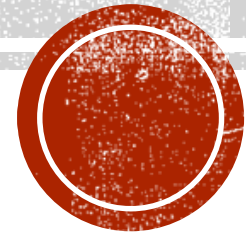


EPOXY



DISCLAIMER

- I don't have all of the answers.
- There is lots of information on the web.
- The following is my personal experience to date.



MIXED MEDIA

- At one time epoxy was considered just another glue.
- Epoxy has evolved over time.
- Mixed media options utilize Wood and Epoxy.



RIVER TABLES



JEWELLERY



BASIC CRACKS



5 MINUTE EPOXY

- Two part system.
- Equal parts
- Sets in 5 minutes.....go figure!!!!
- Workable cure in 1 hour, fully cured in 16 hours
- Used as a glue or to fill small holes or gaps.
- Not designed for large gaps.
- Can readily be coloured.



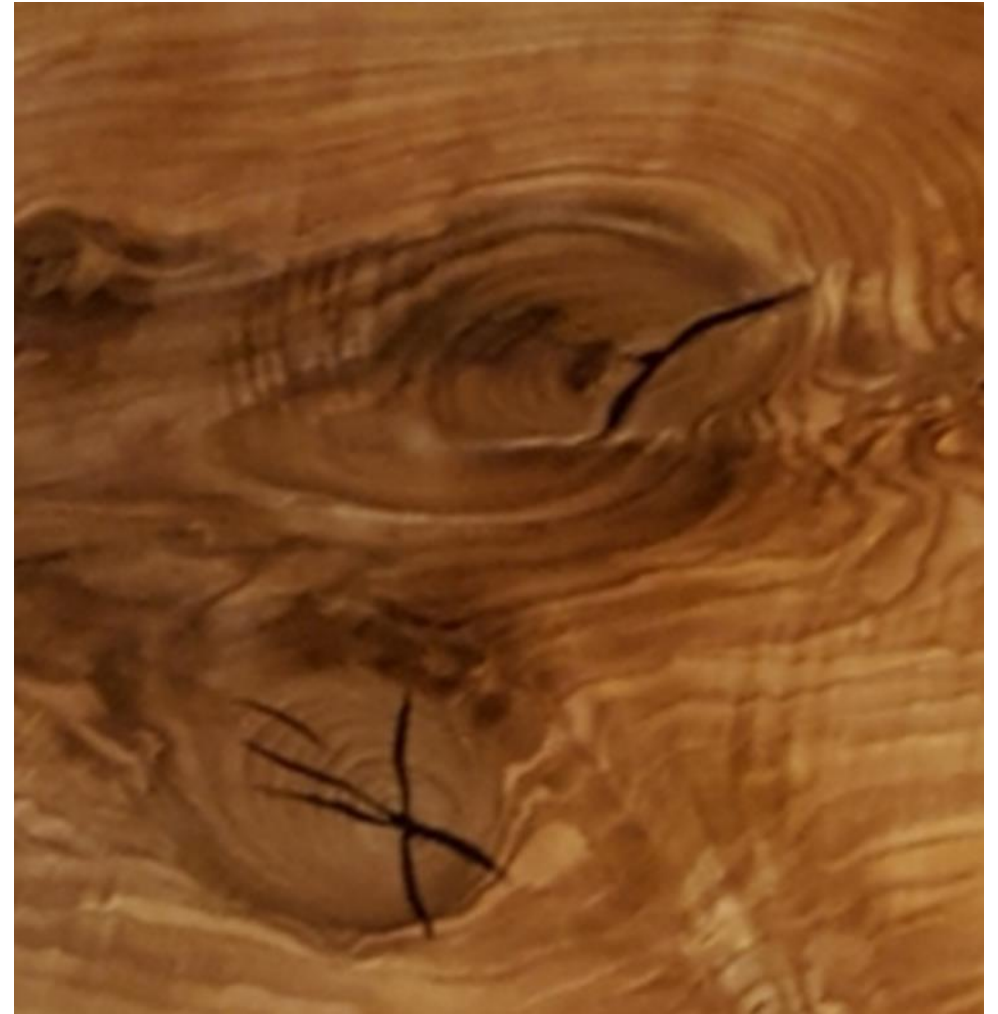
RESIN AND HARDENER

- Two part system.
- Mix is equal parts, or by volume, or by weight.
- Longer work time (15 - 20 minutes)
- Long cure time (24 hours)
- Used to fill large gaps.
- Lots of options, best talk to the experts at Rayplex to get the correct resin and instructions.



