

Why do we varnish?

Well it's not as silly a question as you might think at first, we do it of course because we are proud of the beautiful wood that our boat is made of and we varnish so that we can protect the wood, but the real question is, do we varnish to keep the water out.....or the sun out.

Of course the real answer isBoth! We need to keep the wood waterproof or otherwise the boat would leak...and rot...and look horrible to boot, but in many ways the most important thing about our varnish is that it keeps the UV out and believe me, it is the UV that damages the wood.....and the varnish. That really is the nub of the thing.

OK, so we know that UV damages the wood and the varnish, but most harmful of all, it damages the varnish-to-wood joint. Varnish has UV blockers in it, so it protects the wood, and all the coats of varnish below it, but it can only provide so much protection and once it has been used up, the UV will get through and start to damage the layer of varnish below, until it gets to the varnish-to-wood joint. Once the UV works on that it starts to break down and the varnish starts to break away from the wood. Of course this then allows water to get in, which just speeds up the breakdown of the join....and the varnish....and you are shortly forced to remove all the varnish back down to the bare wood to have any chance of getting a good result

This is why old varnish can be seen to just peel off in sheets, although the varnish itself isn't too bad.

How do we prevent this.....easy...we never let the varnish fully lose its UV protection. So the answer is simple, you need to sand back a coat of two and replace them with new varnish.....every year? In my humble opinion if the boat spends lots of time in the sun, I would do it twice, a couple of coats in the spring and an extra one in the autumn, which will help seal any cracks and things before the weather deteriorates. If you use a polyurethane, the argument is that you can leave it longer between coats....and maybe you can....but whatever the varnish, you are going to have to re-coat sometime and traditional varnish is much, much easier to remove and repair between times. It is worth remembering that you can always use a traditional varnish on top of a modern polyurethane but not the other way around, so I often like to make a good base of hard polyurethane varnish and then top it off with traditional varnish.

so.....the important thing is to always keep your varnish topped up and regularly sand down and apply a new coat or two of varnish to keep your UV

protection up....If you don't do this, then the varnish will keep out the water for a while longer, but sooner or later it will start to go wrong.

But I can hear grumbles of dissent in the ranks... you say.....if I put a couple of coats of varnish on every year, then in a few years it will have 3 tons of varnish. Well I know it sounds like it....but it never seems to work like that, as the UV breaks down the varnish, it oxidises and thins and it is easy enough to sand off a couple of coats of varnish before you put the new varnish on. You can go on building up varnish, and as long as you sand between, it just gets flatter, and better looking every year. There will come a time, when you need to take it all off and start again, at which time you will be very thankful if you decided to use traditional rather than polyurethane varnish.

Getting the old varnish off

O.K., whether it's paint or varnish, there comes a point where it is just got to come off. If it is varnish, at least you can see when the wood-to-coating join starts to breakdown. If it's paint, you can't see when it is going wrong until the wood is entirely saturated underneath and starts to create bubbles of water under the varnish.

How you take the varnish off will largely depend on what it is you are trying to take off and how well it is presently attached to the wood.

If it is really bad, let's face it, it can be just dropping off which is a good start, but to be honest, if the varnish is that loose, you have to be rather worried about the quality of the wood underneath, how long has it been standing around with no protection at all. I would have a good look and just make sure that is not going to be easier to replace the wood entirely.

There are various ways of removing paint/varnish. You can sand it off, scrape it off or burn it off....with chemicals or hot-air. I normally end up using most of these methods....even on the same bit of wood. Sometimes one thing works well and you stick with it but normally I use a bit of each method in a process that goes something like this:

First I use a long blade-scraper or filler knife and just go around and pull off any paint that is already loose and just waiting to fall off. This bit is rather fun....just like pulling sun-burnt skin of the back of you loved one (well I used to....not now of course).

Hot-air Gun

Next I use a hot-air gun and a hook scraper (like a Skarsten or other tungsten bladed scraper) and try and pull off the majority of the paint. This is hard work, you burn your hands, your assistants hands, your tools (watch out for plastic handled scrapers....they melt) but as long as you don't stop moving the gun about you won't burn the wood. When eventually you get most of it

off, it looks like you have almost got the job done, you have a pile of old paint. (you want to be a real nerd.....weigh the removed paint, it's kinda interesting to know how much it all weighed. Now it looks like you have practically done it.....but in reality, although you have moved most of the paint....your work has hardly started.

