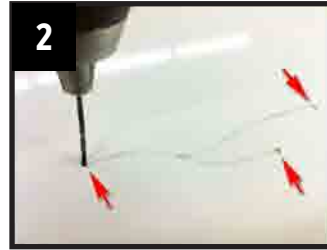
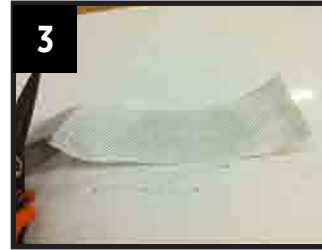




1) Locate crack to be repaired. If the crack is misaligned, align the crack and if necessary secure with masking tape from the opposite side to be patched.



2) Using a 1/32" - 1/16" drill bit, drill a hole at each terminus of each crack to prevent the crack from propagating.



3) Cut a piece of glass tape long enough that it extends at least 1" past either end of the crack or work in overlapping 6" sections one at a time.



4) Mix glue on the supplied mixing board. Note, the glue cures quickly so work in small batches but be sure to mix enough glue for the length of glass tape.



5) Lay the cut piece of glass tape on a scrap piece of cardboard.



6) Use the supplied spreader to pick up a quantity of glue that you have mixed.



7) Using the spreader, spread a coating of glue across the entire surface of the glass tape/cloth as if you were frosting a cake.



8) Your coated glass tape should now look like this.



9) Lay the re-useable piece of repair cloth (blue cloth) on top of the glass tape and lightly smooth it out.



10) Carefully lift the repair cloth up from the cardboard taking the glass tape with it.



11) Again spread the glue along the uncoated and now exposed surface of the glass tape as previously done, this time apply the glue slightly thicker.



12) Your repair piece should now look like this and is ready for application.



13) Lay the repair 'patch' centred over the crack and smooth out using your hand and or a clean spreader.



14) Glue may squeeze out of the previously drilled holes. Any glue that you need removed may be done when wet with the use of isopropyl alcohol and a cloth.



15) Your repair should now look like this and be left to fully cure.



16) Once the repair has cured, peel the re-useable repair cloth off and repeat if necessary. Adding to length and or depth by adding more layers.

General Repair Applications

In general, all structural repairs are done from the interior of the kayak and exterior work is mainly cosmetic. Structural repairs are done either with adhesive impregnated fiberglass cloth or plastic patches. The adhesive to use is a methyl methacrylate as other adhesives like epoxies will not create a structural bond. When used correctly, the adhesive included in this kit will provide a structural repair to your Delta Kayak.

Methyl methacrylate is a solvent based bonder and can cause cosmetic damage to surfaces of the kayak. If you accidentally get adhesive where it is not desired, cleaning it immediately with isopropyl alcohol is suggested.

Methyl methacrylate is a structural adhesive and can be used to fill, re-build, re-shape and construct broken or missing areas. Once cured, it can be shaped by shaving, filing, or sanding. It is also paintable.

Any patches used to repair a damaged area should extend 1" beyond the damage in all directions.

It is important to note that 25ml consumer adhesives have an estimated working time of 5-8 minutes, 400ml commercial adhesives have an estimated working time of 10-15 minutes. Cure time is affected by temperature, be advised that hot environments will increase cure speed.

All surfaces to be glued should be lightly abraded with sand paper and cleaned with isopropyl alcohol so they are free of dirt, debris, oils and other contaminants prior to gluing.

In cases where patches overlap (this is often the case where large areas of damage need to be repaired using several fiberglass patches) the previous patch should be fully cured and lightly sanded prior to application of the overlapping patch.

When using fiberglass patches, it is recommended that the patch be laid up 2 layers thick. This is easily done at the same time when making small repairs or when using the 400ml commercial adhesive with the extended working time.

The terminus of each crack should be drilled out using a small drill bit 1/16" – 1/8" so the crack does not continue to propagate.

All damaged areas that will receive glue should be cleaned and prepped.

Damaged areas should be held in place so that cracks etc. are left relatively flush. This can generally be done on the exterior using masking or strand tape to pull areas together.

Using fiberglass patches

When using a fiberglass patch cut two identical lengths of fiberglass tape and lay the first piece flat on a scrap piece of cardboard, parchment paper or other disposable surface.

Dispense adhesive along the fiberglass using the mixing nozzle. Using the flat edge of the plastic spreader board spread the adhesive so that

you are covering all of the surface area and simultaneously impregnating the weave of the fiberglass with the adhesive. Lay the second layer on top of the first and repeat the adhesive application process.

Place the reusable blue peel ply fabric over the patch.

Carefully remove the whole patch from the disposable surface.

Lay the patch upside down on a clean surface so that the blue fabric is now on the bottom.

Apply adhesive to the fiberglass tape and spread/smooth with the plastic spreader being careful to keep the adhesive from spreading too much onto the blue fabric.

Pick the patch up using the blue fabric and apply it to the desired location as if you were applying a band aid. Use your hand to smooth the blue fabric out paying attention to the edges.

Once cured the blue fabric can be peeled off and re-used. This fabric simply aids in handling and allows you achieve a much smoother uniform surface on the repair.

Using plastic patches

Dry fit the plastic patch and if required use a pencil to mark location for application.

Perimeters should be held flush with the kayaks surface, you may have to get creative with masking tape, items used as weights, or wedges etc.

Once the location and method of securing the patch in place are sorted you can move to gluing.

Adhesive can be added to either the patch, the boat or both.

Apply enough adhesive to act as a gap filler where needed between boat and patch, but try to avoid adding so much that it simply squishes out everywhere or prevents the patch from seating completely.

A plastic spreader board with the serrated edge can be used to spread an even layer of adhesive.

Apply the plastic patch and secure using weights, tape, wedges etc.

Any adhesive that comes out the edges can be wiped at this time.

Pay attention to the outside of the kayak to ensure that your damaged area has remained flush.

After curing a small bead can be run around the perimeter of the patch and wiped in order to create a more filleted transition between boat and patch if desired.