



Natural wood
Made to last

Kebony vs. Ipe



There's no doubt, using tropical hardwoods, specifically Ipé, bring a level of beauty and longevity to a project that few natural products can match. But, does that mean we should keep using it as the go-to long-lasting wood product? Over the past several years, as we become more informed about what's happening in the Amazon rainforest – from increased wildfires in the Amazon Basin to illegal harvesting and clear-cutting – it's led many architects, builders, and homeowners to start looking for alternatives for Ipé.

So, how does a modified wood like Kebony stack up against Ipé and other Brazilian hardwoods? We broke it down into six different categories.



MORRIS ISLAND RESIDENCE
Morris Island, Chatham, MA
Product: Kebony Clear Cladding
Architect: Monte French Design Studio
Photography: Kristian Alveo

Durability

Ipé has always been known for its strength, many liken its durability to iron and claim any project that uses Ipé is going to outlast the very people who installed it. There's no doubt Ipé is extremely dense; the Brazilian hardwood is more than twice as hard as Kebony Clear on the Janka hardness test. And, who doesn't want the peace of mind of a product with a 75-100 year life span?

Density vs. Durability

When it comes to strength, a harder product doesn't always mean it's a better product. The Janka scale is measuring the wood's density, not its durability or longevity. More density is great for a longer-lasting product but is more difficult to work with because of its hardness. Kebony is not as hard/dense as Ipé, but it is just as durable. The patented modification process increases the durability without making it too dense, plus it comes with up to a 35-year warranty! Ipé's density makes it extremely hard to work with, so be prepared to buy drill bits and saw blades. Another big advantage Kebony has over Ipé is stability. Kebony's modification process makes it very resistant to warping, cupping and splintering, which is a common problem with any wood species and leads to added waste.

Winner: Ipé for density, Kebony for stability and warranty



BEL AIR RESIDENCE
Los Angeles, CA
Product: Kebony Clear Cladding
& Kebony Deck Board
Designer/Builder: HM DG Inc.
Photography: Kristian Alveo

Appearance

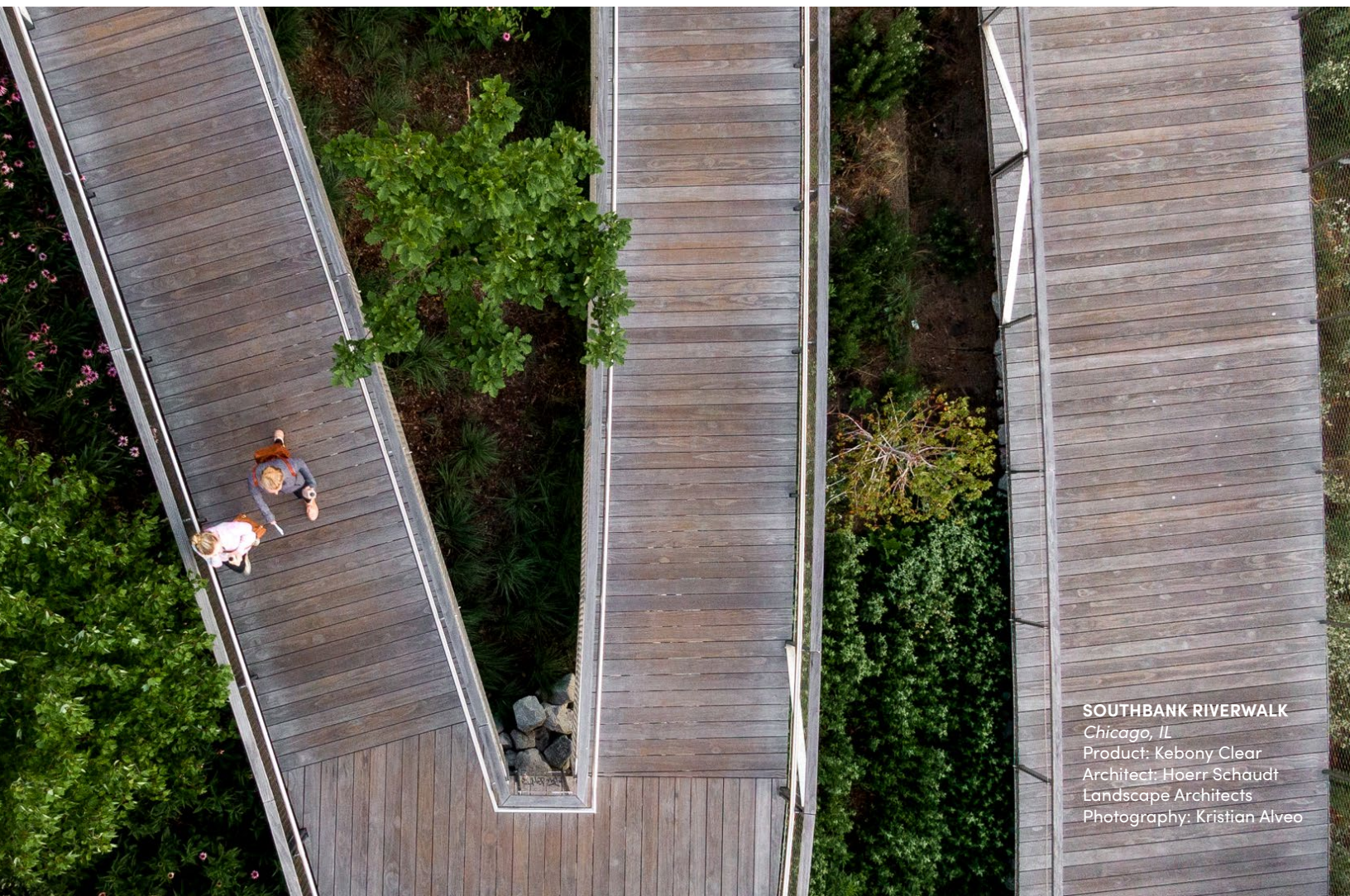
Kebony Clear and Ipé are very similar in appearance. Both have a rich brown color, and both will naturally fade to a nice gray patina unless regularly oiled. Both products also have a clear and straight grain pattern. The difference in Kebony and Ipé is the consistency. Kebony has a uniform color and grain pattern, where Ipé will have wide variations in color and grain. Ipé has varying grades as well, and you don't always know what grade you are receiving until it's at the job site.

