

The Best Marine Varnish: Exterior Wood Finish Tests

Two-part varnishes leading in durability as long-term test reaches 24-month mark.

By [Darrell Nicholson](#) - **Published:** August 16, 2011 **Updated:** June 17, 2020



After two years of testing, its apparent that two-part varnishes are the most durable type of exterior wood finish.

Like spotting land after a long passage, we were glad to say that the end of our long-term exterior wood finishes

test is finally on the horizon. Time, weather, and Southwest Floridas unrelenting sunshine have clearly taken their toll on the test panels over the last 24 months, and as the evaluation moves into its third year, only 19 of the original 54 test products will continue on in our survival-of-the fittest finish matchup. Given that most wood coatings are rarely expected to last longer than two years in the marine environment-particularly in super-sunny locales-its no surprise that we've seen more significant changes in the coatings in the last six months than we had in previous checkups.

Our search for the ideal wood finish-relatively easy to apply, easy to maintain, lasts multiple seasons, and is affordable-began in 2007 when we took a look at the different types of exterior wood finishes on the market, their pros and cons, and how easy they were to apply ([one-part varnishes](#), August 2007; [varnish alternatives](#), October 2007; [two-part varnishes](#), December 2007; [teak oils and stains](#), April 2008). Launched in 2008, the long-term panel test aimed to determine which type of coating offers the best and longest protection and which products stand out among their peers.

We hope the comparison enables readers to decide which finish best matches their own taste, potential labor investment, and wood protection needs.

We've rated the test products every six months and reported on the coatings durability in the May 2009 issue ([six-month checkup](#)), December 2009 issue ([12 months](#)), and January 2011 ([18 months](#)) issues. Here, we offer the two-year report on the survivors.

How We're Testing the Marine Varnishes

Testers applied dozens of exterior wood finishes (22 one-part varnishes, six two-part varnishes, 18 synthetics and satins/varnish alternatives, and eight teak oils and sealers) to small panels of bare solid teak. Each was assigned a number for blind judging and was

applied per manufacturers instructions. If makers gave a range for the number of coats to apply, testers went with the minimum.

Initial testing rated each products ease of application and original gloss and reflective qualities. In the summer of 2008, the test panels were mounted on a wooden rack (aka: The Rack), which was set up in an unobstructed area on the roof of the PS workshop in Sarasota, Fla., to ensure that all panels received the same amount of weather exposure. The top part of each panel was covered to create a control area that testers used for comparison over time. Every six months, we disassembled The Rack and rated the panels on how well their coating integrity, gloss, and color had fared over time with constant exposure to the elements.

The test was designed as an endurance test, a fight to the finish, so we have not done any maintenance coats or touch-ups to the test panels. These products can be expected to have much longer lifespans if they are regularly maintained.

How We're Rating the Marine Varnishes

Testers rate each panel on three long-term performance criteria: coating integrity, gloss retention, and color retention. Excellent and Good coating integrity ratings mean that no maintenance is needed; a Fair indicates that its time for a maintenance coat; Poor means the fat lady has sung, and the coating would need to be removed and re-applied. Excellent ratings are given only to those with an uncompromised coating. This time, panels with Poor and Fair- coating integrity were pulled from the test.

Color and gloss retention ratings are relative to the panels original finish. Initial gloss and ease of application are relative to the field within each coating category; these were assigned immediately after the panels were coated.

It was tougher to pick Recommended coatings at the two-year mark, as most wood finishes aren't intended to go that long without maintenance. One-part varnishes that earned PSs recommendation this go-round were rated Fair for coating integrity (none rated better than Fair) and had no Poor ratings. Recommended two-part systems rated Good or better for coating integrity with no Poor ratings. No varnish alternatives or teak oils/sealers were recommended at two years.

VALUE GUIDE: Varnish Alternatives

PRODUCT	PRICE	AFTER 2	GLOSS	COLOR	AFTER 1	GLOSS	COLOR
		YEARS COAT INTEGRITY	RETENTION	RETENTION	YEAR COAT INTEGRITY	RETENTION	RETENTION
Epifanes Rapidclear	\$26/ quart	Poor	Poor	Fair	Fair	Good	Fair
Interlux Sikkens Cetol Marine (alone)	\$25/ quart	Fair	N/A	Fair+	Excellent	N/A	Good
Interlux Sikkens Cetol with Marine Gloss	\$25/ quart (Gloss \$28)	Fair+	Poor	Good	Excellent	Excellent	Good
Interlux Sikkens Cetol Marine Light (alone)	\$25/ quart	Fair	N/A	Fair	Good+	N/A	Fair
Interlux Sikkens Cetol Marine Light with Marine Gloss	\$25/ quart (Gloss: \$28)	Fair+	Poor	Good	Excellent	Excellent	Good
Interlux Sikkens Cetol Natural Teak with Marine Gloss	\$26/ quart (Gloss: \$28)	Fair-	Fair	Poor	Good	Good	Fair
Le Tonkinois Bio Impression with Vernis	N/A	Fair	Poor	Fair	Good	Fair	Fair
West Marine WoodPro	\$30/ quart	Poor	Poor	Fair	Fair	Fair	Fair

