

Silk vs Synthetic Fly Lines

By

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Why choose a Silk Fly Line? The answer simply is that when fly fishing in the traditional realm of streams, rivers and small still waters, where modern tapers are not a requirement, they allow for improved casting efficiency, a more delicate presentation, greater adaptability on the water and if cared for correctly a longevity not possible with modern synthetic fly lines. Often viewed as an expensive luxury for the purist, silk fly lines do cast and present better whether using split cane or carbon fly rods, thus enhancing your fly fishing experience.

BRAIDED SILK FLY LINE



Synthetic Fly Lines were introduced in the period following WWII, when a polyvinyl chloride (PVC) coating was first applied to a core of braided nylon, Dacron or fibreglass. The slickness and buoyancy of the line being determined by the PVC sheath and the inside core determining its strength and flexibility, combined the sheath and core determine the lines overall diameter and weight. In the case of floating lines the purpose of this manufacturing method was to trap microscopic bubbles within the PVC sheath allowing the lines to float, much the same as a greased silk fly line would. The major benefits of this new manufacturing technique were that the lines were cheaper and easier to control in mass production and required less care in the field.

CROSS SECTION OF SYNTHETIC FLY LINE SHOWING SHEATH AND CORE



MODERN TAPERS



Note: Tapers have evolved to the right from traditional level and double tapers

With the arrival of the new lines a new system of line designation was introduced, meaning the older braided line systems which were based on line diameter were replaced with a modern system based on line weight. The new system developed by the American Fishing Tackle manufacturers Association (AFTMA) required that the first 30 ft of a synthetic line be the same weight as the old silk line designated equivalent. As natural silk is denser or heavier than the synthetic materials used in modern lines it meant that synthetic lines needed to have a wider diameter, or more bulk, in order to match equivalent fly rod ratings. The new manufacturing process not only allowed for cheaper production but the added control in production meant that by varying the diameter of the PVC sheath manufacturers could create new weight forward and shooting tapers which rapidly expanded the scope of traditional fly fishing. Now the modern fly fisher could target new species in new environments which were traditionally not possible this was especially

evident in the growth in popularity of saltwater fly fishing. Modern fly rod manufacturers have kept abreast of these changes by developing faster actions and lower profile blanks in their efforts to reduce rod drag as well as generate the faster line speeds necessary to overcome the increased drag of these bulky lines.

DIAMETER AND EQUIVALENT AFTMA CLASSIFICATION TABLE

Diameter Classification (OD)	Weight Classification AFTMA # (Oz)
4A (0.073")	12 (0.868)
3A (0.070")	11 (0.754)
2A (0.066")	10 (0.640)
A (0.060")	9 (0.549)
B (0.055")	8 (0.480)
C (0.050")	7 (0.423)
D (0.045")	6 (0.366)
E (0.040")	5 (0.320)
F (0.035")	4 (0.274)
G (0.030")	3 (0.229)
H (0.025")	2 (0.183)
I (0.022")	1 (0.137)

There are however 2 noticeable drawbacks to fishing with a wider diameter line and these are most evident in the casting and presentation of traditionally tapered fly lines. Silk fly lines are on average 30% thinner than equivalent modern synthetic fly lines, this 30% reduction in diameter equates to the equivalent of a 69% reduction in surface area and therefore drag, meaning that less effort is required to cast the line a given distance and that they are less affected by windy conditions. Silk Lines being less bulky are also denser than their synthetic brethren and provided that they fall in the same AFTMA class will land more delicately and with less splash than an 'equivalent' synthetic line. These properties combined with the fact that they have little stretch and no memory, give silk fly lines unparalleled feel and control, this is especially so when using a short line or when fishing traditional waters such as streams, rivers and small still waters, allowing you to slow down, relax and enjoy your cast.

Apart from being more efficient to cast, silk fly lines also offer greater versatility when on the water. Unlike synthetic lines which are designed for a specific purpose Silk Fly lines can be prepared beforehand to fish a variety of situations. Left untreated a silk fly line acts as a slow sinking intermediate line but by greasing the line it is made hydrophobic and sits "on" the surface film and not "in" it as many synthetic lines do, this means that there is less disturbance when the line is mended or when raising the line to begin a new cast. Due to the fact that the majority of silk fly lines have a double taper with loop to loop connections to the backing and leader it is possible to prepare the line to become 3 lines in one. For example by initially greasing the line the end can be degreased when on the water to become a sink tip of varying proportions or by leaving a fair portion of the line attached to the backing ungreaed it can be turned around to act as an intermediate or slow sinker.

Another important factor to consider when purchasing a silk fly line is longevity, silk lines are expensive, this is mainly due to the fact that they are handmade using time consuming techniques and the costs of purchasing fine Chinese silk and other raw materials, however if correctly cared for and maintained they will far outlive an equivalent synthetic line, in many cases lasting for more than a decade of good use and even then they can often be refurbished.

In summary apart from the objective benefits highlighted where modern tapers are not required, there is another subjective benefit I believe silk fly lines offer which is too often overlooked, and that lies in their care and maintenance but especially in their preparation. The ability to adapt the line to suit your future days fishing requires insight, the knowledge that a decision made in the preparation of your line for your trip can affect the outcome of the days fishing, this can be likened to the thrill of catching a fish on a fly tied by your own hands. Often this is viewed as a hindrance when compared to synthetic lines and the relative ease of use which they offer, but it is in the responsibilities associated with owning a silk fly line where lies their charm, and the pleasure associated with the preparation for and hands on approach to this gentleman's sport.

