

Preparing and Staining Exterior Wood Decks

Inspect the wood, restore the surface, select the right stain, and maintain the finish before weathering gets ahead of you.

By Joshua Christopher | Version 1.0 | October 7, 2026

My standard: Start with sound, secure wood. Clean thoroughly, confirm that the wood is ready for the chosen finish, and work a few boards their full length to keep the application even. On dense hardwoods such as Ipe, remove excess oil instead of leaving a heavy coating on the surface. Clean regularly and inspect for blotchy, dry-looking, or light areas; in my Florida experience, recoating is usually an annual job.

This guide covers wood decks, with separate application instructions for water-based deck stains and a penetrating hardwood oil. The project photographs show our Ipe deck restoration. Follow the [SPATE framework](#) throughout: Substrate, Product, Application, Tools, and Execution.



Before-and-after comparison from our Ipe deck restoration project.

1. Inspect the wood and replace unsound boards

Field practice

I first make sure the wood is sound and secure. I check for softness, weather damage, and pieces that need replacement. We replace those pieces before moving on. Because people walk on a deck, I am stricter about replacement than I might be with a small cosmetic defect in trim. I do not recommend Bondo repairs on deck boards.

Stain is a finish, not a repair for weakened wood. Stop and resolve loose or deteriorated components before coating. If the condition raises questions about the deck's supporting structure, arrange an appropriate assessment rather than treating the problem as surface preparation.

Identify the wood as well as its condition. An Ipe deck and a pine deck may need different finishes and preparation. New replacement boards also need to meet the selected finish's preparation and moisture requirements; installing them does not automatically make them ready for stain.

2. Identify the existing finish and the desired result

Field practice

Most of the time I am maintaining or restaining a deck. The main reason I strip back to bare wood is a change to a lighter color or a return to the natural wood appearance. With penetrating stains, I usually see fading and graying as the finish weathers.

Manufacturer direction

Cabot distinguishes penetrating finishes from film-forming coatings: solid stains can peel, and excess penetrating stain can form a surface film that also fails. Existing [peeling](#) is a preparation problem, not something to cover with another coat. [\[1\]](#)

Find out what was used previously, whether it remains sound, and whether the proposed stain can work over it. A failed or incompatible finish may require removal even when the color will stay the same. A cleaner or brightener does not guarantee removal of every old coating or stain color. Test a representative area before promising a lighter result.

Manufacturer direction

Woodlux semi-transparent 692 requires removal of finishes that prevent penetration. SuperDeck solid SD7-251's reviewed sheet also directs removal of previous coatings and says not to apply over sealed or previously coated surfaces. Do not assume that every product sold as deck stain permits a simple maintenance overcoat. [\[6, 8\]](#)

If full stripping is necessary, use a removal system specified for the existing coating and wood. That separate operation is not replaced by the cleaner-and-brightener procedure below.



The starting surface from our Ipe project.

The deck before restoration. Inspect the wood and old finish before deciding how to prepare it.

3. Choose the finish, appearance, and applicator

Field practice

For decks such as pine, I generally choose an exterior water-based stain. Benjamin Moore Woodluxe and Sherwin-Williams SuperDeck are product lines I use. The opacity depends on what the client wants to see. For the Ipe project shown here, we used DeckWise Ipe Oil Hardwood Deck Finish.

Appearance	What the choice means
Transparent or translucent	Shows the most natural wood appearance, including variations and remaining discoloration.
Semi-transparent	Adds color while keeping much of the grain visible.
Semi-solid	Hides more variation while retaining some visible grain.
Solid	Gives the strongest color coverage and hides more cosmetic variation; wood texture can remain visible.

Opacity names and available formulas vary by product line. Select the exact finish approved for the wood species and horizontal walking surface. Approve a dried sample on the actual prepared wood before doing the whole deck. A solid stain can hide color variation; it cannot make damaged wood sound.

Field practice

I prefer a wide deck-staining brush, about 7-8 inches, attached to an extension pole. It lets me work the stain along the boards without constantly bending over.

Choose brush fibers compatible with the product. The [brush and roller selection guide](#) contains the shared selection guidance. Do not add a conventional wood primer beneath a penetrating stain. If a solid-stain system calls for a particular primer, follow that system; Woodluxe 694, for example, identifies primer options for tannin-prone wood. [7]

4. Clean the deck and rinse thoroughly

Clear the work area and protect nearby surfaces and plants according to the cleaner's label. Plan where rinse water will go. Use the label-specified protective equipment and keep people and pets out of the work area during treatment.

Field practice

We mix DeckWise Cleaner Part 1 with water as directed. Warm water helps dissolve the crystals, which can otherwise clog a pump sprayer. We apply with a pump sprayer or sponge, then scrub with a deck brush. I generally allow about 15 minutes before rinsing thoroughly with a garden hose.

