

PROP GUARD Laminate for Metal Propellers

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FP1001
CS1002

INSTALLATION INSTRUCTIONS

Please read and thoroughly understand ALL instructions PRIOR to installation.

MATERIALS REQUIRED

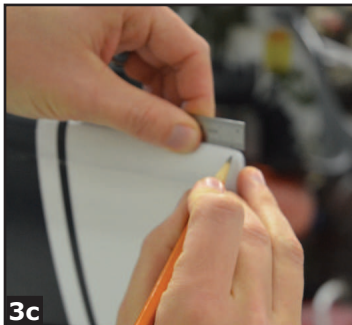
- PROP GUARD laminate. P/N LEI 4359-1
- Lacquer thinner solvent and Isopropyl alcohol (not provided).
- Lint-free cotton cloth or equivalent.
- PROP GUARD adhesion accelerator. P/N 32965-1
- Spatula
- Placard

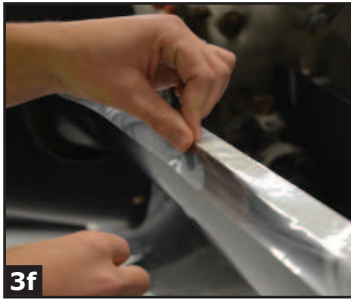
2 PREPARATION

- Before installing PROP GUARD be sure that the propeller has had any nicks or cuts repaired according to AC43.13 - 1b Chapter 8 section 4 and 5.
- Saturate a clean cotton cloth with lacquer thinner solvent and wipe the propeller surface.
- Clean the surface again using Isopropyl alcohol.
(CAUTION - TO ENSURE PROPER ADHESION, THE PROPELLER MUST BE FREED OF ALL LINT, DIRT, OR OILS AND LOOSE OR NOT-WELL-ADHERED PAINT. DO NOT APPLY OVER AEROSOL CAN SPRAY PAINT. For best results, apply over Polyurethane 2-part paint with appropriate primer, or original manufacturer's paint.)

3 APPLICATION INSTRUCTIONS

- Surface preparation - See above.
- Temperature - PROP GUARD should be applied when the air and application temperatures are above +60 degrees Fahrenheit.
- Measure in 1/8th of an inch from tip of a square tip propeller or one to three inches from the tip of a round tip propeller (depending on how sharp the radius of the tip is) and make a mark with a felt tip marker. (NOTE: PROP GUARD must not be stretched or pulled while being installed.) Measure an equal distance in from the tip of each blade to within approximately 6 inches of the hub or spinner and cut equal lengths of PROP GUARD for each blade. **(Note: If de-ice equipment is installed, PROP GUARD must stop one half inch from the de-ice equipment.)** Save the unused boot for repairs as needed. (See Repairs 6.)
- Apply a thin layer of PROP GUARD adhesion accelerator P/N 32965-1 to the painted propeller area that PROP GUARD laminate will cover. **(Note: do not use accelerator P/N 32965-1 on the unpainted side of polished metal propellers.)** Allow to dry for 15 minutes before applying the laminate. (NOTE: if accelerator is in a gelled state because of cool temperatures, hold the container under hot water for a few minutes. This can be viewed through the transparent container.)
- APPLYING THE ABRASION BOOT **(HANDS MUST BE KEPT CLEAN AT ALL TIMES.)** Remove one inch of the backing from one of the previously cut lengths of PROP GUARD and apply flat on the leading edge of the prop at the mark previously made at the tip of the propeller. **(NOTE: dots are located along the center of the boot.)** Remove more backing as you lay the boot onto the leading edge (sharp part of the blade), keeping the boot centered as you work your way to the hub. **(NOTE: at this time the boot is flat across the leading edge. DO NOT try to work the boot down as you go.)**
- Now, using only the tips of your fingers, rub back and forth across the entire length of the prop, touching only the sharp part of the blade (leading edge). **(NOTE: 10 to 15 passes across the entire length of the blade will be necessary before the boot will begin to take shape.)** If the boot prematurely starts to lay down, the backing (that was previously removed) may be inserted between the boot and the blade, and as you work your way down, the backing should be removed a little bit at a time. **IMPORTANT: Position your fingertips slightly down on the flat of the blade in small increments while going back and forth the entire length of the blade.** Care should be taken to keep air bubbles from forming under the laminate. Repeat on other side of the blade.





