



Berkut Newsletter

You Berkut builders can sit in front of the above photo with a magnifying glass and make engine noises until your bird flies or you can write input to the new

Berkut newsletter editor: Ken Johnson 19670 Telbir Ave.

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He is soliciting ideas, builder profiles, and building tips from builders.

Foam Core Cutting With Inconel Wire and Pour Foam

Jim White (OR) - I recently persuaded Alexander Aeroplane to start carrying "Inconel 600" wire for hot wiring foam cores. Inconel wire is only \$.09 per foot but is much stronger than safety wire and almost eliminates the usual hot wire lag. As always, remember to loosen the wire before turning it off.

When cutting foam cores you might try this tip which originated from an old Cozy newsletter. Use pour foam (X-40 foam) to glue the main wing core blocks together before they are hot wired. Wing cores will come out perfectly straight and you don't have to mess around trying to micro twenty five pieces of foam back together after you have finished hot wiring the foam blocks.

Pour foam does not melt, but the hot wire will pass through it. The key is to keep the pour foam joints as thin as

possible. Don't move the foam blocks until the pour foam has adequately cured, freshly cured pour foam appears to cut easier, and remember - **avoid pour foam joints when cutting out the spar caps.**

Here's how to do it. You need at least four and preferably six 48" clamps (three on top and three on the bottom) and two 4' pieces of 1 X 8 wood to distribute the clamping pressure on the foam. These are placed between the clamp jaws and the foam. Dry assemble all the foam pieces and draw a couple alignment lines on each pair of foam blocks. I hot glued two of the bottom clamps to the 1 X 8 boards to keep them in place when the foam blocks are removed.

Clamp everything together to make sure it all goes together, remove the foam blocks, and apply a thin layer of pour foam to each mating surface. I poured about 4 ounces of Part A in one cup and 4 ounces of Part B in another cup, and poured one into the

other when I was ready to mix. You need to work fast because X-40 starts foaming almost immediately.

If the room temperature is high you may want to chill the pour foam in a refrigerator to slow down the reaction and extend the cure time.

Quickly, place the foam blocks back between the clamps and apply even pressure to minimize the pour foam joint thickness. Be sure you have clamps on the top and bottom or the joint will be thicker on the top than on the bottom. Wait at least 15 minutes for the foam to cure before removing the clamps. Use a sanding block to trim the excess pour foam.

I tried applying Part A to one surface and Part B to the other and then reacted the mixture when the surfaces were mated, but I do not believe it gave me as good a bond as when the foam was mixed before hand. Pre-mixed pour foam appears to result in a bond at least as strong as the base styrofoam.

Avoid cutting the spar cap trough if a pour foam joint passes through the spar cap area. If a pour foam joint exists at the spar cap, hot wire the foam core without cutting the spar cap trough. After cutting the main core, use a router or X-acto knife to remove the pour foam in the spar cap area. Finally, cut the spar cap trough with the hot wire.

For Sale

O-235-L2C Lycoming, 224 TT complete, removed for O-320 installation - \$6450.

4" prop extension - SAE #1 - \$200.

62 X 62 Great American Prop - \$200.

60 amp alternator - \$100

5:00 X 5 Cleveland wheels & brakes - \$100.

3" (OT - OP - EGT - CHT) 4 in 1 with senders - \$150.

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