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Hardwood Decking

Ipe is the gold standard, but plenty of other species stack up quite nicely on looks and longevity, often at a lower price BY TOM O'BRIEN

THERE'S A REASON they build boardwalks out of tropical hardwood: It's dense and hard enough to shrug off the insults of skateboards, high heels, hail, and just about anything else you or Ma Nature can muster. Ipe (pronounced *EE-pay*), the most durable and best known of the Brazilian hardwoods, is three and a half times as hard as teak. Its natural oils deter pests, rot, and decay so well that you could pound a stake of it into the dirt, come back 25 years later, and expect to find it intact. Above ground, ipe can last up to a century—longer than it takes to grow in the first place—making it one of the greenest choices available (assuming it's sustainably harvested). Incredibly, this wood has the same fire rating as steel and concrete.

Add in its rich brown luster, and ipe is the ideal material for decking. Such performance comes at a price, of course, but anyone who decides to make the investment in hardwood decking has other choices, too. Lesser-known tropical species such as cumaru, garapa, cambara, massaranduba, and tigerwood are nearly as amazing. A relatively new candidate for a deck that's as durable as it is attractive comes from Thermory, which takes domestically harvested white ash—the stuff of baseball bats—and heat-treats it in such a way that it's rendered rot resistant and extremely stable.

Whichever grain you go with, here's everything you need to know to make sure you don't go wrong.

RICH WOOD Deck boards made of ipe, sometimes called Brazilian walnut for its handsome hue, provide a stunning backdrop for this outdoor furniture.





PHOTOS: DAVID ALBANESE; (VITALS) PETER TOPP/ENGE JONASSEN/ISTOCKPHOTO; STYLING: MARINA KEISER

VITALS

WHAT'S IT COST?

Ipe decking starts at \$2.29 per linear foot for 1x4s from online retailers. Alternatives range from \$1.55 to \$4.30. Add about 25 percent for 5/4 decking, which is thicker.

WHAT'S THE WARRANTY?

Some companies offer warranties of three to 25 years on certain woods, excluding insect damage and minor issues, such as stains, scratches, or checks (the shallow cracks on the wood surface). Your best guarantee? Buy from a reputable supplier.



KILN- OR AIR-DRIED? All hardwood decking except ipe must be kiln-dried to minimize shrinkage and warping after installation.

WHERE TO BUY IT?

Many full-service lumberyards stock ipe as 1x4s, 1x6s, 5/4x4s and/or 5/4x6s and also as posts and rails. Finding other species in stock is hit or miss, but they can be special-ordered. Online suppliers can also ship right to your door in one to two weeks.



IS HARDWOOD RIGHT FOR YOU?

It's an investment. Be sure the benefits justify the cost

PROS

- > **Luxury look** Put it this way: Premium composite decking is out to mimic the rich appearance of these beautiful boards.
- > **Tough** All these decking boards are hard enough to stand up to hail, claws, and heels.
- > **Durable** They're immune to insects and rot, even if they come in contact with the ground.
- > **Stable** These hardwoods don't shrink as much as pressure-treated softwoods or expand and contract with temperature fluctuations like plastics and composites do.
- > **Fire resistant** If a hardwood deck does catch fire, it won't billow toxic smoke like one made of composite boards or pressure-treated lumber will.

CONS

- > **Pricey** The least-expensive hardwood decking is at least twice the price of pressure-treated pine.
- > **No grading standards** It's up to you to suss out the quality of your supplier's inventory. Look for boards that are clear (free of defects) on one face and two edges.
- > **Stubborn** Ipe and its rock-hard ilk resist drill bits and saw blades, which slows down installation.
- > **Hot** The denser and darker the wood, the hotter it gets in the sun—a liability for bare feet.
- > **Regular maintenance** Unless you want your deck to turn gray, you need to oil it to preserve the color.

Keep the forest green

The only way to be sure that your hardwood decking is not contributing to deforestation is to look for the logo of the Forest Stewardship Council (FSC), which certifies that the wood comes from a sustainably managed forest. Though FSC certification can add 25 to 50 percent to the cost of decking, the standards limit the size of clear-cuts, protect waterways by retaining trees along their shores, protect water quality, prohibit the use of highly hazardous chemicals, and protect rare species.

Pick a species

7 boards that will outlast your mortgage—if not the house itself

1] IPE

PRICE: \$2.55 per lin. ft.*
DENSITY: 69 lbs. per cu. ft.
CHARACTER: A dense wood with a brown or olive cast.
WORKABILITY: Difficult. Slows down even carbide-tipped blades.

2] CUMARU

PRICE: \$1.92 per lin. ft.
DENSITY: 68 lbs. per cu. ft.
CHARACTER: More red than brown, with a grain like teak.
WORKABILITY: See ipe.

3] MASSARANDUBA

PRICE: \$2.21 per lin. ft.
WEIGHT: 67 lbs. per cu. ft.
HIGHLIGHT: Reddish brown, with a straight, subtle grain.
Prono to checking.
WORKABILITY: More difficult to cut than ipe.

