of variation in colour and visible grain.

These products are perfect for all exterior and interior applications such as decking, siding, fencing, soffit, fascia, pergolas, hardwood flooring etc.

**Kayu**<sup>™</sup>  
CANADA INC.

For all inquiries please contact our order desk toll-free  
at 1-877-666-KAYU (5298) or email us at [info@kayu.ca](mailto:info@kayu.ca)



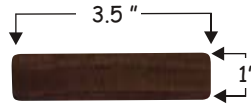




-Red Balau  
-Yellow Balau / Bangkirai  
-Dark Red Meranti  
-IPE  
Check for availability

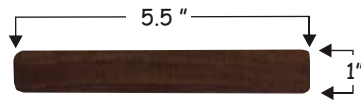
## Decking & T & G Great for Interiors & Exteriors

**5/4 X 4 S4S E4E**



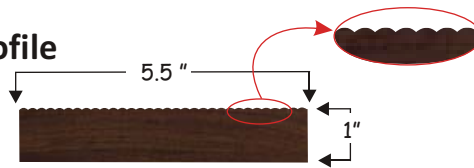
#1 Selling Product for  
Decking, skirting & fencing  
Available in 8' - 16' random length

**5/4 X 6 S4S E4E**



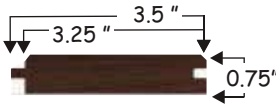
#1 Selling Product for  
Decking, skirting & fencing  
Available in random length  
8 - 16 foot lengths

**5/4 x 6 Reeded European Profile**



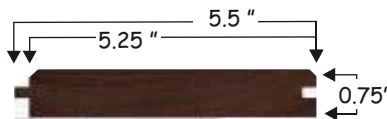
Decking profile  
One-sided Reeded  
**Custom Order**

**1 X 4 T & G  
V Groove**



Soffit, siding and skirting  
Available in 8' - 16' random length

**1 X 6 T&G  
V Groove**



Soffit, siding and skirting  
Available in 8' - 16' random length

Any questions on the above products please call 403.541.9009 in Calgary  
Toll Free 1.877.666.KAYU (5298) in the rest of Canada  
or visit our website at [www.kayu.ca](http://www.kayu.ca)



Custom Red Balau Batu Interior Stair Feature

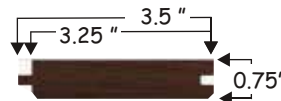




## T & G Flooring & Accessories Great for Interiors & Exteriors

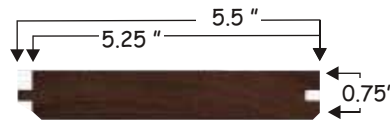
-Red Balau  
-Yellow Balau / Bangkirai  
-Dark Red Meranti  
-IPE  
Check for availability

### 1 X 4 T & G V Groove



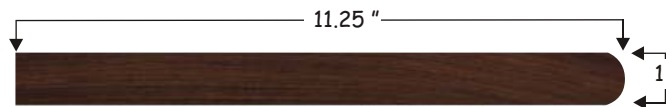
Square edge up for sand-on-site interior flooring and covered exterior porch flooring  
**Available random length 8 - 16 lengths**  
**Custom Order**

### 1 X 6 T&G V Groove



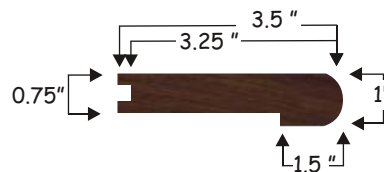
Square edge up for sand-on-site interior flooring and covered exterior porch flooring  
**Available random length 8 - 16 lengths**  
**Custom Order**

### 5/4 X 12 Stair Treads



Random lengths  
8 - 16 Feet  
**Custom Order**

### 5/4 X 4 Stair Bull Nosing



Random lengths  
8 - 16 Feet  
**Custom Order**

### Custom Flush Mount Heat Registers



Any size available in both cold and hot air  
**Custom Order**

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**or visit our website at [www.kayu.ca](http://www.kayu.ca)**



**"The Lake House"**

Summerland B.C.

Homescape Building & Designs

Winner "Georgie" Award for best exterior feature 2008





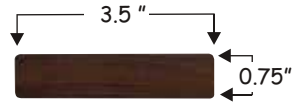
- Red Balau
  - Yellow Balau / Bangkirai
  - Dark Red Meranti
  - IPE
- Check for availability



# 1 X S4S

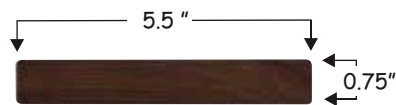
## Great for Interiors & Exteriors

**1 X 4 S4S E4E**



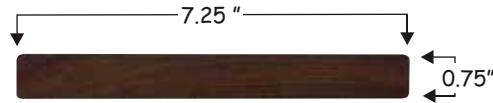
Fencing, decking, skirting  
Privacy screens  
Available random length  
8 - 16 lengths

**1 X 6 S4S E4E**



Fencing, Skirting  
Privacy screens  
Available random length  
8 - 16 lengths

**1 X 8 S4S**



Fascia, rim joist covers  
Available random length  
8 - 16 lengths

**1 X 10 S4S**



Fascia, rim joist covers  
Available random length  
8 - 16 lengths

**1 X 12 S4S**



Fascia, rim joist covers  
Available random length  
8 - 16 lengths

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Outdoor Hardwood Oasis





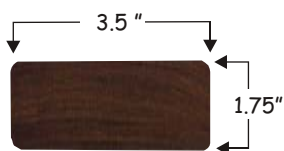
- Red Balau
- Yellow Balau / Bangkirai
- Dark Red Meranti
- IPE

Check for availability

## 2 X S4S

### Great for Interiors & Exteriors

**2 X 4 S4S**



Decking, railings,  
Arbors & Pergolas  
Available random length  
8 - 16 lengths

**2 X 6 S4S**



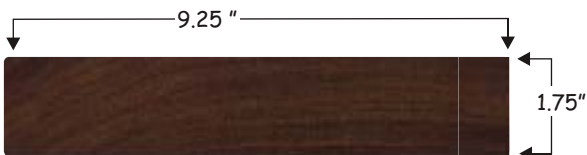
Decking, railings,  
Arbors & Pergolas  
Available random length  
8 - 16 lengths

**2 X 8 S4S**



Decking, railings,  
Arbors & Pergolas  
Available random length  
8 - 16 lengths

**2 X 10 S4S**



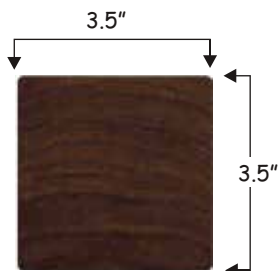
Decking, railings,  
Arbors & Pergolas  
Available random length  
8 - 16 lengths

**2 X 12 S4S**



Decking, railings,  
Arbors & Pergolas  
Available random length  
8 - 16 lengths

**4 x 4 S4S E4E**



Fence posts,  
Deck posts  
4, 8, 10, 12 foot lengths

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Red Balau Batu backyard,  
Innecity Calgary Alberta.





## Specialty Products

- Red Balau
  - Yellow Balau / Bangkirai
  - Dark Red Meranti
  - IPE
- Check for availability

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### Profile Railing



2 x 4 x 8' Formed handrails

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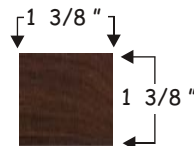
### Profile Railing Sample



- Profile Railings
- Spindles
  - 4 x 4
  - Post caps

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### Spindles



2 x 2 x 3' lengths  
(42 inch by special order)

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### Soffit - Custom Venting



7' - 4"  
Available in 1 x 4 and 1 x 6

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Deck with a view, Red Balau Batu



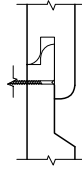
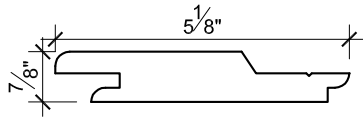




- Red Balau
  - Yellow Balau / Bangkirai
  - Dark Red Meranti
  - IPE
- Check for availability



# CUSTOM MILLING ANY PROFILE

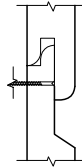
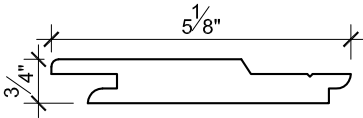


## **5/4 x 6 - Shiplap**

Please allow 2+ weeks for custom milling, additional cost.

Perfect for any siding application.

Available in both 1/4" and 1/2" reveal.

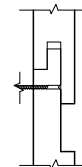
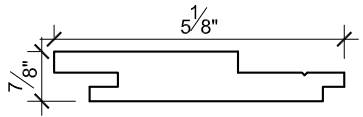


## **1 x 6 - Shiplap**

Please allow 2+ weeks for custom milling, additional cost.

Perfect for any siding application.

Available in both 1/4" and 1/2" reveal.

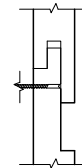
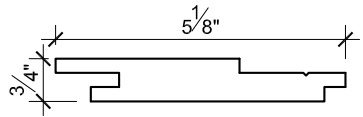


## **5/4 x 6 - Fineline Shiplap**

Please allow 2+ weeks for custom milling, additional cost.

Perfect for any siding application.

Available in both 1/4" and 1/2" reveal.

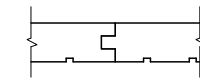
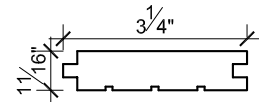


## **1 x 6 - Fineline Shiplap**

Please allow 2+ weeks for custom milling, additional cost.

Perfect for any siding application.

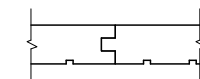
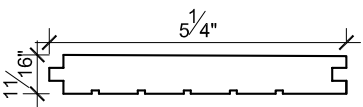
Available in both 1/4" and 1/2" reveal.



## **1 x 4 Hardwood Flooring**

Please allow 2+ weeks for custom milling, additional cost.

Merbau Stocked.



## **1 x 6 Hardwood Flooring**

Please allow 2+ weeks for custom milling, additional cost.

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[www.kayu.ca](http://www.kayu.ca)

Please Contact Us for Product Availability & Pricing



Hardwood Fence & Privacy Screen



# Finishing & Fastening



## Kreg Deck Jig



The only recommended toe-screw hidden fastening deck installation method for our tropical hardwood products.

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## Hemp Shield Exterior Oil



**New Product!** Hemp Shield is a non-toxic, low VOC, long-lasting wood finish made out of 100% Canadian hemp oil. Works well on all of our hardwoods as well as softwoods. Comes in a variety of tint options.

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## Starborn Pro Plug System



This is the best system when hidden top fastening. Just pre-drill, countersink, fasten, glue, plug, then you're done.

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## Simpson Strong-Tie Fasteners



The best option of stainless steel fasteners for our exotic hardwood.

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## Messmer's UV Plus for Hardwood



Messmer's UV Plus for Hardwoods is a premium natural linseed oil based exterior finish formulated for dense exotic hardwood.

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**Please refer to installation and maintenance page for more information**

Any questions on the above products please call 403.541.9009 in Calgary  
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**or visit our website at [www.kayu.ca](http://www.kayu.ca)**



Kayu-TOPIA (8 years old)



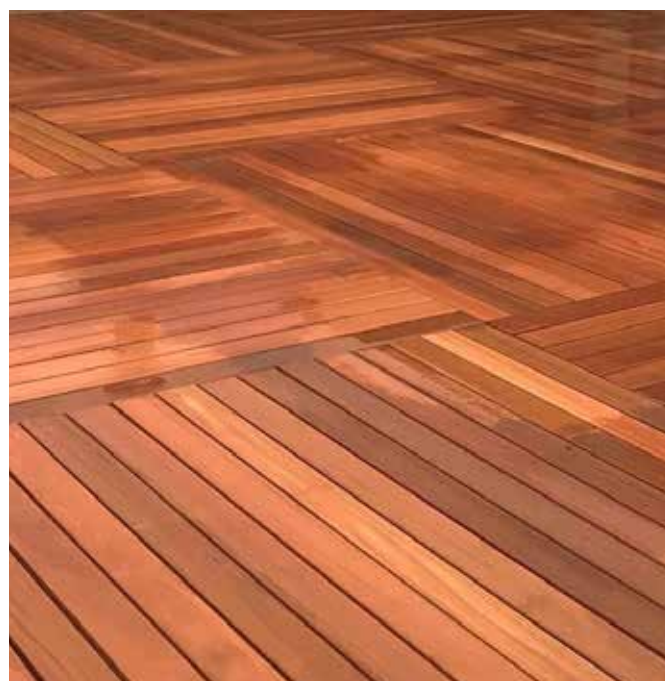


## Kayu Hardwood Deck Tiles

Have an open space that needs a touch of warmth? How about something that is easy to install, a breeze to maintain, and adds a touch of class to any space.



