A Beginner's Guide to a Successful *PlasDECK* Installation.



The purpose of this guide is to help you along with the seemingly daunting project of adding a new deck to your boat. I'd like to start off first by saying that I am a first time installer. Yep, you heard me right. A first time installer. My job here at PlasDECK is marketing & sales. However, I feel I am a bit handy and felt up to the task when asked. My assignment was to install the deck system onto our family boat, record the process and create installation videos as well as an enhanced guide. I've had only a few pointers from the owners of the company and our professional installers. Other than that I've been left alone to install this product with my husband, and six year old step-son.

As a first time installer I can say that I was very intimidated by the product as well as the process. I can also say my worries and fears of ruining my beloved Esperanza (a 25' sailboat) were all for nothing. We've just completed the installation as of a few days ago and I can say with confidence that it has been an easy, fun, family friendly experience.

J. LittleBear

The Tool List:

First and foremost I'd like to cover the complete tool list and the use of each tool. We sell some of the tools needed; however, the purpose of our company is not to sell you tools and we only offer them as a convenience to you. Through experience, PlasDECK installers have found these tools to be the most affective for the job. Our goal is to help you obtain a beautiful, affordable, safe deck for your boat that you can be proud of.



1. Utility Knife

A standard utility knife with a retractable blade system is fine. You are going to be using this knife a lot. Go down to your local hardware store and choose a knife that will feel comfortable in your hand and if there are any other people who will be cutting I would suggest having them pick their own knife as well.



2. Blades

CURVED BLADES! I cannot emphasize this enough. I started the project just using a plain straight blade and struggled with the cuts. The blade is wide and hard to control. Do yourself a favor and get some curved blades. We sell two different styles of curved blades: the hooked blade (top) and the curved blade (bottom). We couldn't find the curved blade anywhere in the states so we had to import the curved blade from the UK. The hooked blade is available at your local hardware store. Make sure you are always using a sharp blade. If you find yourself strug-gling with the cuts, switch to a new sharp blade.



3. Small Metal Square

Just a 6" square will do. If your boat is anything like mine you're probably thinking there is not one 90 degree angle on the boat and you are probably right. It won't be your main tool but I was happy to have it there when I did need it. This can be purchased from your local hardware store.



4. Marking Pen or Pencil

I had a small pile of sharp pencils on hand because the grain of the PlasDECK dulls the lead. I chose pencil just because I like using pencils. If you are more comfortable with a pen go with a ball point pen. Both will mark the PlasDECK well enough to make cuts but ink is harder to get off the PlasDECK than pencil.



5. Trowel

A 1/16 x 1/32 x 1/32 inch square notched trowel. You will be using this to spread out the glue. Remember to clean your trowel after each use. It makes life so much easier to have a clean trowel when you move on to another area. We sell these as well or if you prefer your local hardware store will have these available.



6. Formica or Floor Roller

This is used to ensure that a proper bond is achieved when laying your deck. The one we sell extends up to 27" and the rubber roller is 7 ½" wide. It works great.



7. 12" Metal Ruler

The tool of champions! The ruler was near me during the entire project. Get one you like because you'll be using it a lot.



8. 1 Gallon of Denatured Alcohol

I started off with a little can of this stuff then quickly realized I should have gotten a gallon. You'll use it for prepping and cleaning everything.



9. A good stack of Clean White Rags

USE WHITE RAGS! Pre-cut an old white cotton t-shirt or something along those lines. Don't get any rags with color dye in them. When I did my initial wipe down on the bow of my boat with a red cloth, I spent over an hour scrubbing the red off. Denatured alcohol really works!



10. Sausage Gun and/or Standard Caulk Gun

I had both at my disposal. And I used them both. I used the caulk gun in small areas and the sausage gun in larger areas. We sell the sausage gun. I'm not really sure where you'd get one.

11. Sausage Glue



This is where we are finicky. We only recommend and support the use of Bostik Hybrid Moisture Cure adhesive/sealant with our deck. It sticks like crazy and won't harm or discolor the PlasDECK. The sausage glue is slow curing and gives you time to work (20- 30 minutes). We offer black and white. Black glues should be used to fill in the body because if any seeps through it will blend with the caulk lines. White is great for margins because it will blend with the fiberglass around the edges. I only used the black Sausage during the install because I used it to fill in large spaces. We sell the sausages. Or you can try online.



