

Varnish test: Six months on



Six months into our latest exterior woodfinish test, former TRADA wood technologist *Richard Hare* assesses the preliminary findings. We really didn't think there would be anything worth reporting, but how wrong we were.

Well, six months on and there is much to report. We knew that it is not just the cold and damp of winter that causes problems for exterior wood finishes but now, after the hottest British summer for many years, some of the test samples really do stand out from the crowd.

Given the typical yachtsman's expectations from a woodfinish, failure in his test will be deemed to be when the surface film becomes detached and/or bare wood is exposed. In other words, remedial action will be required imminently. In this instance, end-grain exposure alone will not be seen as failure.

VARNISHES

1, 2 and 3

Conventional modern alkyd varnishes

The finish is totally intact on the surface and on all four edges. Impressive gloss remains. On one test piece, a shard of varnish has dislodged from the surface of the khaya sample. Since the finish is performing excellently on the notoriously more difficult to coat iroko, we suspect that the defect is due to faulty application. We are convinced that it would be a distraction to read anything into this.

Result of varnish test after 6 months	
TEST PIECE NUMBER AND NAME	PASS/FAIL
VARNISHES	
1 Prima varnish	Pass
2 Epifanes varnish	Pass
3 Skipper's Starwind UV	Pass
4 Le Tonkinois varnish	Pass
6 Deks Olje full system	Pass
12 Varnol	Signs of damage
WOODSEALERS	
5 Burgess Hydrosol	Pass
7 Deks Olje D1 only	Fail
8 Endeavour Marine Oil	Fail
EXTERIOR WOODSTAIN	
9 Sikkens Novatech exterior woodstain	Pass
TWO-PACK	
10 Skipper's Poliglass and Acriglass	Pass
FLEXIBLE POLYURETHANE	
11 Coelan	Pass



There's not much that can beat the look of a traditional varnish

4 Le Tonkinois organic varnish

Totally intact on the surface and on all four edges. Impressive gloss remains.

6 Deks Olje full system (D1 & D2)

Totally intact on the surface and on all four edges. Impressive gloss remains. The system appears to have darkened slightly on the khaya test piece.

12 Varnol

There is only an iroko test piece to assess here. It is totally intact on the surface, although the uppermost end-grain edge is becoming weathered. One side is showing signs of beginning to turn grey.

WOODSEALERS

5 Burgess Hydrosol

Totally intact on the surface and on all four edges. Matt appearance.

7 Deks Olje D1 only

The film on the iroko test piece is showing signs of wearing through, although it does, just, remain intact on the khaya sample.

The end-grain edges of the uppermost surface are particularly weathered grey on both samples.

8 Endeavour Marine Oil

Both test pieces are almost completely weathered grey although it is marginally better on the khaya.

Since the test pieces now look almost identical to the control test piece the product appears to have served little purpose.

Given the test criteria, it has failed.

EXTERIOR WOODSTAIN

9 Sikkens Novatech

Totally intact on the surface and all four edges. A slight sheen remains. The finish of both samples appears to have darkened slightly.

TWO-PACK

10 Poliglass/Acriglass

Totally intact on the surface and all four edges. An impressive gloss remains.

Flexible PU

11 Coelan

Totally intact on the surface and all four edges. An impressive gloss remains.

Discolouration

There's nothing wrong with leaving wood to weather grey, as it may last longer than if it were covered by a flawed, impervious system. However, it's not much good to those who want a proper wet-look. As for samples which have weathered grey on the end-grains (7 and 12) we can expect moisture and rainwater to gain access behind the surface film and exploit this bridge-head. However, we can also anticipate that microporous films should cope with this better than impervious systems. We'll have to wait and see.

To meet our test's conditions (CB 188), the products that show signs of damage at this stage will be retested in order to confirm the results and to eliminate any flaws in the testing procedure.



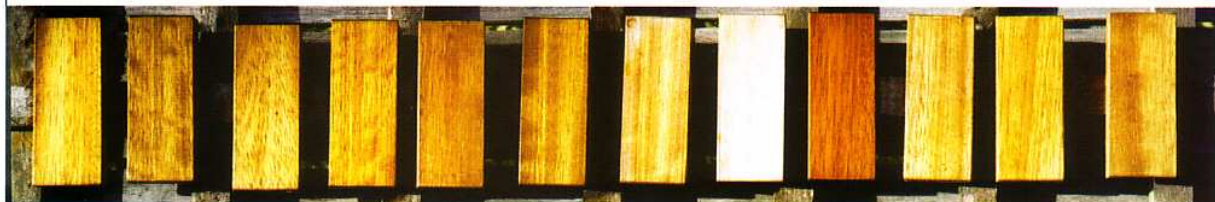
Shelf life test

Some surprising results here, too. Shelf life is the time a product remains usable once it has been opened but stored with the lid sealed. This can have a significant bearing on the on-going cost of boat maintenance. Our products had the advantage over those in common use that very little was removed from each tin to coat the test pieces, thereby eliminating a large air void during the six-month period. The disadvantage was that the six-month period in which they were stored was the hottest summer for many years.

TEST PIECE NUMBER/NAME	PASS/FAIL	OBSERVATION AFTER 6 MONTHS
VARNISH TYPES		
1 Prima varnish	Pass	No skin. Completely re-usable
2 Epifanes varnish	Pass	No skin. Completely re-usable
3 Skipper's Starwind UV	Pass	No skin. Completely re-usable
4 Le Tonkinois varnish	Pass	No skin. Completely re-usable
6 Deks Olje D2	Pass	No skin. Completely re-usable
12 Varnol	Fail	Skinned over. Remainder was a glutinous plug. Unusable
WOODSEALER TYPES		
5 Burgess Hydrosol	Pass	No skin. Completely re-usable.
7 Deks Olje D1 only	Pass	No skin. Completely re-usable.
8 Endeavour Marine Oil	Pass	No skin. Completely re-usable.
EXTERIOR WOODSTAIN		
9 Sikkens Novatech ext' woodstain	Pass	No skin. Completely re-usable.
TWO-PACK		
10 Skipper's Poliglass and Acriglass	Pass	Completely fluid. Completely re-usable
FLEXIBLE POLYURETHANE		
11 Coelan	Pass	Completely fluid. Completely re-usable.*

*This is a surprisingly good result given that the product literature states: "Please use up contents after tin is opened". This product is moisture-curing, and it is possible that the dry summer contributed to low humidity in the tin.

SIX MONTHS INTO TEST



START OF TEST



- 1 Prima varnish
- 2 Epifanes varnish
- 3 Skipper's Starwind UV
- 4 Le Tonkinois varnish
- 5 Burgess Hydrosol
- 6 Deks Olje full system
- 7 Deks Olje D1 only
- 8 Endeavour Marine Oil
- 9 Sikkens Novatech ext' woodstain
- 10 Skipper's Poliglass and Acriglass
- 11 Coelan
- 12 Varnol

The iroko test samples