Chemical Stripper

OK, now you can use the Chemical Stripper, I have tried most but normally come back to using Nitromors, it seems a bit easier on the wood. I either use the Brown can if I am just stripping varnish, or the yellow can if I am stripping paint. The yellow can is not nearly so thick, so it runs a bit, but, it gets nicely into the cracks and seems to keep working a bit longer. (But hey, the Red and Green cans seem to work to). Stripper takes a while to get through the outer layer, but if you have already used a hot-air gun to take off the majority then getting the Nitromors to attack what is left should be easy. Even when you have already removed most of it....you will still find that you can easily use a ton more stripper just taking off the little niggly bits. If you want to start with the stripper and miss out on the hot-air gun then it can be worth abrading the surface first before you apply the stripper as this helps it get into the varnish. Stripper can work very nicely, but do not underestimate how much it will take. If you are going to use lots of stripper, it will certainly be worth choosing where you buy it from with care and also buying it in the gallon cans which, if you search around you can get for about 30-35 quid.

Sanding

Once you have got all the varnish/paint off, you will still need to give it a good sand to clean it all up. By now the boat will look like you have already removed all the paint/varnish....but still have some marks'n'stuff. You are going to hate me to say this.....but in terms of time, you are now most probably only 60% of the way through the job. That sanding goes on and on and the bottom line is that the more you do, the easier it will be to varnish your boat and the better it will look when it is finished. It's an old adage, but none the less true, that the better the preparation.....the better the finish.

Now, are we going to stain?

Generally, I would say you often don't have too....and please don't, unless you really have too.

Believe me, stains are a pain in the posterior. They are hard to apply, generally complicate and compromise all further work on the wood and believe me....best avoided. Problem is, sometimes we just can't avoid using them. UV can make some mahoganies darken, but in general it makes them fade. This is especially true for the light toned gaboony faced plywood that is used so much for old and new dinghy decking. So after a few years of steady use, you think about redoing the varnish, a proper back to the wood job. First thing you do is pull off the fittings and straight away notice that the decks under the fittings are beautiful dark tones of golden mahogany, but outside the

fitting where the UV has been doing its work, the colour is by comparison just shaded of grey. OKyou have got a problem and how do we fix it?

The hardest, most annoying fact is.....the best way to fix it.....if you can be bothered and if there is enough wood (check the thickness of the veneer used on the ply) is to just sand the discoloured wood off. This is hard work and although easier and possible on solid wood parts, often is just not feasible on a cheaper thin faced ply (also remember you might want to do it again in the boat's life). OK, so that might work for the mahogany superstructure, but what about the decks and other ply bits.

The next tool in your armoury is one of the proprietary wood cleaners. These are based on mixtures of Oxalic acid (which is a teensy weensy bit poisonous - so don't mix the can of cleaner for your tea now) I have used two and the name of both escapes me (I will try and add them later). They can help....I don't know why they don't do more really. They work just brilliantly at cleaning un-protected UV damaged wood. Bits of old weathered wood come up a treat....but UV damaged wood that has lived under varnish, seems to be largely unaffected by the cleaner.....Damn and Blast. I keep trying....it keeps working - a bit....but unfortunately chemical cleaners/bleaches/restorers just don't seem to work (for me) on wood that has been varnished (of course you have to take the varnish off first - Doh).

So.....you pull off the varnish.....you sand it a bit....get bored and frustrated.....try using a wood restorer... but just bleach your hands, make a mess and its a little better, but still really grey...so now what....well the only thing left is to stain it!