Kayu hardwood decking tiles are available in two sizes, 20 x 20 (500mm x 500mm) and 40 x 40 (1000mm x 1000mm). Your new hardwood deck can sit on any sound flat surface like concrete balconies and patios, or a flat rooftop area.



Kayu deck tiles are made using Yellow Balau, one of our most popular tropical hardwoods. Initially, Kayu tiles start with a colour similar to teak but will darken to a warm mahogany colour if maintained. You can install Kayu Decking tiles yourself, or hire a contractor.





Ultimate Entryway



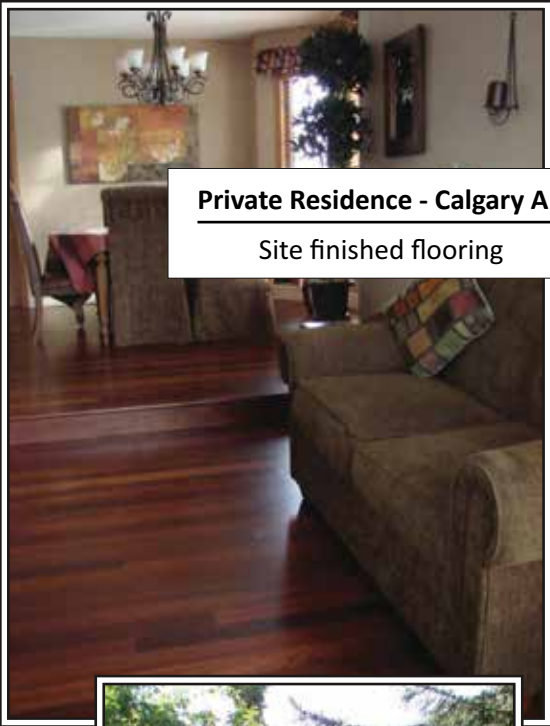


## Residential Gallery



Red Balau used everywhere!  
Siding, Decking, Soffit,  
Retaining walls, Garage Doors,  
and Fencing.





**Private Residence - Calgary AB**

Site finished flooring



**Private Residence - Calgary AB**

Decking, Fence & Railings



**Private Residence - Calgary AB**

Siding



**Private Residence - Calgary AB**

Custom Privacy Fence



**Private Residence - Calgary AB**

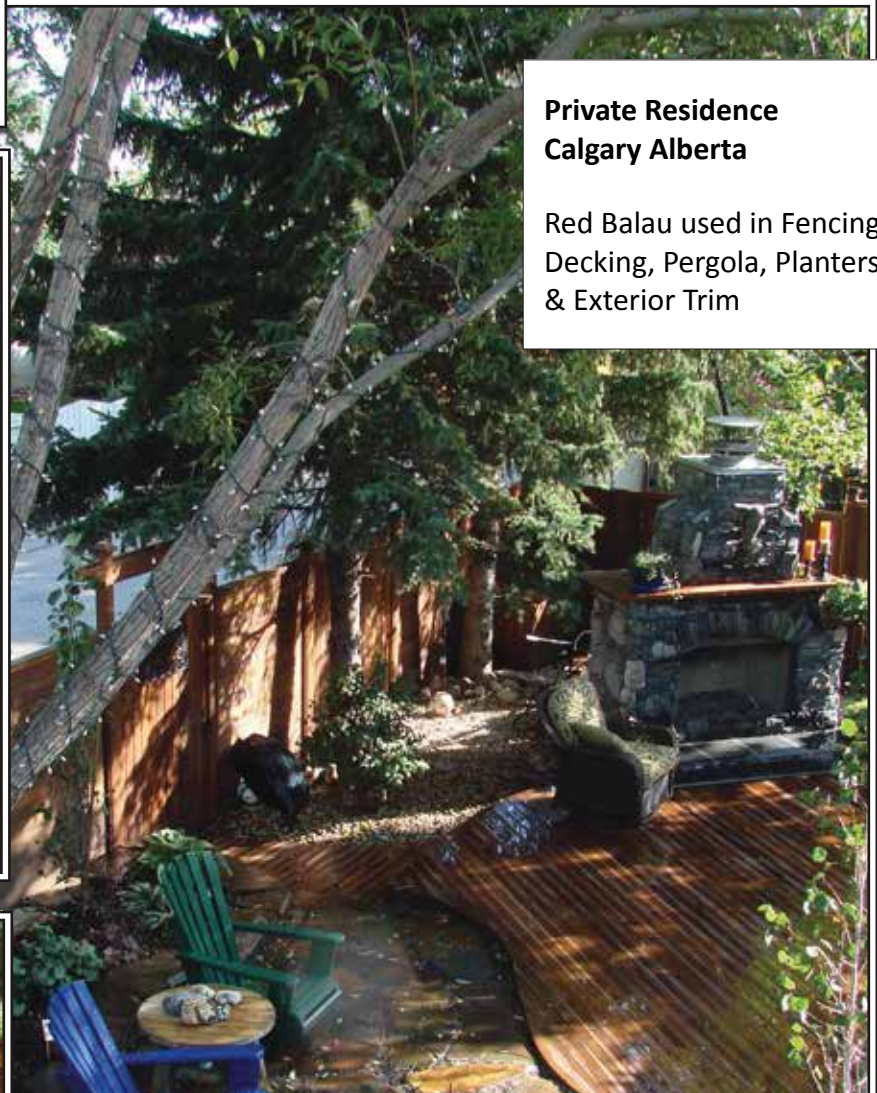
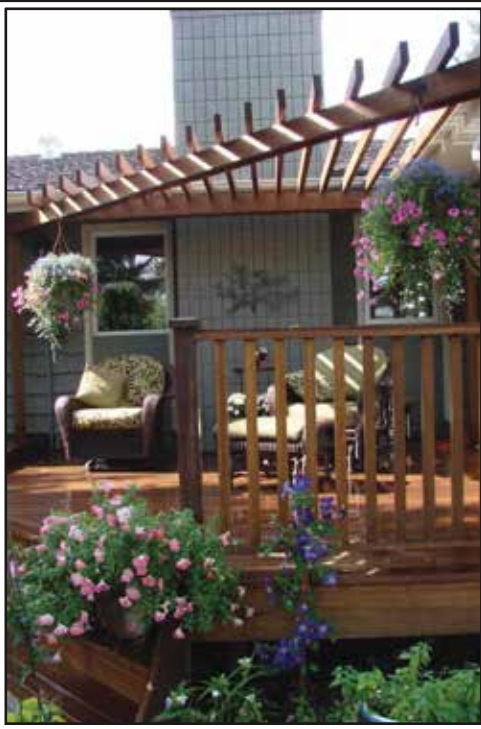
Soffit



**Private Residence - Calgary AB**

Decking & Fencing





**Private Residence  
Calgary Alberta**

Red Balau used in Fencing,  
Decking, Pergola, Planters  
& Exterior Trim







**“The Lake House”  
Summerland B.C.**

Built by:  
Homescape Designs,  
Summerland B.C.

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Winner - “Georgie” Award  
for best exterior feature

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Meranti used in Fencing,  
Soffit, Decking, Siding,  
Exterior Trim and Pergola







**Private Residence**  
**Southern Alberta - South facing**  
**12 Years old - Oiled Annually**



**Private Residence**  
**Southern Alberta - North facing**  
**12 Years old - Oiled Annually**



**Private Residences Calgary**  
**Maintenance Free, Silver Patina**  
**Never Oiled 10+ Years**







Basement Walkout to Tropical Outdoor Room





Custom Hardwood Exterior Features





Oceanfront Bangkirai Lifestyle



Yellow Balau Bangkirai Infinity Pool Deck





Hardwood outdoor room, perfect outdoor living.