Plus Semi-Gloss

WoodPlus Marine Natural	\$21/ quart	Fair-	Poor	Poor	Good	Good	Fair
Ace Spar Varnish Gloss 16373	\$13/ quart	Fair-	Fair-	Good	Good	Good	Good
Coelan (with primer)	\$145/ kit	Fair-	Fair	Fair-	Excellent	Excellent	Good
Deft Defthane Poly Satin	\$13/ quart	Fair-	Poor	Fair-	Excellent	Good	Good
Detco Crystal	\$41/ quart	Good-	Fair	Fair-	Good	Good	Good
Epifanes Clear High Gloss	\$27/ quart	Fair-	Fair-	Good	Excellent	Excellent	Good
Epifanes Wood Finish Gloss	\$36/ quart	Fair	Poor	Fair	Excellent	Excellent	Good
HMG K Type Varnish	\$30/ liter	Poor	Poor	Poor	Excellent	Good	Fair
Interlux Goldspar Clear	N/A	Fair+	Fair-	Fair+	Good	Excellent	Good
Interlux Jet Speed	N/A	Fair	Poor	Fair	Fair	Fair	Good
Interlux Schooner	\$23/ quart	Fair+	Fair-	Poor	Good+	Good	Fair
Le Tonkinois No. 1	\$35/ liter	Fair-	Poor	Fair	Fair	Fair	Good
Le Tonkinois Vernis	\$33/ liter	Fair+	Fair-	Fair+	Excellent	Fair	Good
Minwax In/Outdoor Helmsman	\$17/ quart	Fair	Fair	Poor	Good	Good	Fair

**Spar
Urethane**

Pettit Bak V-Spar 2053	N/A	Fair-	Poor	Poor	Fair	Poor	Fair
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Pettit Z-Spar 2015 Flagship	\$30/ quart	Fair	Fair	Fair	Good	Excellent	Good
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Pettit Z-spar Captain's Ultra Clear 2067	\$30/Quart	Fair+	Fair	Fair	Excellent	Good	Fair
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Pettit Z-Spar Captain's 1015 Traditional Amber	\$28/ quart	Fair-	Poor	Fair	Excellent	Good+	Good
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Pettit Z-Spar Captain's EZ Care 1016 (Woolsey)	N/A	Fair	Fair-	Good	Good	Good	Good
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West Marine 5-Star Premium	\$32/ quart	Fair-	Poor	Fair	Excellent	Good	Fair
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**TWO-PART
SYSTEMS**

Bristol Finish, Traditional Amber	\$70/ kit (1 quart)	Poor	Fair	Good	Fair	Excellent	Good
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HMG Acrythane XSC	\$45/ liter	Fair	Good	Fair+	Good+	Excellent	Good
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Honey Teak with overcoat	\$2/ sq. ft.	Fair-	Good	Fair	Fair	Good	Good
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Interlux Perfection	\$60/ kit (1 quart)	Excellent	Excellent	Good	Excellent	Excellent	Good
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Nautiking	\$120/ kit (1 quart)	Good	Good-	Good	Excellent	Excellent	Good
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NautiThane

Smith Five-	N/A	Good	Good	Fair	Good+	Excellent	Good
Year Clear							

What We Found

What a difference a season makes! With the exception of a few two-part products, the test coatings had lost their sparkle at the two-year mark. Ratings slipped across the board. The UV abuse had obviously taken its toll, sucking the life out of most of the coatings, particularly the clear finishes.

Those clinging to life with Fair coating integrity are still protecting the wood, but they've lost their looks. In the real world, all of the one-part varnish and varnish alternative test panels would be due for a maintenance coat, and some-like HMG K Type Varnish, West Marine WoodPro Plus (rebranded Epifanes Rapidclear), and Ace Spar Varnish-would be overdue.

