

Outdoor Finishing Schedule

Clear oil to solid to paint: pick it, prep it, time it, keep it. Label numbers cited; ranges where brands disagree.

01 Pick the finish

FINISH CLASS	LOOK	PROTECTION (UV / WATER)	RECOAT INTERVAL	HOW IT FAILS	BEST FOR
Clear / toner penetrating oil Cabot Australian Timber Oil, Penofin, Ready Seal	Grain and color show; light tint	UV low; water good	Decks 1 to 3 yr; verticals 2 to 4	Fades and wears; never peels	Cedar and redwood furniture you want to look like wood
Semi-transparent stain Cabot Semi-Transparent, Behr Premium, Olympic Elite	Grain shows through color	UV low to medium; water good	Cabot: decks 2 to 5 yr, siding 4 to 8	Fades and wears; no peel	Tabletops, seats, Adirondacks; easiest to renew
Semi-solid stain Cabot Semi-Solid, Olympic Elite Semi-Solid	Hides most grain; texture shows	UV medium-high; water good	Cabot: decks 3 to 6 yr, siding 5 to 10	Wears; can show lap marks; light peel when built up	Weathered or mismatched wood, older PT, planters
Solid-color stain Cabot Solid Color Acrylic, Behr Premium Solid	Opaque like paint; texture shows	UV high; water good	Cabot: decks 5 to 10 yr; 3 to 5 typical smooth wood	Forms a film; peels like paint	Posts, pergolas, planters; deck-rated only on seats
Spar urethane / marine varnish Helmsman, TotalBoat, Epifanes	Glossy amber, wet look	UV inhibitors only; water good while intact	1 to 2 coats yearly in sun	Embrittles, cracks, peels; strip to fix	Covered-porch pieces, doors; not decks
Exterior paint, primer + acrylic SW, Benjamin Moore	Opaque, hides everything	UV best; water best while intact	4 to 5 yr one topcoat; 10 with two	Blisters and peels if wood is wet	Pergolas, posts, planters; poor on decking
Hardwax / UV oil Osmo 420, Rubio Hybrid	Matte, natural, thin	UV medium; water good	Horizontals yearly; verticals 2 to 4 yr	Dries out and grays; no peeling; spot-renewable	Tables, chairs, planters; recoat without stripping
No finish, let it gray	Silver gray in 2 to 4 months	None; surface erodes ~1/4 in per century	Never	Checks, splinters, mildew; structure fine	Fences, cedar sheds; not seating

More pigment = more UV protection and less grain, in that order: clear < semi-transparent < semi-solid < solid. FPL rule: fully exposed horizontal wood does best with a penetrating finish, not a film.

02 By wood + exposure

WOOD	FULL SUN	COVERED PORCH	WAIT-TO-FINISH RULE
PT pine, standard (wet)	Semi-transparent or semi-solid oil stain; no clear film	Same; solid stain or paint once dry	30 days min to 1 to 3 months; water must soak in within 5 sec
PT pine, KDAT	Any finish; treat like dry pine	Any finish	Ready immediately
Cedar (Western red)	Semi-transparent or solid stain; oil for furniture	Any, incl. hardwax oil; varnish only here	Finish within 2 weeks of exposure
Redwood	Semi-transparent with mildewcide; oil for furniture	Any; oil primer under paint stops tannin bleed	Kiln-dried: now; green: air 1 month
Untreated fir / SPF	Semi-transparent stain or paint, all six faces	Paint or solid stain	Paint within 1 week; adhesion drops after 2 to 3
Any species, already gray	Clean, brighten, sand 50 to 80, then semi-solid or solid	Same	Coat 24 h after washing

03 Prep before the first coat

- Final sand 80 to 120 grit. Penetrating stains need open pores; Osmo says never finer than 120, Rubio 80 on decks.
- New smooth cedar or PT: scuff 50 to 60 grit or wash with wood cleaner to break mill glaze.
- Gray or dirty wood: deck cleaner, then brightener (oxalic acid 4 oz/gal warm water). Dry 24 h.
- Meter it. Target 12 to 15%. Hard caps: 12% Ready Seal, 18% Rubio, 20% Osmo and FPL.
- Vacuum, then wipe dust with a clean dry cloth. Dust under a film is grit forever.
- Coat all six faces before assembly: end grain, undersides, joints.