Of course there might be other reasons to use a stain. The Gaboon faced ply used by Fairey Marine was really golden coloured, really beautiful and nothing like the pink faced ply we get now. A little yellow dye, or even a little bleaching followed by some yellow dye can make it much more original. I should warn you up front that there is a big problem about staining new ply.....it changes colour in the first few months anyway. It's bad enough seeing your perfect coloured stain job change colour by the end of the summer, but spare a thought for the daft bleeder who spends hours, bleaching and dyeing a perfectly inserted piece of new ply into the middle of an old piece of ply. Finally it is perfect, it's all varnished....you can hardly see the difference. Then the UV gets to it and within a couple of weeks....it is a completely new colour....at which point you realise that if you had not stained it.....the wood would of faded (or sometimes darkened - it does happen) to exactly the same colour anyway.....mmmmmm.....My friends....I was that soldier! But as I said at the beginning of this.....Don't stain unless you really feel that you have to!

But OK....despite all my warnings....you know you just have to stain this knackered old ply (I know, that's what I always think too).

So what do you need to know?

Well there are three kind of stains: those based on pigments, those based on dyes....and some chemical ones too. But OK I admit it I don't know sweet FA about the chemical ones and there arn't any available for the home boat-builder like us so lets concentrate on the others. But before we get two technical lets think about it another way, in practice we find there are two types of stain: Those that get right into the grain of the wood, and those that sit on the top. The ones that get right into the wood are based on dyes and the ones that sit on top use pigments that are in a thin emulsion.

I am going to stick my nose out here, because plenty of people will disagree....but in my exceedingly humble opinion the pigment stains just look like someone has smeared dog-poo under the varnish.....I (again very personally) think they just look crap. Stains should stain the wood....not hang about on top...it just isn't the idea.....so.....DON'T DO IT. I know someone will disagree, but if you want to know how to use these stains, ask them how to (but look at their boat first <G>)

OK.....so this is my little bit about using 'dye-based' stains....

1. You can only use them on bare wood, there is no point in using them on varnished or sealed woods, it just won't be absorbed by the wood.
2. Make absolutely and totally sure you have done ALL the wood preparation, sanding, cleaning etc before you start to stain. Once you have put stain on the wood, you can not sand the wood as it will just take off the stain and leave original wood underneath.
3. Stained wood changes colour as it dries....and then again when it is varnished. To have any chance of getting the colour that you want....you will need to take some scraps of similar wood and stain them, varnish them and then let them dry....before you make any decisions at all.
4. Dye-stains are normally based on a carrier of solvent or spirit, as long as they are, they can be mixed and diluted with a spirit solvent (I have used white spirit with no problems).
5. Applying dye stains is easy enough. The wood can only absorb so much dye, if you try and apply less, then it will be blotchy, but if you apply more then it won't make any difference at all. So you just take a rag, soak it in the dye and then apply liberally onto the wood. Once it is on, just rub as much of it off again as you can. What can stay in the wood....will and what can't you will rub off. If you want less colour, you can try diluting the dye, if you want more, use a darker stain. You can let the first dry and apply it again, but really once the wood is saturated with that colour, you can't get in any more colour....sorry.
6. You can get some interesting effects by applying one colour over another, some dyes seem to get into the grain more than others which get more into the flesh of the wood. So by playing you can get some groovy effects.
7. Bare in mind that anything you do....might need to be re-done at a later date. Make a note of the wood used.....the dye used and how you applied

it so you have got half a chance of doing it again on a patch if you need too.

8. Once it is on, you have got to really let it dry before you attempt to apply any varnish or clear primer. If you have not used this dye with this primer, it is highly advisable to test how they work together first. But of course you will of done this when you made up your colour checks.....wouldn't you.
9. If you want to apply in very small areas then you can always use a modelling brush.....and go gently....followed by lots and lots of rubbing.
10. If you go too far, or you don't like it.....you can sand it back....but success is varied. sometimes it works....and sometimes not.

What makes of dye do I use? Well I have used the Ronseal and the Colron stains and they both do exactly what they say on the tin. Liberon amongst others make the Pigment dyes.....so if you like that just smeared on the prison wall look....you know what to buy.

Well that is stains for you.....bet you wish you never asked now....

If you do want to know more (really?) then you could look at:

<http://www.alan.net/prgfeat/jjstain.htm>

Materials

Boats have been varnished in one way or another for hundreds of years and yet despite all that time and practice, it appears that there is still no agreement about what's the best stuff to use. Every year there seems to be some newer or better varnish available but despite that some old boys are still varnishing boats with finishes that look like glass using just the most basic and old-fashioned varnishes.

