

IMPORTANT Do's and Don'ts when working with resins.

DO: Use fiberglass cloth, mat or tape when using polyester resin.

DO: Work in a well-ventilated area, outdoors in the shade or in an area with air flow.

DO: Read the instructions on packages ENTIRELY before beginning the job. Have all supplies on hand.

DO: Protect your skin and eyes from contact with chemicals. If you get the resin mixture on your skin, refer to package instructions for removal or care.

DON'T: Work in bright direct sun light. The radiant heat from the sun could make the resin cure too quickly. This could make it tacky and weaken its strength

DON'T: Apply resin mixture over wet or dirty surfaces as it will not adhere.

DON'T: Apply resin mixture over painted or finished surfaces as it will not adhere.

DON'T: Apply POLYESTER RESIN over styrofoam, redwood, hard woods (oak, walnut, cedar, etc.) or aluminum. Use epoxy resin for best results.

DON'T: Apply resin like a coat of paint. Resin should be used with fiberglass reinforcement (mat, cloth, tape). Use only the amount required to saturate the fabric. Excessive layers of resin over the glass fibers will eventually crack.

DON'T: Over work (brush) the resin. Only work it enough to coat or saturate the fabric. Over working could cause the resin to cure tacky.

Mix resin and hardener using the chart below

Air Temp.	Resin:Hardener:Mixture		
	Per oz.	Quart	Gallon
60° - 70°F (15° - 22°)	18 drops	17 cc.	68 cc.
71° - 90°F (22° - 33°C)	12 drops	11 cc.	40 cc.
91°F - above (33°C)	10 drops	9 cc.	36 cc.

*For more accuracy, always use the drops per ounce method when working with small amounts of resin.

ESTIMATING RESIN & CLOTH AMOUNTS

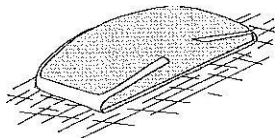
1 PINT OF RESIN TO 1 SQUARE YARD OF CLOTH
1.5 QUARTS OF RESIN TO 1 SQUARE YARD OF MAT

This guide is for LAMINATING COAT ONLY. Additional coats will use half as much resin per square yard of mat and cloth.

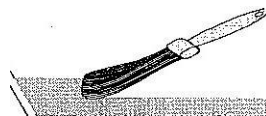
HOW TO LAY UP RESIN WITH FIBERGLASS FABRIC



Clean repair area to remove grease, oil, dirt and wax.

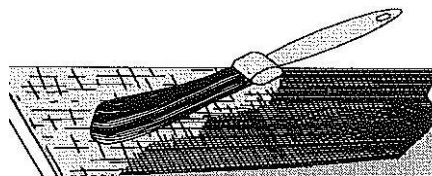


Rough sand surface, wipe clean and dry.



Mix and apply resin to surface. If resin soaks in, a second coat may be required.

NOTE: Only apply enough resin to thoroughly saturate the fiberglass mat or cloth.



Starting at one end, unroll and lay fabric down, working it into the resin. Using a paint brush or squeegee, work out all the bubbles & wrinkles. Good saturation is when the fiberglass cloth or mat appears to disappear.

NOTE: For best adhesion, fiberglass cloth should be saturated with resin prior to application to repair area. However, on single layer applications, fiberglass cloth may be laid onto the surface before saturating with resin.

FINISHING TIPS

- * For multiple applications of cloth or mat, use laminating resin, it cures tacky and does not require sanding between cured coats. Marine or fiberglass resin requires sanding between coats.
- * To prevent the cloth pattern from showing through, a surface layer of fiberglass mat should be applied.
- * Once the resin is cured, it should be sanded to the desired smoothness before painting or top coating.
- * For outdoor applications where it is exposed to the ultra violet rays of the sun, a protective top coat is recommended.

CAUTIONS:

POLYESTER RESIN

DANGER! CONTAINS STYRENE. VAPOR HARMFUL. CAUSES EYE, SKIN, NOSE, AND THROAT IRRITATION.

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. **Use only with adequate ventilation.** Do not breathe vapor or sanding dust. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness, wear an appropriate respirator (NIOSH/MSHA approved) during and after application according to respirator manufacturer's directions. **KEEP OUT OF REACH OF CHILDREN. First Aid:** In case of contact, flush eyes with plenty of water. For breathing difficulty, get medical assistance. If swallowed, do not induce vomiting. Call physician immediately. Dispose of container and unused contents in accordance with applicable regulations. **WARNING:** This product contains a chemical known to the State of California to cause cancer. Consult Material Safety Data Sheets for additional information.

LIQUID HARDENER

DANGER! CAUSES EYE AND SKIN BURNS. HARMFUL OR FATAL IF SWALLOWED. Do not get in eyes, on skin or clothing. Keep away from heat, sparks and flame. KEEP OUT OF REACH OF CHILDREN. FIRST AID: In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention immediately. If swallowed, do not induce vomiting. Give large quantities of water and get

medical attention. See MSDS for additional information.

REPAIRING HOLES

Remove damage debris and bevel outside edge of hole approximately 20° degrees.

Clean and remove paint, varnish or any other foreign matter surrounding the damaged area. Surface must be rough sanded and wiped clean and dry.

NOTE: Repeat this step on the reverse side of the repair, if accessible.

Cut two pieces of fiberglass cloth or mat, large enough so that the patches will extend past the edges of the hole by at least

Mix and apply resin mixture to the back side of the repair then lay the fiberglass patch over the repair, working it into the resin.

NOTE: Large holes may require backing support with masking tape and wax paper to prevent the patch from sinking into the hole.

Once the backing patch has hardened, sand the exposed area on the face of the repair. Mix and apply resin mixture to the front side of the repair. Lay fiberglass patch over the repair, working it into the resin and allow to cure.

NOTE: Build up the layer to equal the original thickness

Sand the repair to contour and fill the low area with EVERCOAT plastic filler.

PRODUCT USES AND APPLICATIONS

POLYESTER RESIN: is an economical resin that is ideal for patching, surfacing and repairing many types of surfaces, such as, fiberglass, wood plaster and metal. Aluminum, redwood and hard woods like (oak and cedar) should use epoxy for best results. Polyester resin is easy to use and the hardener amount can be slightly increased or decreased for adapting to temperature conditions. Polyester resin can be thickened with fibers and color tinted for repairing gouges and blisters in gelcoats.

EPOXY RESIN: is ideal where superior adhesion and strength is required for bonding objects together or providing a tough protective surface. Epoxies can be used over a wide range of surfaces, such as, metal, aluminum, styrofoam, fiberglass, concrete and wood, including hard woods (oak, cedar, etc.). Epoxy resin can be thickened with fibers and color tinted for repairing gouges and blisters in gel coats.

FIBERGLASS CLOTH: Works well as a reinforcement over holes before plastic filling and is ideal for covering boat hulls or large surfaces.

FIBERGLASS MAT: is the ideal fabric for repairing holes and gouges where high build is required. It also conforms to odd shapes, such as spheres or corners. Mat can be applied over cloth or woven roving to eliminate pattern tracing caused by inherent shrinking of the resins.

WOVEN ROVING: for strong repair applications where heavy build up is required.

SILICA: is a powder for thickening polyester and epoxy resins. It allows the resin to hang on vertical surfaces without sagging.

MICRO GLASS BEADS: can be mixed with resin to provide easy sanding.

FIBER FILLER: is used to thicken resins and add strength for bonding and gap filling.

Fiberglass Repair Guide

