

General & Basic Fiberglass Repair

General Fiberglass Work

Cloth is used on surfaces where a thin layer is suitable, such as surfboards and boat decks. This will resist water, bare feet, and slippers, but not the impact of a reef or dropped tools. For impact strength, it is necessary to use multiple layers of mat and woven roving. The fiberglass does not care what resin is used. When applying fiberglass to a porous surface, such as wood or foam, a sealer coat of laminating resin is necessary when using the thicker fiberglass such as mat and woven roving. This sealer coat is not usually necessary when using cloth. Fillers are not a proper substitute in strength for fiberglass, i.e. if the glass is broken it needs replacing. Fillers to make a putty are used in addition to the fiberglass, not to replace it. Putties may also be used to fill a hole that is going to be fiberglassed over. Uncoated putty will usually soak up water so it should at least be painted. There is no particular paint for fiberglass. Gel coat happens to be convenient and relatively inexpensive, but spray can enamel can also be used.

Basic Fiberglass Repair

1. Materials needed: Sandpaper/grinding discs, fiberglass material, resin, catalyst, acetone, brushes.
2. Grind out or otherwise remove the broken fiberglass, or sand the surface to stick new fiberglass over the broken section. Cut the appropriate type of fiberglass (cloth, mat, or woven roving) to fit the area being patched with some overlap on the edges for a strong bond between the patch and the surrounding unbroken fiberglass. Cloth is used where a thin layer is sufficient or necessary. Mat is the fastest way to build thickness and is used alternating with woven roving for the strongest fiberglass lay-up. Woven roving should always be laid on a wet mat layer for maximum bonding. The necessary thickness is determined by the amount of strength necessary; normally a patch is thick as, or thicker than the original glass layer to provide equal strength.
3. Lay each layer of fiberglass patch on the surface with laminating resin until sufficient thickness has been obtained. Cloth may be laminated with a brush or squeegee. Mat and woven roving in small sections may be laid down with a brush, but a resin roller should be used for larger sections. The main idea in laminating a patch is to get the air out from underneath the fiberglass. You do not have to wait for each layer to dry before putting down the next patch. After sufficient thickness is reached, brush on a coat of sanding, surfacing, or finishing resin to dry the laminating resin surface so it can be sanded. Laminating resin stays sticky so successive coats will stick without sanding.
4. Sand the surface as necessary. Finish coat with resin or paint.

Revised: July 24, 2000