This is a quick overview of just some of the clear-coating varnishes that I know about and that I have used in the last few years.

Basically they all fall into two kinds, modern hard varnishes and traditional supple ones. If the boat moves (plank on plank....not through the water!) by which I mean any old clinker or carvel boat then you really have to use traditional varnishes, but if the wood is stable, as in most glued and moulded boats then you can use either traditional or modern varnishes.

The other thing to consider is that sooner or later you will want to remove the varnish, how ever well it was originally applied. Believe me, removing polyurethanes is about as hard as getting the knickers off a jehova's witness on your first date, whereas removing traditional varnish is as hard as....at which point maybe I should drop this rather dubious metaphor.

Traditional Marine Varnishes

These are the traditional one-pack varnishes. As a general rule they fall into two types, the standard varnishes (made mainly of alkyd) like International 'Original', Blakes 'Classic No 1' and some other cheaper varnishes like MBM 'Prima' which I rather like.

Then there are the Premium Traditional Marine Varnishes like International 'Deluxe', Joton 'Ravilak' from Norway and the best Varnish in the World, the Dutch 'Epifanes'. These varnishes tend to have a higher tung-oil content, be darker in colour and are certainly more expensive. They are not difficult to use and certainly have 'good body' as they say (they not me....what kind of anorak do you think I am).

Mono-Urethanes & Single Pack Poly-urethanes

There are quite a few of these, (International 'Schooner' & Epifanes 'Mono-urethane' are two) however the only one that I have really used much is the Blakes 'Single Pack Polyurethane' and that's just great! Quite a few of them (including the Blakes single pack) are based on cyano-acrylates (like SuperGlue - which is why they are so hard) and use the moisture in the wood to cure them. I am a real fan. It sets like rock (so you can polish it - which you can't do easily with traditional varnishes), dries quickly, is not particularly temperature dependant not too hard to get off again (but no where near as easy as the trad varnishes) and although harder to apply than the traditional varnishes, is quite easy if you follow my 'Idiots guide to Varnishing'.

Twin-pack Polyurethane.

Mmmmmmm, I do not deny that there are some boats out there that are varnished with twin-pack Poly-urethanes....and that they look gorgeous.....and I know that they will last twice as long and all that.....But I am afraid I just can't bring myself to recommend them, well at least not for a 'classic' boat. So why? Well the problem is that they are so strong, you can never get them off again, well not without destroying the wood underneath. A heavily worn area of mahogany would be OK, but your chances of getting it off your thirty year old ply deck without destroying it is not high at all. It also just does not look right to me.....I can't really explain why, you can certainly get a wonderful glass like finish, but it somehow looks like solid Perspex rather than giving that golden depth you see when you look down into your pint of Bass, with the evening light refracting through....ah now I am getting all romantic....the thought of a few coats of Epifanes does that for me....sad case I know. Oh, and did I mention that they are next to impossible to apply well. Well that's a bit unfair, you can do it if you can get all your work into a confined and controlled space. A friend had 3 attempts with one make of very expensive and very swish varnish, until in the end in total exasperation he rang up the suppliers who informed him that all his problems were down to him applying the varnish in a too cold and too humid an atmosphere.....so he wrote down the recommended temp and humidity and then made a quick call to the Met office.....yup you guessed it...the Met office reckoned that on average they would not expect more than 5-6 days a year with those

conditions.....mmmmmmmm....I normally varnish outside, so you can see that twin-packs are not really quite the thing for me.

Epoxy Coatings

Really these are just the same as the Two-pack poly-urethanes. Everything I said about them is also true of Epoxy varnishes. They are just as hard to work with.....maybe worse, although I have worked with these quite a bit (even outside at times, not that the results were anything to be proud of). They are very prone to going white if you work too late in the day and the dew comes down a bit early. Any rain is guaranteed to totally ruin your finish and if it all goes wrong and you have to sand it off.....then get ready to take a whole day out of your schedule....it's hard....and it takes forever. At least it's marginally easier to totally remove, although this depends on the make of epoxy. Epoxy is easily softened with just a little heat. I have used one make of epoxy varnish (SP.....if you really want to know) that on a real hot day actually melted under the covers and stuck to the cover in long strips when it was pulled off. Hey, at least it was easy to get off with the hot-air gun! Makes you think though, painting your carbon spars in white might not be such a bad idea!!

