

About the Superflite System 7

The Superflite System 7 is a complete all-urethane aircraft fabric covering and finishing system for recovering certified, experimental, and vintage aircraft, the only fabric covering system on the market where Superflite manufactures every component: fabric, surface tapes, adhesive, primer, and urethane topcoat. The System 7 aircraft recovering process requires fewer steps and less product than competing fabric systems, delivering a show-quality finish at roughly 20% less cost than some of the alternatives.

System 7 is FAA-STC approved aircraft fabric for certified airplanes and suitable for all experimental, homebuilt, and ultralight aircraft. The Superflite covering fabric is also approved for use with any other STC-approved coating system, including PolyFiber, Ceconite, and Stewart Systems, making it the most versatile FAA-PMA certified aircraft fabric on the market.

The 3-Step System 7 Process

- 1. Attach Fabric & Tapes — Glue fabric and surface tapes to the airframe using U500 adhesive. Shrink fabric with an iron to correct tension.
- 2. Apply Fabric Primer — Spray 2 coats of SF7500 primer (mixed with SF7600 catalyst). Sand after the second coat.
- 3. Apply Topcoat — Spray 2 coats of urethane topcoat (mixed with SF8950 catalyst and the appropriate temperature reducer). Done.

TIP: No separate fabric filler or silver UV coats needed, that's what makes System 7 faster and more cost-effective than PolyFiber, Ceconite, and other competing systems.

Section 1 — Fabric

Superflite is the only aircraft fabric manufacturer producing its covering fabric at US mills, ensuring consistent quality. All SF101 and SF102 polyester aircraft covering fabrics carry FAA-PMA certification and may be used under any STC coating system. SF104 is a non-certified lightweight fabric for experimental and ultralight aircraft use only.

Part Number	Description	Weight	Notes / Usage
SF101	SF101 — Certified Heavy-Weight Fabric	3.7 oz/sq yd	FAA-certified. For higher-speed aircraft, bush planes & warbirds. Approved with any STC coating system.
SF102	SF102 — Certified Medium-Weight Fabric	2.7 oz/sq yd	FAA-certified. Most popular weight, used on the majority of certified GA aircraft. Approved with any STC coating system.
SF104	SF104 — Non-Certified Lightweight Fabric	1.8 oz/sq yd	NOT FAA-certified. For experimental & ultralight aircraft only. Lightest option.

Sections 2 & 3 — Surface Tapes

Superflite aircraft surface tapes, rib tapes, leading-edge tapes, and finishing tapes, are available in two fabric series: SF102 (certified, for certified & experimental aircraft) and SF104 (non-certified, for experimental & ultralight only). Both series offer the same four pinked, straight, bias-cut, and pre-shrunk styles in six widths.

Part Number Format

SF[series]-[width][style] — Series = 102 (certified) or 104 (non-certified) | Width = 1, 15 (1.5 in), 2, 3, 4, or 6 | Style = P (pinked), S (straight), PB (pinked bias), SB (straight bias), P-HS (pre-shrunk pinked), S-HS (pre-shrunk straight)

Example: [SF102-2P](#) — SF102 certified fabric, 2 in wide, pinked edge, 50 yd roll

Example: [SF104-3S-HS](#) — SF104 non-certified fabric, 3 in wide, straight edge, pre-shrunk, 50 yd roll

Example: [SF102-2PB](#) — SF102 certified fabric, 2 in wide, pinked bias cut, 25 yd roll (bias tapes come in 25 yd rolls)

Style Comparison — Which tape do I need?

Style	Suffix	Best Used For	Key Benefit
Pinked Edge	P	Standard ribs, surface tapes, leading edges	40% more adhesion than straight edge; classic look.
Straight Edge	S	Visible areas that will be sanded smooth	Easier to sand; less visible tape edge.
Pre-Shrunk Pinked	P-HS	Ribs, longerons, straight edges on dark-colored aircraft	Less than 3% shrinkage remaining, prevents puckering under dark paint.
Pre-Shrunk Straight	S-HS	Same as P-HS but where a sanded finish is preferred	Pre-shrunk + easier sanding.
Pinked Bias Cut	PB	Wingtip bows, curved surfaces, compound curves	Diagonal weave stretch for curves. 25 yd rolls.
Straight Bias Cut	SB	Curved surfaces needing a smooth sanded finish	Bias stretch + smooth edge. 25 yd rolls.

