

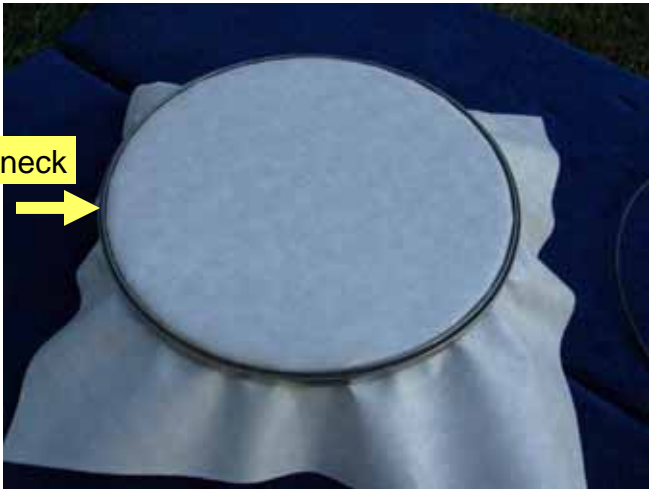
INSTALLATION TIPS FOR SYNTHETIC BANJO HEAD MATERIAL

First of all, please be aware that this experimental material is more difficult to install than a formed, Weather King or Fiberskyn head..... it's about as difficult as installing a skin head. If you're not confident in your skills in installing a skin head or working with banjos in general, please don't take a chance on damaging your banjo. The vendor for the material says that the material is highly inert, so it shouldn't hurt banjo finish, and it's extremely durable. I recommend that you try out the material on an older, not-especially-valuable banjo first.

Having given these cautions, here are some tips on installing the head material.



Layout—15" x 15" head material, pot, tension hoop, flesh hoop.



Put the head on the pot. I think it works better to put the narrow side of the head at the neck.

Press on the tension hoop. The material is somewhat stiff..... I press on the tension hoop & take it off a few times to loosen up the material where the tension hoop will sit on it.

Finish with the tension hoop even with the tone ring or top of pot.



Put on 4 hooks at the narrow sides of the head (arrows). I made up a set of extra-long hooks to make the installation easier. Don't draw down the tension hoop..... put the nuts on finger-tight.



I prefer using an un-joined flesh hoop. Once you have the 4 hooks in place, thread the flesh hoop inside the hooks and under the tension hoop.



I like to have the ends of the flesh hoop come together at the dowel so that the join will be behind the heel of the neck. This picture also shows the extra-long hooks that I made out of long bolts, washers & nuts.



Fish the corners of the head over the flesh hoop & under the tension hoop. You can see that it's helpful to start off with the 4 hooks at the short sides of the head so that you can work on the corners of the head material.



Keep on fishing the material under the tension hoop.

The material does have a “grain”.... It’s possible to tear it in one direction . It’s useful to tear a little area of one of the corners by hand so that you know which direction the grain runs so that you won’t pull too hard in the direction that the material will tear.

Tearing a corner experimentally will also show you how much stress it takes to fail the material... it’s pretty strong.



Keep on fishing the material under the tension hoop.

This picture shows how stiff the material is.... You can see wrinkles forming above the tension hoop, and some uneven-ness in the material that still needs to be pulled under the tension hoop.



Almost finished fishing the material on this corner.

Look closely and you can see some wrinkles where the material was pulled unevenly up under the tension hoop. You’ll want to work on these so that there is as little overlap on these wrinkle as possible, since a major wrinkle on the side may result in a “pucker” on the visible, playing surface.

It’s not possible to install the material without wrinkles under the tension hoop.... you want to make the wrinkles small and uniformly spaced across the circumference of the pot. If you have major wrinkles, you may want to pull the material back out & fish it under the tension hoop again. If you do this, “fishing” goes easier the second time because the material is loosened up by handling.