- g. After the boot is down, if you discover that you have installed the boot too far towards the tip, the boot may be trimmed back. Extra caution must be taken not to cut through the boot and into the metal prop itself. Hold razor blade flat on boot and pull excess boot across the razor. **(NOTE: All boots must start at the same place on the tip of each blade and be the same length.)**
- h. The enclosed spatula can now be used to work the laminate down firmly onto the propeller.
- i. If any air bubbles remain after installation, a pin can be used to pierce the bubble and remove the pocket.
- j. Drying time with the use of the adhesion accelerator P/N 32965-1 is 24 hours. On polished propellers without the accelerator the drying time is 48 hours. Use of a heat gun will expedite the drying times.
- k. Install the enclosed placard on the forward part of the cowling of the nacelle to be visible during the pre-flight inspection.
- l. The installation of PROP GUARD is a minor alteration that may be made by an A&P mechanic. A log book entry must be made by the mechanic stating the installation was made in accordance with the S.T.C. #SP00582NY.

4 PROP GUARD INSPECTION

- a. The following should be done by the PIC prior to each flight. "Check the PROP GUARD laminate for lifting at the edges, delamination or for any nontransparent condition." If the PROP GUARD laminate shows any signs of wear listed above it must be removed before further flight.

5 PROP GUARD REMOVAL

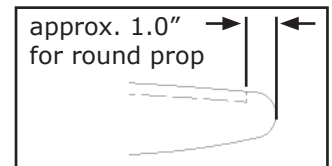
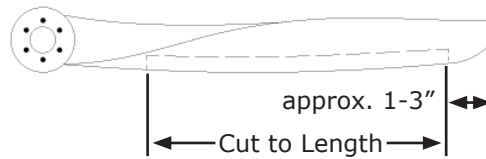
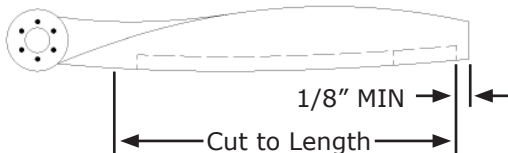
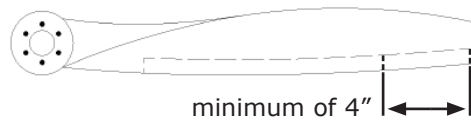
- a. Using a heat gun, heat the laminate, lift and remove. (See Preparation for removal of adhesive.)

6 REPAIRS

Large stones or moderate to heavy rain may damage the boot at the tips of the prop. This only requires a simple repair as follows:

- a. PROP GUARD may be repaired by removing the damaged area (minimum 4" of boot) and butt-splicing a new piece of PROP GUARD in accordance with the instructions. Extra caution must be taken not to cut through the boot and into the metal prop itself. Only one repair per blade is allowed. **(NOTE: Do not allow the boot to overlap.)**
- b. Hold razor blade flat on boot and pull excess boot across the blade. **(NOTE: All boots must start at the same place on the tip of each blade and be the same length.)**

REPAIRS:



NOTES:

1. Square tip propellers minimum edge distance 1/8th of an inch at tip.
2. Laminate trimmed the same on both sides.
3. Round tip propellers minimum edge distance 1 to 3 inches at tip.

PARTS:

1. 32965-1 Adhesion accelerator.
2. LEI4359-1 PROP GUARD Laminate.

Terms of limited warranty:

PROP GUARD is warranted against manufacturing defects in workmanship and materials. The manufacturer's only obligation shall be to replace or refund at the manufacturer's option the product provided it is returned postage prepaid to the factory within 1 year from the date of sale to the original consumer. Defects or failure due to incorrect installation, improper usage or handling, or by any other condition beyond our control, as to any and all of which the manufacturer will be sole judge, are specifically excluded from this warranty. No other liability of any kind, arising from the use of the product, whether defective or not, is assumed.