Stunning Custom Stairs



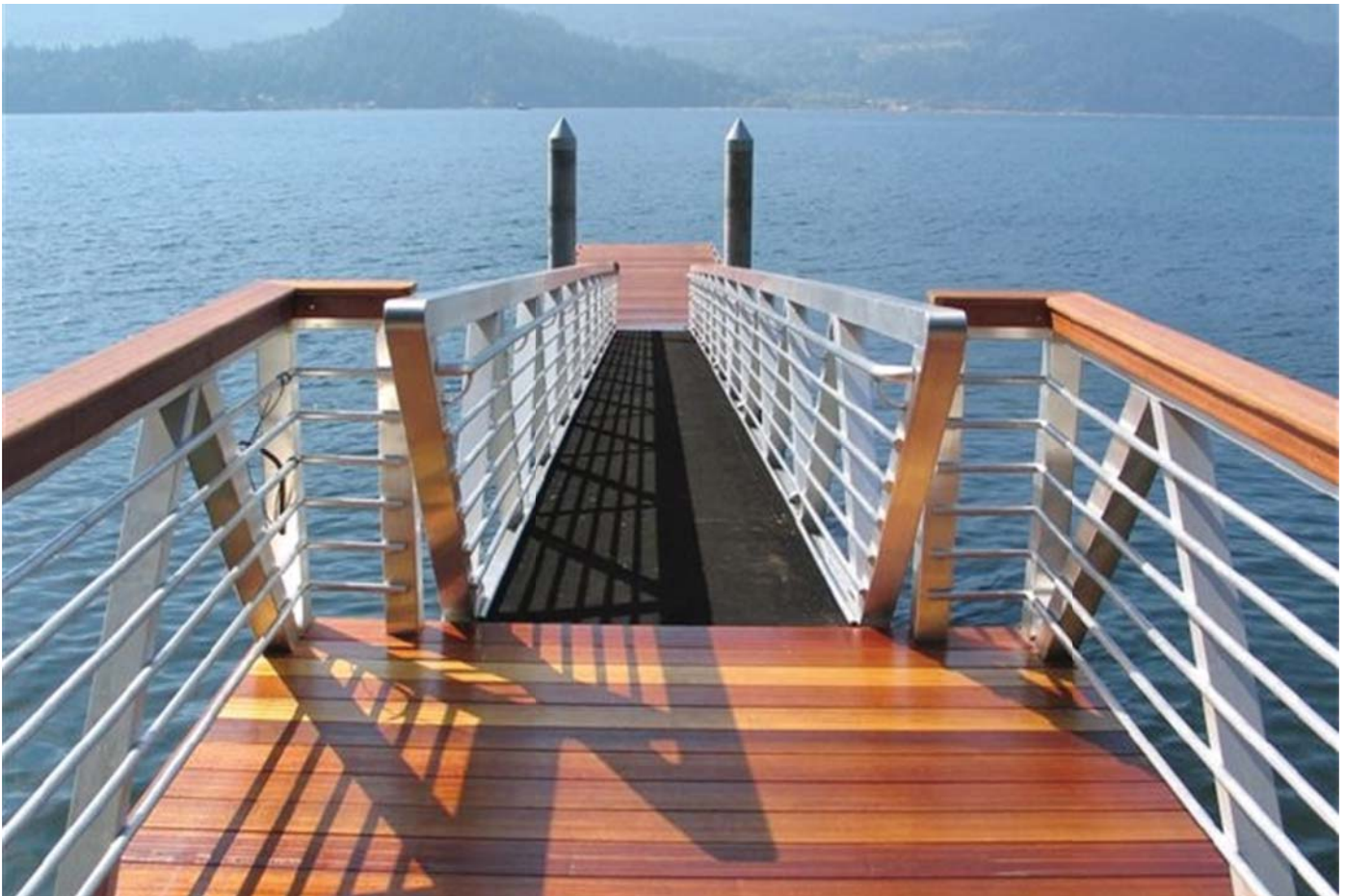




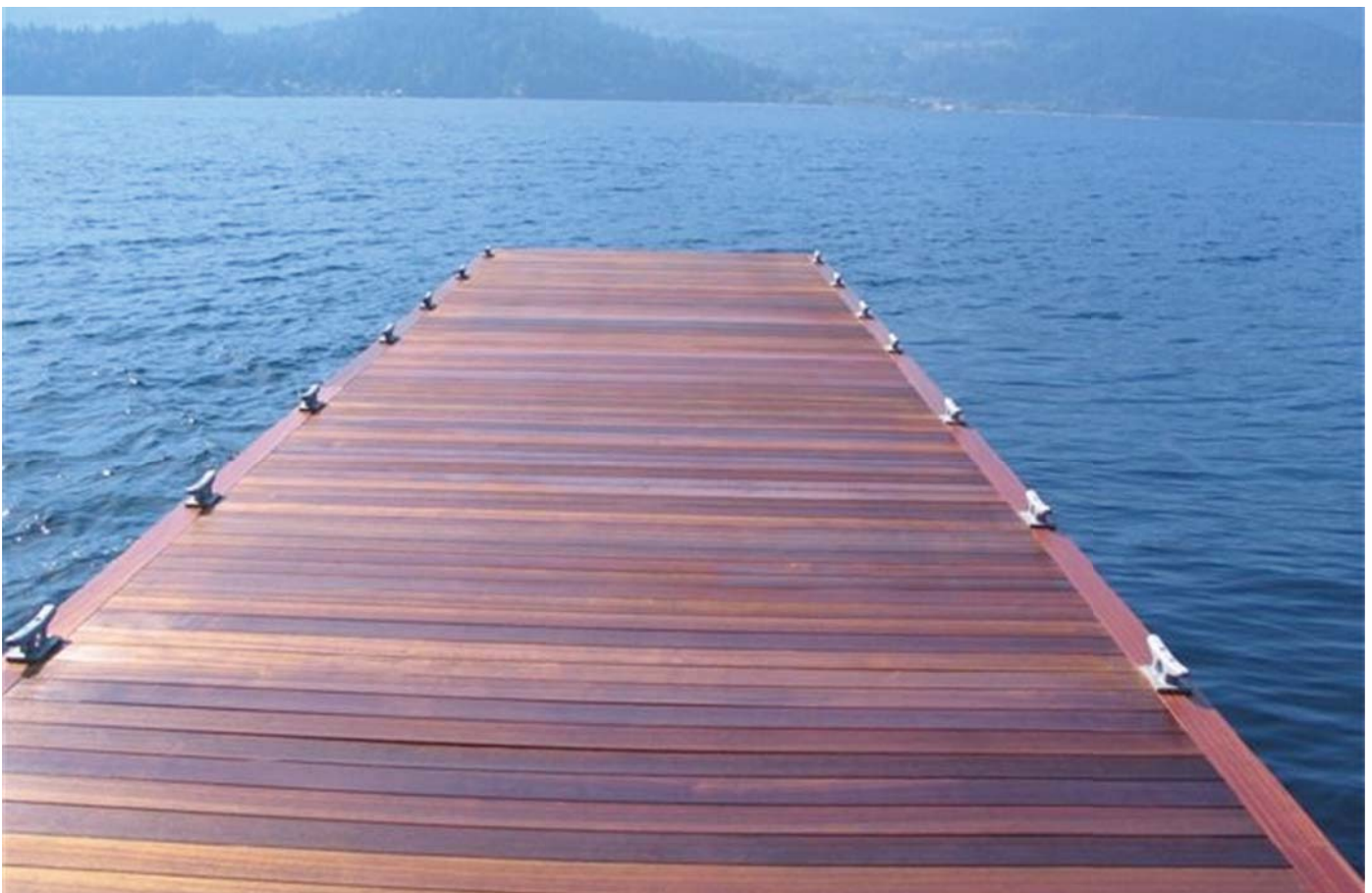
Natural exterior wood accents, siding and soffits.



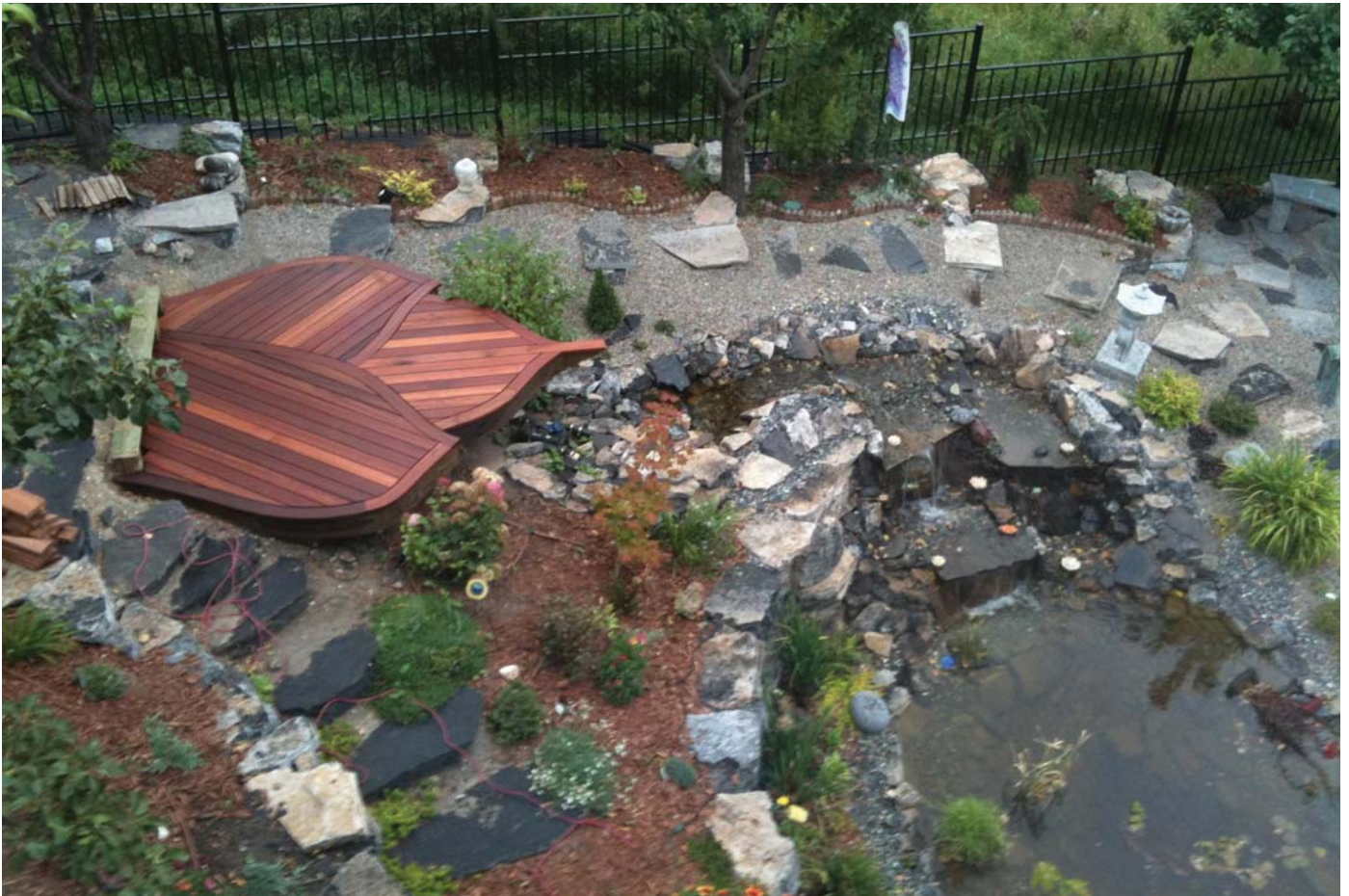




Custom Docks - B.C.







Designer Decks







Luxury Outdoor Living







Red Balau Batu Zen Outdoor Living Space







Red Balau Siding (above) & Silver Patina Deck (below)







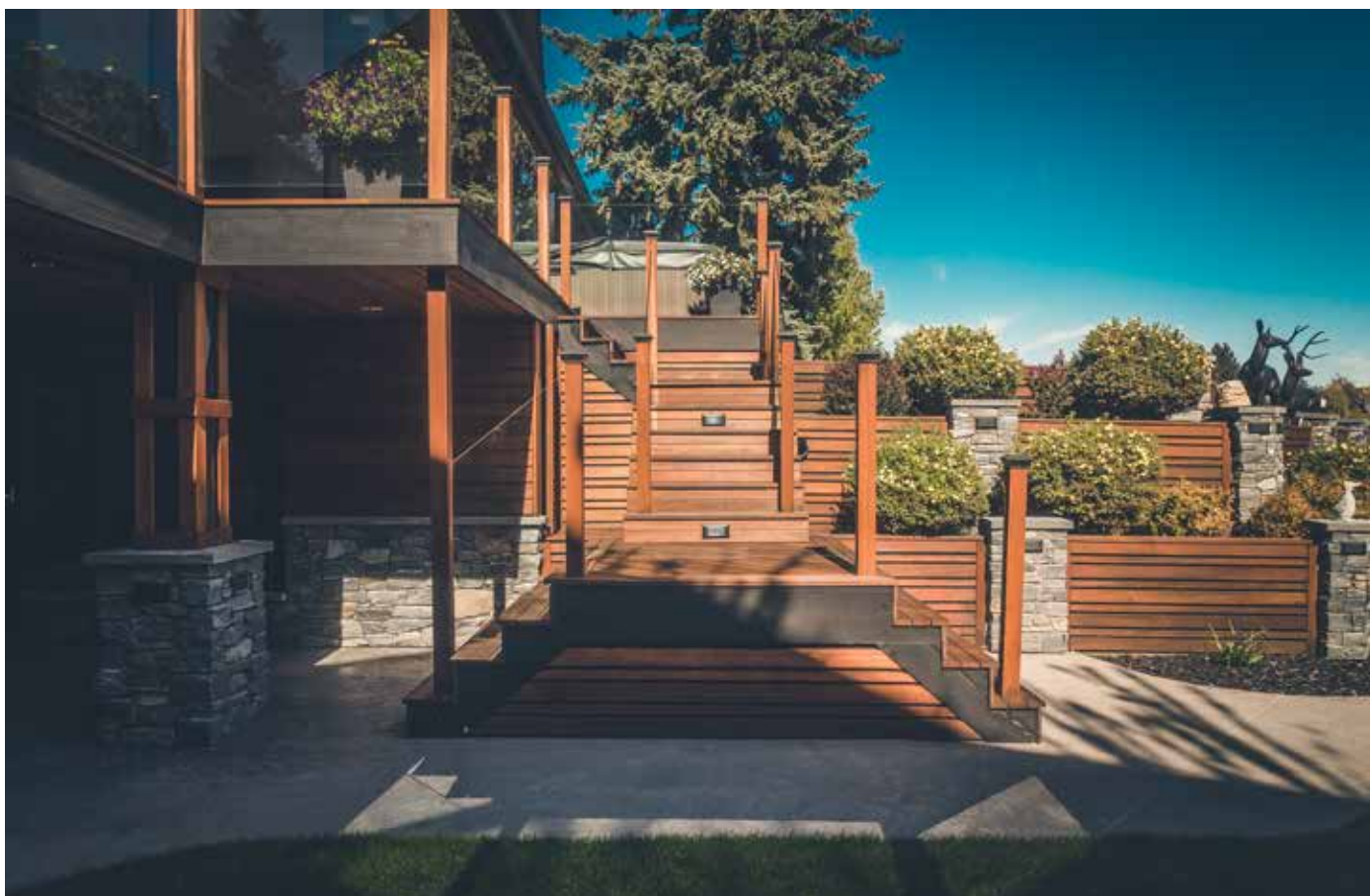
Tropical Hardwoods Interior and Exterior Applications







Real Hardwood to Last a Lifetime







Slatted Red Balau Screens







Red Balau Dock (above) & Yellow Balau/Bangkirai Deck (below)