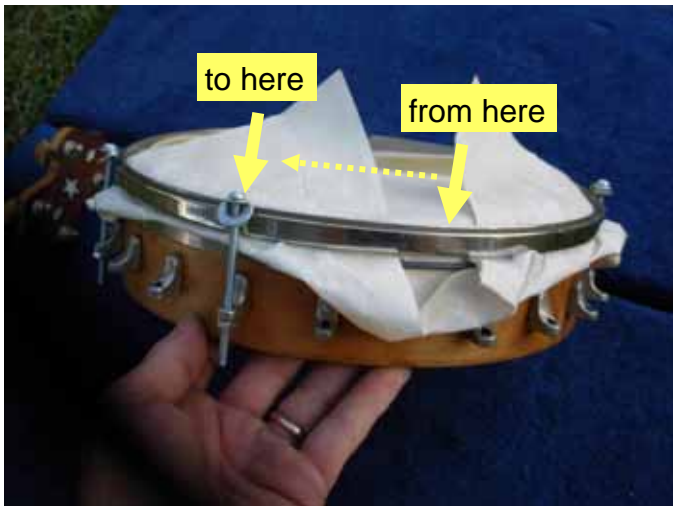


Repeat for all 4 corners.

It may help to loosen the hooks, but keep them snug enough to keep all 4 hooks in place.



Don't draw the tension hoop down too far. It should stay at least 1 mm above the top of the banjo, because it's not going to stretch very much when you're ready to tighten the hooks. You shouldn't try to snug the hooks until all of the material is through and you have no large wrinkles.



Now take off the hooks one-at-a-time and move them 45° around the pot so that they're under the corners of the head material.



Fish the remaining material under the tension hoop.

As you go around the pot, try to pull on the portion of the material above the tension hoop to flatten out wrinkles that may form between the tension hoop & flesh hoop.

Again, if the material is going on unevenly, you may want to pull it out and reinsert it. It is easier the second time because the material loosens up when it is worked.



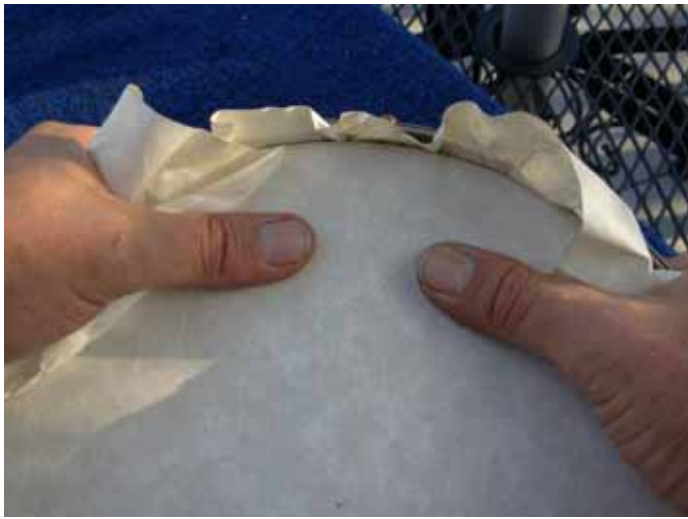
Fish the remaining material under the tension hoop.

This picture also gives you an idea how “working” the material loosens it up and wrinkles it. If you get wrinkles in the top, they will flatten out and won’t be visible when you tighten down the hooks.

I tried running some of this material through a washing machine with a load of clothes to see if it would help to loosen the material & make it easier to work.... it didn't help.



Almost done. I've got the material pulled snug, flesh hoop is pulled up to the bottom of the tension hoop. By this point I've tightened the nuts on the hooks by hand a little bit so that the top of the tension hoop is now only about 1 mm above the top of the banjo. I've also worked out most wrinkles.



Now use your thumbs to press down on either side of any wrinkles or puckers that may be visible at the tension hoop. Work your way around the head, using your thumbs. Hand-tighten the hook nuts as you go.

When you're happy with the appearance of the surface of the head, put on all of the hooks & nuts and tighten the hook nuts until the head is tight enough for you. The head will not stretch very much. A head that I put on VERY TIGHT loosened only a little bit in the first couple of weeks as it settled in, then it was pretty stable and didn't require adjusting.



Trim off excess. I don't mind if the ends of the head material are visible, so I trim to the top of the tension hoop. Be careful not to scar the inside of the tension hoop with your knife.

Someone told me that I should give this material a name so I'm calling it

YELLOWSTONE BANJO HEAD
after my jewelry business, Yellowstone Jewelry.

Please let me know what you think of this material, or if you have any suggestions for installation.

MRalston on the Banjo Hangout

