

Outer Cover Repair (Patches)

Repair patches should generally be applied to the inside surface of the outer cover as this will provide greater reinforcement and will not be subjected to jetting water. Unless the patch is to be applied at the bow, it will be necessary to remove the outer cover from the side to be repaired. See Helpsheet "Outer Cover Removal and Fitting."

Note that newer models that use the captured stainless steel rod in the top track will not need to have the outer cover fully removed. The relevant rod can be withdrawn and the outer cover can be peeled from the top track to allow access to the inside surface of the outer cover.

Occasionally, it may be necessary to apply a patch to the outside surface (e.g. on older material that may have delaminated). However, external patches can be subjected to considerable abrasion and can peel away over time. If in doubt, contact Naiad Inflatables Ltd for further guidance.

1.0 Tools / Materials Required;

- Naiad Glue Kit (Bostik Unigrip 999HR, Bostik No 4 Thinners & Desmodur RFE Hardener)
- Brush
- Rags
- Masking Tape
- Sandpaper (e.g. 120 grit)
- Sharp Blade
- Straight Edge
- Tape Measure
- Roller
- Heat Gun
- PVC/PU patches

2.0 Preparation;

- 2.1 Cut the repair patch to size, aiming for a margin of at least 50mm around the tear in the outer cover.
- 2.2 Apply masking tape to the area outside the gluing line to avoid getting glue where it is not required.
- 2.3 Lightly sand the repair area and patch to roughen the surface.
- 2.4 Wipe the repair area on the outer cover and patch with Bostik No 4 Solvent and allow the surface to dry. Once dry, wipe both surfaces again.
- 2.5 Decant Bostik Unigrip 999 glue and then Bostik No 4 Thinners into a suitable container (roughly 2 parts glue to 1 part thinners). Decant hardener into glue mixture (amount of hardener should be approx. 5-10% of glue volume, not the total mixture) and stir thoroughly. The glue will be useable for approx. 4 hours after mixing.

NOTE – some Bostik technical literature recommends a different mix using less thinners. However, based on our experience and in accordance with discussions with Bostik, Naiad recommend the mix detailed above.

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- 2.6 Using a soft-bristled brush, apply glue evenly to both surfaces and allow to dry. Apply a second layer of glue to both surfaces and wait until dry.
- 2.7 Remove the masking tape.

IMPORTANT: Drying time will depend on the atmospheric temperature. The glue will dry faster in warmer temperatures. On a day when the humidity is high and/or temperatures are low, the evaporating solvent may cause moisture to form on the glued surface. To assist in preventing this, the surfaces to be glued can be warmed prior to applying the glue. If any moisture occurs (appears as white marks on the glue) gently heat the glued area using a heat gun to evaporate the moisture. Exposure to direct sunlight will also help to reduce the condensation.

3.0 Applying the patch

- 3.1 Without touching the glued surface, carefully position the patch on to the outer cover.
- 3.2 Apply heat to activate the glue (the optimum temperature for the glue to activate is approx 90 deg Celsius, although 70 deg Celsius will suffice – this will be too hot to touch but not so hot that the material melts). The nozzle of the gun should be kept moving to avoid over-heating small areas.
- 3.3 Whilst the patch is hot, push it firmly on to the outer cover (ideally, using a wooden roller) to ensure that good adhesion and complete contact is achieved.

It is important to get the position of the patch correct first time as once in place it cannot be removed. It is also important to get as much of the patch in contact with the outer cover as possible.

TIPS: *If possible, perform the repair in the open on a sunny day.*

Good preparation is essential to achieving a good bond.

Gently heat the repair area and patch prior to applying the glue to avoid condensation.

To avoid air bubbles forming under the patch after application, ensure that the thinners have completely evaporated (this should take up to 30 minutes – if the glue bubbles when heated then there are still thinners present).

It is recommended that the process is performed in a well ventilated area and protective breathing apparatus (e.g. a carbon filter mask) and Barrier Gloves are worn.

Glues and solvents should be stored out of direct sunlight below 25°C in cool and dry conditions. Keep away from naked flames or sources of heat.