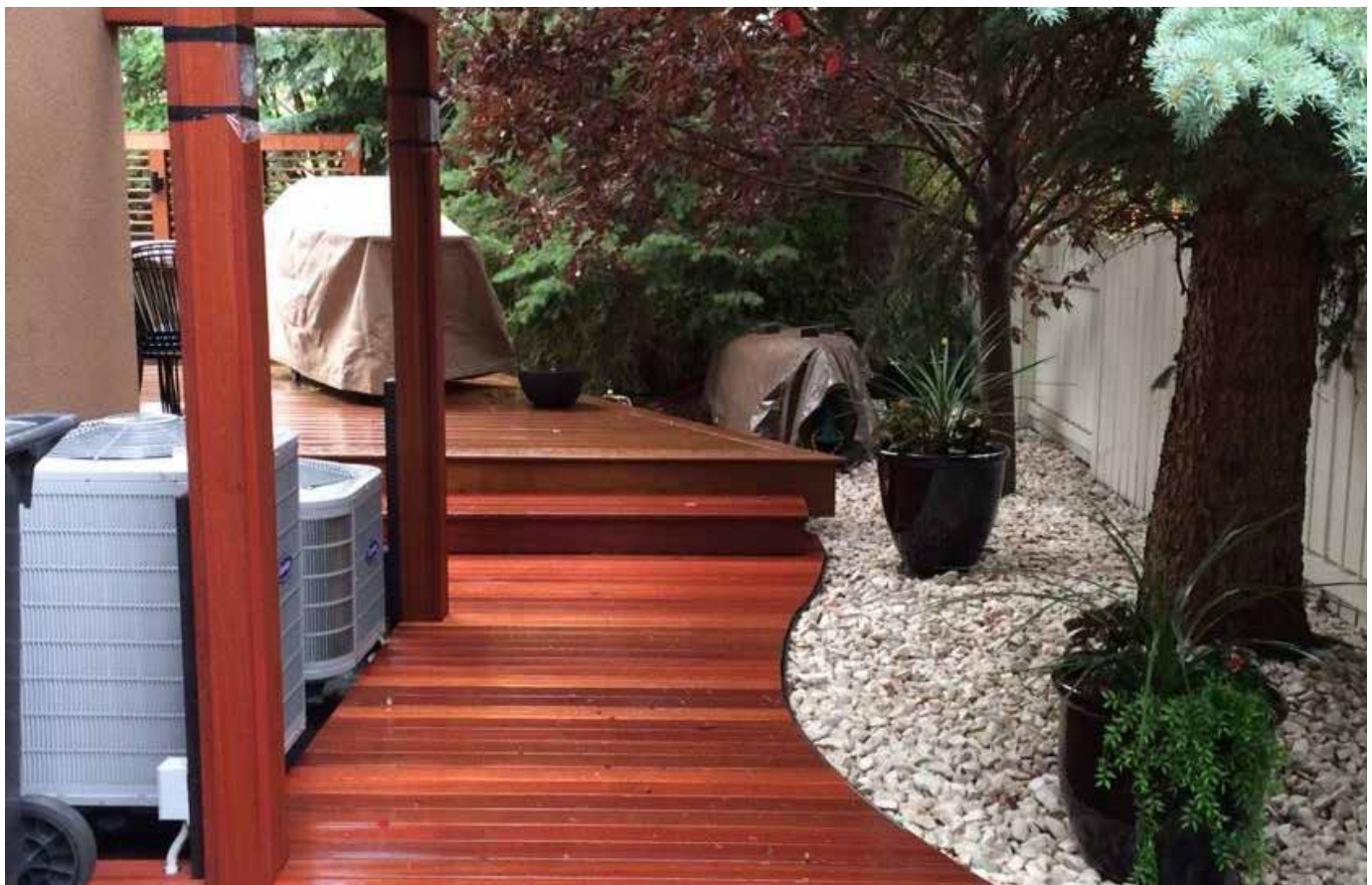
Slatted Screens







Red Balau used Extensively





# Commercial Gallery



Calgary Memorial Poppy Plaza, Yellow Balau Bangkirai







Unwritten Exhibit Oakridge Centre – Meranti







Two Penny Bar, Calgary



Black & Blue, Vancouver





Devonian Gardens - Calgary





Edmonton Valley Zoo, Yellow Balau Bankgirai





EA Sports, Vancouver - IPE





Meranti City Benches



Calgary Golf and Country Club, Red Balau Batu Siding





C-Square, Yellow Balau Bangkirai





Strathcona-Tweedsmuir Outdoor Classroom, Meranti



Priddis Golf and Country Club, Yellow Balau Bangkirai





Polygon Gallery, Vancouver - Yellow Balau Bangkirai





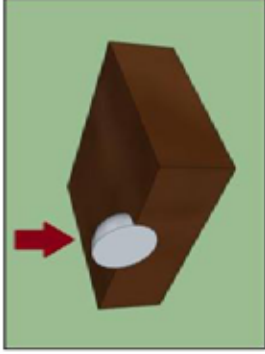
Granville Island Penthouse, Yellow Balau Bangkirai



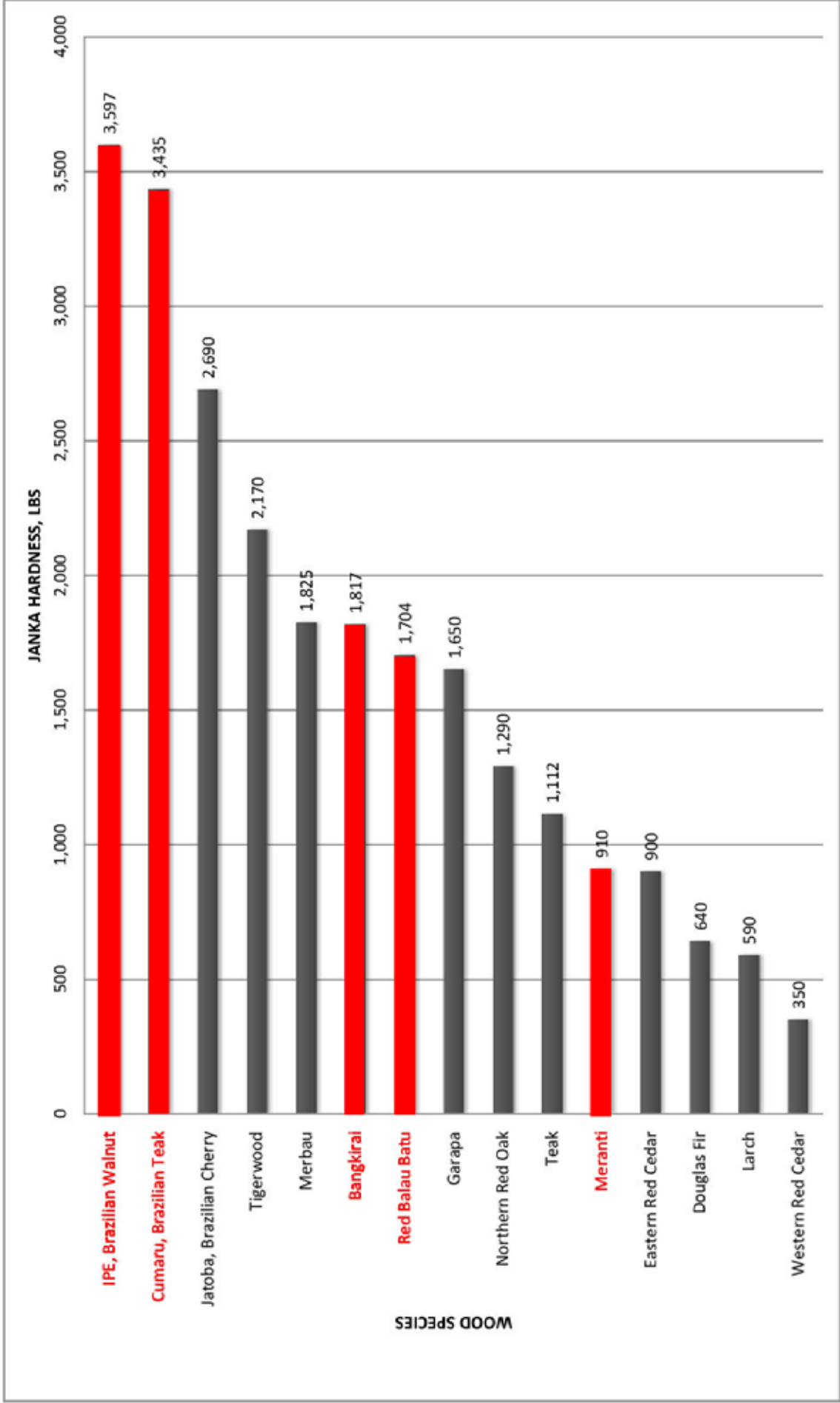
Seaspan Office, Yellow Balau Bangkirai



# JANKA HARDNESS RATING FOR VARIOUS WOOD SPECIES



*Janka Hardness test is the require strength to push a stainless steel ball halfway through a species of wood.*







Kayu Canada Inc.  
8, 6304 Burbank Road SE Calgary, Alberta T2H 2C2  
Office: (403) 541-9009 Toll Free: (1-877) 666-KAYU (5298)  
Fax: (403) 541-9217 Email: [info@kayu.ca](mailto:info@kayu.ca) Website: [www.kayu.ca](http://www.kayu.ca)

## **Kayu Hardwood Decking Installation Guide**

### **Prior to Installation:**

Please store hardwood wrapped in a dry, shaded/covered area. Ensure properly stacked.

- Pre-oil all four sides with Messmer's UV Plus for Hardwoods, or Hemp Shield Exterior Oil. This ensures equal moisture transfer and reduces the likelihood of cupping.
  - Coverage ranges from 200 sq. ft. – 400 sq. ft. depending on finishing product.
- It is also recommended to seal all end cuts with DeckWise End Grain Sealant to help prevent end checking and cracking.

**Note:** Do not apply if precipitation is expected within 24 - 48 hours. Surface temperature must be between 8°C to 32°C

- Messmer's cleanup with paint thinner or mineral spirits. Hemp cleans up with soap and water.

As with any oil based products there is **DANGER**: rags, pads, steel wool, or waste soaked with these products may self-ignite and catch fire if improperly discarded. Immediately after use place rags, pads, steel wool or waste in a sealed water filled metal container for proper disposal.

### **Installation:**

For top screwing appearance, only use stainless steel fasteners or the Pro Plug System. For no screw appearance **only** use the Kreg Deck Jig Hidden Deck Fastening System, with polyurethane exterior construction adhesive.

- Pre-drill screw holes with Kreg Deck Jig on both sides of the boards.
- For faster installation just use the Kreg Deck Jig to pre-drill screw holes.
- Joist spacing 24" on center for 5/4 decking material
- For the best hold glue down decking material with exterior grade construction adhesive then fasten down the decking on both sides.
  - Especially at any butt joints, ensure you have glued down decking to underlying joists with either PL Premium, or Titebond Fast Set Polyurethane.
  - It is also good building practice to install solid blocks to double up the joist to have the screws farther away from butt joints to prevent cracking.
- Use KREG Protec-Kote ACQ Deck Screws or Stainless Steel screws. Anything else is not recommended as it may react with the hardwood.
- **DO NOT** use hidden clip fasteners (due to expansion and contraction)
- Leave a 1/4" or 5/16" gap between 5/4 x 6 deck boards to allow for expansion in moist conditions.
- Leave a 3/16" gap between 5/4 x 4 boards to allow for expansion in moist conditions
- Trim ends neatly and butt together tightly. Lengthwise expansion is nil.

**IMPORTANT:** Use 5/4 x 4 decking boards when installing 18" or lower from ground, and ensure proper ventilation and airflow beneath deck.

If you wish to use the 5/4 x 6 decking close to the ground or low ventilation areas (rooftops) we insist on installing a hardwood strip on top of the joists, fastening hardwood to hardwood will prevent any cupping that could occur in a low ventilation, high moisture environment.

Please ensure that there is proper ventilation on all four sides under the decking material to provide proper airflow and drying.

### **Maintenance:**

Apply the Messmer's UV Plus for Hardwood, Hemp Shield Exterior oil, or Osmo Decking Oil to well cleaned and dry siding once a year for the first few years then as needed to maintain appearance.

Once the oil is applied any products that is not absorbed into the wood within 10 – 20 minutes must be back brushed to prevent surface sheen.

Disclaimer: the information in this guide is believed to be accurate and true at the time of preparation. This is not a warranty of product or product specification.

Please also refer to manufacturers instructions at [www.messmers.com](http://www.messmers.com), [www.hempshield.net](http://www.hempshield.net), and [www.osmo.ca](http://www.osmo.ca)



## Kayu Canada Maintenance Guide

You are the proud owner of a Kayu Tropical Hardwood Deck! To keep your deck looking great, it is **imperative** to periodically clean and re-oil the surface, following these easy steps will keep it looking brand new.

We recommend either using the Hemp Shield Exterior Oil, Messmer's UV Plus for Hardwood, or Osmo Decking Oil with the Messmer's Part A Wood & Deck Cleaner or Osmo Decking Cleaner. All the mentioned products are available at Kayu Canada Inc.

1. Sweep excess debris, dirt and leaves, off the deck surface. Wet the deck surface down with clean water.
2. Mix Messmer's Wood & Deck Cleaner or Osmo Decking Cleaner in warm water at the recommended strength.
3. After waiting several minutes for the product to dissolve and activate, apply with a mop. Let the cleaning product sit on the deck surface for at least 20 minutes, making sure to keep the deck wet with more cleaner if it begins to dry out.  
If your deck is extremely dirty, scrub the deck boards along with the grain of the wood with a stiff broom.  
Rinse thoroughly with clean water.
4. Allow the deck to dry for 24 - 48 hours after cleaning before applying the Hemp Shield Exterior Oil, Messmer's UV Plus for Hardwoods or Osmo Decking Oil.
5. Do not apply the finishing product of your choice during the heat of the day as the oil dries too quickly, it is best to apply during early morning, or early evening during the summer months. Be mindful of the minimum temperature below for each finishing product.

When applying the Messmer's UV Plus apply a generous coat to the entire surface of the deck. Wait 15 – 20 minutes and you should see puddling forming of excess oil. Go back on the deck with a clean brush and back brush the excess oil off the deck surface, make sure to squeeze the excess oil off the brush back into can as it can be used again. Removing your footprints as you go.

When applying the Hemp Shield oil working 2 – 3 boards at a time, as this oil dries extremely quickly, make sure you brush or roll on a generous coat along the entire plank of wood. After about 5 – 10 minutes go back to the oiled boards and wipe up any excess oil, or back brush, pushing it into the wood surface.

When applying the Osmo Decking Oil apply the product thinly and evenly, allow for good ventilation whilst drying. Then thinly and evenly apply the second coat once the first coat has fully dried. If you would prefer a less pigmented appearance you can apply the Osmo Teak decking oil as the second coat.

After the allotted period, please ensure you do remove any excess oil with a clean brush to





prevent tackiness and surface sheen.

