

Why Use Spectra Flying Line When Flying American Style Fighter Kites?

First, what is spectra flying line anyway?

Spectra is a synthetic fiber that has the following characteristics; it's stronger than steel for the same cross sectional dimension, it is extremely flexible and soft in its texture, it doesn't stretch, it is very lightweight, it's very slippery, it doesn't absorb water and it has a relatively low temperature melting point.

Spectra is the line material used by dual and quad line sport kite flyers. It is also the material selected by many fishermen as their favorite fishing line. However, none of these activities require the user to grip the line in their hands and/or manipulate the line by hand. The sport kite flyers use handles or straps attached to the spectra.

So, why choose it as a fighter kite flying line?

Basically, because it allows the kite to fly faster in the same wind speed compared with other flying lines, it allows the kite to fly farther beyond the edge of the wind window and it makes the kite respond much quicker to the flyer's line manipulations. All very good things, especially if you are in a line touch competition!

How does spectra accomplish all of these benefits?

- a. Spectra is very strong for its diameter. For example, the diameter of 30# breaking strength spectra is about 1/3 the diameter of standard cotton fighter kite flying line. The cotton flying line's breaking strength is only about 8#. By using a stronger, but smaller diameter and lighter weight line than cotton, for example, your kite has much less flying line weight to carry and the line provides much less wind drag. Both of these aspects add to the kite's speed and ability to fly beyond the edges of the wind window.
- b. Spectra doesn't stretch. When you give a slight tug on your flying line, when using spectra, your kite responds instantly; or at least it appears to be instantly compared with the delay from using other flying lines. The combination of no stretch along with spectra's smaller diameter, create this quick response time. Your flying line has much less 'sag' or 'droop' because of its smaller diameter. Because there is less line sag, your manipulation of the line is more directly connected with the kite and the kite responds quicker.
- c. Spectra doesn't absorb water so it doesn't get heavier or larger in diameter in high humidity or wet conditions.

Does spectra have any negative aspects? Yes, several.

- a. Spectra flying line is very thin and slippery. It is very difficult to grip securely without quite a lot of practice. As a result, flyers tend to get more finger and hand cuts using spectra and the cuts are much deeper than with other lines. When it is wet, it is even more slippery and even more difficult to grip.
- b. Spectra is more expensive than other flying lines.
- c. It's prone to tangling and twisting as badly or sometimes worse than other flying line materials.

- d. It has a low melting point, so if your flying line is tangled with another fighter kite flyer's cotton flying line, the cotton line will easily melt or cut the spectra with a few 'see/saws' of the lines against each other. Most other line materials will also melt or cut spectra with ease under similar conditions.
- e. Because of its inherent slipperiness; spectra doesn't hold many knots securely.

After weighing the pros and cons of spectra, virtually ALL competition line touch flyers fly with spectra flying line. There are only 1 or 2 competition flyers I know that don't fly with spectra flying line.

What specific brands do fighter kite flyers prefer and where can you buy it?

Most flyers buy fishing line made of braided spectra. It's available at most on line fishing stores as well as at most fishing supply outlets near where you live. PowerPro is the most popular brand of fishing line used by fighter kite flyers. The most popular size is 20#, but some flyers use 30# or 50# and others use 10# or 15# line. I have tried many different brands and they are all very similar. One on line fishing supply source that has lots of brands of braided spectra and braided spectra blends is www.cabelas.com.

Fundamentally, flyers are searching for the smallest diameter line they can grip well. All PowerPro braided spectra fishing line is strong enough for flying fighter kites in the strongest winds, even the lightest breaking strength line. But as the breaking strength of the spectra line diminishes, its diameter also shrinks and as the diameter shrinks the grip-ability also disappears.

Because these lines are actually made for fishing, they are often coated with an even slipperier coating of some sort to assist in the line smoothly flowing through the guides of a fishing rod. These coatings make gripping the line even more difficult.

However, as you use the braided spectra, it begins to lose its coating and sometimes begins to get a few very small fibers exposed along the length of the used line. Both of these occurrences make it easier to grip. Well used spectra line is usually easier to grip because of the lack of coating and the added 'tooth' of the small exposed fibers.

There are many different synthetic materials made into fishing line. I've only tried a few. You may discover the 'perfect' blend of small diameter, easy grip, no stretch in a brand nobody else has tried! If you do, I hope you will share your discovery with the rest of us!

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