TIP: SF102 tapes are cut from certified fabric and are appropriate for both certified and experimental aircraft. SF104 tapes are cut from lighter, non-certified fabric and are best for experimental and ultralight use only.

Sections 4 & 5 — Coatings & Topcoat Colors

The System 7 aircraft coating process requires four products applied in sequence: fabric adhesive, two-part fabric primer, and two-part urethane aircraft topcoat paint. All coatings are the same product on fabric, metal, and fiberglass, one urethane finishing system covers the entire aircraft.

Step-by-Step Coatings Reference

Step	Product	Part Numbers	Mix Ratio	Notes
1	Fabric Adhesive	U500GL-GRN (gal) U500QT-GRN (qt) U500PT-GRN (pt)	2:1 U500:thinner (fabric); 1:2 (tape)	Glue fabric and tapes to airframe. Use GlueMaster gun (KA25B25).
2	Fabric Primer	SF7500-01 (gal) SF7500-04 (qt) SF7600-08 (catalyst, pt)	2 parts SF7500 : 1 part SF7600	Apply 2 coats over fabric. Sand lightly with 320-grit between coats.

Step	Product	Part Numbers	Mix Ratio	Notes
3	Metal or Wood Primer (if needed)	SF80-01 SF80-04 SF820-04 SF90-01 SF90-04 SF920-04	2 parts primer : 1 part catalyst	Apply to bare metal or wood components before topcoat.
4	Urethane Topcoat	SF8950-04 (catalyst, qt) SF8950-08 (catalyst, pt)	2 parts color : 1 part SF8950 : 0.5 parts reducer	Apply 2 coats. High-gloss finish straight from gun, no buffing needed.

Reducer Selection — Match to Shop Temperature

Part Number	Temperature Range	Notes
SF7860-01	60 - 70°F	Cool conditions. Slows dry time to prevent blushing in cold shops.
SF7870-01	70 - 80°F	Standard reducer. Best for most controlled shop environments.
SF7885-01	75 - 85°F	Warm conditions. Faster dry time to compensate for heat.
SF7895-01	85°F and above	Hot or high-humidity conditions. Fastest dry time.

Urethane Topcoat Colors

All colors available in gallon (suffix -01), quart (-04), and pint (-08). Colors marked Met contain metallic flake. Custom color matching available from McFarlane. Part numbers below link to the gallon (-01) product page; swap the suffix to -04 or -08 for quart or pint.

Base Part #	Color Name	Base Part #	Color Name
SF7111-01	AZTEC SILVER Met	SF7113-01	ATLAS GRAY Met
SF7114-01	MEADOW GREEN	SF7119-01	SUN VALLEY IVORY
SF7123-01	ORACLE RED	SF7126-01	AN ORANGE YELLOW
SF7128-01	INSIGNIA RED	SF7129-01	INSIGNIA BLUE
SF7130-01	INSIGNIA WHITE	SF7133-01	JUNEAU WHITE
SF7135-01	STINSON MAROON	SF7137-01	MEDIUM GRAY
SF7138-01	PIPER CUB YELLOW	SF7148-01	POLAR GRAY
SF7149-01	DIANA CREAM	SF7155-01	SACRAMENTO GREEN
SF7176-01	INTENSE BLACK	SF7415-01	STARLIGHT BLUE
SF7425-01	INCA GOLD Met	SF7433-01	SILVERADO SILVER Met
SF7437-01	DAYTONA WHITE	SF7438-01	CADILLAC RED
SF7439-01	PEPSI BLUE	SF7442-01	BAHAMA BLUE
SF7445-01	LEMON YELLOW	SF7451-01	ROYAL BLUE
SF7452-01	MATTERHORN WHITE	SF7454-01	LOCKHAVEN YELLOW
SF7456-01	SPRUCE Met	SF7460-01	CESSNA SUNSET RED
SF7461-01	MATADOR RED	SF7462-01	CRUISER ORANGE
SF7463-01	CESSNA TIGER ORANGE	SF7464-01	OCALA ORANGE

Base Part #	Color Name	Base Part #	Color Name
SF7467-01	MAULE YELLOW	SF7468-01	LIME GREEN
SF7469-01	LAKELAND BLUE	SF7472-01	SPITFIRE RED Met
SF7473-01	CESSNA VESTAL WHITE	SF7474-01	SANDALWOOD
SF7476-01	HICKORY BROWN	SF7502-01	CHAMP YELLOW
SF7548-01	OLIVE DRAB	SF7565-01	FED-EX PURPLE
SF7601-01	CHAMP ORANGE		

Section 6 — Accessories, Tools & Safety Equipment

Key aircraft fabric covering accessories, tools, and safety equipment grouped by category. For a full list of part numbers, refer to the McFarlane Superflite catalog at mcfarlaneaviation.com.