**DANGER: RAGS, PADS, STEEL WOOL, SPONGES, OR WASTE SOAKED WITH THIS PRODUCT MAY SELF IGNITE AND CATCH FIRE IF IMPROPERLY DISCARDED. IMMEDIATELY AFTER USE PLACE RAGS, PADS, STEEL WOOL OR WASTE IN A SEALED WATER FILLED METAL CONTAINER FOR PROPER DISPOSAL.**

6. Allow an additional 24 – 48 hours for cure/dry time after applying Messmer's UV Plus application, 6 – 8 hours for cure/dry time after applying Hemp Shield Exterior Oil, and approx. 12 hours cure/dry time after applying the Osmo Decking Oil.
7. Cleaning up after the Messmer's Oil it is recommended to use either paint thinner or mineral spirits.  
Cleaning up after Hemp Shield Oil it is recommended to use soap and water.  
Cleaning up after Osmo Decking Oil it is recommended to use either paint thinner or mineral spirits.

Hemp Shield Minimum Application Temperature: 10°C

Messmer's Minimum Application Temperature: 4°C

Osmo Minimum Application Temperature: 5°C

*Please Note: Hemp Shield Oil can freeze so please store in a heated area.*

Hemp Shield Average Coverage: 1 gallon (3.79L) : 300 sq. ft. – 400 sq. ft. (approx.)

Messmer's Average Coverage: 1 gallon (3.79L) : 200 sq. ft. – 300 sq. ft. (approx.)

Messmer's Part A Cleaner Coverage: 600 sq. ft. (approx.)

Osmo Average Coverage: 2.5L : 650 sq. ft. (approx.), 0.75L : 200 sq. ft. (approx.)

Osmo Decking Cleaner Coverage: 1L : 320 sq. ft. – 1076 sq. ft. (approx.)

Different wood species, age, and degree of weathering can affect the amount of finish required to maintain your exterior surface, let the wood tell you how much oil is required or when it needs re-application.

*Please note: Hemp Shield Exterior Oil, and Messmer's UV Plus for Hardwoods Oil, are all 1 coat applications.*

*With annual cleaning and oil treatment, the wood will naturally darken with UV exposure.*

We recommend using Hemp Shield Exterior Wood Finish, Messmer's UV Plus for Hardwoods, or Osmo Decking Oil as they are all premium natural wood finishes, we have tested and recommend to protect and maintain the natural beauty of your Kayu Batu hardwood deck.

Your deck should be finished no more than once a year. Application of the oil should be with a bristle brush or lint free roller. One coat is sufficient for most applications, except Osmo is two coat.

**Excess product not absorbed into your hardwood deck within 20 - 30 minutes for Messmer's, 5 – 10 minutes for Hemp Shield, and 20 – 30 minutes for Osmo must be back brushed with a dry brush removing any excess oil to prevent tackiness and surface sheen.**





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This does happen, if you do not remove the excess oil and end up with a tacky surface to fix it is recommended to wipe up the excess oil, ensuring to be extremely careful disposing saturated rags. If that doesn't solve the tackiness, wipe down the tacky surface with a little paint thinner or lacquer thinner and if required to re-apply exterior finish; again, be extremely carefully disposing saturated rags.

### **Maintenance:**

Apply the Messmer's UV Plus for Hardwood, Hemp Shield Exterior oil, or Osmo Decking Oil to well cleaned and dry hardwood once a year for the first few years then as needed to maintain appearance. Once the oil is applied any products that is not absorbed into the wood within 10 – 20 minutes must be back brushed to prevent surface sheen.

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***DANGER PLEASE NOTE: RAGS, PADS, STEEL WOOL, SPONGES, OR WASTE SOAKED WITH THIS PRODUCT MAY SELF IGNITE AND CATCH FIRE IF IMPROPERLY DISCARDED.  
IMMEDIATELY AFTER USE PLACE RAGS, PADS, STEEL WOOL OR WASTE IN A SEALED WATER FILLED METAL CONTAINER FOR PROPER DISPOSAL***

*These are just guidelines please call the office if you have any questions.*

### **Approximate Shelf Life:**

Messmer's UV Plus – recommended 7 years but can be longer if stored in a conditioned space, garage or basement. It is recommended to shake or stir Messmer's 5 – 10 minutes prior to applying and occasionally during application.

Hemp Shield – recommended 3 years if not allowed to freeze, must be stored in a heated space. There can be separation of a white milky substance, which is a wax component, if the white substance cannot be mixed it can be strained out. The product still works without the wax component, the wax is added to help bead water.

Osmo Decking Oil – recommended 5 years or more if can is tightly closed. Store in a dry place. If thickened by frost it will regain a normal consistency under normal temperatures within 24 – 36 hours.

*Enjoy the Natural Beauty!*

For further information on maintaining our tropical Kayu hardwood please check out our website, [www.kayu.ca](http://www.kayu.ca), or call us toll-free (1-877) 666-KAYU (5298)





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## Installing Hardwood Siding and Tongue & Groove

Kayu Canada Inc. Dark Red Meranti and Red Balau Batu tongue & groove material can be installed horizontally and vertically.

**Horizontal application:** Start at the bottom and work up with the groove edges facing downward. Siding up to 6" wide can be blind nailed with one siding nail per bearing toe-nailed through the base of each tongue. Nails must penetrate 1 ¼" into solid wood framing.

**Vertical application:** Start at one corner with grooved edge toward adjacent wall. Use a level, or plumb line, to ensure that the first board is installed plumb. The grooved edge of the first board may have to be trimmed to ensure a flush fit. Siding is nailed to horizontal blocking and, or furring strips, at 24" on center. As with horizontal installations, pieces up to 6" can be blind nailed and wider pieces should be face nailed.

Stainless fasteners are the only way to go; a nice option is to use a stainless steel trim head screw versus a nail application, for the ultimate holding power.

**IMPORTANT:** When siding walls with more than 10 rows of siding we recommend a 1/32" to 1/16" gap, above eye level, to allow for **expansion** and contraction

**IMPORTANT:** In high moisture areas it is imperative to leave some room where you start and stop, for example between windows, or between walls. Leaving a space will allow the wood to expand and contract. Another option is to simply not install the tongue and groove tight, leave a 1/16" to allow for expansion and contraction.

Please Note: Kayu Canada's 1 x 4 tongue & groove, V-Groove, is our most popular product used for siding. We also do custom milling siding such as shiplap, and bevel siding profile upon request.

**For Soffit installation we recommend a polyurethane adhesive in addition to brad nail or staple due to the weight of this product.**

**IMPORTANT:** It is recommended that all hardwood siding be installed on a **rainscreen**, please refer to your local building code. There is more information on our website, [www.kayu.ca](http://www.kayu.ca)

It is recommended that you apply one coat of Messmer's UV Plus for Hardwoods, or Hemp Shield Exterior Oil on all four sides prior to application.

### **Maintenance:**

Apply the Messmer's UV Plus for Hardwood or the Hemp Shield Exterior oil to well cleaned and dry siding once a year for the first few years then as needed to maintain appearance.

Once the oil is applied any products that is not absorbed into the wood within 10 – 20 minutes must be back brushed to prevent surface sheen.

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### **Disclaimer**

Congratulations on the purchase of high quality tropical hardwood decking, siding, fencing and/or related products from Kayu Canada Inc.

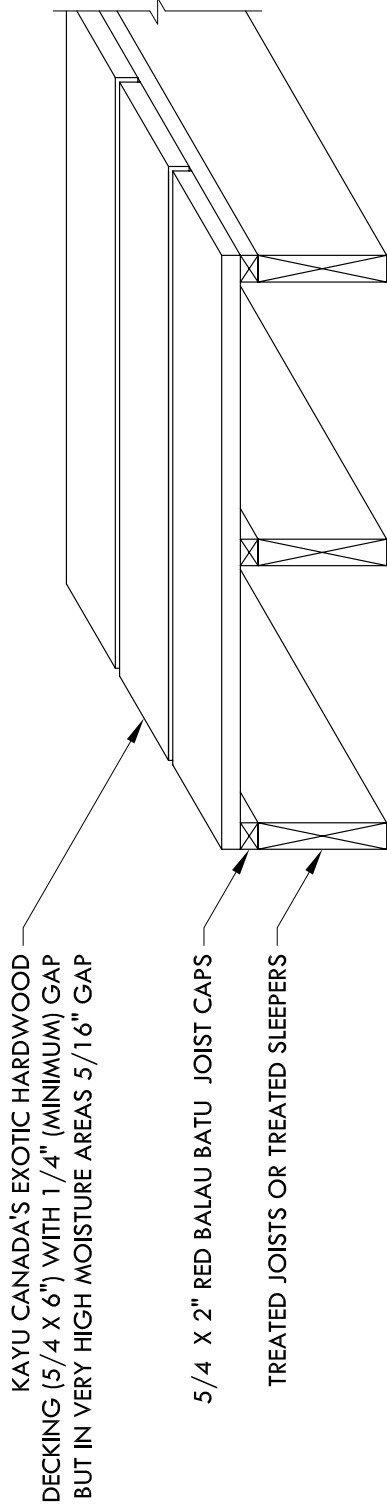
Kayu Canada Inc sources these products that are meticulously selected, prepared and milled under the utmost of quality control. This is a natural product and is subject to many variables including colour, density & characteristics. While we strive to take the greatest care when selecting, shipping & storing our product some watermarks, sticker stains etc may occur. These can be removed during the initial cleaning, prepping & installation of the product. These are not defects. Also please be aware that some expansion, contraction, cracking and cupping may occur after installation and are a natural occurrence. These products are natural wood and are subject to variations in color, grain, density, weight and performance.

If you require any more information please feel free to contact any of the Kayu team or refer to your local building code for installation recommendations.





## RECOMMENDED INSTALLATION METHOD FOR HIGH MOISTURE AREAS AND FOR ALL ROOF TOP AND GROUND LEVEL DECKS



### 1 KAYU CANADA JOIST CAP

Scale: 1:8

#### TOP 3 REASONS TO USE EXOTIC HARDWOOD JOIST CAPS:

1. DURABLE: FASTENING HARDWOOD TO HARDWOOD CREATES A MORE DURABLE DECK WITH MORE HOLDING POWER. FOR REDUCED CUPPING COMPARED TO USING TREATED LUMBER.
2. AESTHETICS: INSTEAD OF SEEING GREEN LUMBER YOU WILL SEE A BEAUTIFUL HARDWOOD TO HARDWOOD APPEARANCE
3. LONG LASTING: RED BALAU BATU JOIST CAPS LAST LONGER THAN TREATED LUMBER. WHICH WILL MATCH THE LIFE OF YOUR EXOTIC HARDWOOD DECKING, AND WILL BE WELL WORTH IT FOR THE EXTRA COST OF THE MATERIAL AND LABOUR.

#### HOW TO INSTALL:

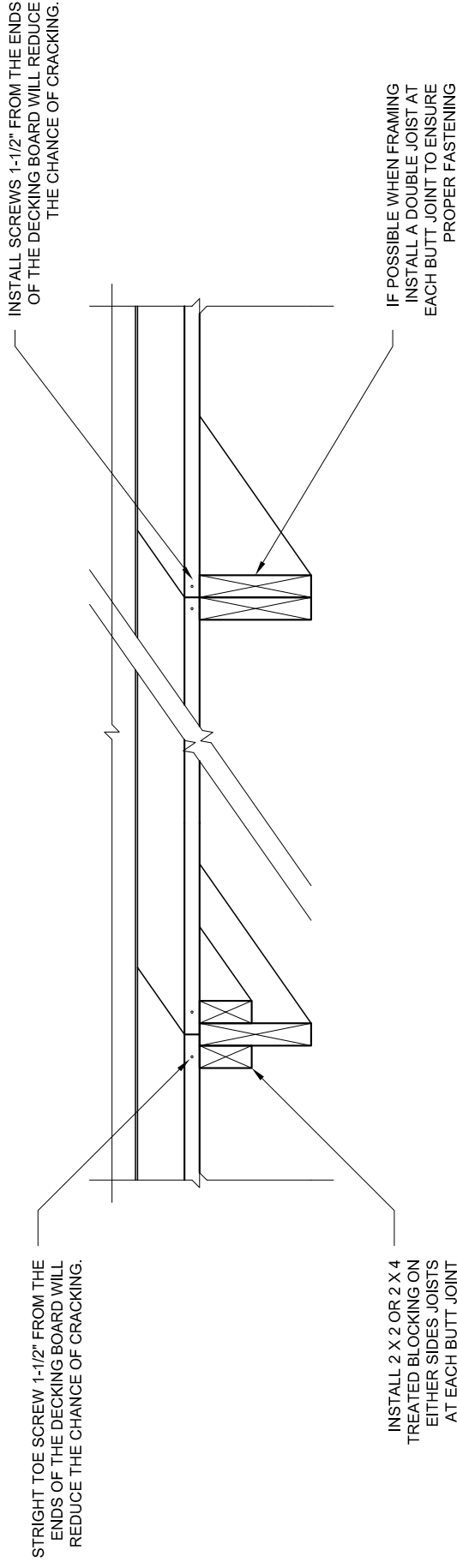
1. 5/4 X 2" RED BALAU BATU JOIST CAPS SHOULD BE APPLIED TO TREATED JOISTS WITH CONSTRUCTION ADHESIVE
2. SCREW A MINIMUM 2.5" #8 COARSE THREAD ACQ SCREW EVERY 2' ON CENTER
3. INSTALL OUR 5/4 X 4" OR 5/4 X 6" EXOTIC HARDWOOD DECKING WITH RECOMMENDED KREG DECK JIG AND 2" COARSE THREAD ACQ SCREWS

ANY QUESTIONS PLEASE CALL OUR CALGARY OFFICE AT (1-877) 666-KAYU (5298) OR (403) 541-9009



## ADDITIONAL BLOCKING METHOD

## DOUBLE JOIST METHOD



## ADDITIONAL BLOCKING METHOD

WHEN FASTENING BUTT JOINTS TOGETHER IT IS RECOMMENDED TO ADD ADDITIONAL TREATED BLOCKING TO THE OUTSIDE OF THE JOISTS.

