How to Make a Boffer Shield

By Dean Hitchcox

Intro:

To make a boffer shield there is more of a choice on the core design and looks then other boffers. Swords and other weapons have a nearly universal design with what pipe, foam, and colours you use. For shields you have to make major decisions about what core, handle, and to a lesser extent forearm strap and colour(s) and each decision you make will have a huge impact on the shields feel and looks.

For the core of a shield; the toboggan saucer has been proven to be the best shield base, but other items like ½” ply wood, to tops to garbage bins, even the bottoms of plant potters have been used. The key to a good base is to be light, slightly flexible, thick enough to not be dangerous and already in the shape and size you want.

The handle that you use changes the feel and how the shield absorbs the impact of hits similar to that of how tight or loose a car feels. A cloth or a handle made from an old belt will be flexible and will make the shield feel looser. Blows will be softer and may glance off weirdly as the shield twists. Where as a metal handle will be tighter and you will feel every hit. Metal will allow you to make quicker adjustments to the shield in combat but a looser feel will allow you to get more in a grove of blocking. Regardless of type from cloth to metal, make sure that your hand can fit comfortably in the handle with extra room for gloves and padding.

Needed Materials:

- Sharp exact-o knife
- Replacement Blades for the knife
- Plastic Base; this case a toboggan saucer.
- ½” Black insulation closed cell foam
- ½”- 5/16” thick camping mat foam
- Duct Tape of colour of choice (See rep colours per damage types in rule book).
- Double Sided Tape also known as carpet tape (Outdoor)
- Clean Cutting Board
- Drill
- Handle of choice; this case a large metal handle.
  - Nuts, bolts, washers, and spring washer
  - Screwdriver and wrench
- Strap for forearm
- Spray Paint (optional)
- Sharpie (optional)
Steps:

1. Take what you are using for the core and using some tape temporarily secure the handle and a strap to the core. Then lightly test out the location of the grips. If it feels wrong, it is, and then re-adjust until it feels right. When it does feel right use a sharpie (safest) or other means of marking the location for the bolts.

2. Using a drill for the cleanest cut or other means cut out the holes to allow for the bolts. I decided to go with an adjustable forearm strap so I had to cut out a wide hole for the strap to circle. **Do not assemble** all the way because you have a big choice to make, but first test out the step up. If it still feels good you are set to go, otherwise make the adjustments.

3. There are really 3 ways to coat the inside of the shield.
   1. The ugliest; don’t bother with it and let the cores colour shine through. It may be the lightest and easiest option but it is UGLY and COMPLETELY out of period. NOT recommended.
   2. Duct Tape (recommended); this is the heaviest but is simpler and longest lasting. Take some tape and lay it out on the inside of the weapon like you will the front. Easy to do, and can be done ether at this stage or last. If you choose to do it later, where you are using bolts, lay out a small piece of tape to make the transition nicer.
3. Spray paint; Light but needs many touch-ups between events but looks amazing. Use the proper spray paint and use as instructed on the instructions. The bond between the spray paint and the plastic is a lot weaker than the tape to the paint, so leave an unpainted area on the ridge so that when you tape the foam there will be a better bond. If you find after building the shield that tape is peeling use a knife to trim off the peeling tape and replace.

4. Now that you have your back figured out it's time to permanently install the handle and arm strap. Use the bolt, washers and such in the picture on the left's order. For the strap use DST under the strap then use tape to cover the top along with the head of the bolts. 1. Nut, 2. Spring Washer, 3. Washer, 4. Shield Core, 5. Washer, 6. Bolt.

Note: Construction people will know that there is a washer that is made to stop the nut from spinning. But the spring washer provides constant pressure, which due to the flexibility of the core, a spring washer works better. More notes on the connection bolts at end of tutorial.

5. Now for the camping mat foam cover. It comes in a roll so you will have to flatten it out. Heavy books work the best but anything will do. You will have to cut the foam in half to cover the core. You can measure leaving a slight overlap as in the center picture or just cut in half for simplicity.
6. Now that you got the top layer of foam cut its time to attach it. Take your core and start laying out some DST to provide a good contact base for the foam. Have at least one strip that fully crosses the base in the center and more strips on the inside rim. Then remove the plastic on the center strip and the rest on one side of it only. Start lying down a strip of foam cut in the last step in the middle of the center strip and roll over to the rest of the core.