4] TIGERWOOD

PRICE: \$1.75 per lin. ft.
DENSITY: 58 lbs. per cu. ft.
CHARACTER: Orangey with intermittent dark streaks.
WORKABILITY: Moderate. Carbide-tipped bits and blades not mandatory.

5] GARAPA

PRICE: \$1.77 per lin. ft.
DENSITY: 51 lbs. per cu. ft.
CHARACTER: Honey color goes gray very quickly.
WORKABILITY: Easy. Saw blades cut in one pass.

6] CAMBARA

PRICE: \$1.73 per lin. ft.
DENSITY: 37 lbs. per cu. ft.
CHARACTER: Mahogany-like, with a contrasting grain.
WORKABILITY: Like butta!

7] HEAT-TREATED WHITE ASH

PRICE: \$3.59 per lin. ft.
DENSITY: 37 lbs. per cu. ft.
CHARACTER: Coffee-brown, with a pronounced grain.
WORKABILITY: Easy as pine.

* All prices are approximate for non-grooved, non-FSC-certified 1x4 decking boards. Shipping not included.



INSTALLATION STRATEGIES

Wood is wood, naturally, but there are things to consider when building a deck with the hard stuff

FRAMING It's fine to build the structure from pressure-treated lumber, given that it'll be protected from UV rays by the decking. Just be sure to flash properly where it meets the house—don't let aluminum come into contact with treated wood—and use PT-rated fasteners. And if the decking outlives the structure, well, your grandchildren will need to pull up the boards and reframe it.

VENTILATION Invincibility aside, any deck needs adequate space underneath it for air to circulate. Otherwise, moisture from the ground builds up and causes the boards to cup and swell. If the joists can't be at least a foot off the ground, use 5/4x4 boards for their stability over thinner, wider stock.

SPACING Though far more stable than pressure-treated woods or composites, kiln-dried hardwoods do expand and contract slightly



across their width. Follow supplier recommendations to set the gaps.

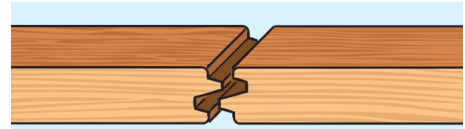
DRILLING AND CUTTING

The sawdust may not contain the heavy metals found in pressure-treated boards, but with some of these species it will irritate skin and respiratory passages. Best to wear an N100 respirator and protect your skin when the dust flies.

SEALING After cutting a board to length, seal the end grain with a water-based wax sealant, such as Anchorseal, to prevent checking and splits near the ends.

Custom-milled profiles

How to improve on an already great product



> **Thermory JEM Joints** Interlocking ends butt together between joists, saving the time and material you'd waste by cutting each board back to the nearest support. thermoryusa.com



> **Iron Woods Vanish Decking** A shiplap profile truly hides clips and grooves while leaving space for the boards to breathe. ironwoods.com



> **Grooved edges** Most suppliers offer decking with a groove cut into the edges to accept hidden fastener clips, sometimes at no upcharge.

Critical connections

However you choose to attach hardwood decking, you'll need plenty of elbow grease and stainless-steel fasteners. Here are our picks for each method



FACE SCREWS

SplitStop Exotic Brown stainless-steel screw. The serrated head countersinks into all but ipe and is painted to hide the shine. Simple to install, low cost, and easy to back out when replacing a board. \$7.67; splitstop.com



SCREWS AND PLUGS

Starborn Smart-Bit Pro Plug System. The bit bores a stepped hole: one for the screw and one to accept a glued wood plug of the same species. Attractive finish; slow, multistep install. \$9.10; starbornindustries.com



HIDDEN FASTENERS

DeckWise Ipe Clip. It slips into a grooved edge and guides angled pilot holes and screws through the groove and into the joist on one side only. Doubles as a spacer. \$9.49; ipeclip.com



EDGE SCREWS

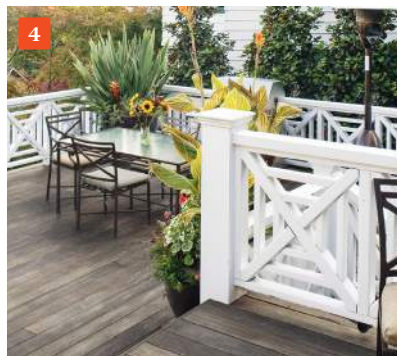
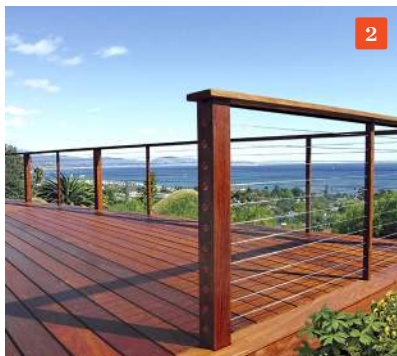
Camo trim-head deck screw. The jig directs screws at a consistent angle through both edges of the board and into the joist. Buries the screwheads out of sight. Fast install, clean look. \$4.60; camofasteners.com