The biggest overall decline was within the one-part varnish test group: Not a single one rated better than Fair for coating integrity or gloss retention, and nearly half of the test field was retired after this rating round. Just six months before, eight of the 19 products rated Good for coating integrity and six rated Good for gloss retention. In 12 months, seven dropped from an Excellent coating integrity to a Fair.

The one-part varnishes offering the most protection after two years are Detco Crystal, Le Tonkinois Vernis, and Pettits Z-Spar Captains 2067. However, their extended protection comes with tradeoffs: Detco rated only Fair for application, Le Tonks gloss started to slip after one year, and Pettits 2067 started losing its original color after 12 months.

One hardware store varnish has surprisingly held its own over the long haul: Minwax Helmsman Spar Urethane. At half the cost of the Recommended one-part varnishes, Minwax slacked in the color retention department, but it has proven its multi-season durability.

Four of the nine varnish alternatives have been voted off The Rack after two years, and none performed well enough to earn our recommendation for two-year wood protection.

Two of the top performers, Interlux Perfection and Cetol Marine Light (with gloss) managed to

hold on to their original color well through two

The Cetol products are still at the head of the pack, albeit a somewhat heavy, looking pack. The cloudy, opaque look of the Cetol Marine and Marine Light products may not appeal to everyone, but the fact they've maintained their color for more than a year is a good example that higher-solids finishes tend to offer better UV protection.

The Cetol Natural (with gloss) test panel fell from a Good coating integrity six months ago to being dropped from testing. Its performance mirrors what we've seen in the field: Give it a little loving once a year with a scrubby pad and a fresh coat, and it'll last the long haul.

It's taken two years, but the two-part varnishes are finally starting to show their age. Surprisingly, the first products to be dropped from this group are two that performed well in past PS tests: Bristol Finish and Honey Teak. This is likely because the life of a wood finish in Florida is always going to be shorter than in our past test locales in New England.

The other two-parts are still holding up well, with Interlux Perfection and Nautiking Nautithane offering uncompromised protection and better-than-expected gloss after 24 months. Perfection has been reformulated since the test began and is now sold as Perfection Plus.

The temporarily discontinued (since 2009) Smiths Five Year Clear has also proven to be a top-notch finish, but it's not available at this time.

While HMG Acrythane XSC didn't earn our Recommendation this time, it was a top 18-month finish, it still looks good, and it costs less than the Nautithane.

Conclusions About Exterior Varnishes

After two years of testing, we've come to accept that perhaps there's no Holy Grail of exterior wood finishes. It would appear, unfortunately, that we can't have it all: easy to apply, easy to maintain, long-lasting protection, and a budget-friendly price tag. The reality is that, like much in life, wood protection is all about compromise and balancing your needs with your wants.

There's no one-size-fits-all solution, and the boat owner who finds gratification in the wet, glossy look of a two-part varnish borne of painstaking preparation and careful application will weigh our test data much differently than the one who regards brightwork maintenance as a masochistic endeavor. For the latter, we recommend seeking out a varnish alternative (easy to apply, easy to maintain) that suits your tastes. With modest maintenance, the Cetol products with gloss overcoats have proven to be the most durable.

For areas where slippery-when-wet coatings won't do, Cetol Natural (without gloss overcoat) or our top-pick teak oil, Star Brite Tropical Teak Sealer (classic teak) should be considered. The Star Brite will need to be reapplied every three or four months.

If you're looking for a harder, more abrasion-resistant finish that'll make it past the year mark, check out the top one-part varnishes like Detco Crystal or Pettits Z-Spar Captains

2067. Boat owners in sailing areas that see less sunshine than our Florida test site

a little more work upfront and quick attention when they are scratched or dinged, but they also offer a more traditional, high-gloss look. The one-part varnishes in our test slipped dramatically after a year and half, so we suggest an annual maintenance coat, whether they look like they need it or not.

As this test has shown, when it comes to long-lasting protection and gloss, two-part varnishes just can't be beat. They may be a pain to apply-and should you let the coating fail, you had better invest in a heat gun-but their durability is unmatched.

The top two-part after two years of testing was Interlux Perfection. Because we've not yet tested the reformulated Perfection, the top pick honors go to Nautikings Nautithane. While its price tag (\$120 per quart kit) is a bit hard for most of us to swallow, Nautithane earned across-the-board Good ratings after two years.

WHEY OVERDUE FOR A RECOAT

1. Crew backs rubbing against the Cape Dory coaming made short work of the PolyWhey finish.

Practical Sailor often supplements panel testing with product challenges aboard our test boats to see whether top products still earn their keep in the real world and to try out new products. Two such evaluations are our exterior wood finish tests.

