Far From Finished

Dozens of wood coatings still look good after 1 year.

Science and technology have turned the once-simple task of choosing a wood coating into a brain-numbing chore best suited for those with a degree in chemistry. From the basic, old-school tung oil or spar varnish, coatings have evolved into synthetic concoctions that last longer, protect the wood better, and are easier to apply. Their formulas include blockers for UV rays, additives we can't pronounce, and pigments that look more like paint.

To help navigate this coatings evolution, we mounted a long-term test of exterior wood coatings in 2007 in search of the ideal finish among the tried-andtrue and the market newcomers. We refrained from limiting the test to a single type of exterior coating and are instead looking for an overall all-star. We've kept the test field broken into type categories—one-part varnishes, two-part varnishes, synthetics and treatments, and sealers and oils—which hopefully will make it easier to digest and also will allow an apples-to-apples and apples-to-oranges comparisons. Our goal is to find an exterior wood finish that is relatively easy to apply, easy to maintain, lasts for multiple seasons, and won't break the bank.

This long-term exposure test began with reports on the application and original finish of more than 50 products in the August 2007 (one-part test varnishes), October 2007 (varnish alternatives), December 2007 (two-part varnishes), and April 2008 (teak oils and stains) issues. Our first evaluation of the coatings' durability was reported in May 2009. Six-months later, testers returned to the test rack to see how the finishes fared after a year in Florida.



PS testers evaluated each wood finish panel in natural light and in controlled lighting conditions. The panels were rated for coating integrity and color and gloss retention.

HOW WE TESTED

Testers are evaluating the wood coatings based on three main criteria: ease of application; the integrity of its gloss and appearance; and how it fares over time under real-world conditions. The results, listed in the Value Guides on pages 14 and 15, will determine which type of coating offers the best and longest protection, and they will show which products stand out among their peers.

Each product was applied per manufacturers' instructions to a section of bare solid teak, and each panel was assigned a number to ensure blind judging.

Testers rated each product's ease of application—how smoothly it went on, how complete the instructions were, and how simple the process was. With the varnishes, testers also evaluated the original gloss' shine and reflective qualities. Coatings intended to have matte or semi-gloss finishes, like teak oils and stains, received no "original gloss" rating.

In summer 2008, the panels were mounted on a rack in an unobstructed area on the roof of the *Practical Sailor*

workshop in Sarasota, Fla. The rack was set up at a 45-degree angle to ensure that all panels received the same amount of exposure to the weather and sun. The top part of each panel was covered, giving testers a control area to compare the weathered area and original finish over time.

HOW WE RATED

After a year exposed to the Florida weather, the finished panels were rated for coating integrity, color retention, and gloss retention. Coating integrity ratings took into account the entire panel. Excellent ratings were given only to those with a totally uncompromised coating. Panels with Poor ratings were pulled from the test.

Color and gloss retention ratings are relative to the panel's original finish, not the finish of other coatings. So although a panel may have had only a Fair rating for its initial gloss, if it maintained that same level of gloss for six months, it earned an Excellent for gloss retention.

