



## SERIES 3

# Wood finish update

*Richard Hare reports back after another year under the sun*

**S**ummer 2011 was a typical British summer nowadays – after a sunny and particularly dry spring it proved underwhelming albeit with little rain, and was followed by an Indian summer for a welcome blast of autumnal UV.

All of the nine proprietary wood finish products that went up on the test rig in Spring 2009 were accredited a CB Pass last year – see CB273. (We also tested a ‘wild card’ – a home-brew composite made up of epoxy base coats and 2-pack varnish top coats; it didn’t fare very well, and has now been withdrawn as it did not, we felt, fairly reflect the virtues of either of the component products; don’t use epoxy as varnish).

A wood finish gains a 1-Star Pass if it withstands 18 months of exposure without the integrity of the finish rupturing or eroding. This means it comfortably outlasts

the usual 12-month maintenance cycle. The objective of this subsequent year of exposure has been to see which of them would go on to achieve a 2-Star Pass.

The rig faces SW onto a Suffolk estuary. Condition is evaluated by simple ‘naked eye’ assessment. Iroko is always used as, like teak, its oiliness is known to make it tricky. The cruel corners of each test piece challenge the products and thus provide a means of accelerated ageing, as well as indicating how a product might cope with the seasonal movement that occurs at, say, mitre joints.

It follows therefore that a product that ‘fails’ at, say, 3 months would not be expected to do so on a properly rounded 1/4in (6mm) radius corner, or larger. Indeed, we frequently keep products up on the rig after their corners ‘fail’ because they often have a lot more useful information to yield.

**Above: Coelan (see p80) on teak - MY Galian off Menton, on the French Riviera**



## Nine product comparison table

PRODUCT	DESCRIPTION	COATS (1)	COVERAGE (2)	COST/LITRE (3)	COST m <sup>2</sup> (4)	DAYS TO APPLY	RESULTS 30 MONTHS
<b>SINGLE-POT CONVENTIONAL VARNISH</b>							
<b>1 Jotun Penguin Ravilakk</b>	Alkyd-based with Chinese wood oil, synthetic amber and 'other materials'	5	16	18.20	5.68	5	** PASS
<b>2 Seajet uv</b>	Phenolic alkyd base with tung oil and 'traditional ingredients'	5	12	18.37	7.65	5	* PASS (distinction)
<b>3 Nauteco Coma Bernice</b>	Alkyd-based	5*	10	28.96	14.48 (8.68)	5	** PASS
<b>TWO-PACK VARNISH</b>							
<b>4 Seajet Polyurethane Gloss</b>	Hard polyurethane + catalyst	4	16	35.68	8.92	1	** PASS
<b>FLEXIBLE POLYURETHANE</b>							
<b>5 Uroxsys</b>	Topcoat aliphatic flexible PU Used with Uroxsys primer	5 1	12 15	30 18	13.70 (5)	2	** PASS
<b>EXTERIOR WOODSTAIN STANDARD (50%) SOLIDS</b>							
<b>6 Sikkens Cetol Marine/International Woodskin**</b>		3	16	25.20	4.73	3	** PASS
<b>7 Sikkens Cetol Filter 7</b>		3	16	17.50	3.28	3	** PASS
<b>EXTERIOR WOODSTAIN HIGH (75%) SOLIDS</b>							
<b>8 Sadolin Ultra with base coat</b>	Base coat	1	13.5	12.04	3.37	3	** PASS
	Ultra	2	13.5	16.71	(6)		** PASS
<b>9 Sadolin Ultra</b>	Ultra only	3	13.5	16.71	3.71	3	** PASS

### Table notes

- (1) Primer(s) included where applicable.  
 (2) Claimed m<sup>2</sup>/lt on a single coat basis.  
 (3) Cost per litre (£), 2009.

- (4) Based on the number of coats given in column 1.  
 (5) Based on £12.50 (aliphatic) and £1.20 (primer).  
 (6) Based on £0.89 (base coat) and £2.48 (Ultra).  
 (7) Based on £6.66 (epoxy) and £6.56 (2-pack).

- (\*) Manufacturers suggest 3 to 4 coats; this would bring down the cost per m<sup>2</sup> to as low as £8.68.  
 (\*\*) Sikkens Cetol Marine is now (from 2011) rebranded as International Woodskin; Filter 7 is unchanged

