COMBAT ARROWHEAD CONSTRUCTION

The following instructions are for making the combat arrows used in the Realms of Avalon, With a few modifications, they are based on Mike Stringer's Second Skin guide and used here with his permission.

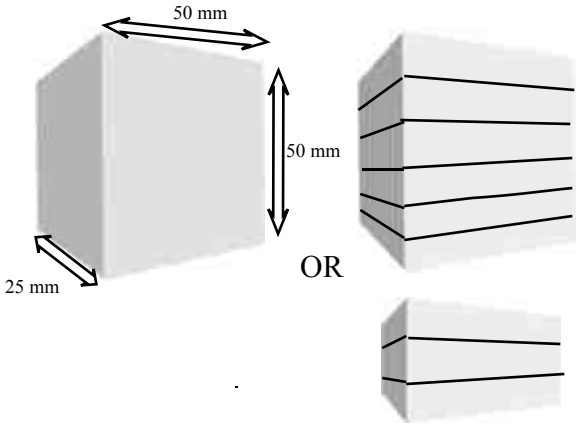
Materials Required

Part	***Material***	***Available***
Shaft	Hollow tubular fiberglass arrow shafts. Often sold as "Children's Arrows"	Archery Stores www.lancasterarchery.com www.eders.com www.carbonexpressarrows.com www.fsdiscountarchery.com
Head	25mm (1 inch) closed cell ployethylene foam or 3 layers of camping mat foam.	Foam Plastic manufacture or Camping supplies such as at Wal-Mart or http:knoxform.com
Tip	Open cell upholstery foam 1 to 2 ¼ inch thick	Furniture stores and some fabric and craft stores or http:knoxform.com
Blunt cap	Rubber Rabbit blunt	Archery Stores F and S Discount Archery at www.fsdiscountarchery.com Three Rivers Archery at www.threeriversarchery.com
Tip divider	4 mm or 1/8 inch thick rubber	Tire shops, car inner tube, plumber gasket
Finishing	Liquid latex rubber such as "Tool Coat" or Fiberglass packing Tape	Hardware store or discount stores such as Wal-Mart, K-mart, Target etc.

You will also need hot glue and a a contact adhesive such as E-6000 or Barge cement available at craft store or hardware stores. To cut the foam and rubber you will need a razor cutter, razor blades, and scissors

Place the Rabbit Blunt on the tubular fiberglass shaft. Make sure that this has a tight fit and glue it using hot glue (not contact cement) so that it will not come off. **DO NOT PUT OVER A TARGET POINT!** Put it on a bare shaft.

Cut 3 blocks of polyethylene foam
50 mm x 50 mm x 25 mm (2" x 2" x 1").
Put one of these aside to be used later.



If you are using camping mats, layer them together to get the right size and thickness, gluing the layers together with a contact adhesive such as E-6000 or Barge cement so they are one solid piece

.

Carve an area in two of the blocks for the shaft with blunt to fit into.

After making sure of the fit, hot glue the shaft into one of the two blocks.

Spread foam contact cement or glue on the flat face of the second block and then fill the arrow groove with hot glue. Fit the two halves together. You may want to hold the blocks together with rubber bands while the cement or glue dries. E-6000 and Barge Cement work well for this.. A strong, flexible and water proof glue is needed. Do not use hot glue on the face of the blocks, or they will be too hard to carve into shape.

Trim the thick rubber into a 50 mm (2 inch) circle.

Slice off the corners of the foam block and carefully trim it into a 50mm (2 inch) cylinder

Very carefully carve the foam cylinder into a cone with a 50 mm (2 inch) top.

Hot glue the thick rubber disk to the cone. This will keep the arrow from “pushing though” the front layers if foam. This MUST be heavy rubber.

Now hot glue the third foam square onto the top of the rubber disk.

Trim this block into a circle fit the head, keeping it as a short cylinder.

Use a small amount of hot glue to reinforce the seams

Using hot glue, attach a square of open cell upholstery foam to the tip. Trim this to fit

If you are using open cell foam thicker than 1" it may be cut with slightly tapering sides for better aerodynamics

Cover the head with fiber tape. Start by running strips lengthwise down the head and onto the shaft. Overlap the soft tip slightly but DO NOT cover it. After going all the way around the head, wrap strips of tape around the head. This MUST be packing tape with fiber, NOT duct tape!!! You may also paint it with liquid latex rubber.

FINISHED ARROW HEADS

Here we see two finished arrow head. The one on the left was finished by painting the head with liquid latex rubber instead of using the fiberglass packing tape.