Manufacturer direction

DeckWise's May 2025 instructions specify dissolving the cleaner in hot water, a 10-15-minute working period while keeping the surface wet, scrubbing, and a thorough clean-water rinse. Use the dilution on the current container and fully dissolve the powder before spraying. [2]

Treat manageable sections so the cleaning solution stays wet until it is rinsed away. The garden-hose rinse is part of this procedure. DeckWise advises against pressure washing hardwoods because of possible surface damage and raised grain. [3]

5. Brighten when the selected system calls for it

Field practice

After cleaning and rinsing, I usually let the deck dry so I can assess the result. On some woods, such as pine, the cleaner may have produced the appearance we wanted. On Ipe and other Brazilian hardwoods, I use both the cleaner and brightener. I apply the brightener with a sprayer or sponge, work it with the deck brush, and have generally rinsed after 10-15 minutes.

Manufacturer direction

DeckWise's published system uses Part 2 to brighten and rebalance the wood after cleaning. Its May 2025 instructions specify **30 minutes**, keeping the surface wet, followed by thorough rinsing. They also prohibit mixing the brightener in a metal container. That dwell time differs from my field timing above. Follow the current container's directions; ask DeckWise to resolve conflicting instructions before applying. [2, 3]

The decision is about chemical preparation as well as color. A pleasing appearance after cleaning does not demonstrate that the wood's pH or surface condition suits the finish. My practice of assessing the dry appearance is not permission to omit a step required by the selected system. Apply cleaner and brightener as separate treatments, rinsing between them.

6. Confirm dryness and address remaining roughness

Field practice

I look closely for wet spots and avoid staining too early. I do not routinely sand the entire deck after cleaning; I expect the scrub brush to have done most of the work. If rough or splintered areas remain, we may sand those areas lightly with 120 grit, or 80 grit where needed.

Manufacturer direction

Visual dryness is not a moisture measurement. DeckWise's Ipe Oil guidance calls for wood below 15% moisture; Woodlux 692 and 694 specify no more than 15%. Use a suitable meter and the exact finish's limit, including on replacement boards. Weather and shade affect drying. [4, 6, 7]

Remove sanding dust before staining. Recheck the surface by sight and touch: the aim is sound, clean wood that can accept the chosen finish, without sharp splinters or dirty residue. Follow the selected product's requirements for new wood and mill glaze rather than assuming cleaning alone is sufficient. A manufacturer's prescribed sanding preparation takes precedence over the light, localized sanding described in my field practice.

Before opening the stain, check the weather window and surface temperature. Schedule application so the wood is within the product's limits and rain will not arrive during its required protection period. A deck that is dry enough can still be too hot to coat properly.

7. Apply water-based deck stain along the boards

Field practice

I work a few boards at a time, taking them their entire length before moving across the deck. I start at one end and brush evenly back and forth with the grain to work the stain into the wood. One good coat may give the coverage we want. I inspect the result, and if another coat is needed, I apply it only as the manufacturer permits.

Stir and intermix the product as directed. Maintain a wet edge and finish at natural board ends or other breaks rather than stopping halfway along a board. Keep the application even; heavier material is not a substitute for correct preparation. Inspect edges and joints for missed areas while working.

Manufacturer direction

Follow the formula-specific coat counts below. For a penetrating one-coat stain such as Woodlux® 692, excess material or additional coats can cause failure or change the appearance. [6, 7, 8]

Exact product example	Coating and recoat direction
Woodlux® water-based semi-transparent 692	One coat. Do not add another simply because a board looks lighter. [6]
Woodlux® water-based solid 694	One or two coats; two for optimal performance. Allow at least 4 hours between coats at 77 F and 50% relative humidity. [7]
SuperDeck waterborne solid SD7-251	Two coats recommended, maximum two. Recoat in 2-4 hours at 77 F and 50% relative humidity; cooler conditions take longer. [8]

These are examples, not interchangeable instructions for every opacity in either brand. Confirm the product number and current label. Investigate an uneven result before adding material: different wood color, remaining old finish, uneven absorption, or application can produce different corrective actions.

The timed oil wipe-off in the next section belongs to the hardwood-oil procedure. Do not use it as a blanket instruction to wipe off a newly applied water-based stain.

8. Apply hardwood oil without leaving excess behind

Field practice

With Brazilian hardwoods, there is such a thing as too much oil. I let it penetrate, then rub off excess with a cotton rag or stain sponge. On a larger deck I have a helper follow behind, so we can keep the application moving and remove the excess promptly.

Manufacturer direction

For **Ipe Oil 250 VOC**, DeckWise says one coat is sufficient for most applications. Remove unabsorbed product within 10-20 minutes, adjusting for heat and sun. Continue wiping away pooling or leaching; the finished surface should not retain a wet-looking sheen. Its care sheet calls for at least 24-48 hours of drying after cleaning and 6-8 weeks of aging for new hardwood before preparation and finishing. [5]

Work in areas small enough for the helper to remain within the wipe-off window. Do not coat the entire deck and only then begin removing excess if the first boards would have waited too long.