Wood Stains

Now for me, when I think of a wood stain, I think of the spirit based dyes that we use to put back in a bit of colour into our faded decks when they have seen just a bit too much summer sunlight (without enough varnish)....but for some Wood stains are a complete coating system.....and there are those that swear that these systems like the Dutch Sikkens Cetol system provide a better level of UV protection, for longer and cheaper than any other system, after all they are designed for coating exterior wood on houses, where they guarantee many years protection against all UV. They might be right....although these coating systems are still alkyd based, they have quite the highest solid content of any system I have considered here, which means that they need less coats and indeed should provide a higher UV protection, which is I admit is the really important thing. But then, I haven't used these....considered it....been and looked at the cans...but always chickened out. I know people who have used them, and it seems that for large areas (big boat hulls etc) it can be real good, but I do know people who have used them on smaller areas, more under close inspection who have been less than happy. One of the problems is that the sheer level of solids makes them less than completely clear, in fact (well they are stains!) they have a coloured base (in various wood colours). When this colour is even, there should not be too much problem, but sometimes you can see the streaks of colour in the stain.....and this can be very ugly indeed.

Wood Oils

These finishes (Deks Olya and International Dex 1&2 are typical, but there are others favoured by some boat-builders) were mainly developed by the Scandihooligans and are really good for boats that are going to spend a lot of time getting wet and living in wet conditions. O.K. I will admit it up front, I have never used any of these, so please take any of my thoughts with a big pinch of salt! Mind you I will give them a go when I have the right boat. I have been very impressed with the results that I have seen on some mates boats. They normally come in two parts, the first is a penetrating oil that sinks right into the wood and becomes a natural barrier that actually makes the wood itself waterproof. This first layer, never really sets or goes hard which is what makes it remain such a good water repellent. Some oil finishes leave it at that, but it's pretty horrible without the second layer on top. This layer makes a chemical bond with the soft layer in the wood but provides a surface that you can build up to a little depth on, to provide a bit of a shine. However it is still pretty soft and is not really able to provide the kind of depth of surface that we expect from the traditional varnishes. Of course it is this softness which is both annoying, but also what makes it so effective at moving with the wood, never cracking and just goes on keeping the water out, which after all is what it is supposed to be doing.

Misc Varnishes and other stuff

There are some strange ones too, like a few water-based varnishes. Blakes have one called SeaTech. Fraid I havn't used it....so I can't really pass comment, but I like the idea of a water based system. Burgess Marine also do one called Hydrosoll. It is part of a complete system of water-based wood seals made by the original inventor of Hammerite. As I said, I am not mad on wood stains, rather than varnishes, but it does sound like an interesting system and I must get around to trying it sometime. You can see more at: <http://www.woodsealer.co.uk/>

Another thing I have tried....and others claim give that perfect finish it to use a wet-edge extender, these are additives that you add to the paint to make them take longer to dry, which gives them more time to flow out and level out to a perfect finish. The one I have used is called Owatrol, it does do what is says on the tin.....I mean it does take longer to dry, and does flow out better, but this is a mixed blessing, it also means there is longer for it to catch dust, longer for it to run and really slows down your varnishing or painting. If you have a perfect place to work and you want to just apply one thick coat, rather than two thinner ones, it can help.....but personally I don't use it anymore as I reckon you can thin the paint, extend the wet edge, apply two coats and do all that in the same time as one coat of Owatrol improved varnish takes to dry. It can also be useful if you have to paint in the middle of a summers day when its got a bit hot.....but I reckon you still need to add a little thinners as well.

Primers

Or what do you put down on the wood under the varnish.

Any primer, clear or coloured has the same purpose, to make a decent bond between the wood and the coating system above it.