IT IS BETTER TO INSTALL STRAIGHT TOE-SCREWS USING THE KREG DECK JIG RATHER THAN ANGLED AS THE JIG RECOMMENDS, AS THIS CAN CAUSE END SPLITTING TO OCCUR.

FOR ALL DECKING INSTALLATION WITH THE KREG DECK JIG, WE RECOMMEND GLUING, WITH AN EXTERIOR GRADE CONSTRUCTION ADHESIVE, ALL THE DECKING DOWN INCLUDING SCREWING ON BOTH SIDES OF THE BOARD AT EACH JOIST.


## DOUBLE JOIST METHOD

WHEN FASTENING BUTT JOINTS TOGETHER IT IS RECOMMENDED TO ADD AN ADDITIONAL JOIST DURING THE FRAMING PROCESS AT BUTT JOINTS.

IT IS BETTER TO INSTALL STRAIGHT TOE-SCREWS USING THE KREG DECK JIG RATHER THAN ANGLED AS THE JIG RECOMMENDS, AS THIS CAN CAUSE END SPLITTING TO OCCUR.

FOR ALL DECKING INSTALLATION WITH THE KREG DECK JIG, WE RECOMMEND GLUING, WITH AN EXTERIOR GRADE CONSTRUCTION ADHESIVE, ALL THE DECKING DOWN INCLUDING SCREWING ON BOTH SIDES OF THE BOARD AT EACH JOIST.

ANY QUESTIONS PLEASE CALL OUR OFFICE AT (403) 541-9009, OR TOLL-FREE AT (1-877) 666-KAYU (5298)

	<b>Kayu Canada Inc.</b> 8, 6304 Burbank Road SE Calgary, Alberta T2H 2C2 O: (403) 541-9009 F: (403) 541-9217 E: info@kayu.ca	<b>Butt Joints</b>  Additional blocking method and double joist method	<b>Customer:</b> Kayu Use Only	Date: December 11, 2017
				Drawn By: PJS
				Checked By: JRL
				Scale: NTS
				Sheet Number: 1





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## Kayu Canada Inc. Installing Hardwood Decking Tiles

### Step 1 - Prepare the area

Make sure the area is clean and level, remove any debris from the area that could get in the way during installation.



### Step 2 - Begin Installation

Start with your first tile at one corner of the space.

Each of our Red Balau Batu Hardwood pre-drilled each corner to fit 1 tile connector.

Ensure each tile as 1 tile connector per corner. The tile connectors are easily customizable depending on the position of the tile.



### Step 3 - Continue & Finish Installation

Continuing installing the remaining tiles in a pattern of your choosing.

The tiles are easy to customize to fit any shaped space.



### Step 4 - Enjoy

Once complete you are now able to enjoy your own tropical hardwood deck.

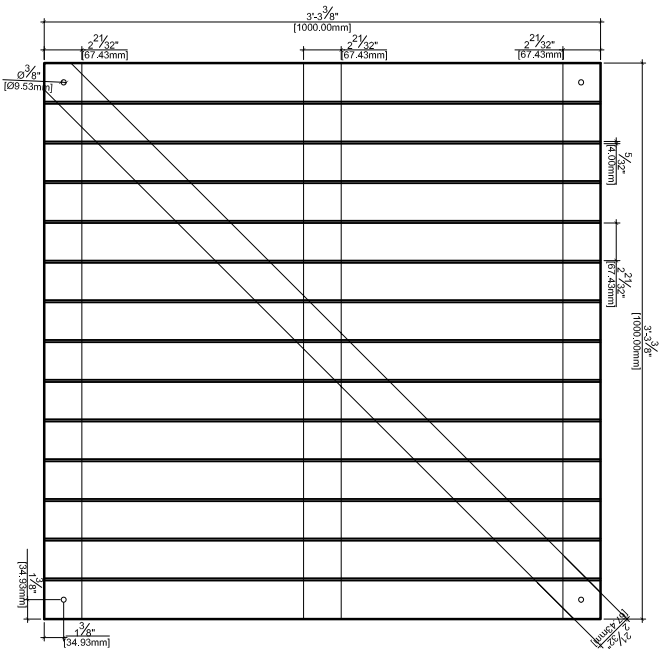
Kick back and enjoy the natural beauty.



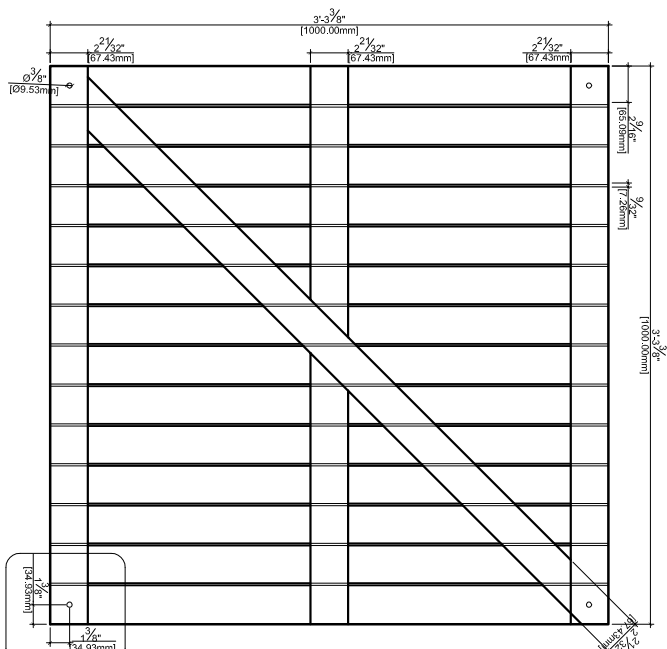
For the complete installation video please watch it on our website at [www.kayu.ca](http://www.kayu.ca)

Please note: The following instructions are for flat condo balcony application, for flat roof application please call for expert advice.

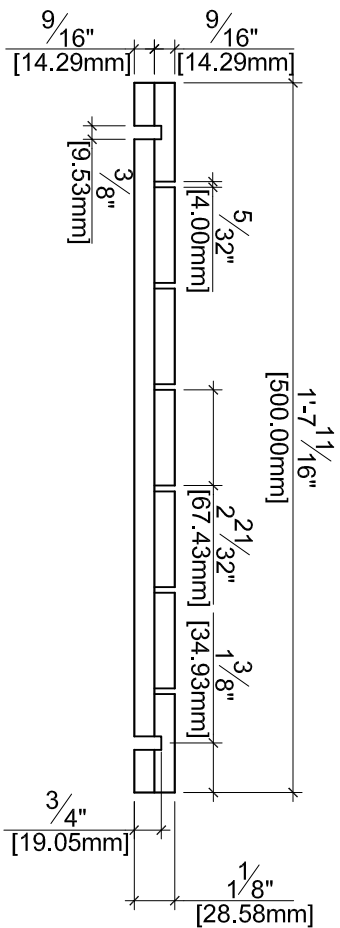




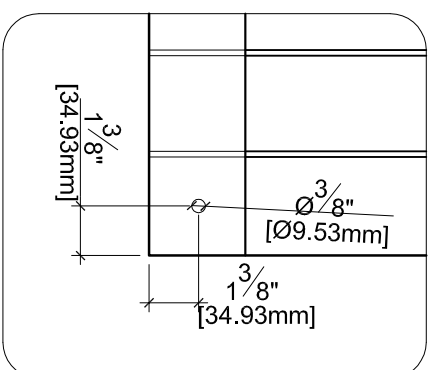
TOP VIEW



BOTTOM VIEW



SIDE VIEW



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Revised: April 4, 2019

Revised: October 17, 2018

Revised: February 13, 2018

Date: June 16, 2017

Drawn By: PJS

Checked By: JRL

Scale: NTS

Sheet Number: 1

40 x 40  
(1000mm x 1000mm)  
Deck Tile

Customer:  
Kayu Use Only

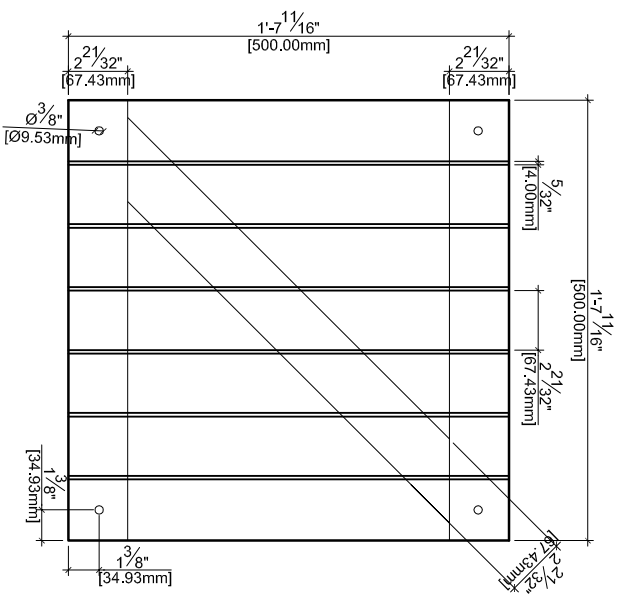
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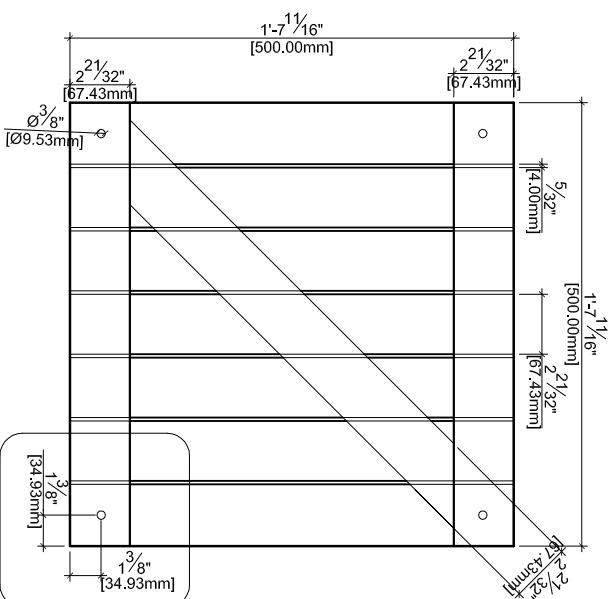
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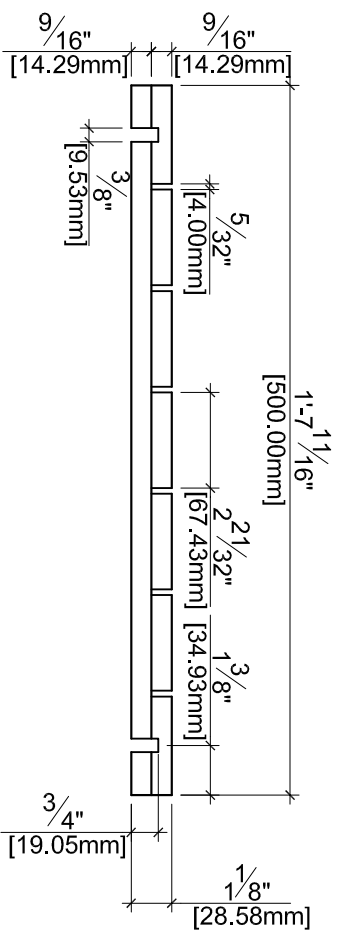




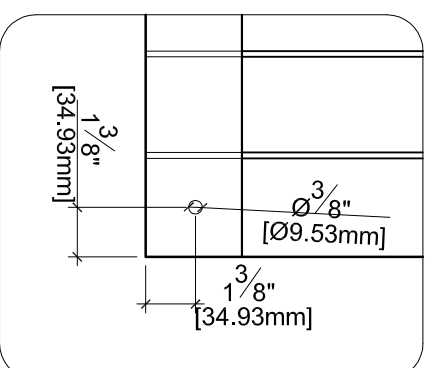
TOP VIEW



BOTTOM VIEW



SIDE VIEW



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Revised: April 4, 2019

Revised: October 17, 2018

Revised: February 13, 2018

Date: June 16, 2017

Drawn By: PJS

Checked By: JRL

Scale: NTS

Sheet Number: 1

20 x 20  
(500mm x 500mm)  
Deck Tile

Customer:  
Kayu Use Only

Net Sizes:  
20" x 20"  
500mm x 500mm

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## Specification Sheet

### RED BALAU BATU

*Shorea spp.*

Other Common Names: Meranti Batu, Membatu

#### **Origin**

Indonesia, Malaysia, Philippines

#### **Appearance**

Heartwood can vary from medium to dark red brown or purplish red brown. If left natural to weather Red Balau Batu will change to a consistent silver patina, grey color.