Continued on page 15

PRACTICAL SAILOR DECEMBER 2009 13

PS VALUE GUIDE	ONE-PAR	T VARNIS	HES AND T	WO-PART	SYSTEM	IS			
PRODUCT	PRICE/ SOURCE		AFTER ONE YEA		APPLICATION AND DAY 1 RATINGS				
		COATING INTEGRITY	GLOSS RETENTION	COLOR RETENTION	EASE OF APP.	GLOSS / FINISH	COATS REQUIRED	RECOAT	SAND*
Ace Polyurethane Clear Finish Gloss 16377	\$9	Excellent	Good	Fair	Good	Good / Clear	>2	48 hours	Yes
Ace Spar Varnish Gloss 16373 \$	\$8	Good	Good	Good	Excellent	Good / Clear	4	4 hours	Yes
Coelan (with primer)	\$144 / kit	Excellent	Excellent	Fair	Good	Excellent / Warm	3-5 (+2 primer)	Tack free (about 4 hrs.)	No
HMG Coma Berenice	\$30 / liter	Good	Good	Fair	Good	Excellent / Clear	5	6 hours	Yes
Detco Crystal	\$35 / quart	Good	Good	Good	Fair	Good / Clear	10-12	Overnight	Yes
Epifanes Clear High Gloss 🖊	\$30/ quart	Excellent	Excellent	Good	Good	Excellent / Clear	7-8	24 hours	Yes
Epifanes Wood Finish Gloss	\$36 / quart	Excellent	Excellent	Good	Good	Excellent / Clear	5-7	24 hours	No
HMG K Type Varnish	\$27 / liter	Excellent	Good	Fair	Good	Excellent / Clear	5-10	12-18 hours	Yes
Interlux Goldspar Clear ²	\$27 / quart	Good	Excellent	Good	Good	Excellent / Clear	5-6	8-12 hours	Yes
Interlux Jet Speed Varnish	\$21 / quart	Fair	Fair	Good	Excellent	Excellent / Clear	5-6	4-6 hours	Yes
Interlux Schooner ²	\$26 / quart	Good+	Good	Fair	Good	Good / Warm golden	5-6	8-12 hours	Yes
Le Tonkinois No. 1	\$30 / liter	Fair	Fair	Good	Excellent	Excellent / Clear	6	24 hours	Yes
Le Tonkinois Vernis	\$30 / liter	Excellent	Fair	Good	Excellent	Excellent / Clear	6	24 hours	Yes
Minwax In/Outdoor Helmsman Spar Urethane	\$14 / quart	Good	Good	Fair	Excellent	Excellent / Clear	> 2	4 hours	Yes
Pettit Bak V-Spar 2053 ²	\$14 (pint)	Fair	Poor	Fair	Excellent	Excellent / Clear	2-6	Overnight	Yes
Pettit Z-Spar 2015 Flagship 🖊	\$29 / quart	Good	Excellent	Good	Excellent	Excellent / Clear	>4	4-8 hours	Yes
Pettit Z-Spar Captain's Ultra Clear 2067	\$39 / quart	Excellent	Good	Fair	Excellent	Excellent / Clear	2-6	Overnight	Yes
Pettit Z-Spar Captain's 1015 Traditional Amber	\$25 / quart	Excellent	Good+	Good	Good	Good / Amber	>4	Overnight	Yes
Pettit Z-Spar Captain's EZ Care 1016 (Woolsey)	\$34 / quart	Good	Good	Fair	Excellent	Good / Amber	3	24 hours	No
West Marine 5-Star Premium	\$30 / quart	Excellent	Good	Fair	Good	Excellent / Clear	7-8	24 hours	Yes
			TWO-PAR	T SYSTEMS					
Bristol Finish, Traditional Amber	\$60 per kit (1 quart)	Fair	Excellent	Good	Excellent	Excellent	4-6	1-24 hours	No
HMG Acrythane XSC 🛩	\$38 / liter kit	Good+	Excellent	Good	Good	Good	4-6	4-8 hours	Yes
Honey Teak with overcoat	\$2 / sq. ft.	Fair	Good	Good	Excellent	Excellent	3 (+2 overcoat)	1-3 hours	No
Interlux Perfection ¹	\$58 per kit (1 quart)	Excellent	Excellent	Good	Good	Excellent	5-7	Tack free (4-6 hours)	Yes
Nautiking NautiThane <u>//</u>	\$63 per kit (quart)	Excellent	Excellent	Good	Excellent	Good	4-6	Tack free (3-5 hours)	No
Smith & Co. Five-Year Clear 🖊	Call for quote	Good+	Excellent	Good	Good	Excellent	Coat to 10 mils	8 hours	No
✓ Recommended \$ Budg	get Buy		*Sa	and between c	oats. ¹ Fori	mula changed s	ince test beg	gan. ² Discont	inued.

