

KRISTAL

FAQ, PROCESSING TIPS AND IDEAS

TIPS TO HELP PRODUCE A PERFECT DEEP POUR EPOXY RIVER TABLE!

1. MIX RATIO

Mix at the correct mix ratio. Use an Accurate Scales to do this. Scales are available at AMT Composites
Please read the datasheet carefully to get the correct mix ratio. We strongly recommend you mix by weight as it is the most accurate method.

2. MIXING

Mix the two parts together very well. Stir with a flat paddle stick for a minimum of 3 minutes, scraping resin from the sides and bottom of the containers into the mix. Then transfer the mix to another container, mix again and then pour.

3. DEPTH PER POUR

Choose the appropriate system to match the depth you require. The chemical reaction that occurs, generates heat. Large volumes of resin can generate excessive heat, which can lead to an exothermic reaction, and cause the resin to discolour, crack and warp!

4. CALCULATING HOW MUCH TO USE

To calculate the volume of resin required, measure the length, breadth and depth and convert to liters.

- a. A table 2met x 900mm x 50mm deep is:

$$200\text{cm} \times 90\text{cm} \times 5\text{cm} = 90000\text{cm}^3 \quad 90000/1000 = 90\text{Lts.}$$

The Specific gravity of the material is 1.1.

So 90Lts x 1.1 = 99Kg is total amount of Resin and Hardener required.

- b. To calculate the separate amount of resin and hardener required, divide the total Kilograms by the mix ratio (ie 1.33 for the 100:33 mix ratio system or 1.25 for the 100:25 mix ratio system) and that will give you the amount of resin required

Example:

$$99/1.33 = 74.44\text{Kg Resin (Mix Ratio is 100:33)}$$

$$74.44 \times 33\% = 24.56\text{Kg Hardener}$$

$$\text{Total weight} = 99\text{Kg Mixed Total}$$

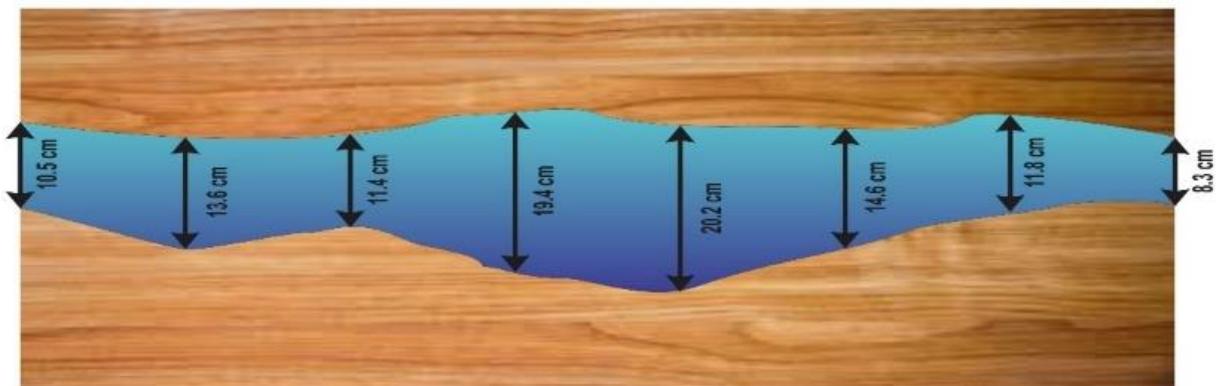
For tables with wood and live edges it is sometimes difficult to calculate the exact amount of resin required because of the irregular shape of the wood.

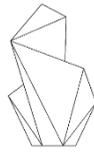
To do this see the example illustrated below:

Length x Average Breadth x Height

Average breadth is the sum of the measurement divided by number of stations

$$\text{e.g. } 10,5\text{cm} + 13,6\text{cm} + 11,4\text{cm} + 19,4\text{cm} + 20,2\text{cm} + 14,6\text{cm} + 11,8\text{cm} + 8,3\text{cm} = 109,8/8 = 16,3\text{cm}$$





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5. COLOUR CONSISTENCY

In order to ensure even colour throughout the resin in a multiple pour, first calculate the total volume of Epoxy needed for the entire job, then work out how much resin and hardener is required and mix the colour into the resin portion only. Then draw off the required amount of pre-coloured resin and add the hardener for each pour.

6. CASTING BOX

Build your casting box from Melamine chipboard. Glue all joints with a liberal bead of White Wood Glue in all joints and screw the box together. Then wipe off the excess glue with a damp cloth and let dry. Optional additional safety, glue the outside of the joints with a Hot Melt glue gun.

7. RELEASE AGENT

Use Ram wax as your release agent. Apply a coat all over the box and edges, let dry for 20minutes then buff off with a soft cloth.

8. WOOD WILL FLOAT

Wood will float in the resin so it must be clamped or screwed down to prevent this.

9. COLD WEATHER

In cold weather it is advisable to heat your resin and hardener to at least 27°C before mixing and casting. To do this, place your resin and hardener bottles in a bucket of hot water. Shake the bottles to mix the resin before measuring the temperature. Use an Infrared thermometer, available from AMT composites.

10. SURFACE TENSION ISSUES

Casting thin layers (<5mm) of epoxy over wood, can lead to surface tension issues, where the resin cures with dimples on the surface. We recommend a minimum of 5mm or more to try and alleviate the surface tension.

11. BUBBLES IN THE CASTING

There will always be bubbles present in the resin after mixing. These will rise to the surface after a while and they can be popped with the aid of a gas flames. Mini Gas touches are available at AMT Composites.
Some woods are very porous, and air will continue to escape from tiny holes when under the resin. In order to avoid this happening, it is advisable to first seal the wood with a coating or two of resin. Place the wood in the sun and paint on a layer of Woodcast30 and let dry. The sun will help heat the surface, open the pours and thin the resin so it penetrates the wood.

12. GAS FLAME VS HEAT GUN

A gas flame is the preferred method to pop surface bubbles. A heat gun can be used, but it does create waves, which can distort the surface.

13. ADDING PIGMENT

When adding pigments, be very careful not to add too much as they are very strong. For small batches, use a toothpick to add small amounts of pigment and stir them well into the epoxy.

14. GLITTERS AND PEARL ESSENCE POWDERS

There are many different glitters and pearl essence powders that can be used in these Epoxy resins, it is impossible to go through them all and a subject all of it own. It is advisable to do some tests of your own to get the affects you desire.

15. SANDING AND POLISHING

There is a comprehensive document attached which will help you create a beautiful surface finish on you River Table.