



**The Standard in
Fabric Covering**

Poly-Fiber has the Best Manual in the Business!

- Poly-Fiber is the **only all-VINYL system** on the market today. As it dries, it **bonds extremely well** to today's polyester fabrics and remains flexible.
- **Poly-Fiber does not support combustion.**
- Poly-Fiber is **one of the lightest systems** available. **Only nine coats** are used. There are lightweight options, too.
- Poly-Fiber is the **most repairable** of all systems available today, and the repairs are as strong as the original.
- Poly-Fiber **can be rejuvenated** after years of weathering.
- It has over 30 years of success as the Stits Poly-Fiber system. Many original jobs done 30 years ago are still going strong.
- Poly-Fiber is **not particularly sensitive** to heat, cold, or humidity during application or throughout its service life.
- Poly-Fiber offers **choices in fabric weights and types of top coat paints.** There are 50 top coat colors in Poly-Tone and Aero-Thane.
- Poly-Fiber **has options for every aircraft** from a simple ultralight to the most sophisticated warbird.



Also available is a new EAA Sportair two-hour comprehensive DVD which presents every aspect of our Poly-Fiber fabric covering process in detail and in easy-to-understand language. From preparing the airplane for covering to spraying on the colors, you are guided step by step through the entire process by a professional EAA Sportair fabric instructor. Covers: preparing surfaces, attaching the fabric, tightening the fabric, applying the first coat of Poly-Brush, tying rib-lacing knots, applying finishing tapes, spraying Poly-Spray, applying color coats.

There are just six basic steps:

1. **Glue on** the fabric with our **Poly-Tak** fabric cement; tighten it with the heat of a calibrated clothing iron. **Do not use any other heat source !**
2. **Brush on** a coat of **Poly-Brush** fabric sealer.
3. **Riblace**, then apply gussets and finishing tapes with more Poly-Brush.
4. **Spray on** two more coats of **Poly-Brush**.
5. **Spray on** three cross coats of silver **Poly-Spray** to block ultraviolet radiation.
6. **Spray on** two coats of **top coat paint**, either Poly-Tone or Aero-Thane.

That's nine coats. How much does that weigh ?

Surprising little - Total fabric and coating weight for a Cub Size Aircraft is about 60 pounds, not the usual 75. Smaller aircraft and ultralights average about 20 to 25 pounds. For extreme ultralights it's possible to skip some steps and get down to 12 to 15 pounds, but this covering won't have all the capabilities of the full eight-coat system

Is Poly-Fiber more expensive than other systems ?

No, they all cost about the same! Although dope costs less per can than Poly-Fiber, you use twice as much dope as Poly-Fiber. Price them out for yourself. You'll find they pretty much even out.

How do I find out how much it will all cost ?

Aviaquip is happy to send a written quotation , in the back of the Poly-Fiber Covering Manual is material estimates for various types of aircraft. It is suggested that you use a similar size aircraft as a guide to what you might need.

For example below is a Material Estimate for a Cub Size Aircraft :-

Fabric 45 yd , Poly-Tak 1 Gal , Poly-Brush 10 Gal , Poly-Spray 11 Gal , R65/75 or RR8500 Reducer 6 Gal , Fabric Tapes 1 x 1" 7 x 2" 2 x 3" 1 x 3" Bias 1 x 4" Bias , Rib Lacing Cord 1 , Reinforcing Tape 1/2" 1 , Poly-Tone Colour x 10 & R65/75 or RR8500 Reducer 2 1/2 Gal , or , Aero-Thane (mixed with catalyst) 7 Gal & UE820 Reducer 1 3/4 Gal. (Plus Inspection Hole Covers & Reinforcing Rings , Anti-Chafe Tape , Grommets , etc)

It is suggested that you buy a bit more of the fabric rather than less and less of the coatings rather than more (we can always send you extra coatings if you need it , but there is nothing more annoying finding out your fabric is one foot too short !)

Have a look on the Aviaquip Web Site for a Poly-Fiber Stocking List and ask for a quote by Letter , Email or Fax using the listed part numbers. This helps to ensure that you are quoted and thus get exactly what you want.

What Types of Poly-Fiber Fabric are there and What should I use ?

Airplane Type	Fabric	Breaking Strength
Ultralights, Very-Light Aircraft, Gliders, and Aircraft with less than 65 HP	Light Weight Uncertified Width 60" 1.7 Oz per S/Yd	Average 67lbs/in
All Normal Service Aircraft-kit aircraft, Antiques, classics, new production aircraft, and most airplanes using normal airports.	Medium Weight Width 70" 2.6 Oz per S/Yd	Over 116 lbs/in
Aerobatic aircraft, ag-aircraft, Warbirds, and all larger aircraft & aircraft operating off of rough fields	Heavy Weight Width 70" 3.4 Oz per S/Yd	Over 125 lbs/in

(This is only a guide , if unsure contact Aircraft Manufacturer / Designer)

I am covering an experimental airplane. Can I use uncertified fabric?

The answer is yes, you legally can use any fabric. However, to ensure you have a good quality you should only use certified fabric that has been properly inspected. Using uncertified fabric is somewhat risky as to whether it has proper strength and elongation properties.

Can I use an " Automotive " Top Coat ?

Since 2001, the FAA has required that fabric covered aircraft (at least the fabric parts) be painted only with topcoat paints tested and approved on an STC. Use of any other topcoat paint will void the STC and airworthiness of the aircraft. Up to 2001, the STC's "ended with the silver", and any type paint was legal to use. This is no longer true. Over the years, increased use of brittle automotive or industrial paints caused enough cracking and delamination to cause the FAA to rethink approving untested topcoat paints over fabric. Failed topcoat paints expose polyester fabric to sunlight and UV damage. As of the latest revision of the Poly Fiber STC Procedure Manual (revision 21, September 2006), only the following topcoat paints are approved on the Poly Fiber STC: **Poly Tone, Aerothane, or Randolph Ranthane**. All three of these paints have long service lives over fabric as well as an FAA Parts Manufacturing Authority (PMA), which allows their application on certified aircraft. For instance, a J-3 Cub must have only **Poly Tone, Aerothane or Ranthane** over the fabric parts, but you could use enamel or anything else over the struts, cowl, fairings, etc. The keyword is FABRIC. Experimental aircraft are not bound by these rules, however, **we do recommend using products with known track records on fabric components.**