Texture: moderately fine to slightly coarse

Grain: straight to sometimes interlocked

Odor: none

Allergens: slight eye, throat, and skin irritation

#### **Density**

Janka Hardness: 1704 lbs – 2100 lbs

Average weight: 53 lbs / ft<sup>3</sup>  
(material weight per volume)

Specific Gravity: 0.69 – 0.87  
(the woods density ratio)

Modulus of Rupture (Bending Strength): 119MPa –126.9MPa  
(overall strength before rupture)





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Modulus of Elasticity: 16670MPa – 16950MPa  
(overall substance stiffness)

Crushing Strength: 70.9MPa – 80MPa  
(compression strength parallel to grain)

## **Drying & Shrinkage**

Radial: 4.8% - 6.2%

Tangential: 6.3% - 11.4%

Volumetric: 15.7%

T/R Ratio: 1.8

## **Workability**

Red Balau Batu is difficult to work with due to the density of the product, but can be considered the easiest to work with compared to other tropical hardwoods. Red Balau Batu can cause moderate blunting to tools, but does handle glue and finishing products well.

Pre-drilling is required prior to fastening. Stainless steel fasteners required.

## **Durability**

Red Balau Batu has a life expectancy against rot and insects for 25 years depending on the environmental conditions, and also has an excellent durability and weather resistance.

## **Common Uses**

Decking, fencing, siding, soffit, fascia, dock decking, exterior millwork, heavy carpentry, boat framing.

## **FIRE RATING**

RED BALAU BATU IS A FIRE-RESISTANT DECKING, CLASS A FIRE RATING IN THE US. PLEASE CALL/EMAIL FOR CAN/ULC-S102 CANADIAN FLAME SPREAD TESTING.



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### Specification Sheet

## YELLOW BALAU BANGKIRAI

*Shorea spp.*

**Origin:** Indonesia, Malaysia

### **Appearance**

Heartwood can vary yellow brown to reddish brown which will darken with age. Yellow Balau Bangkirai can have some white resin canals. If left natural to weather Yellow Balau Bangkirai will change to a consistent silver patina, grey color.

Texture: medium to evenly coarse

Grain: straight to interlocked

Odor: none

Allergens: slight eye, throat, and skin irritation

### **Density**

Janka Hardness: 1600 lbs – 2261.9 lbs

Average weight: 53 - 60 lbs / ft<sup>3</sup>  
(material weight per volume)

Specific Gravity: 0.69 – 0.91  
(the woods density ratio)

Modulus of Rupture (Bending Strength): 122.3MPa – 150.0MPa  
(overall strength before rupture)

Modulus of Elasticity: 16950MPa – 22940MPa  
(overall substance stiffness)

Crushing Strength: 70.9MPa – 85.0MPa  
(compression strength parallel to grain)





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## **Drying & Shrinkage**

Radial: 4.2% - 5.5%

Tangential: 8.3% - 10.1%

Volumetric: 15.7%

T/R Ratio: 1.8 – 2.3

## **Workability**

Yellow Balau Bangkirai can be difficult to work with due to the density and if interlocking grain is present and can have fairly high blunting due to small level of silica present. Pre-drilling is required prior to fastening. Stainless steel fasteners required.

## **Durability**

Yellow Balau Bangkirai has a life expectancy against rot and insects for 25 years depending on the environmental conditions and has an excellent durability and weather resistance.

## **Common Uses**

Decking, fencing, siding, soffit, fascia, dock decking, interior furniture, general construction

## **Moisture Content Recommendations**

Recommended moisture content for exterior use 10% - 14%. Recommended moisture content for interior use 5% - 7%. Wood should acclimatize in area to be installed one to two weeks prior to installation.

## **Finishing**

Oil based products work best. For exterior use, it is important to re-coat after one year as the wood dries out and acclimatizes.

## **FIRE RATING**

YELLOW BALAU BANGKIRAI IS A FIRE-RESISTANT DECKING, CLASS A FIRE RATING IN THE US. PLEASE CALL/EMAIL FOR CAN/ULC-S102 CANADIAN FLAME SPREAD TESTING.



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## Specification Sheet

### IPE (Brazilian Walnut)

*Tabebuia Spp.*

#### **Origin**

Brazil, tropical Central America

#### **Appearance**

Heartwood can vary from yellowish olive, olive brown, reddish brown walnut, to a darker blackish brown. Sometimes with black, brown striping. IPE can be covered with a yellow powder deposits. If left natural to weather IPE will change to a consistent silver patina, grey color.

Texture: fine to medium

Grain: straight – irregular

Odor: mild when working

Allergens: fine yellow dust is produced which can cause dermatitis

#### **Density / Moisture Content**

Moisture Content: 12% - 16% Kiln Dried.

The moisture content for air dried IPE Decking is 25% - 35%

Janka Hardness: 3510 lbs – 3680 lbs

Average weight: 72 lbs / ft<sup>3</sup>  
(material weight per volume)

Specific Gravity: 0.85 – 1.08  
(the woods density ratio)

Modulus of Rupture (Bending Strength): 166MPa – 193MPa  
(overall strength before rupture)





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## **Drying & Shrinkage**

Radial: 4.2% - 5.5%

Tangential: 8.3% - 10.1%

Volumetric: 15.7%

T/R Ratio: 1.8 – 2.3

## **Workability**

Yellow Balau Bangkirai can be difficult to work with due to the density and if interlocking grain is present and can have fairly high blunting due to small level of silica present. Pre-drilling is required prior to fastening. Stainless steel fasteners required.

## **Durability**

Yellow Balau Bangkirai has a life expectancy against rot and insects for 25 years depending on the environmental conditions and has an excellent durability and weather resistance.

## **Common Uses**

Decking, fencing, siding, soffit, fascia, dock decking, interior furniture, general construction

## **Moisture Content Recommendations**

Recommended moisture content for exterior use 10% - 14%. Recommended moisture content for interior use 5% - 7%. Wood should acclimatize in area to be installed one to two weeks prior to installation.

## **Finishing**

Oil based products work best. For exterior use, it is important to re-coat after one year as the wood dries out and acclimatizes.

## **FIRE RATING**

YELLOW BALAU BANGKIRAI IS A FIRE-RESISTANT DECKING, CLASS A FIRE RATING IN THE US. PLEASE CALL/EMAIL FOR CAN/ULC-S102 CANADIAN FLAME SPREAD TESTING.



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## Specification Sheet

### MERANTI

*Shorea spp.*

Other Common Names: Nemesu, Bukit, Seraya, Philippine Mahogany, Lauan

### Origin

Indonesia, Malaysia, Philippines

### Appearance

Heartwood can vary pink brown to a dark red brown or a purplish brown. Meranti can be seen with white resin streaks. If left natural to weather Meranti will change to a consistent silver patina, grey color.

Texture: medium to evenly coarse

Grain: straight to interlocked

Odor: none

Allergens: slight eye, throat, and skin irritation

### Density

Janka Hardness: 780 lbs – 910 lbs

Average weight: 42 lbs / ft<sup>3</sup>  
(material weight per volume)

Specific Gravity: 0.55 – 0.78  
(the woods density ratio)

Modulus of Rupture (Bending Strength): 87.7MPa – 122.5MPa  
(overall strength before rupture)





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Modulus of Elasticity: 12020MPa – 13020MPa

*(overall substance stiffness)*

Crushing Strength: 48.8MPa – 60.4MPa

*(compression strength parallel to grain)*

## **Drying & Shrinkage**

Radial: 3.9% - 4.0%

Tangential: 7.0% - 7.8%

Volumetric: 12.5%

T/R Ratio: 1.9 – 2.0

## **Workability**

Meranti hardwood is easier to work with but can have slight blunting due to small levels of silica present.

Pre-drilling is required prior to fastening. Stainless steel fasteners required.

## **Durability**

Meranti has a life expectancy against rot and insects for 25 years depending on the environmental conditions, and also has an excellent durability and weather resistance.

## **Common Uses**

Decking, fencing, siding, soffit, fascia, dock decking, cabinetry, boat building, interior furniture, general construction

## **FIRE RATING**

MERANTI IS A FIRE-RESISTANT DECKING, CLASS A FIRE RATING IN THE US. PLEASE CALL/EMAIL FOR CAN/ULC-S102 CANADIAN FLAME SPREAD TESTING.



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## Specification Sheet

### MERBAU

*Intsia Spp.*

Other Common Names: Kwila, Ipil

### Origin

Indonesia, Malaysia, South East Asia, China, Africa, Australia

### Appearance

Heartwood can vary from orange brown when cut to brown grey, brown yellow, brown red, and black. There are color variations present from board to board. Yellow sulfur, mineral deposits can be present.

Texture: coarse

Grain: straight to interlocking

Odor: unique, which can cause mild allergic reactions like sneezing

Allergens: mild allergic reactions, for example sneezing and runny nose.

### Density

Janka Hardness: 1750 lbs – 1925 lbs

Average weight: 50 - 51 lbs / ft<sup>3</sup>  
(material weight per volume)

Specific Gravity: 0.68 – 0.83  
(the woods density ratio)

Modulus of Rupture (Bending Strength): 115MPa – 145.2Mpa  
(overall strength before rupture)





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Modulus of Elasticity: 15440MPa – 15930MPa  
(overall substance stiffness)

Crushing Strength: 67.7MPa – 74.0MPa  
(compression strength parallel to grain)

## **Drying & Shrinkage**

Radial: 2.7% - 3.0%

Tangential: 4.4% - 5.0%

Volumetric: 8%

T/R Ratio: 1.6 – 1.7

## **Workability**

Difficult to work with, especially hand tools and can have a blunting and gumming effect on blades. Using a Carbide tip blade can help with cutting.

Pre-drilling is required prior to fastening. Stainless steel fasteners required. Glue and nail down installation required for interior flooring application.

## **Durability**

Merbau is naturally resistant to rot and insects, and has a high stability rating.

## **Common Uses**

Interior flooring and stairs, ship decking and planks, furniture, and wood turning

## **FIRE RATING**

MERBAU IS A FIRE-RESISTANT DECKING, CLASS A FIRE RATING IN THE US. PLEASE CALL/EMAIL FOR CAN/ULC-S102 CANADIAN FLAME SPREAD TESTING.



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## Specification Sheet

### CUMARU

*Dipteryx spp.*

Other Common Names: Brazilian Teak, Tonka

### Origin

South America

### Appearance

Heartwood can vary from golden tan tones with dark accents, to reddish brown tones. Heartwood can sometimes have a purplish, reddish hue, sometimes with yellow or green brown streaks.

Texture: medium

Grain: interlocked

Odor: faint vanilla or cinnamon odor, and can have an unpleasant odor when green.

Allergens: none

### Density

Janka Hardness: 3200 lbs – 3540 lbs

Average weight: 68 lbs / ft<sup>3</sup>  
(material weight per volume)

Specific Gravity: 0.86 – 1.09  
(the woods density ratio)

Modulus of Rupture (Bending Strength): 101.9MPa –175.1Mpa  
(overall strength before rupture)





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Modulus of Elasticity: 22330MPa – 26610MPa  
(overall substance stiffness)

Crushing Strength: 95.5MPa – 103MPa  
(compression strength parallel to grain)

## **Drying & Shrinkage**

Radial: 5.3% - 5.5%

Tangential: 7.7%

Volumetric: 12.6% - 13.0%

T/R Ratio: 1.4 – 1.5

## **Workability**

Cumaru is difficult to work with due to the high density and interlocking grain. Using a Carbide tip blade can help with cutting. The wood contains silica which can cause moderate blunting effects on tools.

Pre-drilling is required prior to fastening. Stainless steel fasteners required. Glue and nail down installation required for interior flooring application.

## **Durability**

Cumaru is naturally resistant to rot but susceptible to insects, and has excellent durability and weather resistance.