7. Remove the plastic on the DST on the back of the core (center picture from step 6). Then roll over the foam and trim as necessary. If the shield changes shape it may be necessary to roll over the foam in sections. Like the small dimples in this core.
8. Now that you have one half done time to do the other. When lying down the second piece of foam, line it up to match the other and do the exact same thing again for the other half, folding over the foam and the removal of the plastic on the DST.

9. Now for the second layer is on time for the rim of the shield. Depending on the size of shield and the look that you are going for Black Insulation Foam of ½” to 1¼” will work. For this shield I used ¾”. The foam, which I will refer to as black foam, will circle the entire shield so it will eventually meet up where it started. So cut out an inside angle about 45 degrees to create a merging point or female end. Then start laying out the black foam around the rim.
10. At locations that will flex the black foam differently use DST to secure. This includes the starting point for the black foam.

11. Where the two ends of the black foam connect, you already did the female end, now for the male. Like before 45 degree's this will allow for a more seamless connection. When the black tape is around the whole shield it is time to remove the yellow plastic. Slowly remove it to allow the adhesive on the black foam to create the bond. Trim off pointed parts where the foam does not lie flat.

12. Now you have the majority of the foam placed its time to start covering with tape.
13. Start with four small squares at the split points for the duct tape. Then lay your first strip of duct tape across the center. You can run with the seam between the two pieces of foam to hide it, or go perpendicular to the seam to give a little more support to prevent the seam from separating.

14. Then layout more strips of tape to cover the top with your colour of choice. Layering with a ¼" over lap and rinse and repeat.

15. There will be some places where you will need to trim the tape. Repeat till covered.
16. If you want your shield to be one colour then skip to step 19, otherwise grab your contrast colour and place on rim to go all the way around with one piece. Use your thumb to hold the tape in place and in small increments unroll the tape. After going all the way around, use your knife to cut the tape and fold it over.

17. Some places you will have to add a smaller piece of tape to fill in a gap where you cut the perimeter tape. Trim it off for a seamless transition.

18. Now for the back side. Do the same thing, leaving a gap for a third perimeter piece of tape.
19. Once the second perimeter pieces are on, or if you are using just one colour, apply the last perimeter piece on the outside of the rim. This one you generally will not need to trim the tape, but may be needed in some areas.

20. Continuing with your colour of choice, make another perimeter pass on the inside of the rim. Then again, till you have a good 2” contact past your foam onto the core. Since I am using a colour scheme with 3 colours I switched to black tape for my second inside run. Feel free to use several pieces of tape to make the job easier.
21. Now that the core is properly covered it is time to install padding for your forearm. Cut out a length of camping mat foam to fit under the handle and extend past where your elbow will be once gripped. Since I used spray paint for the backing, use 2 strips of duct tape (smaller than the new foam) and pull off some of the paint for a better connection.

22. Cut the foam padding to shape and cover with duct tape of choice. On the underside apply DST and then place the padding.
23. YOU ARE DONE!

Further Notes:

- Nuts and Bolts:
  - When installing the bolts. The head of the bolt goes on the outside and the nut goes on the inside. This will limit how pointy the bolt is, making the shield safer.
  - Four medium sized bolts and washers work better than using two larger bolts for the handle.
  - Finishing bolts do not work; button top ones and preferably for a flat head screwdriver are the best for safety.
- This shield is not meant for shield bashing. Shield bashing is not allowed in Shadow Realms.
- If you do not have access to camping mat foam, open cell foam 1-2” thick can be used as a substitute using a garbage bag as the plastic covering. See how to make sword tips.
- Option 3; spray paint for the inside of the shield does look the best but requires touch-ups between events. The more flexible the core the more it will crack and need touch ups. If you want to make and forget, go with option 2; applying duct tape.
- Fabric, leather or straps out of duct tape work, but from experience adjustable straps to adapt to the amount of clothing worn is the most comfortable option. If you want your shield to be more in-period, make a cloth or leather sock to cover the strap while still allowing you to adjust it.

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