12. Caulking

Once again this is an area we don't bend on. Use Bostik Marine Grade 940FS High Performance adhesive/sealant. This stuff skins over very quickly. Keep that in mind while you are using it. We offer black and white. I've used a lot of white because I wanted my margins to set quickly.



13. Spatula Knife

This is also pretty tricky. I've talked to all of our installers and the only knife they use is the spatula knife we sell. It's just perfect for cutting off the excess caulk.



14. Rubber Gloves

My husband didn't wear any gloves during the installation. I decided to put this in here because the denatured alcohol messed up my nail polish and the glue was hard to clean off my hands. So I went and got un-powdered rubber gloves like the doctor wears.



15. Vinyl Shears

Take a look at the picture. These things are sharp and cut the PlasDECK like butter. The ones we sell are imported from the UK because we have not found more perfect cutters in the States.



16. Cheese Grater Tool

It's not really a cheese grater but that's become the company nickname. It's really called a surform shaver 21-115. You can get one at your local hardware store.



17. 40 Grit Sandpaper & Sanding Block

You're going to need this at the end of the project to blend your edges.



18. 6" Round Sanding Pad

I used a 6" sanding pad that attaches to the end of my high speed drill because I am impatient. I used it to knock down the ridges around the non-skid area before laying the PlasDECK.



19. Variable Speed Drill

Not entirely necessary but I used it. I used the high speed to knock down the high spots on my boat and the slow speed for finish sanding.



20. 2" Drum Sander with 40 Grit Paper

This is a dream for finish sanding.



21. Dust Mask

If you're going to be sanding on fiberglass it's a good idea to not breathe the dust. It's really not good for you.



22. Safety Goggles

What would you rather have? Scratched eyes or a pair of glasses on when running power tools?

Remember: this is a guide. You may find other techniques and tools that work better for you. The object is to be comfortable while installing. Don't be afraid to try different things.

Preparation:

One note about the glue and caulk: it is best to assume that you will get the glue on you at some point. Clothes that can be sacrificed are best. Loose sleeves, shirt tails or anything that can droop down into the glue should be bound up or done away with. Long hair should be pulled back. If you choose to wear gloves, be prepared to change them often. Anything that touches the glue will immediately start spreading it to everything in reach. Denatured alcohol will clean the glue off of most surfaces on a boat.

Now that you've got on your work clothes remove any deck gear that you want the new deck to go under. PlasDECK is quite capable of supporting winches, stanchions, etc. You may leave any large or hard to remove items and lay/cut around them. I took everything off of my boat. It helps if you remove the hatches too. While you're doing this start thinking of how you'd like your deck to look. It'll be easier to visualize once you have all the hardware and stuff off of your boat.

Now would be a good time to decide what kind of decking style you want. Do you want a Traditional Style deck or a New York Style deck? A Traditional Style most closely replicates the look of a classic teak deck **(see Fig. 1)**. When using real hardwoods for marine decking it is crucial to minimize the amount of exposed end grain in order to prevent rotting and premature failure. For this reason most real teak decks use margin boards to seal the end grain of the decking planks. Essentially there are boards around the entire perimeter of the deck and hatches. You can replicate this design to achieve the most authentic classic look.

The New York Style has NO margin boards around the borders **(see Fig. 2)**. Named after the pinstripe uniforms of the Bronx Bombers our New York Pattern gives a more modern, sporty look. As our synthetic material does not suffer from the deteriorating effects of water and weather it is not imperative to enclose the end grain of the planks. The longer caulking lines visually enhance smaller swim platforms and give a clean, uncluttered appearance. This pattern also helps minimize the visual breaks between hatches and lockers.



Figure 1



Figure 2



Figure 3



Figure 4

After you've decided what areas are getting the PlasDECK you may have a bit of sanding to do. Take a hatch for instance. Does the non-skid area have a ridge around it? If so, you may want to take some 40 grit sandpaper and knock it down a bit **(see Fig. 3 and Fig. 4)**. PlasDECK is very forgiving and the surface doesn't have to be as flat as possible. Just keep in mind any areas where there is a notable bump or ridge may cause a lump on the deck.