Traditionally the easiest way to do this (and of course in those days, there weren't any clear primers) was to use a thinned varnish that was supposed to sink into the wood.....OK that's the theory, but let me ask you something....when you took off the old varnish...did you see any evidence of the old varnish sinking into the wood? No.....you didn'tand No varnish (or primer) however thinned sinks any measurable distance into your wood.....sorry....but the primer is just trying to make a good bond to the outer layer of the wood. Now I admit that thinning your varnish most probably does make it a bit better at that.

But that was the traditional way, and although I would still do this for a real vintage boat (like my old Merlin) for anything else I would use one of the much better and harder 'clear primers'. These will provide you with a much more secure bond between the wood and the coating system and I heartily recommend their use.

I am aware of two clear primers: International Paints Universal Clear Primer (UCP) and Blakes 'Woodseal' . I think they are pretty similar. Both are expensive with UCP a little dearer. If forced I would say I think that UCP is a teensy weansy bit better.....but I don't think there is much in it and since I use lots of the Blakes Single Pack Polyurethane....I normally use the Blakes Woodseal too. They are both really hard, but I just slightly suspect that UCP makes a better bond to the wood.....although I would be the first to admit that I have absolutely no proof of this and mainly use the Blakes stuff anyway....which is just fine.

Applying them is just identical to applying the varnish on top, just remember that the stuff is HARD! Do make sure that if it is going to need sanding, you do it quite soon before it really cures too hard. Also remember that once it goes hard, it can be difficult to get the next coat to adhere properly. So if you let it go beyond the recommended coating times you will need to really sand it well before putting another coat on. All in all, I would always recommend that you try and put on the next coat just as soon as the previous coat has been through primary hardening (within the over-coating times).

How many coats? this will depend on the flatness and preparation of the wood you are coating. But you certainly need 2 coats. One to seal the wood, then once sanded flat again, another too seal all the exposed wood. Personally I think it is best to keep applying primer followed by sanding until you have got the surface as nice and flat. If you are still substantially sanding between coats, then keep using the primer, until it is really flat.

So that is the primer, what varnish do you put on it. Well any of the varnishes, either two-pack, single-pack, or conventional will happily go on top of either of these primers. I often happily work with a clear primer to get a good flat base and then totally finish off with traditional varnish. No probs!

Getting it out the can....and onto the wood

OK so you have prepared your wood or varnish and now you want to get down to getting the varnish out of the can and onto the wood.

You have 3 choices really

Brush

The traditional way of applying varnish is of course with a brush, preferably with hair removed from the sensitive parts of some endangered species of furry animal purchased at vast cost by your grandfather and passed down father to son on their death-bed.

Now I am not denying that brushes and the vast skill needed to accurately wield them can produce results of the utmost and highest quality.....its just that I own 8 wooden dinghies and I need an easier and faster way of applying the damn stuff. And to be honest life is just too short to be spent cleaning brushes.

Spray

Ah yes....spraying.....the professional answer....well again you get a great result, but you need to work indoors, somewhere with no dust.....you need a compressor, spray gun.....and again lots and lots of skill. Lets face it if you have the ability to spray varnish and somewhere to do it.....chances are, you are not reading this!

Roller'n'pad or Roll'n'tip (as they say in American)

Not so many people know about this method, but believe me, this is the way to do it. It is easy, cheap, fast and gives just brilliant results.....with next to no skill needed. I mean if I can do it, its got to be easy.

So what do you need?

Well you need some small foam rollers, these are just like the big rollers you use to paint your walls but they are only 100mm long. You can buy them at your local DIY store, although they are a little expensive so it can be worth finding a paint store and buying a big bag of them which works out much much cheaper. Then you need the pads; these are foam pads in the rough shape and size of a brush, sometimes called Jenny Brushes although they are also made by a few other companies such as West. They are all much the same although watch out as some of the cheaper ones use glue that can be melted by paint thinners....so they work fine until you try and wash them

and then they fall apart.....clever that.....cos then you have to buy another one <G>.

Of course you are going to also need some abrasive paper, lots of lint-free cloth, tack-cloth, the appropriate thinners....and of course the Varnish of your choice.

I will discuss elsewhere the choices of possible varnish and why you might want to use one or other type.....but lets get back to applying the stuff.

Rollers give good results because they can apply an even coating of varnish easily and quickly. Because they are fast, they enable you to always keep a wet edge on the varnish and working fast means looking good.

OK so what do we do?

The secret to getting good results with a roller is working fast. You are not going to lay down a few thick coats, but lots of thinner coats until you have built up a beautiful thick finish, so you will get plenty of practice.

Pour out a little varnish into the tray and add just enough thinners that it becomes loose and free and will easily flow off the roller when you lift it out. This is roughly 'single' cream consistency, rather than 'double' cream. The exact amount of thinners will depend upon the type, age and temperature of the varnish as well as the ambient temperature when you are varnishing. What you are trying to do is add enough thinners to allow the varnish to flow easily when you apply it. If you add too much thinners then you end up with such a thin coat, that it is just not worth the effort, but if you don't put any in, then it is much harder (and slower) to apply and quality quickly drops off. It might be a good point here to mention, that it is normally easier to varnish insidethan out, but there is no reason that you can't work outside as long as it doesn't rain....and there isn't too much dust....or a passing cloud of suicidal knats who suddenly decide to inspect their pretty little bellies in your mirror like varnish.

Once the varnish and thinners is well mixed, fill the roller with varnish and put the tray on a stool alongside the dinghy.....and get ready to work! If you are right handed, then you want to start at the right end of the work and move left (If left handed, swap around).

Work in small areas of about 400-500 mm square, lay down a series of thick lines of varnish with about a roller width distance apart and then roll across the thick lines, spreading the varnish as evenly as possible across the area. When you have an even coverage, finish off with a roll in the direction of the woodgrain. This process should only take about 30-40 secs, hopefully less. Depends on the varnish, but the chances are that you are now looking at a sea of little bubbles on a varnish with a slightly orange-peel effect left by the roller.

This is where the pad comes in! take the foampad (jenny brush) and drag it as lightly as you can across the varnish. Making long, light, slow and steady drags across the varnish will remove the mottled look and the bubbles and leave a glassy finish behind. The idea is to touch the varnish as lightly as possible, trying to keep the foam pad as dry as you can. If the pad gets wet (which it will) you need to dry it off as much as possible.

The recommendation from the paint gurus is to always roll away from the wet edge and tip towards it...but personally I often work the other way around or even finish them both towards the wet edge. Every varnish, every boat, works just a little different and you just need to look at how it is going down and then keep it like that. Another theory from the pub-table varnishing club is to always use vertical strokes on vertical surfaces....it is true that horizontal brush strokes are more likely to run than vertical ones....but to be honest if you roll'n'tip you shouldn't have so much varnish on the boat that there is any chance of it running. If it does run, you are really putting too much varnish down in one go.

Having a second set of hands here can really help, one person applies varnish with the roller and the other lays it off with the foam pad.

As I said.....the secret is to work fast and not let any edge dry off before you return to recoat it. Its easy and its quick, a 12ft hull should take 25-30 mins, decks 15-20 mins (faster if you are working with some one). If you miss a bit (and you will) then don't worry, but also don't be tempted to go back, once the wet edge is lost, you will never get the varnish to blend in. Better to leave it and get it in the next coat, same goes for those annoying flies that decide to learn to tap-dance in the middle of your new varnish, leave them, they only have little feat, but if you try and move them you will drag their whole body into the varnish.

The coat you have applied will be quite thin, both because you thinned it and also because a roller tends to apply a thinner coat anyway. So you will need to apply a few more coats than you would if you were applying with a brush.....that is the bad news, but the good news is that it should dry a bit quicker too.

You want to get the next coat on as soon as possible after the first, but you are not going to be able to do that until the last one has dried and you have rubbed it down. The best way to rub down the still tender varnish will be with wet'n'dry (about 400grit) used wet with a little washing up liquid in the water. You can 'hot coat' like this, applying varnish over just dried varnish for up to about 4 coats, but once you have got a fair amount of varnish on the boat, it is best to really leave it to dry and set before sanding with a rougher paper like a 240grit used dry.