14 DECEMBER 2009 WWW.PRACTICAL-SAILOR.COM

VALUE GUIDE VARNISH ALTERNATIVES, TEAK OILS, AND TEAK SEALERS											
PRODUCT	PRICE	AFTER 1 YEAR			APPLICATION AND DAY 1 RATINGS						
		COATING INTEGRITY	GLOSS RETENTION	COLOR RETENTION	EASE OF APP.	GLOSS / FINISH	COATS REQUIRED	RECOAT	SAND*		
Deks Olje No. 1 with No. 2 overcoat	\$19 (1); \$25 (2)	Good	Fair	Good	Fair	Honey brown / Satin	Many (1) 3-6 (2)	15 mins. (1) 12 hours (2)	Yes		
Epifanes Rapid Clear	\$28 / quart	Fair	Good	Fair	Excellent	Clear / Satin	4-5	5-6 hours	No		
Interlux Sikkens Cetol Marine (alone)	\$30	Excellent	NA	Good	Excellent	Opaque amber / Matte	2	24 hours	No		
Interlux Sikkens Cetol Marine with Marine Gloss 🖊	\$31 (Gloss \$33)	Excellent	Excellent	Good	Good	Opaque amber; clear overcoat / Satin	2 (+2 gloss)	24 hours	No		
Interlux Sikkens Cetol Marine Light (alone)	\$30	Good+	NA	Fair	Excellent	Opaque light amber / Matte	2	24 hours	No		
Interlux Sikkens Cetol Marine Light with Marine Gloss 🖊	\$30 (Gloss: \$33)	Excellent	Excellent	Good	Good	Opaque amber; clear overcoat / Satin	2 (+2 gloss)	24 hours	No		
Interlux Sikkens Cetol Natural Teak (alone)	\$30	Fair	NA	Fair	Excellent	Golden- translucent/ Matte	2	24 hours	No		
Interlux Sikkens Cetol Natural Teak with Marine Gloss 🛩	\$30 (Gloss: \$33)	Good	Good	Fair	Good	Golden- translucent, clear overcoat / Satin	2 (+2 gloss)	24 hours	No		
Le Tonkinois Vernis Bio Impression with Vernis	\$39, \$30 / liter	Good	Fair	Fair	Good	Warm, dark amber / High gloss	3-4 (+6 Vernis)	30 mins (Bio) 24 hrs.	Yes		
TeaQua	\$35	Poor	NA	Poor	Excellent	Rich brown / Matte	2	30 minutes	No		
West Marine WoodPro Plus Semi-Gloss ¹	\$35	Fair	Fair	Fair	Good	Clear / Satin	4-6	4-5 hours	No		
WoodPlus Marine 🖊	\$25	Good	Good	Fair	Excellent	Reddish brown / Low gloss	2-3	4-6 hours	No		
			TEAK	OILS AND SEA	LERS						
Star brite Tropical Teak Sealer (Classic Teak)	\$29	Poor	NA	Poor	Excellent	Opaque, warm brown / No gloss	1-2	None	No		
✓ Recommended				*Sano	between	coats. 1 West Marine	's re-brande	d Epifanes Ra _l	pid Clear		

Continued from page 13

Initial gloss and ease of application are relative to the field within each coating category, and these were assigned immediately after the panels were coated.

ONE-PART VARNISHES

A year into our long-term exposure test, 20 of the original 22 one-part varnishes are still in the running. In real-world application, those rated "Fair" for coating integrity (See Value Guide, page 14) would be due for a maintenance coat, but none have failed to the point that would make a fresh coat or touch-ups difficult.

Three panels dropped from Excellent to Fair ratings in coating integrity at the one-year mark: Pettit Bak V-Spar, Interlux Jet Speed varnish, and Le Tonkinois No. 1. The V-Spar coating appears to have simply worn away—no cracking or peeling—so a maintenance coat would require minimal sanding. While it fared well in past tests and in the six-

month checkup for this test, the Interlux Jet Speed is not recommended by makers for use on exterior wood unless an overcoat is applied.

The Jet Speed and Le Tonkinois No. 1 also were among a handful of finishes that lost most of their luster, earning a "Poor" for gloss retention. These two, along with Le Tonkinois Bio with Vernis overcoat and Le Tonkinois Vernis, showed tiny, barely perceptible cracks in the coating. The finish, upon close inspection, looked very much like dry, winter-ravaged skin.

Le Tonkinois distributor, American Rope & Tar, recommends re-coating the finish as soon as it begins to look dull: "Le Tonkinois is not a no-maintenance varnish, but is a low-maintenance varnish," they explained.

The varnish panels that saw the biggest change in color after a year in the Florida sun were those finished with Coelan (with primer) and Interlux's Schooner. The Coelan panel, originally a medium brown color, took on

a reddish-amber hue. The coating is still very much intact, and its gloss is still excellent. (We would expect no less of a varnish that costs nearly \$150 per kit and requires a primer.) The Schooner lightened from a warm golden brown to a light amber.

Since our test began, Pettit discontinued its Bak V-Spar and Interlux replaced Schooner and Goldspar Clear and reformulated Perfection, boosting UV protection and making other performance tweaks. The new coatings hit store shelves this fall and are being sold as Schooner Gold, Compass, and Perfection Plus. The Compass is being marketed as a fast-dry finish with a three-hour re-coat time. These will be included in future tests.