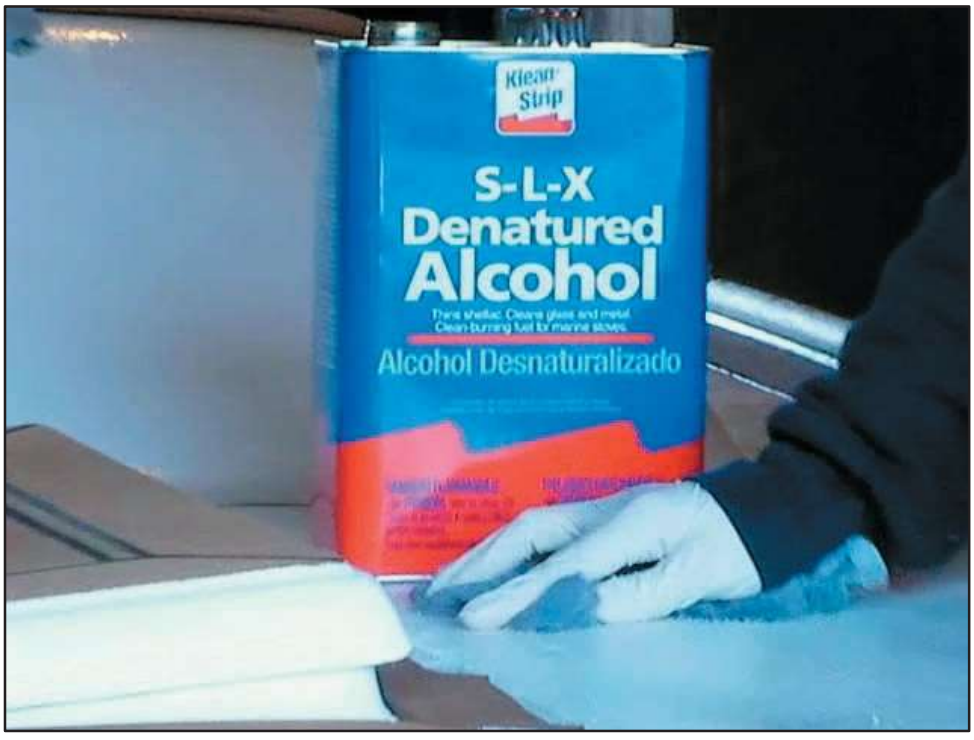


Figure 5

After you've given the fiberglass the once over with sanding, clean off the dust with a shop-vac and then wipe it down with denatured alcohol **(see Fig. 5)**.

Helpful Hint: PlasDECK is very flexible. The material can be left in the sun while you work so it will be even easier to bend and shape to follow the curves of the boat.

Borders:

The first stage is to lay the margins or border, if you have chosen a Traditional Style deck. (Both 'margins' and 'borders' will refer to the same concept throughout this laying guide.) If you don't want to caulk the edges around the outside edge of your deck, you will use PD-606, which will allow the PlasDECK to smoothly transition back down to the edges of the original deck. If you plan to caulk the outside edge you will use the 6" rolls of E-602 and slice it lengthwise to the desired width. Normally, margins are 2 ¼". To design hatch corners and king planks you will use the E-600.



Figure 6



Figure 7



Figure 8

To ensure that you get the right angle on joined corners, lay the intersecting pieces together, overlapping. Make marks with your pencil where the pieces intersect. Connect your marks to create a line where the pieces will meet to create the mitred corner **(see Fig. 6)**. Cut the top piece on the marked line **(see Fig. 7)**. After you cut the top piece, trace the cut edge onto the bottom piece **(see Fig. 8)** and cut. The diagram in **Fig. 9** shows an overview of this process.

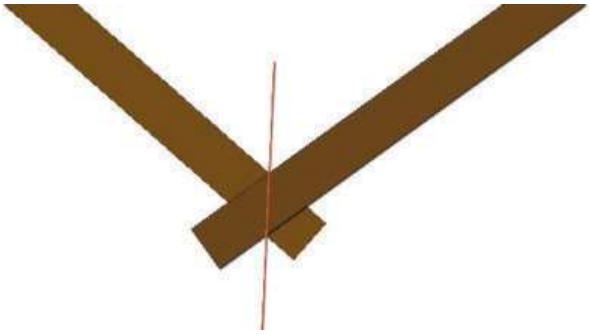


Figure 9

Next, you will need to mark out where you will be applying glue for your margins. When you have cut and dry fit the margins, trace the inside edge of the margins with a pen.

Tape to the inside of this line with 2” masking tape so excess glue can be easily removed. Remove the margin pieces. Label them on the underside if necessary so you can re-lay them in order. Clean and vacuum the areas that will be glued. Wipe down the deck with denatured alcohol and wipe the underside of each piece just prior to gluing. The cleaner the surfaces are the better adhesion you will have.