Winner: Kebony for its uniformity

Maintenance

Kebony and Ipé have nearly identical maintenance routines. If you would like Kebony or Ipé to patina to a silver/gray, then little to no maintenance is required. Just let nature run its course. If you would like to keep the lustrous brown color of either product, regularly use a UV-inhibiting hardwood oil designed for that wood product.

Winner: Tie



SOUTHBANK RIVERWALK
Chicago, IL
Product: Kebony Clear
Architect: Hoerr Schaudt
Landscape Architects
Photography: Kristian Alveo



Environmental Impact

Kebony is sustainably harvested from FSC®-certified forests. The softwood species used for Kebony have a growth cycle of 25-30 years with more trees being grown than harvested. Because Kebony uses responsibly managed lumber sources and eco-friendly liquids in its process, it is an incredibly sustainable product: perfect for gaining LEED points and meeting green standards on a project. Ipé certainly can't say the same.

For years, Ipé was seen as environmentally friendly because it was long-lasting. Now, the data shows us that the environmental impact of clear-cutting 100-year old trees is far greater than the benefit of using them in construction. Currently, it's nearly impossible to responsibly manage a tropical hardwood forest, which means even though the Amazon rainforest is millions of acres there is a finite supply of Ipé trees with many other species that are removed in order to reach them. One thing is certain: harvesting Ipé is not sustainable and the supply of Ipé trees in the Amazon will eventually run out in the distant future. Ipé has just recently been added to the CITES Appendix II list, which added more regulations for harvesting. For this reason, many architects are deciding to stop specifying Ipé in their projects.

Obvious Winner: Kebony

Health

Have you ever heard of a builder refusing to use Ipé because their crew was “allergic”? If so, what they are experiencing is actually much worse than common allergies.

It’s hard to believe a natural product, coming directly from the earth, could be connected to serious health problems. But, over the past several years, studies from OSHA and others have linked health issues like asthma, COPD, silicosis (incurable lung disease) and even lung cancer to a mineral called Crystalline Silica. Silica is mostly found in sand, stone and concrete; however, due to the literal shifting of the sands in the Sahara desert across the ocean and depositing into the Amazon rainforest, tropical hardwoods like Ipé have dangerous amounts of silica “engrained” in the wood fibers. In fact, the primary element in Ipé that makes it so dense and tough on tools is silica, which acts like sandpaper on a saw blade.

The discovery and testing of Silica within construction materials led OSHA to create the OSHA Respirable Crystalline Standard for Construction in 2017, which provides standards for mitigating sawdust on the job site by using water-fed saws and other methods mostly used in masonry. Unfortunately, many of the standards either don’t apply or can’t be used when it comes to building with Ipé. There’s no real way to keep sawdust from flooding the air as you cut boards, and even if the builders are using a proper respirator and eye-wear (which they absolutely should) the sawdust will remain in and around the job site for weeks, months, or even years after the job is completed while people and animals are using the space.

