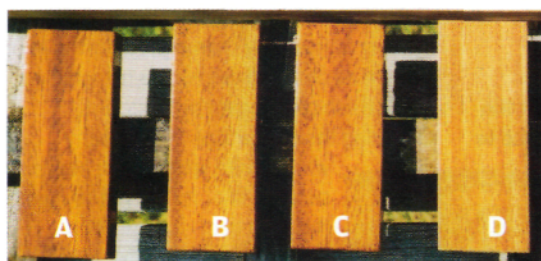


WOOD FINISH UPDATE



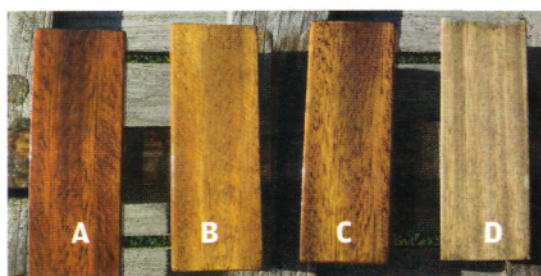
30 months into CB's Series 2 exterior woodfinishing test, *Richard Hare* reviews the contenders, with an update on series 1



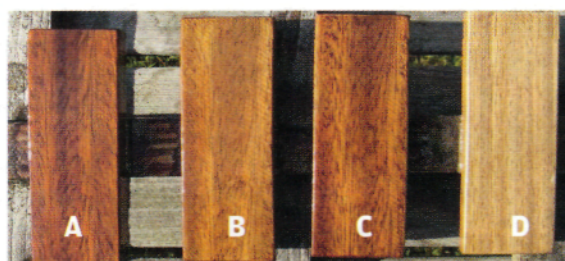
THE FOUR CANDIDATES

A UV-Tech
B Uroxsys
C Blakes Classic
D Blakes Seatech

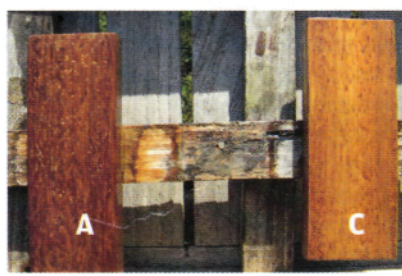
Left: Start of test



Left: After 6 months



Above: After 18 months



Left: After 30 months

Top: The test rig

In terms of UV the summer of 2009 was more normal than of late – plenty of sunshine in early summer, a decent amount in late summer too but dismal and wet in July when the sun ought to have been at its most punishing. On balance though, our test pieces were not let off lightly.

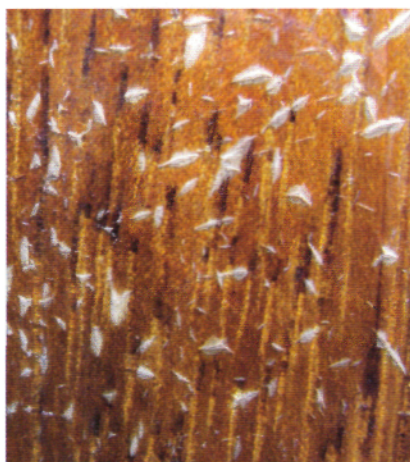
To gain a CB 'Pass', a product must manage 18 months without the integrity of the finish rupturing or eroding. This puts its performance well above the usual annual maintenance cycle. Three of the original contenders had to be retired from the test because they failed to meet these criteria (details in CB251). One of them, a teak oil, was withdrawn as such products, although cheap and easy to apply, need to be refreshed every two to three months.

Uroxsys, then a new flexible polyurethane, was found wanting, but the product was withdrawn by the manufacturer during the test period and replaced by a new formula which is currently under test as part of Series 3 – to be introduced in next month's CB. The third casualty was a water-based polyurethane, Blakes Seatech.

Two of the original contenders have made it to 30 months though: Blakes (Hempel) Classic Varnish and UV-Tech. For the record, failure is deemed when the film becomes detached and/or bare wood is

exposed. In other words, serious remedial action is needed imminently. This applies as much to the end-grain as it does to the surface. Hairline cracks along the very sharp upper corners have been allowed so long as they do not affect the quality of the surrounding finish and its adhesion to the substrate, or allow water access beneath the film.

The test rig faces SW onto a Suffolk tidal river and the back of each test piece is coated with flexible PU to ensure its watertightness.



Looks can deceive - UV-Tech surface blistering, but it retains its integrity beneath.

A UV-TECH PASS** and ongoing

UV-Tech comprises a 'saturating' oil base coat and a varnish topcoat. It is produced in Denmark (see www.uv-tech.net) and distributed in the UK by Mark Rolt's Bristol Classic Boat Company (www.bristolclassicboat.co.uk).

Application notes

15 dressings of Evo Basic Oil at roughly two-hour intervals, then allowed to cure completely over three days and de-nibbed with 120 grit paper, followed by six coats of Evo Classic Varnish, one per day. The 21-coat application took 10 days.

Recommended ongoing maintenance

Manufacturer's instructions call for two coats of the varnish for the two subsequent years and then one thereafter. Light sanding beforehand. Given the performance at 30 months we wouldn't challenge this.