Fast Skin glue (PT-2507/2508) is often used for margins because it will set quickly. Sausage Glue (PT-2503/2504) also works great and gives you more time, with an average work time of about 20-30 minutes. High temperature and/or humidity can shorten this time. If you are using the E-605 round-over edges, white glue can be used instead of black in case any excess glue seeps out. White glue will not be as noticeable against the fiberglass. If you are making your margins out of E-602 and are planning to caulk a black edge, use black glue. If you are going over non-skid be sure to thoroughly fill the low areas of the non-skid pattern.

Spread the glue with the notched trowel just to the tape line **(see Fig. 10)**. The sides of the trowel with the smaller notches will work well for these areas. If the deck is fairly smooth, the side with larger, square notches can be used. For longer margin pieces it may be better to spread enough glue for half of the piece. Wipe the piece with denatured alcohol and lay the first part, folding the remainder back. Spread more glue, and then lay the rest of the piece.

Continue applying glue and laying the margin pieces. Roll over them with the floor roller using a firm, even pressure. Lay weights (bricks work well, **see Fig. 11**), especially on sharper curves, and allow everything to cure overnight. Pull up the masking tape before the glue is dry. To deck around a hatch corner, or around any hardware that’s still mounted on your boat, use the E-600. If you need a larger piece, join two or more pieces of E-600 together to form a section large enough to allow the corner radius to be cut out.

Make a template of the hatch corner or hardware by tracing the shape onto a piece of paper then trim your paper template to the required size. Place the template on the E-600. Mark with a pen and cut using a sharp craft knife with a curved blade. A straight blade will work but a curved blade will reduce the friction when cutting curves.



Figure 10



Figure 11

King Plank:

A king plank runs down the center of the boat and is made from the E-600. This plank is glued to the deck when the margins are laid, before you fill in the deck. MAKE SURE YOUR KING PLANK IS CENTERED! Once you've glued down your king plank, use the roller on it.



Figure 12



Figure 13

After it has cured, the main deck is dry fit, leaving enough material to cover the king plank **(see Fig. 12)**. This extra material will be enough to shape the ends of the main deck strips to fit into the king plank. Make a template of your chosen plank design and trace the shape onto the body planks that are overlapping the king plank. Make sure they line up properly to create a consistent pattern. Cut the shapes out. Vinyl shears work great for this.



