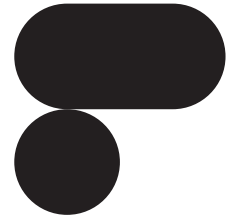


# Flama Natural Surfing Evolution



Instruction manual

## Shaping advice and recommendations

**Danger Zone:** this is how we refer to the joint between the deck and rails, the most important and delicate element to take into account during the whole shaping process (check the illustrations). The Danger Zone is shown in the shaping template as a thick dotted line. Both deck and bottom are made with a two-layered ply, which means you will actually see two joints. While shaping you'll see how this joints advance inwards. Use the first joint as a reference and use frequently the shaping template to verify the Danger Zone line and how the lid edge advances inwards. Lid edge should never go beyond the Danger Zone, as it might weaken this part of the board.

**Flama's two-layered ply:** we use a 6+3mm ply boards for the deck and bottom of our blanks. The thinner layer is on the inside and seals whatever type of pore that might be in the exterior layer.

**Rocker:** wood is not a homogeneous material and after the cold press process the blanks may experience a slight deformation to its previous shape. Check, and correct if necessary, the desired rocker, especially in the nose area.

**Bottom:** take in mind that by sanding the whole bottom of a 6'0 board you can reduce the weight of the board about 150gr. Anyway, we recommend a minimum thickness of 6mm.

**Deck:** we don't recommend reducing the deck thickness too much, so it can withstand the impact of your feet and last longer. For the same reason a flatter deck is preferable than an accentuated dome.

**Concaves and channels:** the bottom board is made with a two-layered ply of 3+6mm. We don't recommend making concaves or channels more than 6mm deep as it would leave exposed the 3mm layer and the surface would be too weak and might cause leaks.

**Fins:** the shaping template shows the fin placement, but if you prefer a different placement be sure first of the limits you have, as you need solid wood under the surface (see the illustrations) for both fixed and removable systems.

**Leash plug and pressure vent:** the placement for both is shown in the shaping template.

**Sealing joint pores, knots and scratches:** before applying the final wood treatment it's advisable to check carefully all the joints, specially lid edges. We use polyurethane glue, and because it expands there might be some open pores. You can seal these pores (in particular along the deck's lid edge) using wood paste filler for carpentry, which will also be useful for filling other wood imperfections.

## Tools and gadgets

**The main tools for shaping a Flama blank are pretty the same ones used to shape foam. The main difference is that wood is harder to sand than foam, it has different densities and it's never the same.**

**Disc sander:** we recommend using only hard discs for sanding the deck and bottom, no matter what grit size you use, because soft discs adapt to the different densities of the wood creating a wavy surface. However, soft discs can be good to rough sand the rails, but should be used carefully with finer grit sizes.

**Sandpaper:** of course you're going to use a good variety of grit sizes, but we recommend using the special sandpaper for belt sanders –a semi rigid seamless loop of sandpaper– in order to use it as a shaping gauze for fine-tuning the rails. Get a 3"x21" sanding belt (most common size, but any other can be good too) and make a cut so you get a 42" long sandpaper. Now try to figure out how to work with this brand new tool. It's good exercise!

## Wood treatment and other products

**Wood preserver:** we use a mixture of linseed oil and turpentine (60/40), which protects and seals the wood. It is a very well known and extensively tested recipe that has been used to protect and seal the paulownia wood on the alai surfboards.

**Wood finish:** can be done with any of the water based outdoor wood stains available in the market, preferably the "open pore" range ones that allow the wood to breathe. Exterior wood varnish can also be used, making a stronger surface but harder to sand in case of repairs.

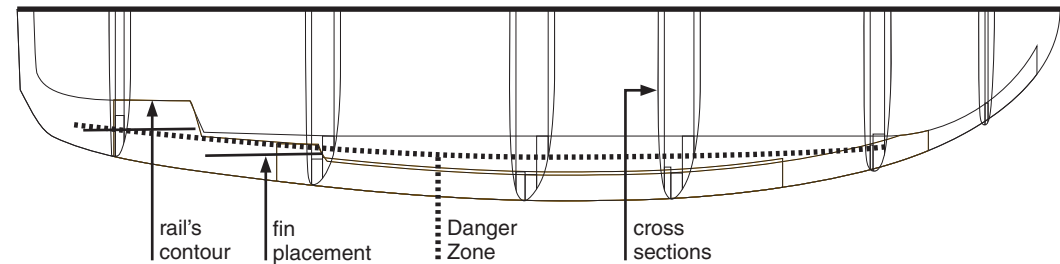
**D-4 Poliurethane glue:** this is the only glue we use to make our blanks, particularly because it's water resistant and flexible. It can be used for major repairs, like gluing a piece of paulownia into a hole previously cleaned up. However, as the glue expands leaves tiny holes that need to be sealed.

**Polyester mastic:** if you don't have at hand polyester resin, this kind of product works well for sealing little scratches and holes, sticking bamboo fins or installing fin plugs. It's ready to use and it can be dyed with pigments.

**Silicone:** good for installing and sealing the pressure vent. Best one is Sikaflex 11FC.

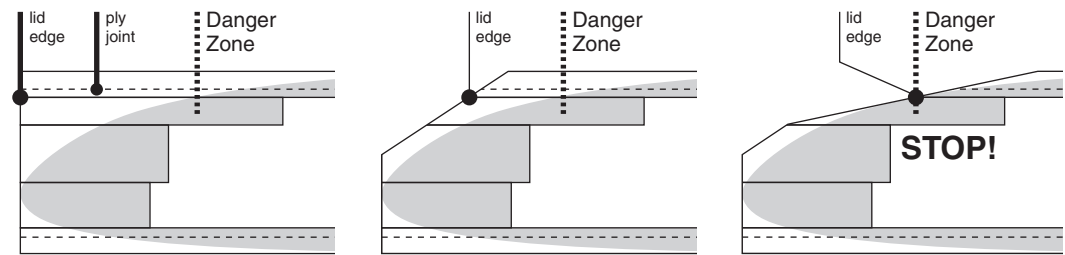
**Wood filler:** ready to use, comes in various colors and it's very easy to use. Very useful for sealing pores, knots or scratches, and also for filling bigger holes in the wood. It should be weather resistant.

## Shaping template

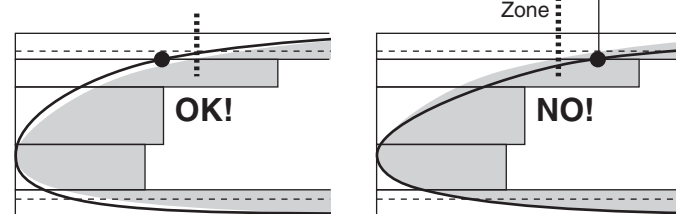


## Danger Zone:

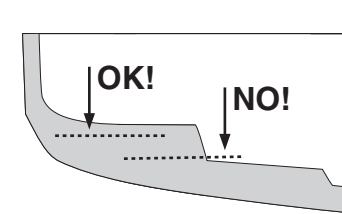
Lid edge should never go beyond the Danger Zone, shown as a dotted line in the shaping template.



## Modifying the original rail shape:



## Fin placement:



## Installing the pressure vent:

