

Instructions

(Read these first before playing with the line)

Introductions

Below is some background information about your unfinished silk fly line followed by details of how I finish my own silk lines. Read these instructions carefully and be patient. Making a nice silk fly line is much like making a good split cane fly rod – the best results come when great care and attention to detail is given to each and every process along the way (patience is very much the key to success with silk lines). Also, have fun and be proud of your achievements, however the line turns out.

There is more than one way to finish a silk fly line and I've set out my own way below. However, do take note of this. There are thousands of "*silk line experts*" on the various online angling forums who will be only too glad to tell you everything there is to know about silk fly lines (really!). However, worldwide, there are only a small number of guys like me who are actually making silk fly lines. If you've not done this before, or perhaps if your experience to date is refurbishing old silk fly lines, then I suggest you follow my system this time and then deviate with some of your own ideas next time if you wish.

The unfinished silk line you've received has been braided from unbleached, degummed reeled silk. In other words, the line is made from the best grade of silk (i.e. reeled silk), the silk has not been bleached (which leaves the silk weak and, on a commercial scale, is terrible for the environment) and the sericin has been removed (degummed). Silk is made up of two proteins, sericin and fibroin. Fibroin is the good stuff. Sericin is a bit like dry PVA glue and gets washed off by me in an earlier process, called degumming, which uses warm soapy water (and "degumming" has nothing to do with how some old silk lines can become sticky). The unfinished silk line has been braided from between eight and sixteen threads on a traditional, maypole, braiding machine. Each thread contains a specific number of "ends" of 20/22 denier filament silk (and each "end" is made up of several very very thin continuous silk fibres). The silk used to make silk fly lines is very different to silk sewing thread. Creating the tapered ends of the line is very skilled and time-consuming work. If you look closely at the unfinished line, you'll be able to see how the pick count (number of threads across the braid at any particular point) and thread thicknesses both change to create the tapered ends of the line.

At this stage the braided silk line should be handled gently for two reasons (1) the silk line isn't very strong at this stage but will gain much strength when the varnishes (detailed below) glue all the threads and fibres together and (2) there are many loose ends of silk along the line which have been carefully tucked into the core of the braid and if the line is handled too much those ends will start to poke out.

Sometimes, if appropriate, I will braid the tapered ends (only) of the silk lines around a very thin core of braided polyethylene (I braid my own polyethylene using ultra fine filament material). You might see the end of that core poking out of the knotted ends of the line (if I've put one in). That core should not be disturbed because its purpose is to add strength and rigidity to those very delicate parts of the line - an important design feature.

The silk fly line will be finished/ varnished primarily with boiled linseed oil (BLO), which is a drying oil. Boiled linseed oil hasn't actually been boiled. The difference between linseed oil and boiled linseed oil is that boiled linseed oil includes additives which makes the oil dry slightly faster. BLO is readily available, cheap to buy and, importantly, remains pliable after it has dried. At a later stage a "cuticle" will be applied made from very thinned down modern-day yacht varnish. The purpose of that cuticle is to form a final very thin, hard, water-proof and smooth coating.

Dying

Before varnishing the silk line, it can, if you wish, be dyed. I love the groovy colours. For example, I sometimes dye lines for my own personal use half one colour and half in another colour – so that I know which end I'm fishing with and to give me dark and light colour options etc. Dying just the tips can also be very useful for bite detection and better presentation etc. If you do dye the line here are a few tips. (1) Don't use Dylon or any

other powerful commercial fabric dyes, as those can leave the silk badly weakened. (2) Use gentle natural dyes (or even better, make your own out of coffee, boiled green plant leaves, seaweed, turmeric, boiled onions, beetroot, berries etc – food colourings are also good). (3) Warm the dye slightly and add a drop of washing up liquid to aid fixation (but don't warm the dye solution too much or you'll end up with a crinkly line). (4) Allow the wet dyed line to dry very thoroughly before applying any boiled linseed oil or other a-polar varnish.

Tools

As a Silk Fly Line Maker I finish lots of lines and, therefore, have specialised equipment to help with that, such as a powerful vacuum chamber, drying cabinet and polishers. However, those tools aren't essential and the description below assumes all you have access to is a pickling jar (to keep your boiled linseed oil in), a tray or shallow cardboard box and a few soft cotton cloths. I also mix certain natural additives into my boiled linseed oil, but again, they aren't essential and the method detailed below will produce a very good finished line:

Here's how I finish a silk fly line (pretty much):

- 1) To start with carefully unwind the coiled up braided silk line. Use a fly line winder, so that the line isn't twisted (it's important the line doesn't become twisted at this stage, because the varnish will then set that twist permanently in place). If you don't have a fly line winder, slide the coiled-up line round a rolled-up magazine so that you can uncoil the line without putting in any twists. Put the loose coils of line into a tray or shallow box. Tie a foot-long piece of string to the back end of the silk line.
- 2) A few inches of line at a time, extend the line out into a jar of boiled linseed oil (BLO), as if feeding rope out slowly over a cliff edge. Push the line down into the drying oil if need be in order to get all the line into the BLO. Leave the string you tied to the back end of the line hanging out of the drying oil jar. The line will quickly soak up the BLO and penetration of the drying oil into the line will be perfectly sufficient (especially if the BLO has been warmed a little beforehand – but not too much heat though as that can cause damage to the silk). Leave the line to soak in the BLO for several hours. (Here I use a powerful vacuum chamber to suck out every last bit of trapped air from within the silk fibres. However, unlike the situation when a silk line is being refurbished, actually very little air is sucked out by the vacuum chamber when the silk is newly braided).
- 3) Next, pull the silk line out of the jar of BLO a few inches at a time between your finger and thumb to gently squeeze off the excess BLO. Put the coils of line back into your tray/ shallow box as they come out of the BLO jar. The line shouldn't be too wet/ there should be no excess oil dripping from the line for two reasons (1) the line will never properly dry and (2) if the line does ever dry you will be sanding off the excess dried BLO forever! Now allow the line to dry at room temperature for at least several weeks (i.e. seven weeks or more). BLO has a very protracted drying time, but what's the rush? (Here I use a heated ventilated drying cabinet which reduces the drying time down to two weeks).
- 4) After several weeks check to see if the silk is **completely** dry. If the BLO has fully dried the line will feel like dry straw, all stretch will have gone and no droplets of undried BLO will emerge from the line if it is pulled between your hands. If the line isn't yet completely dry, put it away for more weeks.
- 5) Once the coating of BLO is completely dry, pull the line through a grease free dry cotton towel several times to "polish" the surface of the line. It's very important here that the cloth used is grease free, as any grease will stop the next coat of finish drying properly. Once the line has been polished, allow the line to sit at room temperature for at least another week to allow any tiny reservoirs of BLO, which the polishing released, to dry fully. The polishing might cause a few of the loose ends of silk that were tucked inside of the core of the braid to be freed. If that happens, carefully trim those off with sharp pointed fly-tying scissors, but be careful not to cut through any of the structural threads of the braid. (Polishing here is a skill in itself. Knowing how much pressure to use and when to stop is the key. If in doubt, don't over-do the polishing at this stage. If the outermost fibres of the silk braid are broken through excessive or hard polishing, that damage will be irreversible).
- 6) (If applicable). Loop attachment. Measure the tapered ends and trim the tips so that both tapers are the same length. Slide on the braided silk loops I've provided and neatly whip down the loose ends with fly tying thread. Cover the whipped fly-tying thread with some nail varnish or a little UV fly tying cement.

- 7) The silk line will now be almost entirely filled with BLO, which has been allowed to dry fully and which has been polished (plus loops attached). The line is now ready for its final “cuticle”. Mix together a jar of 50% white spirit and 50% modern-day yacht varnish. Using the same technique as before, lower the line into the cuticle solution and then draw the line out squeezing off all excess between your finger and thumb into the tray/ shallow box already used. The line should now be allowed to dry for a week or more.
- 8) Final polishing. Pull the line several times through a cloth soaked in your favourite fly line grease (see recipe below for mine).
- 9) Weigh and measure the line so that you know its final precise length and AFTM rating. There are lots of AFTM line charts online in either metric, imperial or both – just remember not to include the thin tapered ends of the line when determining the final AFTM rating. The line might have shrunk slightly as the varnish (above) dried, so it’s good to know the line’s final length too. The line is now ready for use.
- 10) The silk line at this stage will be a little bit stiff and a little bit rough. The line will become very much softer and smoother over the course of the first half dozen fishing trips and nothing should be done to try and accelerate that break-in. Apply a thin layer of fly line grease before going fishing and dry the line out after use. Don’t grease a wet silk fly line (because that will trap the moisture inside the line). Check your rod rings and reel for sharp edges which could damage the line.

Discussion

The method I’ve described above aims to fill the hollow braided silk line up with varnishes level with the outermost surface fibres of the braid (that’s my preference). You can, of course, apply more coats of BLO – a bit like dipping a candle in fat (and those further coats will also increase the line’s weight). However, as the build-up of varnishes becomes higher and higher, the closer you will get to making the equivalent of a plastic fly line.

I hope you’ve been successful and the line has turned out well. Finishing a silk line, casting with it and catching a fish gives a great sense of efficacy (like tying a fly for the first time and catching a fish on that). Please send me a photo of your finished line! imoxon20923@gmail.com

Suggested line grease recipe.

This line grease recipe was given to me by a very good angler friend about thirty years ago. I’ve used it ever since. It also works very well on dry flies and is a great lip balm for cold weather days:

Melt together equal quantities of petroleum jelly (Vaseline) and lard (animal fat) with a small cube of Bees wax. Melt the ingredients together very carefully because they are highly flammable! Don’t put too much Bees wax into the grease, otherwise it will be too sticky (although the Bees wax makes the grease harder and stops it rubbing off the line quite so quickly). Pour the melted grease into small pocket-sized tins. A tenner’s worth of ingredients will make enough line grease to last you a lifetime!

Good luck

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