FACE NAILS

2½-inch stainless-steel nails plus DAP Smartbond. A finishing nailer set at 100 psi shoots nails through 1x boards set in polyurethane adhesive. "Quick and easy," says TOH general contractor Tom Silva. \$2.52; senco.com

Pricing for fasteners, plugs, and clips calculated per 16 linear feet of decking on joists spaced 16 inches on-center; decksdirect.com



Choosing posts and rails

Styles to complement your gorgeous new deck

1 > COMPOSITE If you like a clean look, this option offers its own imperviousness and contrasts crisply with dark tropical decking. It also cleans up just as easily, with a blast from the garden hose. azek.com

2 > CABLE RAIL Install posts and handrails milled from hardwood or fabricated from steel, and thread horizontal cables through them in place of vertical balusters (check local building codes for spacing). feeneyinc.com

3 > METAL BALUSTERS For an appropriately enduring material to go with hardwood, powder-coated aluminum and galvanized steel are strong and attractive and need only an occasional washing. homedepot.com

4 > MATCHING WOOD Many decking suppliers also furnish posts, rails (top and bottom), and balusters milled from the same species as the decking. Keep it a rich wood tone or paint it for contrast, like the Chippendale railing here. ironwoods.com

MAINTENANCE

KEEP THE GRAY AT BAY

As beautiful as hardwoods are, ultraviolet light soon fades their vibrant color. To preserve it, you'll need to apply a high-quality UV-inhibiting penetrating oil specifically formulated for this dense material. The short list of oils to consider includes those by Penofin, Olympic, Messmer's, Duckback, DeckWise, Cabot, and Thompson's WaterSeal.

Hardwoods don't easily absorb stains or oils, so treat your deck like a giant piece of furniture. Starting with a clean, dry surface, brush on the finish and wipe off the excess with a clean rag. Reapply it once a year or whenever the gray starts to return. And if you neglect your deck and it goes gray, don't fret: Even after many years in the sun, the natural look can be restored by cleaning with oxygen bleach and then oiling.



NO PRESSURE

To clean a deck without damaging the wood, you need only three things: a pump sprayer to apply a wood cleaner that contains oxygen bleach, a soft-bristled brush, and a garden hose. That's the way *TOH* general contractor Tom Silva prefers to do it (watch him in action in the video at thisoldhouse.com/jun2015).

If you must use a pressure-washer, here's how to minimize the risk of damage.

- > **SET** the pressure no higher than 3,000 psi.
- > **USE** only a fan-tip nozzle (15° or wider).
- > **HOLD** the tip at least 12 to 16 inches from the surface—no closer!—and keep it moving.

Quick Fixes

Even the hardest decking boards need regular care to look their best.



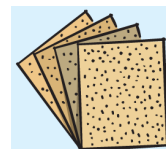
DEBRIS > Don't allow leaves, dog hair, and detritus to accumulate between the boards and promote rot.

At least once a year, clear off the deck and give it a good sweeping and a light scrubbing with soap and water.



MILDEW AND ALGAE > These can grow on any surface but are easily kept in check with regular cleaning, using

oxygen bleach and a soft-bristled brush. Rinse with a garden hose and water.



SCRATCHES > Erase them with a palm sander and 80-grit paper, then apply a penetrating oil.

Design your deck

It doesn't have to consist of uniform strips laid parallel to the house. Here are four creative ways to make beautiful hardwood stand out

1> PATTERN Angling the boards in a chevron pattern, as on this tigerwood deck, moves the eye toward the view. Hardwoods are suited to making diagonal patterns because of their stiffness; joists can be spaced 16 inches on-center, instead of 12 inches, as they must be when using pressure-treated wood. Shown: $\frac{5}{4}$ ×6 grooved tigerwood decking, \$2.99 per linear foot; advantagelumber.com

2> MULTIPLE LEVELS Steps set on a diagonal play off the pattern in the upper deck while offering casual seating. This decking is thermally modified white ash, a walnut-colored wood with a pronounced grain. It's used here in combination with light-colored western red cedar, providing a striking dark accent on the privacy screen, pergola, and stair risers. Shown: 1×6 grooved, thermally modified white ash, \$6.48 per linear foot; thermoryusa.com for dealers

3> CONTRASTING BORDER The builder of this deck used light-colored garapa to define the edge of a dark field of ipe. Maintaining that color difference requires regular applications of a UV-absorbing finish, though this border treatment will still be evident if all the wood goes gray. Shown: 1×6 grooved ipe, \$3.83 per linear foot, and 1×6 grooved garapa, \$2.09 per linear foot; advantagelumber.com

4> MIXED-WIDTH BOARDS Using different widths is an easy way to create a refined architectural look. In this case, a pair of narrow boards is alternated with a wider one in a repeating pattern. Shown: 1×4 grooved ipe, \$2.29 per linear foot, and 1×6 grooved ipe, \$3.43 per linear foot; advantagelumber.com 🏠