Field practice

My main inspection is for unevenness: areas with too much product and areas with too little. We wipe excess away and attend to light areas that have not received enough stain.

Make those corrections within the product's workable application period. Natural variation between boards is not automatically a missed spot. If the finish has already dried unevenly, use the manufacturer's correction procedure rather than applying more oil indiscriminately.

9. Inspect the finish and explain when the deck can be used

Check the completed deck from several viewing positions. Look for uneven application, lap lines, pools, sticky-looking excess, and [holidays](#). Confirm that the selected appearance has been achieved without treating natural grain and color variation as defects. Correct application problems before handoff, using the product's directions.

Field practice

I usually tell clients to wait until the following day before using a stained deck.

Manufacturer direction

That next-day advice is not universal. Woodlux 692 and 694 specify **48 hours** before furniture and return to service. SuperDeck SD7-251 lists 24 hours to use at 77 F and 50% relative humidity, or 48 hours under its cooler reference conditions. Ipe Oil 250 VOC lists 24 hours of drying in good conditions. Follow the exact label and allow longer when conditions delay drying. [[5](#), [6](#), [7](#), [8](#)]

Give the client the actual product name, color, completion date, and applicable return-to-use instructions. Explain separately when furniture, rugs, or other items can be returned if the product gives different limits. Being dry to the touch is not a substitute for those instructions.



The restored Ipe deck. Check application evenness while allowing the natural grain and color variation to remain visible.

10. Clean regularly and recoat before the finish deteriorates

Field practice

For a long-lasting deck, clean often and recoat when it needs it. I recoat ours when I see blotchiness or dry-looking, light areas. Here in Florida, that usually means once a year.

Treat this as an inspection-led maintenance routine. Clean first and determine whether the change is dirt, staining, wear, or loss of finish. Use the same sound-wood and coating checks before a maintenance coat. An intact solid stain does not need an extra coat merely because a calendar year has passed. The wood, exposure, finish, and condition determine the work.

Manufacturer direction

DeckWise recommends regular gentle cleaning between Ipe Oil applications, using mild detergent, a soft brush, and a thorough rinse. Its care sheet describes re-oiling every one to two years in most applications, with climate affecting the interval. [5]

Clean tools with the cleaner specified for the product. Handle wash water, leftover coating, and contaminated materials according to their labels and local disposal requirements.

Manufacturer safety direction

Ipe Oil waste can self-ignite. DeckWise directs users to place contaminated rags and other waste immediately in a water-filled metal container, seal it, and dispose of it according to applicable rules. Do not pile oily cloths or put them in an ordinary trash bag. [5]

Painter terms and SPATE connections

S / Substrate: Identify the wood, existing finish, damaged boards, and desired appearance before deciding how to prepare the deck.

P / Product: Choose a compatible cleaner, brightener when required, and the exact horizontal-surface stain or hardwood oil.

A / Application: Clean, rinse, complete required brightening, dry, sand where needed, and work full board lengths with an even application.

T / Tools: Use a deck brush, sprayer or sponge for cleaning, garden hose, abrasives, moisture meter, and an appropriate staining brush on a pole. Use wiping cloths for the hardwood-oil procedure.

E / Execution: Replace unsound boards first, follow product-specific coat and drying limits, inspect the finish, handle oily waste safely, and establish a maintenance routine.

Sources and editorial record

[1] Cabot. Technical Bulletin 14: Peeling - Common Causes. Revised February 2008.

[Open source](#)

[2] DeckWise. Wood Cleaner and Brightener: Usage. May 13, 2025. The published brightener dwell is 30 minutes.

[Open source](#)

[3] DeckWise. Wood Deck Cleaner and Brightener. Product system, hardwood cleaning, and brightening guidance.

[Open source](#)

[4] DeckWise. Ipe Oil Hardwood Finish. Product information and moisture guidance.

[Open source](#)

[5] DeckWise. Ipe Oil 250 VOC Use and Care Specifications. Revised December 10, 2019; linked from the current product page when reviewed.

[Open source](#)

[6] Benjamin Moore. Woodlux® Water-Based Waterproofing Stain + Sealer, Semi-Transparent 692. US technical data sheet, July 9, 2025.

[Open source](#)

[7] Benjamin Moore. Woodlux® Water-Based Deck + Siding Exterior Stain, Solid 694. US technical data sheet, June 29, 2026.

[Open source](#)

[8] Sherwin-Williams. SuperDeck Exterior Waterborne Solid Color Stain, SD7-251 Series. Product data sheet 114.70B, March 2025.

[Open source](#)

Manufacturer sources reviewed October 7, 2026. Check the current container, technical data sheet, and safety data sheet for the exact formula in use. Refer product conflicts to the manufacturer before application. Field practice reflects Joshua Christopher's supplied experience; it does not replace product directions. Project photographs supplied by Joshua Christopher.