While most of the varnishes are still performing well after a year, testers' top picks so far are Epifanes' Clear High Gloss and Wood Finish Gloss, and Pettit's Z-Spar 2015 Flagship and Captain's 1015 Traditional Amber. They also were impressed with Interlux Goldspar Clear

PRACTICAL SAILOR DECEMBER 2009 15

Weighing the Pros and Cons of Exterior Wood Coatings

hen it comes to coating wood, there's no definitive answer, no single product or even product category, that will suit everyone's needs. To help you make that decision, we offer Wood Finishes 101:

VARNISHES: One- and two-part varnishes are clear, hard coatings that show off the wood's natural beauty. They come in a variety of glosses, from the classic wet look to a matte finish, which is less slick and has less glare.

Pros: These will typically last longer than other types, requiring less frequent application and maintenance.

- They offer a more abrasion-resistant finish.
- Varnishes offer that classic, mirror-like look.
- Two-part systems are regarded as being more durable than single-parts.

Cons: Prep and application are more labor-intensive and require a more careful hand.

- They tend to show nicks and scratches more readily than lowgloss or matte finishes, and the hard barrier will blister if moisture migrates up through fastener holes.
- The hard coatings may crack or peel, requiring spot maintenance or—if not maintained well—stripping and re-applying.
 - The super-hard shell makes touch-ups more laborious.

SYNTHETICS AND STAINS: Synthetics and stains come in a range of glosses, but even with an overcoat, will not achieve the wet look of a varnish. Many have added pigments

that can turn the wood red, yellow, or opaque brown.

Pros: Application is a breeze: They require fewer coats than varnish, dry faster, and require little or no sanding between coats.

- Some combine an oil-based bottom coat and a glossy sealer coat to offer the deep penetration of an oil and a hard varnishlike shell.
 - They are more flexible than varnish.
- Their opaque nature and high solids content offer better protection from harmful UV rays than a clear varnish.

Cons: These softer finishes will need to be reapplied more frequently than varnish but less frequently than teak oils.

•Pigments can mask the wood's grain.

TEAK OILS AND SEALERS: What sets a teak oil and a teak sealer apart is the amount of solids in the product. Sealers usually have a higher percentage of solids than oils, offering better UV protection, and last longer than oils.

Pros: These are easy and fast to apply.

- They penetrate deep into the wood.
- The soft finish resists blistering and cracking and does not show nicks and scratches as easily as a hard coating.
 - These make the most of teak's nonskid properties.

Cons: They do not last as long as other finishes, requiring reapplication every three to four months.

- They lack the hard protection of varnish or a gloss overcoat.
- Some oils attract dirt and encourage mold and mildew growth as the coating fails.

and Coelan, but the Goldspar is no longer available and the Coelan's significant color change dropped it from the top ranking. Those finishes that are skating on thin ice going into the next round of testing are Interlux Jet Speed, Le Tonkinois No. 1 and Pettit





Honey Teak



The Bristol failed along the panel front (top). The Honey Teak, surprisingly, failed along the edges (bottom) and allowed mildew growth. But the panel front remained flawless (middle).

Bak V-Spar.

Bottom line: The Best Choice varnishes after a year are Pettit's Clear High Gloss and its Wood Finish. The Budget Buy one-part varnish is the oilbased Ace Spar Varnish Gloss (16373), which rated "Good" in every test and has a dirt-cheap price: \$8 per quart.

TWO-PART VARNISHES

Not surprisingly, all six of the original contestants still remain in the two-part varnish matchup. There were, however, a few surprises in this category, which is typically thought to offer the best single-application longevity compared to one-part varnishes and synthetics or oils.



The TeaQua panel showed significant weathering and allowed mildew growth.

C-Tech Marine's Bristol Finish and Signature Finishes' Honey Teak twopart varnishes have generally tested quite well in past tests. But after a year in this long-term test, both are already showing signs of compromised coating integrity.

The Honey Teak is failing along the panel edges. On a boat, these areas would need to be cleaned and sanded well before any touch-up would be possible. The failure along the panel sides could possibly be attributed to thinner application to those areas. Maker Signature Finishes also was surprised by the early failure. "Premature failure is generally due to an insufficient amount of the honey base, which contains all the UV" protection, maker Tom Fabula explained. "Thank goodness this product can be spot repaired invisibly, and a coat of the honey base on top of previous clear topcoats will bring the longevity up to par."