To be clear, inhaling any sort of sawdust is not good for you, and we recommend always wearing the proper protective gear when working with wood. But, not all wood fibers are carrying deadly chemicals that could cause irreversible harm to your health. Kebony uses furfuryl alcohol in its modification process, which is extracted from food and plant waste. The end result is a bio-based, food safe product that contains no harmful chemicals. In other words, if you drop your hot dog on your new Kebony deck, you can administer the 5-second rule.

Winner: ANYTHING but Ipé (but definitely Kebony)

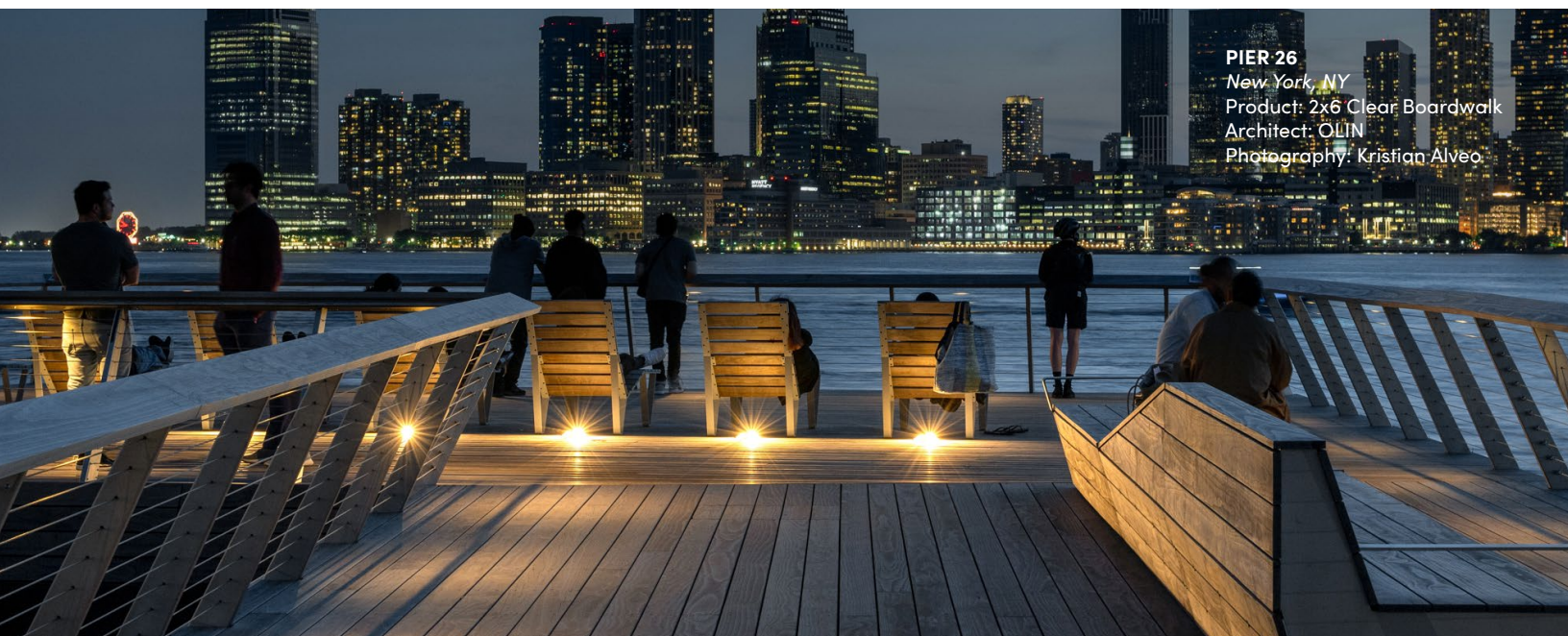
Value

It's tricky to come up with an apples-to-apples price comparison. For one thing, Ipé is a commodity so the price fluctuates wildly and varies based on region. Most importers also put bigger price tags on what they consider "premium" lengths like even numbers or boards longer than 8 ft. Because it is a brand and not a commodity, Kebony can control its pricing structure and maintain consistency across countries and regions. There's also peace of mind knowing the Kebony sold to Homeowner Harry in Seattle, WA is the exact same grade of Kebony sold to Builder Brenda in Miami, FL. For more detailed price information, talk to your local lumberyard or retailer.

Winner: Kebony for price consistency

The Verdict

When it comes to using Ipé, there is a clear-cut alternative: Kebony.



PIER 26
New York, NY
Product: 2x6 Clear Boardwalk
Architect: OLIN
Photography: Kristian Alveo