Figure 14



Figure 15

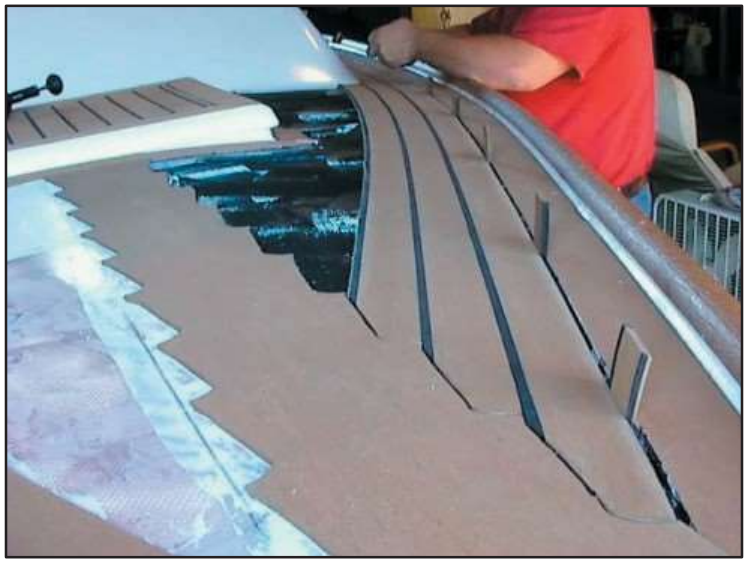


Figure 16



Figure 17

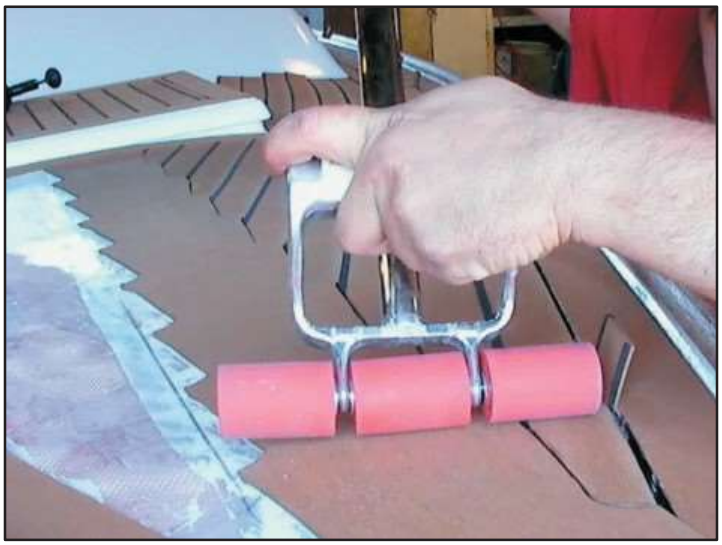


Figure 18



Figure 19

Lay the cut planks down and trace the new design onto the king plank itself **(see Fig. 13)**. Cut the shapes out of the king plank using your utility knife with a curved blade. Pull the pieces out so the ends of your planks fit into the king plank. A fairly tight fit is desired, as this will make it easier after your entire deck is glued **(see Fig. 14 - 18)** and you go back to cut out a ¼" caulk line around each piece (see **Fig. 19 and Fig. 20** and the section on "Seams").

Fig. 21 shows our nearly finished king plank. There are many variations on king plank designs so check out other boat builders to see more styles and options.



Figure 20



Figure 21

Fitting:

Start dry fitting your pieces at the center, working towards the margins **(see Fig. 22)**. Lay the E-521 (2" Shiplap) with the black line away from the margin. You can also use the E-523 (6" Shiplap) when you are filling a large space. Both sizes will fit together nicely and you won't be able to tell a difference when your deck is done. Feel free to combine them to suit your needs. If you are laying up to a king plank be sure to leave enough extra material at the center. If you are following the gunwale and the length is more than 32', cut the adjoining piece close and plan on cutting out a ¼" gap later for a caulk line.



Figure 22

When you have all the pieces cut and laid, and you are satisfied with the look, it's time to take them up. You may want to number them on the underside to help you re-lay them in order. Stack the pieces neatly out of the way.

Clean and vacuum the bare deck. Wipe everything with denatured alcohol **(see Fig. 23)**. The cleaner it is the better adhesion you will get. The shiplap design will fit together nicely, so long as the glue has not fully set up. Be sure you have time to finish one whole section. If you must stop in the middle, any glue not covered with decking must be COMPLETELY removed- otherwise the remaining decking pieces will not lay flat. It is suggested that you use the PT-2503 for the main body so that any glue that comes up through the seams blends in with the black stripes.

Until the decking is glued down, it will grow and shrink with temperature. You should plan on gluing down the pieces at about the same time of day as when you cut them, even if this means waiting until tomorrow. If you cut the pieces in the heat of the afternoon and try to glue them after dark you will find they are too short.

So now that your deck is clean and wiped down, you are ready to start gluing. Keep a cloth and the denatured alcohol handy. Dispense the glue onto the deck in a zigzag pattern about 6" to 8" wide and use the trowel to spread it to an even pattern **(see Fig. 24)** enough for 2 or 3 of the 2" strips (or one of the 6" strips). Set the glue and trowel somewhere safe.



