

Leading Edge Tape (3M) Removal Process

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The leading edge tape purchased through Lancair is a 3M Polyurethane Protective Tape (product # 8672). Applying this tape has allowed definite protection, and after 13.5 years of flying the edges still do not require any repainting. Nevertheless, there is a downside to the tape—it yellows and cracks over the years, and should probably be replaced every 5-6 years or so.

If you have tried to remove the 1" tape (as I have on two prior occasions), you know that it can be very difficult to get off, despite standard solvents, sandpaper, heat gun, and numerous tools. Few folks have any great ideas for safe and quick removal. After much trial and error, I have come up with a recipe that allowed me to strip, clean, and replace the wing and horizontal leading edges in about 5 hours this time, as opposed to up to 60 hours previously. Here's what works for me, and is my new standard:

TOOLS NEEDED:

Plastic paint stripping tool (Workforce brand, from Home Depot, barcode# 37064 08760): \$3

3M Stripe Adhesive Remover Code 08908 (24oz spray can from auto paint shop): \$21

3M Adhesive Cleaner Code 08987 (spray can from auto paint shop): \$10

MEK solvent (Home Depot): \$6

Vinyl gloves and 2" blue painter's tape (Home Depot): \$10



TAPE REMOVAL PROCEDURE:

1. Before removing any tape, I use blue 2" painters tape to define an edge above the old leading edge tape (about 1/8th inch gap or so)—this will serve as the reference line when re-applying the new tape later on.



2. Use the stripper tool along the long axis of the wing to undermine and edge and remove as much of the tape itself as you can. This takes about an hour per wing, and leaves a lot of gooey residue on the leading edge. **This particular tool is the key to the whole thing**, so make sure you get it specifically—I have tried numerous other items over the years, none of which can hold a candle to this.
3. Apply the 08908 Adhesive Remover by spraying action (it sticks to vertical surfaces) and after waiting 2-5 minutes, wipe it away with a clean rag. Minimal elbow grease required if you got most of the tape off with the tool—should take about 10 minutes/wing.
4. Apply the 08987 Cleaner to the leading edge for final cleaning with another clean rag, and wipe off—about 2 minutes/wing.
5. Finally, I always wipe the edge with MEK about 5 minutes or so before I apply the new tape, just to make sure the area is completely free of dirt and contaminants—1 minute/wing.

NEW TAPE APPLICATION

1. Measure and cut the length of tape you will need for the leading edge (will be roughly 13' 1.5" per wing on a Lancair IV with winglets)
2. With the Mylar finish side facing up, start at one end and with short tape strips spaced about a foot apart, align and tape the strip with the gap you had set with the long strip of blue

tape at the beginning. The idea here is that the little tape strips will serve as a hinge holding the new leading edge tape at the proper gap (see picture).



3. Slowly peel the protective layer from under the tape and lay down carefully, without stretching the tape. A little soapy water spritzed onto the leading edge just prior to peeling the protective coating will give you a bit of work time when laying the tape down.
4. Gently use your fingers or a squeegee to get out any air bubbles, remove the blue tape and you are done for another 5 years!

Doug Johnson