TIP: Urethane paints require a half-mask or full-face respirator with organic vapor cartridges (SF-6001) when spraying. A dust mask (SF-8511) is NOT adequate for spray work.

Manuals & Reference

Part #	Item	Notes
D102-SYS7	System 7 Handbook (Hardcopy)	Step-by-step guide. Required reference for any project.
D102-SYS7-DIG	System 7 Handbook (Digital)	Downloadable PDF version.

Fabric Attachment & Reinforcement

Part #	Item	Notes
Superwash	Fabric Cleaner, Gallon	Clean fabric surface before applying adhesive.
SF-REINF TAPE-1/4 SF-REINF TAPE-2	Sticky Back Reinforcement Tape	Self-adhesive tape for rib attachment points. Available in 1/4" to 2" widths, 60 yd rolls.
SF694-500	Flat Rib Lacing Cord, 500 yd	Required for rib stitching on certified aircraft per AC 43.13-1B.
SF-TWILL-1/4 SF-TWILL-1/2	Twill Inner Rib Brace Tape	Used inside wings for rib bracing. 1/4" and 1/2" widths, 36 yd rolls.
SF-207 SF-69	Hand / Machine Sewing Thread	SF-207: 250 yd hand thread. SF-69: 1200 yd machine thread.
L274 L271	Drain Grommets, 100-Pack	L274: flat drain grommets (most aircraft). L271: seaplane grommets.
483-15 SF-225	Inspection Rings & Plates	483-15: plastic inspection rings. SF-225: domed inspection plates.
AD43ABS-LF	Citabria Pop Rivets, 1/8", 100-Pk	Aluminum pop rivets for attaching inspection rings.

Needles

Straight needles for rib lacing (504 series, 4" to 20"), curved needles for seams and tight areas (501/506 series, 2" to 8"), and bent tip needles (508-4, 504-12-BENT) for awkward access. Order individually by length.

Straight needles: [504-4](#) | [504-6](#) | [504-8](#) | [504-10](#) | [504-12](#) | [504-14](#) | [504-16](#) | [504-18](#) | [504-20](#)

Curved needles: [501-2](#) | [501-2-1/2](#) | [501-3](#) | [501-4](#) | [501-6](#) | [506-8](#)

Bent tip needles: [508-4](#) | [504-12-BENT](#)

Tools

Part #	Item	Notes
KA25B25	GlueMaster Glue Gun	Recommended applicator for U500 adhesive. Replacement brush: KA25MM .
SF-361	Protrim Sealing Iron	For shrinking fabric and sealing tape edges.
SFT-1002 SFT-1003	Pinking Shears	SFT-1002: standard. SFT-1003: heavy-duty Florian model.
SFT-1004	Infrared Thermometer	Monitor fabric temperature during ironing/shrinking.
SF-W3530	No. 4 Ford Viscosity Cup	Measure paint viscosity before spraying.
SF-010601	Fine Mesh Paint Strainers, 10-Pk	Strain paint before loading spray gun.

Safety Equipment (PPE)

Part #	Item	Notes
SF-7501 SF-7502 SF-7503	Half Mask Respirator (S/M/L)	Required for spraying urethane. Select correct size.
SF-6001	Respirator Cartridge (Organic Vapor)	Replacement organic vapor cartridges for SF-750x respirators.
SF-5P71 SF-501	Respirator Filter / Retainer	Particulate filter and retainer clip accessories.
SF-454AF	Splash Goggles, Anti-Fog	Eye protection for spray work.
SF-8511	Vented Dust Mask	For sanding only, NOT suitable for spraying.
SF-202 SF-203 SF-204	Tyvek Hooded Spray Suit (L/XL/2XL)	Full spray suit with hood and elastic cuffs.
SF-1211 SF1211-HH8OZ	Invisible Glove Hand Protectant	Skin barrier cream for chemical protection.

