

PLASTICWORKS

ADDING VALUE TO PLASTICS

FIBERGLASSING YOUR SUNDECK

Suitable for the do-it-yourself type and the professional, a PlasticWorks fiberglass deck provides one of the toughest, most durable, and totally waterproof deck coatings available. By following the step by step procedures in this guide you will have a beautiful deck ready for years of low-maintenance enjoyment!

SAFETY

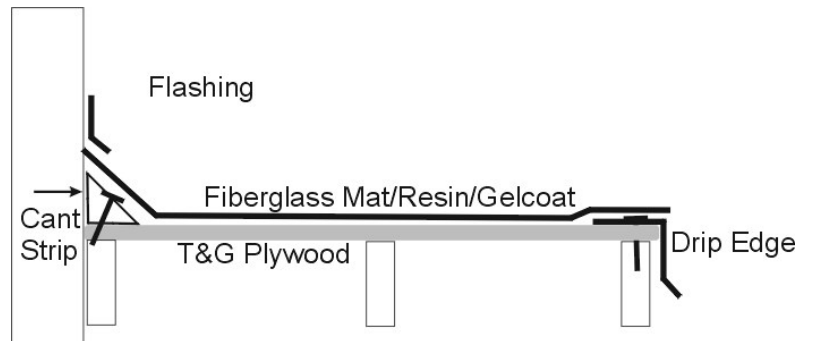
When used without care, fiberglassing materials are hazardous! The catalyst hardener, Methyl Ethyl Ketone Peroxide (MEKP), is potentially the most dangerous chemical involved. MEKP is very harmful to the eyes and will cause blindness. Always wear eye protection when handling this chemical. If eye contact should occur, *immediately* flush with plenty of water and contact a physician. For the other materials involved, mat and resin, it is important to avoid excessive exposure to vapors and to wear suitable skin and eye protection. See the individual product labels for other safety instructions and first aid procedures.

PREPARATION

DECK CONSTRUCTION: To ensure that your fiberglass coating will last a long time, your underlying deck must be structurally sound. The best decks are made using **5/8" or 3/4" tongue and groove plywood, good one side**. The supporting joists must be of proper dimension and suitably spaced to provide good support. Secure the plywood to the joists with decking screws or galvanized ring nails. Leave a small gap (1/16") between sheets to prevent the sheets of plywood from buckling.

CANT STRIP: Against an exterior wall and railing posts, a cant strip is required. This is nailed to the deck to allow the deck surface to smoothly meet the vertical surface. Failure to use cant strip will allow air pockets to form underneath the deck surface, leading to early failure.

DRIP CAP: At the outside edges of the deck a drip cap is required to keep water runoff from contacting the underside of the deck surface (leave a gap for a gutter to slide under if needed). This drip cap can be of molded fiberglass as shown or shaped in wood. We recommend molded fiberglass because it will never rot and is easier to install.



SURFACE PREPARATION: Make sure the deck surface is clean and dry. Fill all knot holes, hammer dents, and gaps larger than the width of a penny with fiberglass filler. Careful application with a flexible squeegee will help to minimize the need to sand smooth later. The most common filler to use is a pre-mixed auto-body polyester putty, or you can make your own filler using resin and appropriate additives.

APPLICATION

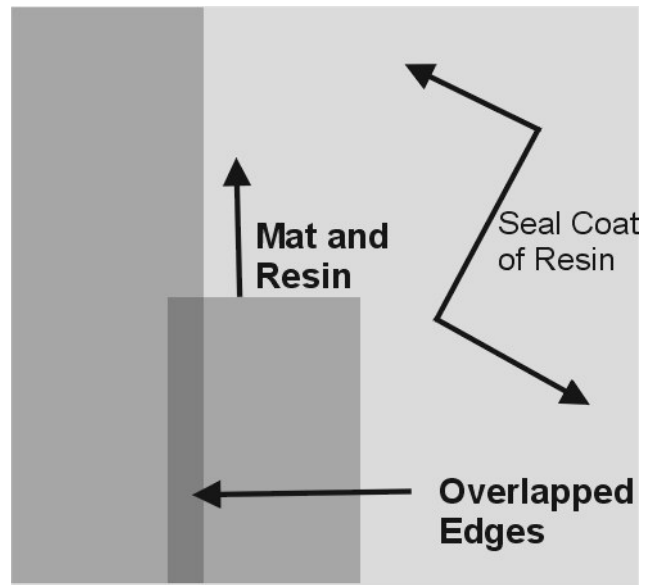
MIXING: When mixing resin, only mix small batches. We recommend mixing 2 litres of resin at a time with the appropriate catalyst (MEKP) to achieve a 2 to 3 hour cure. To determine the right amount of catalyst, follow the catalyst guide based on the current temperature at the surface of the deck. Remember, a 2 hour cure will give you a working pot life of about 15 minutes. The warmer the temperature the faster your resin will "gel" (get thick and lumpy) and become unworkable. If your resin has begun to gel, immediately discard it and mix a new batch, decreasing the amount of catalyst to extend the cure time as necessary.