Figure 23

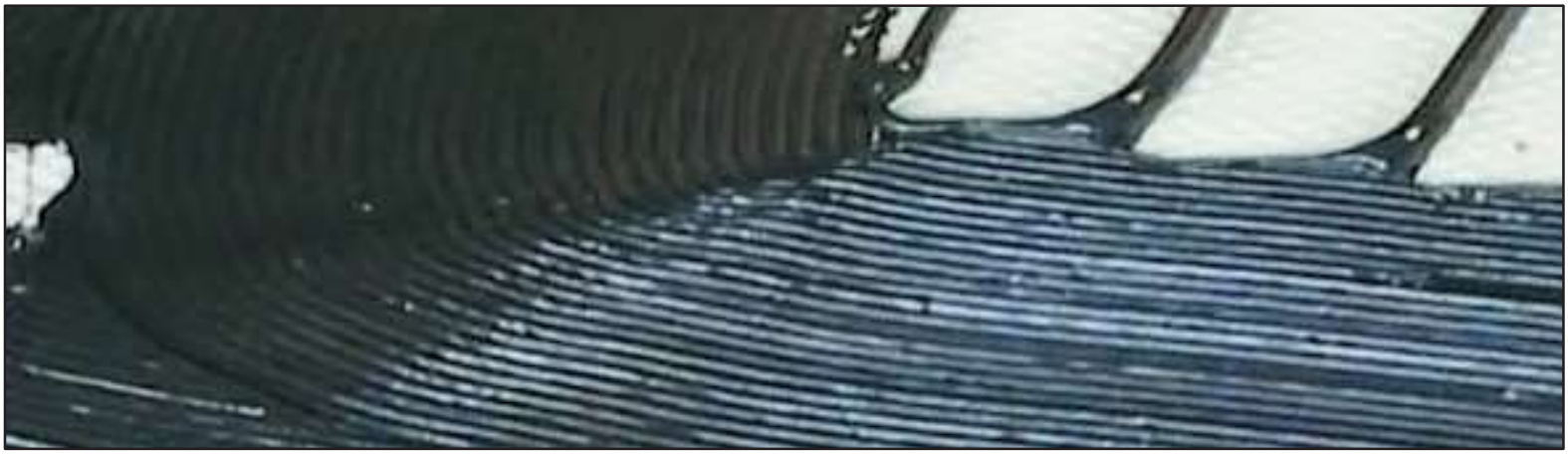


Figure 24



Figure 25



Figure 26

Get your stack of pre-cut pieces. Re-lay your pieces in order, as you just had them during the dry fitting **(see Fig. 25)**. Wipe the underside of the strips with the denatured alcohol as you go. Fit the shiplap together by lightly pushing down as you fit the edges together **(see Fig. 26)**. This will push a little bit of glue into the seams which will help seal the deck. Make sure the shiplap has a nice tight fit **(see Fig. 27)**.

Finish laying your pieces until your section of deck is covered. Clean up any glue that has come through the seams with the denatured alcohol. Roll over the deck with the floor roller using a firm, even pressure **(see Fig. 28)**. If you notice that you are pushing a lot of glue out through the seams, you may want to spread the glue thinner on the next section.



Figure 27



Figure 28

Seams:

For a Traditional Style deck, the areas left for caulking will be where the main decking meets the margins, the hatches, and the king plank. You want to create a ¼" space between the borders and the planks for a caulked seam that will match the lines in the body of the deck. Start by measuring a 1/4" gap from the inside edge of the border onto the planks **(see Fig. 29)**. Mark this measurement with a pen so you know where your caulk line will be. Cut along the line using a sharp curved blade.



Figure 29



Figure 30

The cut needs to be down to the original deck to allow enough depth for the caulking. The gap now has to be cleared out and prepared for caulk. All the edges of the gaps now need to be masked before the caulk can be applied **(see Fig. 30)**. Once masked, cut the end of the caulking tip, making sure the nozzle is small enough to enter the gap. Fill the seam with caulk until it "ABOVE flush" with the decking **(see Fig. 31)**.

Find some small scraps of PlasDECK and use these as spreaders to smooth the caulking out **(see Fig. 32)**. Any excess will flow onto the masking tape. When all gaps have been smoothed, remove masking tape. Whether you are using the Fast Skin Glue or the Sausage Glue for your seams, you must remove the tape before the glue dries. If the glue does dry, your tape is not going to come off.



Figure 31



Figure 32

Finishing:

After the caulk has cured, you are almost done! First, run a sharp razor blade or spatula knife across the caulk lines, cutting off any raised areas to make the seams flush with your deck **(see Fig. 33)**. You will notice that your seams are standing out from the rest of the planks on your deck because they are shiny. To lessen the appearance of your new caulk lines, you can sand these with 40 grit sand paper **(see Fig. 34)**. It is important to sand with the grain in the material. After sanding, you may also notice that the material has turned a lighter color. You can use a heat gun, or allow the sun to heat your deck over time, making the color differences unnoticeable.



Figure 33



Figure 34



Figure 35

At this point, you may want to seal the outer edges of your new deck so water will run off properly. This can be done by cutting the tip of your caulk at a 45 degree angle and caulking the outer edges **(see Fig. 35)**. White can be used to blend with the fiberglass, or black may be used to match the lines in the PlasDECK. We recommend the Fast Skin glue for sealing since it quickly forms a skin which will prevent bugs or debris from sticking to your finished caulk line.

Now you can sit back and enjoy your new deck.