Sanding & Masking Supplies

Part #	Item	Notes
SF-431Q-320 SF-431Q-400 SF-431Q-600	Wet/Dry Sandpaper	320 between primer coats, 400 between topcoats, 600 for final finish sanding.
SF-7440 SF-7445 SF-7447	Scotch-Brite Pads (Gray/White/Maroon)	Gray: heavy scuffing. White: light prep. Maroon: general surface prep.
SF-2090-3/4 SF-2090-2	Blue Painters Tape	Available in 3/4", 1", 1.5", and 2" widths, 60 yd rolls.

Part #	Item	Notes
SF-471-1/4 SF-471-1/2 SF-471-3/4	Blue Vinyl Fine Line Tape	Precise paint line masking. 1/4", 1/2", and 3/4" widths.
SF-6512 SF-6536	Steel Gray Masking Paper	Available in 12", 18", 24", and 36" widths, 1000 ft rolls.

Quick Reference — Common Project Kits

Use the tables below to quickly identify the core products and fabric recovering kits for common aircraft covering project types. Always refer to the System 7 Handbook (D102-SYS7) for specific quantities based on your aircraft.

Standard Full Recovering Project (e.g., Piper J-3 Cub, PA-18, Aeronca)

Part #	Item	Qty (typical)	Notes
SF102-50	SF102 Certified Fabric	1 roll	Enough for most Cub-class aircraft
SF102-2P SF102-2P-HS	2" Surface Tape, Pinked or Pre-Shrunk	3–5 rolls	Primary rib tape width. Use HS for dark planes.
SF102-3P	3" Surface Tape, Pinked	1 roll	Leading edge & larger openings.
SF102-3PB	3" Bias Tape	1 roll	Wingtip bows & curved areas.
U500GL-GRN	U500 Fabric Adhesive	1 gal	Attach fabric & tapes. Quart for small projects.
SF7500-01	Fabric Primer Base	3 gal	2 coats over fabric.
SF7600-08	Fabric Primer Catalyst	6 pt	Catalyst for SF7500.
(color of choice)	Urethane Topcoat	3 gal	2 coats color. See Urethane Topcoat Colors table above. Consult manual for quantity.
SF8950-04	Urethane Paint Catalyst	6 qt	Required catalyst for topcoat.
SF7870-01	Temperature Reducer (or temp-matched)	2 gal	Match reducer to shop temperature.
D102-SYS7	System 7 Handbook	1	Required reference. Step-by-step instructions.
SF694-500	Flat Rib Lacing Cord	1 roll	Required for certified aircraft rib stitching.
SF-REINF TAPE 1/2	Sticky Back Reinf. Tape	2 rolls	Rib attachment reinforcement.
504-12	12" Straight Lacing Needle	1	Standard rib lacing needle.
L274	Flat Drain Grommets, 100-Pk	1 pk	Required on most fabric aircraft.
SF-431Q-320	320 Sandpaper	10–20 sheets	Between primer and paint coats.

Fabric-Only Order (Using a Different Coating System)

Superflite SF101 and SF102 fabric and tapes are approved for use with any STC coating system, including Poly-Fiber, Ceconite/Randolph, and Stewart Systems. Customers using a competitor's coating system can still order Superflite's US-made certified fabric.

Part #	Item	Qty (typical)	Notes
SF102-50	SF102 Certified Fabric	1 roll	FAA-certified. US-made. Compatible with all STC systems.
SF102-2P SF102-2P-HS	2" Surface Tape (preferred width)	5 rolls	Use with customer's preferred coating system.
SF102-3P	3" Surface Tape, Pinked	1 roll	Use per System 7 or alternative system instructions.
SF102-3PB	3" Bias Tape	1 roll	Curved surfaces.

Ordering & Contact Information

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Hours & Support

Mon–Thu: 7:30am – 5:30pm CT

Friday: 7:30am – 5:00pm CT

TIP: For all Superflite products, visit mcfarlaneaviation.com and search by part number, or [browse the Superflite category](#). Live chat is available during business hours.

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Hyperlink note: every Part # above links to its live mcfarlaneaviation.com product page, using the site's confirmed URL pattern (mcfarlaneaviation.com/products/{PART}/). Base color codes link to the gallon (-01) SKU; swap the suffix in the address bar for quart (-04) or pint (-08). Range items (e.g. reinforcement tape widths) link to the smallest and largest listed width as endpoints.