If you are starting on bare wood, then the first few coats will need quite a bit of sanding between coats before the grain of the wood is fully covered by the varnish, you will most probably need to use something like the 240grit to get this done, but once you have got the base coats nice and flat it becomes easier to build up lots of layers in quite a short time.

So how many coats and how long will this take?

It normally takes about 3-5 coats to fully close the grain of the wood, depends on the wood, how much you sand and how much thinners you added, you then need to add another 3-5 coats to provide a little depth and after about 5 coats it should start to look really professional and if you have been really sanding down then it should be totally flat by 7 coats (and not that thick, as you will have sanded most of it off again)

How long it takes to do will really depend upon how well you can organise your life to fit around the drying times of the varnish. I would normally hope to apply 3-4 coats 'hot-coated' over a w-e and then leave it to dry and harden before finishing off the next w/e with another 3-4 coats. If you can find the time it is even better to just put on one coat a day. This works well because you are still overcoating within the 'overcoating' time but normally a day is enough to let the varnish harden enough to allow it to be properly sanded between each coat. Between the first few coats, it is best to dry sand with 120-180 grit but when you get towards the last coats, you should be starting to get a good finish and you can move over to 180-240 grit wet'n'dry, this helps because it also keeps the dust down. If you go beyond the overcoating time, you will be forced to go back to dry sanding with 120grit.

How much does this cost?

Well no more or less than applying fewer, thicker coats. It does become hard to estimate the thickness that you have applied and I normally think in terms of how many cans or ml of varnish I have applied rather than number of coats. You will of course use quite a bit more thinners, (which can be incredibly expensive) and wet'n'dry but I promise that it will all be worth it when you can see your reflection in the varnish.

Is it pretty yet?

With a little luck, your varnish should by now look just glorious, deep, golden and glass like.....well done...but, if it's perfect then ...that's most probably because you, unlike me, have been working in some small, dust-free, central heated workshop, rather than an open barn with the wind whistling through and depositing half of Weston beach in your varnish.

So lets face it.....there is some dust in there.....or maybe you were getting a quick coat on outside.....and one baby black cloud, meandered across the perfect blue sky and then pissed on your varnish.....been there, but the bottom line is, its pretty, but it ain't perfect and you want perfection.

Why not Polish it?

Mmmmm, not so easy, but you can polish some varnishes.....but only once they have really gone HARD. So it follows that the hard poly and mono urethanes are much easier than the traditional varnishes and I certainly would not try to polish one of the oil finishes.

What do you do?

First you allow the varnish to really harden! To be safe this means a couple of weeks at least! Then you get some 1000 or 1200 grit wet'n'dry and using lots of water (with a little detergent in it) you rub down the varnish. If you find that the paper is blocking up with varnish, then the varnish is way too soft – so stop! All you are trying to do is to flatten any dust etc, once you have done this, it should be FLAT and just a little silky, but not matt, if it's matt you have gone too far and will need to rough it up with some 180 grit and put another coat on.

Then make a quick visit to your local auto-shop and get some auto rubbing compound, some t-cut and some polish. Start with the rubbing compound, small areas, work slow (not in the sun)....rubbing it out. Then go to the t-cut, and by the time you finish with that it should be both flat, and totally sparkling, just as if you sprayed it.

I have to say, the thing about polishing is that it won't rescue bad varnishing, and to be honest, the better the varnishing is to start with, the more difference it will make, but if you do have a good base that has been spoiled by a less than perfect topcoat, you might get away with it.

Of course if you want it to look perfect.....then polishing will do it for you, but it is a bit of a fag and do watch out, my big sis polished the decks on my Jollyboat before a big event in Cowes and as soon as they got wet, my bum lost all grip and every time we hit a wave, I just slid down the whole way to the transom..... eventually I had to get my crew to trapeze with one leg either side of me just to keep me from falling in.

Concours'd'Elegance

No excuses now.....I am looking forwards to seeing some beautiful varnish. These notes are only my personal learnings made over the last few years. I am sure that some of you will disagree with bits that I have written....so if so, or if you have any other advice or tips that you would like to add...please just give me an email on ed@cvrda.org

Cheers

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