The Bristol finish is pulling away at

DECEMBER 2009 WWW.PRACTICAL-SAILOR.COM







These Recommended finishes performed at the top of the class. The left side of each panel was the control area.

the bottom edge, and there are a few small bare spots on the panel front. These appear to be nicks that would be easily repaired with a touch-up routine. (See page 18 for more on touching up finishes and maintenance coats.) The Honey Teak and Bristol both have shown excellent gloss and color retention, however.

Testers' overall favorites in this group after one year are Interlux Perfection, Nautiking Nautithane, and the Smith & Co. Five-Year Clear. None of these two-part systems are cheap, but they should last longer than other finishes, so theoretically, you get as much bang for your buck because re-coats will be required less often than lessexpensive coatings.

Bottom line: The Perfection and Nautithane are in the same price range, but Perfection stocks are being phased out; we're hopeful the formulation performs as well. Nautithane also edged out Smith & Co., only slightly, in integrity, giving it our top pick among these two-parters.

VARNISH ALTERNATIVES / TEAK OILS

As expected, the test fields to see the most changes to their rosters in the last year were varnish alternatives, teak oils, and teak sealers: Of the original 17 products, only 12 teak treatments made it to the one-year checkup, and most of those were the two-step systems like Cetol that included a clear gloss overcoat. The group of eight teak oils and sealers had been whittled down to one



Pettit Z-Spar 2015 Flagship



Nautiking Nautithane



Cetol Marine without clear gloss overcoat



Cetol Marine Light without clear gloss overcoat

coming in to the one year test.

Teak oils are not meant to be multiseason coatings, but Star brite Tropical Teak Sealer held its own at the sixmonth mark. After a year of exposure, though, the panel is well past due for a re-coat and will be dropped from the test rack.

The panel finished with TeaQua, a pigmented sealer, also is in need of re-coating. In the areas where the coating failed, black mildew spots appeared, so this panel would require a bit more effort to freshen the coating. It too should be re-coated well before the year mark and will be dropped from the test rack.

The Cetol panels, for the most part, are still going strong. The panels coated with Interlux Sikkens Cetol Marine and a gloss topcoat and Marine Light with a gloss overcoat both rated very well. The coating integrity is flawless and the gloss unchanged; however, these finishes were initially "muddy" and have retained that quality. Aesthetically, testers prefer the clear look of the Cetol Natural Teak, but it doesn't seem to offer as much protection as its pigmented sister finishes. The Cetol Natural sans gloss overcoat has begun failing at the panel edges.

Another pigmented synthetic, WoodPlus Marine, has shown acceptable protection and performance.

Bottom line: The results are consistent with past tests: Liking Cetol's cloudy finish is a subjective matter, but when it comes to single-applica-



Pettit Z-Spar Captains Ultra Clear 2067



Smith & Co. Five Year Clear



Cetol Marine with clear gloss overcoat



Cetol Marine Light with clear gloss overcoat

tion longevity, the Cetol Marine and Marine Light with gloss reign supreme among varnish alternatives.

CONCLUSIONS

Competition for the title of "ideal wood coating" remains strong between coatings types at the one-year mark. While varnish in general appears to offer better durability, some synthetic systems—namely those with protective overcoats—are holding their own, especially when it comes to UV protection and color retention. Teak oils can't be expected to last the longhaul on a single application, but Star brite's teak sealer survived a surprisingly long time.

"Ideal" is a subjective term. To determine what the ideal finish for your boat is, decide what time and energy investment you can make up front for application, how often you realistically will apply maintenance coats, and where and how you plan to use the boat. (See "DIYer Notebook" on page 18.)

Traditionalists who want that highgloss, wet look and are willing to put forth a little extra effort in application would do well with any of the recommended two-part varnishes. These hard coatings have proven durable and most likely won't need re-coating for years. Our favorite at the one-year mark is the Nautiking Nautithane.

If you find the two-part kit prices (and application headaches) to be too much but still want a good gloss,

PRACTICAL SAILOR **DECEMBER 2009** 17



Tools like sharpened metal scrapers (left) and a heat gun are handy for maintaining varnish.

Healthy Habits: Touch-ups and Takedowns

To keep brightwork healthy, approach it as you (hopefully) do your own health. Set a regular maintenance schedule (like an annual checkup), keep a first-aid kit on hand to address

any symptoms of ill health, and practice preventative care (ignoring ailing varnish only makes the cure more grueling for the doctor).