In the January 2011 issue, we introduced a head-to-head matchup of varnish alternatives—market-newcomer PolyWhey from Vermont Natural Coatings versus perennial favorite Interlux's Sikkens Cetol Natural Teak—that had been applied to our Cape Dory 25 test boat. For that test, we've just let nature run its course: no band-aid touchups, no maintenance coats, no freshwater rinses, no TLC at all.

Comparatively, we've been testing Cetol Natural aboard our Chesapeake Bay-based Union 36 test boat, where it was laid on with the Cetol gloss overcoat in 2008; in this evaluation, testers have applied annual maintenance coats and given the coating regular TLC. Here's the latest on both of these tests:

PolyWhey vs. Cetol Death Match

2. The Cetol Natural Teak with Cetol Marine gloss overcoat still looks good on our Union 36 test boat three years after application.

In the fall of 2010, testers applied three coats of Caspian Clear PolyWhey to the coamings and companionway trim on the Cape Dory, which is sailed several times a week and lives on a mooring in Sarasota Bay, Fla. We also applied Cetol Natural to the boat's toerail, and previously had applied it to the tiller and forward hatch trim.

PolyWhey is a unique wood finish that uses whey protein, a by-product of the cheesemaking process, as a binder. It's touted as a more eco-friendly and more sustainable coating than petroleum-based polyurethanes, which can have up to 75 percent more volatile organic compounds (VOCs).

Consistently among the top varnish alternatives in PS's tests, Cetol Natural is not as muddy-looking as its predecessors, Cetol Marine Light and Cetol Marine—like the Caspian Clear, it allows the wood's natural grain to show and has a low gloss.

As far as application, both the Cetol and PolyWhey are quick and easy to apply, with much shorter recoat times than hard varnishes and less (or no) sanding between coats. The main difference that we found in these two finishes was with durability.

The PolyWhey turned out to be a much softer coating than the Cetol. It held up for about two months, but after three months, it was in need of a recoat, and at six months, it needed a total takedown—and Cetol had emerged as the death-match victor.

The PolyWhey on the coaming was the first to go: Where crew backs often lean against the wood, the finish was all but gone after four months. The PolyWhey on the companionway slides held on for about that long, but by six months, they were ready for a do-over as well.

The Cetol on the toerail was in need of a few touchups after six months, mostly in areas where fenders and docklines came in contact with it. But the tiller and hatch trim were still fairly well-protected almost a year after application. Although we'd recommend a maintenance coat at this point, testers plan to see how many more months we can eek out of the coating before we reach the point of no return.

Bottom line: We applaud VNC's efforts to offer a "green" wood finish—and their creative recycling of dairy industry "trash"—but we can't recommend it over Cetol for an exterior coating in the marine environment.

3. Even with the gloss overcoat, Cetol does not protect from dings as well as a urethane varnish.

Cetol with Overcoat

Testers applied three coats of Cetol Natural with Cetol Marine Gloss overcoat to the Union in March 2008. Once a year, we scuff it up with a 3M pad, give it a freshwater rinse, and brush on a maintenance coat.

Compared to a clear, glossy varnish, it looks decent and the maintenance regimen is more realistic for our tastes and available time. However, one downside to softer, varnish alternative coatings—even those with an overcoat—is that they don't stand up as well as hard finishes to dings and abrasion. Example: The Union's toerail has one place in need of touching-up where a fender line wore away the finish. (See photo above.)

Bottom line: The Cetol Natural with overcoat has held up very well. While applying the topcoat may mean added effort, both our panel tests and test-boat evaluations have shown that the coating will last much longer and need fewer bandaids if the soft Cetol is protected with the semi-hard topcoat.

Conclusion

Teak oils and other naturally based finishes like PolyWhey, need maintenance coats every few months. Their chemical cousins, however, like Cetol, have proven they can offer good protection with only annual nurturing and the occasional touchup.

Contacts

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- [C-Tech Marine \(Bristol\)](#)
- [Deft Finishes](#)
- [Deks Olje](#)
- [Detco](#)
- [Epifanes](#)
- [HMG Marine](#)
- [Interlux](#)
- [Le Tonkinois](#)
- [MinWax](#)
- [Nautiking](#)
- [Pettit](#)
- [Premapro \(Coelan\)](#)
- [Signature Finishes](#)
- [Smith's Five Year Clear](#)
- [Vermont Natural Coatings](#)
- [West Marine](#)
- [Woodplus Marine](#)

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