BEFORE YOU START: Fiberglass should only be applied to a warm (over 10°C), clean and dry surface. Avoid working in direct sunlight and/or in temperatures above 25°C as the working time of the resin will be drastically reduced. Do not start if rain is expected.

PRE-ROLL: Begin by rolling the mat out and pre-cutting those rolls to length. Roll each length up individually and number them so you can keep track of which one goes where.

SEALER COAT: Before applying the mat the plywood surface of the deck should receive a full coat of resin. Using a roller with a *cardboard or phenolic* core, apply one coat of catalyzed resin to the entire deck. Brush up the cant strip as you come to it (and/or wood drip edge). Allow this coat to dry to the touch.

LAYING THE MAT: Roll your pre-cut fiberglass mat on the deck. Let each length of mat overlap the next by about 1 inch. This allows the feathered edges of the mat to flow together, leaving virtually no indication of a seam. Use weights to keep everything in place on windy days. If you are using the molded fiberglass drip cap the mat need only be rolled out to the horizontal edge of the deck. If using shaped wood the mat must be rolled over the edge and down past the edge of the drip cap.



SATURATE THE MAT: The next step is to saturate the mat with catalyzed resin. Use enough resin to turn the mat transparent. If white, milky, or hazy patches are left, this is an indication that you have not applied enough resin or that an air bubble has formed under the mat. Simply apply more resin and roll out the area again.

TIPS: Take extra care to work in the mat at the cant to prevent bridging and air pockets under the mat. For larger jobs, we recommend applying the mat to the cant area separately. Avoid using excessive pressure when rolling, or the mat will spring back without the proper amount of resin. Using an aluminum segmented roller will help to quickly eliminate air bubbles from the resin.

ALLOW TO CURE: If using wood drip edge, any mat hanging below the drip edge can easily be cut off with a razor knife before the resin fully hardens. Otherwise, wait for the deck surface to harden to the touch (cure). After curing, examine for any rough spots, which should be sanded smooth before proceeding to the color coat.

COLOR COAT: After the above steps the deck can be finished by applying a colored gel coat. Gel coat is a thicker, higher grade, polyester resin with improved waterproofing and flexibility attributes. It is mixed and catalyzed the same as resin and applied with a brush or roller. PlasticWorks stocks 2 standard colors. Tint bases are available if you would like to mix a custom color. One application of gel coat should be all that is required. A non slip additive is available and can be mixed into the gel coat to give the deck surface good traction.

MAINTENANCE

Wash with soap and water when required. That's it!

MATERIAL CHECK LIST

- RESIN
- CATALYST
- 1 1/2 Oz. Mat
- GEL COAT
- FILLER PUTTY
- MEASURE CUPS
- BRUSHES & ROLLERS
- SERATED MAT ROLLER
- GLOVES
- FIBERGLASS DRIP EDGE
- ACETONE

COVERAGE RATES (APPROX.)

Resin Seal Coat 50 Sq. Ft / litre
Resin w. Mat 7.5 Sq. Ft. / litre
Gel Coat 40 Sq. Ft. / litre

CATALYST GUIDE

(Amount of Catalyst per litre of Resin to Add)

Temperature	Slow Cure	Fast Cure
Approx.	4-5 hours	1-2 hours
10 Deg C	1.5%	3%
15 Deg C	1%	2.5%
20 Deg C	.75%	1.5%
25 Deg C	.5%	1%

30 Deg C No lower than .5%

NOTE: 1% means 10ml per litre.
1/3 fluid once per quart.
10 drops per fluid once.

Sundeck work should be mixed as a "medium" cure, adjusting between the rates above as needed. Always start with less catalyst and adjust the cure faster.