## **Common Uses**

Decking, fencing, siding, soffit, fascia, interior flooring and stairs, cabinets, furniture, docks

## **FIRE RATING**

CUMARU IS A FIRE-RESISTANT DECKING, CLASS A FIRE RATING IN THE US. PLEASE CALL/EMAIL FOR CAN/ULC-S102 CANADIAN FLAME SPREAD TESTING.





# RED BALAU

**standard name**  
Red Balau

**botanical name**  
*Shorea* spp.

**family**  
Dipterocarpaceae

**classification**  
Heavy Hardwood

**distribution**  
Found sporadically throughout  
Malaysia on low lying, undulating  
land and hills.

- ## USES
- DECKING
  - POSTS, BEAMS & JOISTS
  - FRAMES FOR WAGONS,  
TRUCKS & LORRIES
  - HEAVY DUTY FLOORING
  - HEAVY DUTY FURNITURE
  - DOOR & WINDOW FRAMES
  - RAILWAY SLEEPERS





Calgary Golf and Country Club, Red Balau Batu Siding



White Washed Decking & Dock



# BALAU

## USES

- DECKING
- DOOR & WINDOW FRAMES
- BRIDGES
- WHARVES
- PILING
- BEAMS
- BOAT FRAMING
- HEAVY DUTY FLOORING
- HEAVY DUTY FURNITURE



**standard name**  
Balau

**botanical name**  
*Shorea* spp.

**family**  
Dipterocarpaceae

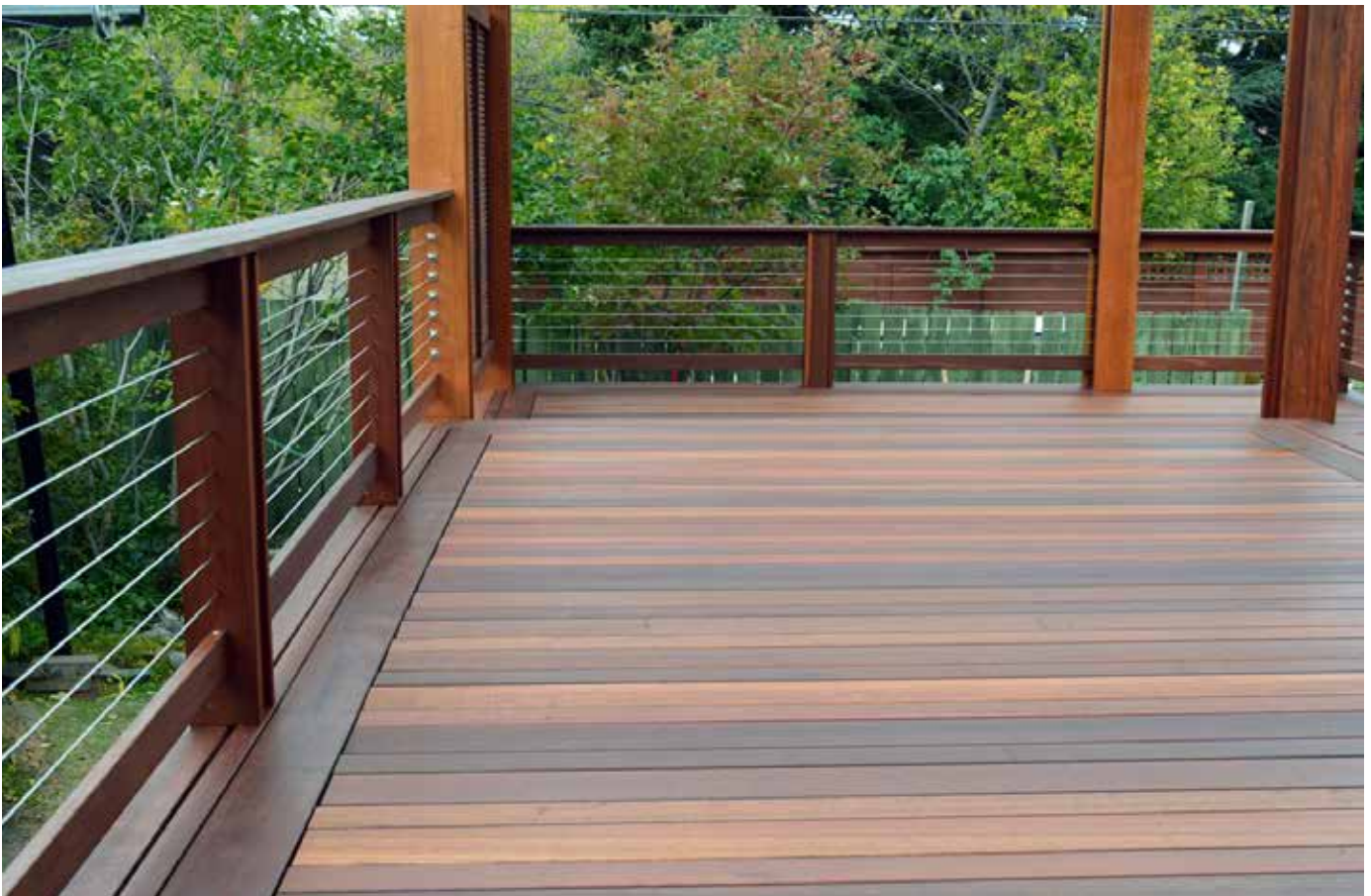
**classification**  
Heavy Hardwood

**distribution**  
Found widely throughout the dipterocarp forests of Malaysia, except in the peat swamp forests. Abundant in hilly areas.





Unique Outdoor Space







## natural durability of the Malaysian timbers tested and some other hardwood species as reported in EN 350: Part 2

Malaysian Timbers	Durability rating	Comparable Timbers of Similar Durability*
Dark Red Meranti represented by Seraya ( <i>Shorea curtisii</i> )	1	Greenheart ( <i>Ocotea rodiaei</i> ) Jarrah ( <i>Eucalyptus marginata</i> ) Padouk ( <i>Pterocarpus soyauxii</i> ) Teak ( <i>Tectona grandis</i> )
Light Red Meranti represented by Meranti tembaga ( <i>Shorea leprosula</i> )	2	Bubinga ( <i>Guibourtia demeusii</i> ) European Oak ( <i>Quercus robur</i> ) Mahogany ( <i>Swietenia macrophylla</i> ) Wengé ( <i>Millettia laurentii</i> )
Gerutu ( <i>Parashorea spp.</i> )	3	Acajou ( <i>Khaya ivorensis</i> ) American Walnut ( <i>Juglans nigra</i> ) European Walnut ( <i>Juglans regia</i> ) Sapele ( <i>Entandrophragma cylindricum</i> )
Bintangor ( <i>Calophyllum spp.</i> ) Merpauh ( <i>Swintonia spp.</i> ) Rubberwood ( <i>Hevea brasiliensis</i> )	4	American Red Oak ( <i>Quercus rubra</i> ) Elm ( <i>Ulmus carpinifolia</i> ) Hickory ( <i>Carya glabra</i> ) Okoumé ( <i>Aucoumea klaineana</i> )

\*Natural durability as reported in EN 350 : Part 2

# AUTHORISATION

issued by

**Dr John Williams**  
Technical Consultant

under the authority of

**Richard White**  
Technical Consultancy Manager



Outdoor Living at its Finest





## physical properties

species	air-dry density (kg/m³)	shrinkage tangential (%)	seasoning
American Red Maple	540	8.2	Fairly fast
American Western Hemlock	500	7.9	Drying defects may occur and care should be taken
American White Oak	750	9.6	Slowly and may split, check or honeycomb
Balau	850 – 1,155	3.5 – 3.9	Very slowly and care should be taken to avoid end-checks and splitting
Bintangor	465 – 865	2.0 – 3.7	Fairly slowly with slight degrade
Black Maple	630	9.0	Slowly with little degrade
Dark Red Meranti	560 – 865	2.9 – 4.4	Fairly fast with no defects
Douglas Fir	530	6.6	Rapidly with little warping
European Ash	690	8.3	Requires care in order to minimise degrade
European Beech	670 – 720	8.6 – 18.2	Difficult to dry
European Scots Pine	500	7.7	Fairly fast
European Spruce (Norway Spruce)	390 – 480	7.8	Easily with little shrinkage or checking
Kelat	495 – 1,010	3.3	Very slowly with little degrade
Kembang Semangkok	515 – 755	3.0	Fairly rapidly with very slight degrade
Kempas	770 – 1,120	3.0	Slow with few or no defects
Keruing	690 – 945	3.3 – 7.4	Seasons well without serious defects
Mengkulang	625 – 895	3.0 – 3.8	Fairly rapidly with few or no defects
Merbau	515 – 1,040	1.6	Slowly without any degrade
Mersawa	515 – 735	3.2 – 3.8	Slowly with slight degrade
Nyato	400 – 1,075	1.9 – 4.3	Dries at an average rate with little or no degrade
Radiata Pine	480	6.7	Rapidly with medium shrinkage
Red Balau	800 – 880	3.2 – 3.6	Slowly with slight degrade
Rubberwood	560 – 640	1.9	Fairly rapidly, but care should be taken to avoid warping and splitting
Sepetir	530 – 785	2.9	Dries moderately without degrade

**note** Information on the physical and mechanical properties of the foreign timbers mentioned is sourced from MatWeb, FPCWA, NPLVL, USDA, NZFRI, AHEC and World of Wood.



Waterfront Living





## mechanical properties

species	static bending (MPa)	modulus of rupture	compression strength (MPa)		shear strength (MPa)
	modulus of elasticity		perpendicular to grain	parallel to grain	
American Red Maple	9,790	54	3.6	17	7.5
American Western Hemlock	8,200	76	4.7	43	5.6
American White Oak	8,620	101	9.1	48 – 51	13.5
Balau	20,100	142	9.8	76	15
Bintangor	14,300	74	3.2	37	10.8
Black Maple	9,170	55	4.1	23	7.8
Dark Red Meranti	11,200 – 13,900	74 – 77	2.9 – 5.0	39 – 45	8.0 – 8.7
Douglas Fir	13,600	88	3.1	50	9.5
European Ash	13,130	118	10.8	51	12.5
European Beech	13,500	118	7.9	54	14.0
European Scots Pine	10,700	89	7.5	46	11.2
European Spruce (Norway Spruce)	9,100	64	4.1	30	5.3
Kelat	17,600	116	6.0	59	12.8
Kembang Semangkok	17,000	92	5.4	50 – 52	9.1 – 10.1
Kempas	18,600	122	8.0	66	12.0
Keruing	12,900 – 22,300	76 – 133	4.3 – 9.2	43 – 68	9.2 – 12.3
Mengkulang	15,990	91	5.4	52	10.8
Merbau	15,400	116	9.2	58	12.5
Mersawa	9,200 – 12,600	49 – 54	5.5 – 5.6	26 - 29	7.1 – 7.4
Nyatoh	12,200 – 18,300	79 – 129	4.5 – 9.2	44 – 65	11.0 – 11.9
Radiata Pine	10,000	81	12	42	11.3
Red Balau	14,800 – 17,000	99 – 100	5.5	55	9.9 – 12.0
Rubberwood	9,240	66	4.7	32	11.0
Sepetir	13,600	92	5.9	46	13.6



Award Nominated Exterior Feature.





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## Malaysian Forest Management Practices

Kayu Canada Inc. strives to purchase the highest quality of exotic hardwoods from Indonesian and Malaysia. When purchasing we are extremely mindful of the forest management practices and sustainable forest methods applied.

Their key responsibility is to ensure the protection of their complex ecosystem while providing a continued product flow. Natural regeneration is responsible for majority of growth in Malaysia, they are constantly finding innovative ways to monitor and protect their forests.

There are numerous organization Malaysia is associated with to help provide the highest standard of forest management and sustainable forest practice guidelines.

### ITTO: International Tropical Timber Organization

Helps sets guidelines for sustainable forest management of tropical forests. This organization is constantly testing new ways to help prevent timber theft and illegal logging.

### NFP: National Forest Policy

Develops programs for forest development and regeneration.

### FIRM: The Forest Research Institute of Malaysia

Working to improve silviculture methods, harvesting techniques, and product quality control.

### MTCC: Malaysian Timber Certification Council

Helps improve legal logging and the monitoring of Malaysian forests.

### Indonesian Legal Wood - SVLK:

Assure your customers that your wood products sourced from Indonesia are produced from legally harvested wood.

### Sucofindo Timber Legality - SICS:

Help build a public confidence that the wood supply is provided by legal sources and meets regulatory requirements.

All of our Meranti hardwoods are purchased 100% certified Malaysian hardwood, which is certified by an international program for sustainable management.

All of our hardwoods are harvested from managed forest independently certified by the MTCC under Forest Management Certification # FMC 001 and 006. Our Meranti hardwood is also sawn, manufactured, packaged, and exported under MTCC Chain of Custody Certifications # COC 043, 044, and 045.