Performance after 30 months

Totally intact on surface and all four edges but the surface varnish has degraded in a display of tiny blisters. This has only occurred on the main surface, where UV is most intense, and the test piece sides are unaffected (low UV). Significantly, the Evo

PRODUCT	TECHNICAL DESCRIPTION	COATS (1)	AREA (2)	COST per litre (3)	COST per m ²	DAYS TO APPLY	RESULTS 18 MTHS	30 MTHS
TWO-POT VARNISH								
A UV-TECH (4)	Alkyd-based + tung oil & others	Evo Oil: 15 Varnish: 6	19 15	£18 £24	£14.20 £9.60	10	*PASS	**PASS
FLEXIBLE POLYURETHANE								
B UROXSYS	Aliphatic flexible PU	5	8	£30	£18.75	2	FAIL	-
SINGLE-POT VARNISH								
C BLAKES (HEMPEL) CLASSIC	Oil-based, alkyd varnish	5	19	£21	£5.53	5	*PASS	** PASS
WATER-BASED VARNISH								
D BLAKES SEATECH	Waterborne polyurethane	5	12	£24	£10	2	FAIL	-

(1) Primer(s) included where applicable.
 (2) Claimed m²/litre; on single-coat basis except for UV-Tech.
 (3) Cost per litre at 2007 prices.
 (4) We used the same application schedule as in our Series 1 test for two-pot varnish. For more detailed information see CB 238.



Oil undercoat has remained intact and is attached to the substrate throughout. Gloss remained good at 30 months and since the manufacturer's recommendation is that it should be refreshed annually, and that the integrity of the finish has remained intact (no moisture ingress or access), the product gains two stars and continues into next year.

HEMPEL (BLAKES) CLASSIC VARNISH

PASS** and ongoing

This is a conventional alkyd and tung oil-based varnish, very similar – if not the same – as the Hempel varnish we tested in the Ionian (see CB226). It behaved like any good quality conventional varnish – good high salinity resistance but its Achilles heel, as always with conventional varnish, was its weak resistance to high UV.

Application notes

Five coats applied over five days, the first thinned about 30 per cent with white spirit, the second coat de-nibbed with 400 grade paper.



Recommended ongoing maintenance

Giving last year's varnish an annual light sanding followed by thorough cleansing to remove all dust and grease, then applying a single fresh coat should be sufficient. Cleansing the old surface (warm soapy water/white spirit) is the key to success, in our view, not so much the volume of coats applied.

Performance after 30 months

It looks like new. Totally intact on surface and all four edges and retains an impressive high gloss, darkened slightly to a rich nutty colour during the first 6 months and then stabilised. All the conventional varnishes tested to date have made two stars. Will this one raise the bar?

PAST PASSES

When the results of Series 1 CB March 2008 and Series 2 April 2009 are amalgamated we find we're building a useful body of CB 'Pass' products. So, for the first time, here they are all together.

Series 1 and 2 CB 'Pass' Products and their star ratings

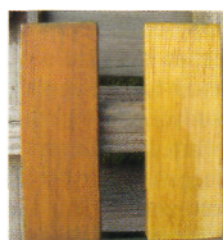
Product	Stars (*)	Cost, applied (2) (group basis)
Conventional varnishes		
Prima varnish	**	Low
Epifanes varnish	**	
Skippers Starwind UV varnish	**	
Blakes (Hempel) Classic varnish	** to date	
Le Tonkinois organic varnish	**(*)	
Two-tin varnish		
UV-Tech 2-tin varnish	** to date	High
Water-based woodsealer		
Burgess Hydrosol water-based woodsealer	*	Very low
Exterior woodstain		
Sikkens Novatech high solids ext' woodstain	****	Very low
Two-pack (catalysed) varnish		
Skippers Poliglass/Acriglass 2 pack varnish	*(*)	Moderately low
Flexible polyurethane		
Coelan flexible polyurethane	****(*)	Very high

(*) The star rating

The star rating works as follows. By implication, all star ratings are CB 'Pass' products. * Excess of 18mths. ** Excess of 30mths.

*** Excess of 42mths. **** Excess of 54mths. (*) Distinction

(2): Based on coverage rate at number of coats required, not cost per litre.



The survivors from Series 1 – Novatech (left) and Coelan (right) carry on into their 7th year, their faultlines unexploited

SERIES 1 UPDATE

COMMENCED MAY 2003

In 2008 we announced our joint winners from Series 1; high-solids exterior woodstain **Sikkens Novatech** and flexible polyurethane, **Coelan**. Both gained four stars. Coelan had the edge on Novatech – as it ought to, given the vast difference in cost – and for this it was awarded an additional distinction star.

Neither product made it to five stars (5½ years' exposure) though, due to the cruel sharp upper corners of the test pieces which nudged their way through and did their damage. Such sharp corners should not be found externally on a boat but we have them here to accelerate the ageing process.

That said, we've kept both these warhorses up on the rig because they both continued to perform brilliantly with little or no further degradation during the subsequent two years.

The defect at the sharp corners has not spread, as would be the case with other generic types of exterior woodfinish. Ma Nature has been unable to exploit her bridgehead, and she must be fuming.

Her annoyance is great news for us though as all we need do is keep on top of the maintenance schedule – and it's very forgiving with both of these products – and we can keep her talons at bay indefinitely.

Next month Series 3

Introducing 10 new products, and how they fared in their first season on the test rig