1 JOTUN PENGUIN RAVILAKK	4 SEAJET POLYURETHANE GLOSS 2-PACK VARNISH	7 SIKKENS CETOL FILTER 7
 <p><b>App</b> Five coats, the first thinned about 30% with white spirit, the second given a light de-nibbing with 400 grade paper. The five-coat application spanned five days.  <b>30 months</b> Totally intact on surface and all four edges. It has however lost its gloss, which has become a low level sheen. To retain gloss a fresh top coat should perhaps be applied as soon as possible afterwards.</p>	 <p><b>App</b> The 6-coat system spanned two days. Since no evaporation is involved this application will have a significantly higher build than solvent or water-based finishes. Coats were applied at 20min intervals, wet on wet.  <b>30 months</b> Totally intact on surface and all four edges. It retains a high gloss.</p>	 <p><b>App</b> Three coats, the second de-nibbed lightly in preparation for the third coat. The 3-coat system spanned three days.  <b>30 months</b> Intact on surface and three edges; lower level of sheen than Cetol Marine. Budget (DIY shop) alternative that will be fine on traditional workboats where a high gloss finish isn't so appropriate.</p>
2 SEAJET UV VARNISH	5 UROXSYS FLEXIBLE PU	8 SADOLIN ULTRA TWO-TIN
 <p><b>App</b> Five coats, the first thinned about 30% with white spirit, the second given a light de-nibbing with 400 grade paper. The five-coat application spanned five days.  <b>30 months</b> Intact on surface and three edges but a small, recent fissure along the top edge, with a small amount of detachment. High level of gloss.</p>	 <p><b>App</b> Primer applied in warm conditions and allowed to cure overnight. Five coats of Marine Aliphatic (top coat) applied at 2-hour intervals, de-nibbing third coat. Six-coat application takes one to two days.  <b>30 months</b> Totally intact on surface and all four edges; retains a high gloss and a light nutty tint.</p>	 <p><b>App</b> Three coats: one Ultra 'base coat', two Ultra top coat. Second coat de-nibbed lightly. Three-coat system took three days.  <b>30 months</b> Totally intact on all surfaces; retains a high level of sheen and good transluence. It has the best level of sheen/low gloss that we've so far found in an exterior woodstain.</p>
3 NAUTECO	6 SIKKENS CETOL MARINE (now International Woodskin)	9 SADOLIN ULTRA SINGLE-TIN
 <p><b>App</b> Five coats, the first thinned about 30% with white spirit, the second given a light de-nibbing with 400 grade paper. The five-coat application spanned five days.  <b>30 months</b> Totally intact on surface and all four edges. It retains a high gloss.</p>	 <p><b>App</b> Three coats, the second de-nibbed lightly in preparation for the third. The three-coat system spanned three days.  <b>30 months</b> Totally intact on surface and all four edges. Level of sheen not degraded, although not comparable to the gloss retained on the best two of the varnish test pieces in this series.</p>	 <p><b>App</b> Three coats (Ultra topcoat only), the second de-nibbed lightly. Three-coat system spanned three days.  <b>30 months</b> Totally intact on all surfaces; it is performing exactly the same as the 2-tin version. It retains a high level of sheen, and good transluence. Like the two-tin version, an extremely worthwhile budget option.</p>



Far left: Good maintenance can take less work with the right product  
Left: The warm glow of conventional varnish on oak

### CB 'Pass' products and their star rating

This isn't a list of all the candidates; only 'Pass' products are listed:

Product	Stars (*)	Test ongoing?	Cost, applied (by type) <sup>z</sup>
<b>CONVENTIONAL VARNISHES</b>			
Prima varnish	**		Low
Epifanes varnish	**		
Skippers Starwind UV varnish	**		
Hempel (Blakes) Classic varnish	***		
Le Tonkinois organic varnish	**(*)		
Jotun Ravilakk	** to date	Yes (Series 3)	
Seajet UV	**(*)		
Nauteco Coma Bernice	** to date	Yes (Series 3)	
<b>TWO-TIN VARNISH</b>			
UV-Tech two-tin varnish	**		High
<b>WATER-BASED WOODSEALER</b>			
Burgess Hydrosol water-based woodsealer	*		Very low
<b>EXTERIOR WOODSTAIN</b>			
Sikkens Novatech ext' woodstain	****		Very low
Sikkens Cetol Marine (International Woodskin)	** to date	Yes (Series 3)	
Sikkens Filter 7	** to date	Yes (Series 3)	
Sadolin Ultra (two-pot)	** to date	Yes (Series 3)	
Sadolin Ultra (single-pot)	** to date	Yes (Series 3)	
<b>TWO-PACK (CATALYSED) VARNISH</b>			
Skippers Poliglass/Acriglass two-pack varnish		**(*)	Moderately low
Seajet Polyurethane Gloss	** to date	Yes (Series 3)	
<b>FLEXIBLE POLYURETHANE</b>			
Coelan flexible polyurethane	****(*)		Very high
Uroxsys	** to date	Yes (Series 3)	

**\*The Star rating**

The Star rating works as follows. All star-rated products are also CB 'Pass' products.

\* Excess of 18 months exposure on the test rig \*\* Excess of 30 months \*\*\* Excess of 42 months \*\*\*\* Excess of 54 months (\*) Distinction - narrowly missed the next star (z): Based on price, coverage rate and number of coats required.

For more information on these products, see the relevant launch features in CB March 2004 (Series 1), CB April 2008 (Series 2) and CB May 2010 (Series 3)

#### SERIES 2: RESULTS AFTER 4½ YEARS

### 3-Star pass for Hempel

Out the two Series 2 products that achieved CB 2-Star Passes (30 months), UV-tech, the Danish alkyd/tung oil coating, and Hempel (Blakes) Classic, only one, the Hempel Classic, made it through the next gate, at 42 months, thereby achieving its 3-Star Pass, the first conventional varnish to do so.

It didn't make it to the 4-Star level, though at 54 months Hempel Classic was still looking pretty good. It has become frail and speckles of grey wood are just perceptible along the edges and in places on the surface. These are most noticeable when wet. Nonetheless it retains an impressive gloss for a product that has been exposed for so long. As a well-established marine wood finish, it appears to be capable of delivering at least two years of maintenance freedom in temperate latitudes.

#### SERIES 1: UPDATE AFTER 8½ YEARS

### Two 4-Stars stick it out

When we commenced these tests back in 2003 we never dreamt we'd still be reporting on the first batch 8½ years later. In 2008 we announced our joint winners from this series, the high-solids exterior woodstain Sikkens Novatech and the flexible polyurethane Coelan. They both achieved the highest result to date, notching up 4 Stars. With Series 2 now concluded, this continues to be the highest bar to date.

Coelan had the edge on Novatech as it retained a good level of gloss and translucency, and it still does! For this it was awarded a distinction star.

Like austere masters of all they survey these two warhorses remain up on the rig, challenging their successors, because – simply – they won't go away. Sure, they failed along their sharp edges four years ago but beyond that they carry on undaunted, the defect at the sharp upper corners having not spread much further.