Keeping varnished areas covered and rinsing them frequently with fresh water will mean less doctoring. Regular maintenance coats (before the coating begins to fail) will extend the life of a finish. Re-apply a teak oil or stain every three months or so; usually this just entails cleaning and re-coating the wood, although light sanding may be needed; follow maker suggestions. The timeframe for refreshing varnish alternatives will vary. Like varnishes, alternatives with a clear overcoat should be refreshed (two coats) annually; those without should be refreshed every six months or less in the tropics. If the gloss begins to look dull, it's time for a refresher. A good scrubbing will remove dirt and grease, then sand the surface with 220- to 320-grit or bronze wool, and lay on two new finish coats.

Between refresher rounds with varnish, address scratches, lifting at joints, or blistered areas as quickly as possible to keep moisture from ruining the whole show. First, clean the spot with a recommended solvent, lightly sand with 100-grit (moving up to 320-grit), feathering at the edges. After another pass with solvent and a tack rag, apply varnish and repeat until the thick-

ness matches surrounding areas. This should be easier with the alternatives as their coating is softer and requires less sanding. To patch flaws in Cetol, clean the area, scrubbing against the wood grain, let it dry, and then apply the Cetol.

Having a varnish first-aid kit handy will make these "bandaids" easy and fast. A kit should include: a medium artist's brush, handle cut to 1 inch; a cleaned spice jar; sheets of 100-, 220-, and 320-grit sandpaper; a tack rag; and a clean cloth rag. Screw the paint brush to the jar's top with a self-tapping screw; fill the jar with varnish, and seal well. Rubberband the sandpaper to the jar. Put the rags in a Ziploc, and stow it all in an easily accessible place. (Tips adapted from www.landlpardey.com.)

Whether it's a varnish or a softer alternative, if it's suffering from old age or widespread peeling, cracking, streaking, or simply lost its luster, a total overhaul is the only cure. Takedown methods for varnish include sanding (for removing thinner coatings), dry scraping or heating and scraping (best for thicker finishes), and chemical stripping. Heat guns and strippers should be used with caution around painted and fiberglass surfaces; rinse the stripper thoroughly from the wood as any residue will cause adhesion problems. For varnish alternatives: Sand with 80 grit and move up to 220, clean, and re-coat. Industry tests have shown that adhering to a tighter scale of increasing grit gets the job done quicker; an 80-120-150-200 step down is more productive than going directly from 100 to 220.

Our favorite resources on varnish maintenance include Don Casey's "Sailboat Refinishing," Rebecca Wittman's "Brightwork," and Sherri Board's "Boat Cosmetics Made Simple."

choose from one of the recommended or budget buy one-part varnishes or varnish alternatives with an overcoat.

The Cetol products offer the best option for taking the middle ground between good looks and durability. They won't have the classic look of varnish,

but for 25 percent of the labor, you get a similar result.

For spots where a slippery-whenwet finish is not feasible, check out the top synthetics or teak sealer. Our favorite for coating decks is still Semco. It will need to be re-applied every few months, but done regularly, the process should be easy.

Any of the recommended products listed in the Value Guides on pages 14-15 would serve well for a year or more. Stay tuned for the two-year checkup next winter.

CONTACTS

ACE, www.acehardware.com

C-TECH MARINE (BRISTOL)

800/582-7508, www.bristolfinish.com

DEKS OLJE

800/321-3444, www.floodco.com

DETCO, 800/845-0023, www.detcomarine.com

EPIFANES, 800/269-0961, www.epifanes.com

HMG MARINE

864/578-6770, www.hmgmarine.com

INTERLUX

800/468-7589, www.yachtpaint.com

LE TONKINOIS (AMERICAN ROPE & TAR)

877/965-1800, www.tarsmell.com

MINWAX

800/523-9299, www.minwax.com

NAUTIKING

800/425-2214, www.bonstone.com

PETTIT

800/221-4466, www.pettitpaint.com

PREMAPRO (COELAN)

888/333-3235, www.premapro.com

SMITH & CO.

800/234-0330, www.fiveyearclear.com

STAR BRITE

954/587-6280, www.starbrite.com

SIGNATURE FINISHES

772/287-6077, www.signaturefinish.com

TEAQUA, 631/591-1131, www.teaqua.com

WEST MARINE

800/685-4838, www.westmarine.com

WOODPLUS MARINE, 416/399-5067, www.woodpluscoatings.com

18 DECEMBER 2009 WWW.PRACTICAL-SAILOR.COM