04 Five rules

- Horizontals fail first: seat and tabletop get sun plus standing water. Yearly on top, 2 to 4 yr on verticals.
- Thin coats. Two thin beat one thick (Behr, Osmo, Minwax all say it). Thick stays soft and traps water.
- Penetrating oil: wipe what has not soaked in at 20 to 30 min (Penofin) or 5 min (Rubio). Leftover stays tacky.
- Never film-finish wet PT. Water must darken it within 5 sec and meter under 20%, or it peels.
- Oily rags self-ignite. Lay flat outside to dry, or drown in a sealed metal can of water.
- Winter: furniture off the ground, under a breathable cover. Standing water at the feet is where rot starts.

05 Weather window

FINISH	AIR / SURFACE TEMP	HUMIDITY / WOOD	NO RAIN FOR	SUN / HOT SURFACE	DEW POINT
Oil stains: clear, semi-transparent, semi-solid Cabot, Penofin, Ready Seal	50F+ held 48 h (Cabot); 45 to 80F (Penofin)	Wood ≤12% MC (Ready Seal); porosity test on new PT (Cabot)	Not when rain is imminent; 24 h after (Penofin)	Avoid hot boards and direct sun	Use the paint rule
Water-based stains Cabot Solid Acrylic, Behr, Olympic	50F+ held 48 h (Cabot); 35 to 90F (Behr)	50 to 70% RH ideal (Olympic)	Rain-resistant 2 to 4 h; 24 h after rain	No direct sun or hot surfaces	Use the paint rule
Spar urethane / marine varnish	45 to 105F (TotalBoat); label ref 77F	≤85% RH	Until dry: 1 h at 80F, 8 h at 50F	Avoid applying or curing in sun	Stop mid-afternoon; evening dew blushes it
Hardwax / UV oil	50 to 86F (Rubio)	Wood ≤18% (Rubio), ≤20% (Osmo)	24 to 36 h; rub dry if rained on	Ventilation; shade	Use the paint rule
Exterior acrylic paint	35 to 90F (SW); 35 to 100F (BM); hold 48 h	As low as possible	2 to 3 h (acrylic); 8 h (oil-based)	Avoid direct sun; hot paint skins	Surface 5F+ above dew point

Weather-app dew point plus 5F is the go/no-go for anything film-forming. A cold night after a warm day is the usual failure.

06 Dry, recoat, and maintenance

FINISH	DRY TO TOUCH	RECOAT WINDOW	FULL USE / CURE	MAINTENANCE CYCLE
Clear oil Cabot ATO, Penofin, Ready Seal	3 to 4 h (Penofin)	Cabot: one coat only; Penofin: wipe excess at 30 min	12 h use; 24 h water; 4 to 7 days cure (Penofin)	Horizontals 9 to 24 months; verticals 3 to 4 yr
Cabot Semi-Transparent oil	24 to 48 h	One coat only	Dry 24 to 48 h before use	Decks 2 to 5 yr; siding and fences 4 to 8; check each spring
Cabot Semi-Solid oil	About 24 h	One coat only	Dry 24 h before use	Decks 3 to 6 yr; siding and fences 5 to 10
Cabot Solid Color Acrylic water	4 to 6 h	Two coats required	24 h before furniture goes back	Decks 5 to 10 yr; evaluate each spring
Water-based semi-trans / solid Behr, Olympic	1 to 4 h	1 to 2 h (Behr); 4 to 72 h (Olympic)	24 to 48 h light use; 72 h cure	Yearly splash test; recoat when water soaks in
Spar urethane Helmsman	4 h recoat; 6 h before sanding	4 h min; 220 grit between; 3 coats outside	24 h normal use	Inspect yearly; scuff and add a coat
Marine varnish TotalBoat, Epifanes	1 h at 80F; 3 h at 65F; 8 h at 50F	Within 48 h no sanding; after, 320 grit; 4 to 6 coats	Give it days	1 to 2 coats yearly in sun; 1 per 3 to 5 yr covered
Hardwax / UV oil Osmo, Rubio	Osmo 12 h between coats; Rubio 24 h	Osmo 2 coats; Rubio 1 coat, wipe at 5 min	Rubio 7 days full cure	Rubio yearly on tables and chairs; Osmo 3 to 4 yr siding
Exterior paint SW Duration	1 h at 45F+	4 h at 45F+; 24 to 48 h at 35 to 45F	Hold above 35F for 48 h	4 to 5 yr one topcoat; 10 with two

Dry times assume the label reference (about 77F, 50% RH). Cooler, damper, or thicker means longer. Cabot oil stains are one coat; a second coat will not dry.