

# Shaping Agave - Work steps instruction sheet

## Measure your Stringer

- All blanks have a center pole. From the two glue lines of the center pole you can measure your stringer through the entire board.

## CNC

- Finger router or blade both are possible but blade gives better finish / recommended for VL blanks
- Drilling speed as maximum / running speed VL 80%, LT 65%, STD 50% (for both machines)

## Hand shaping

- Shape as much with a planer. The planer is made for wood and cuts agave even better than foam.

## Sanding

### GOOD TO KNOW

There are 10 to 30 different agave plants in a blank. Growblanks has the ability to offer 3 different densities because of their enormous ranch of plants on the farm which they sort into very light, light and standard poles. When sanding it is important to understand that there are multiple plants in your blank that may have naturally slightly different densities. This can be a little challenge when sanding the nose and tail. Sand with care, watch in between!

- Start with the hardest pad you have to avoid dings in softer areas due to slightly different densities. In the best case you use the Mirka sanding block or the Mirka Deros connected to the vacuum dust absorber.

Go check our tool recommendations:

<https://ecosurfsupply.com/b2b/Mirka-DEROS-650CV-EU-OE-150-mm-5.0-mm-orbit/ES10071>

<https://ecosurfsupply.com/b2b/Sanding-Block-70x400-mm-Grip-53-holes/ES10099>

- The most complicated part is sanding the rails, like on a longboard with multiple stringers.

**TIP:** Use a measuring tool to bend in a smooth curve and check for flat spots in the outline.

- After sanding, you can use the hand planer to reduce the glue lines that may pop out a little.

Go check our tool recommendations:

<https://ecosurfsupply.com/b2b/Ebony-Mini-Planes-5-Piece-Set/ES10079>

<https://ecosurfsupply.com/b2b/Block-Plane-Redwood/ES10080>

## Milling Finboxes

- Draw your finboxes and cut them as usual.
- We recommend the use of UFP finplugs. The most versatile and strongest finplugs, that are suitable for Futures and FCS systems. The only finplug on the market with recycled content.

Go check the plugs:

<https://ecosurfsupply.com/Shaping-Material/Finboxes-Plugs/Finboxes/>

Installation Kit:

<https://ecosurfsupply.com/b2b/Shaping-Material/Finboxes-Plugs/Installation-Tools/>

## Sealing:

### GOOD TO KNOW

The fiber structure of agave is full of air, similar to a long bundle of straws. This feature makes the Agave so light but also strong. It is also beneficial in case of dings, as water will run along the grain and not penetrate the core of the surfboard. Before lamination, it is important to close the fibers with a sealing step, similar to EPS foam.

- It is necessary to make a filler coat with Eco Epoxy and Aersoil (silica) 50/50 by volume. It also works with polyester, but be careful with the amount of hardener in the polyester resin. Make sure the resin bonds to the agave core. Avoid too rapid curing.

Check out our recommendations:

<https://ecosurfsupply.com/b2b/Shaping-Material/Glassing/Resin/>

<https://ecosurfsupply.com/b2b/Thixotropic-powder-aerosil-200/ES10155.2>

- Use a squeegee to apply the filler coat to the bottom, rails, and fin boxes. At this stage, install the fin plugs as usual.

Check out our recommendation:

<https://ecosurfsupply.com/b2b/Squeegee-150-x-90-mm/ES10104>

- After 1 hour of drying time (epoxy) you can close the plug with a tape and start the bottom lamination with a free lap around the rails.

**TIP:** after 30 min to 1h go back on the board to reduce epoxy drops and press the free lap against the board again.

## Lamination:

- After 4 hours, once the epoxy is no longer sticky, flip the board and repeat the process on the other side.

This lamination technique ensures a stronger bond for the epoxy. If you prefer to sand between the laminations when it's fully cured, there is no problem when working with agave.

**TIP:** For extra light boards and deeper impregnation, first seal the entire board, especially the rails and bottom, with our hydrophobic sealer. This step is done before the Airosil sealer/filler. Avoid sealing the fin plugs to ensure they are well infused with epoxy and securely bonded.

Go check the sealer:

<https://ecosurfsupply.com/b2b/Hydrophobic-sealer-impregnation/ES10196>

**ADDITIONAL TIPS FOR WORKING WITH COLORS:**

For tinted resin, use a cut lap technique during sealing.

For spray colors, seal the entire board first, lightly sand it, and then spray the colors as usual on the filler coat before lamination .



**Enjoy the process!**

Do not hesitate to contact us if you have any further questions.