5 MINUTE EPOXY

- Mix together with colour (I use Black Gesso paint when I fill knot cracks)
- Mix time is short (less than one minute)
- Apply immediately and force into crack.
- I tend to mound the epoxy to account for a bit of sagging into crack.



RESIN AND HARDENER

- Apply colour to resin first (recommendation by some but not all)
- Mix hardener into resin. Mix slowly with a small flat stick (mixing fast will generate lots of bubbles as the air gets trapped in the resin)
- Mix for 2 to 3 minutes (depending on manufacturer).
- Pour into crack.



DONE!!!! 😊



PROBLEM – WHERE DID IT GO?

- Resin is very fluid and has a long cure time.
- Therefore it will follow any crack, however small, and leak out the other side.
- Be prepared to top up the epoxy.
 - 2nd top up??? You have a leak somewhere, better check.
- Solution
 - Seal all suspected routes. Best stuff is proper duct tape backed up by Tuk Tape.
 - Rub the duct tape to ensure solid contact with the wood.



PROBLEM — HOW MUCH CAN I POUR?

- Small areas 1/2 inch deep can be done in one pour.
- Large areas should be poured in stages.
 - User recommendation is 1/2 inch thick every 3 hours.
 - This is done to reduce the potential for burning the wood due to the heat generated during the curing process
- Check with the manufacturer.



PROBLEM – WHAT'S WITH ALL THE BUBBLES

- Stir quickly and you introduce bubbles.
 - Slow and deliberate stirring
- Pour fast and you can trap air.
 - Allow the air to get out of the crack.
- The cure process is accomplished via a heat reaction between the resin and hardener.
- Heat will cause the wood to release trapped air.
- Remove the bubbles
 - Sure.....easy for me to say!!!!



PROBLEM - BUBBLES

- Removing the bubbles can be accomplished a number of ways
- Small pieces
 - Place in pressure pot, use pressure or vacuum.
- Pressure
 - Apply 48lbs of pressure for 24 hours.
 - Pressure reduces size of bubbles so they are no longer visible
- Vacuum
 - Apply 29 inches of vacuum for 5 minutes.
 - Air is sucked out and replaced with resin.



PROBLEM - BUBBLES

- Larger pieces
 - Allow bubbles to come to the surface and apply heat via blow torch or heat gun.
 - The heat will change the surface tension and the bubbles will pop.
 - **Watch out as too much heat will accelerate the curing process and generate more bubbles.**
 - What??? They were all gone 5 minutes ago. Watch constantly (like every two minutes) as bubbles will make their way to the surface.



FINISHING

- For table tops I have done up to 400 and then applied normal finish (polyurethane, etc)
- For jewelery and turned products I wet sand up to 12,000 and then buff.
- Check with manufacturer to determine finish options and process for the resin chosen.



LESSONS LEARNED SO FAR

- Stir slowly!!!!
- Use a stick to direct the pour (reduces bubbles, reduces trapped air)
- Pour slowly into small cracks (reduces trapped air)
- Be careful with the heat
 - Apply sparingly as needed
 - Don't stay on target



LESSONS LEARNED SO FAR

- Hot glue is your best friend. Use to create a dam around the fill area.
 - Provides extra resin in case there is a unforeseen need
 - Allows last minute bubbles to surface to an area that will be sanded away
- Tape everything!!!!
- Cover the area to protect against dust.



NEED MORE DETAIL???

- The Web is full of good videos on how river tables are made.
- They provide some excellent insight on how to achieve.
- Work with Rayplex, they know the products and can advise on the proper process to use.



QUESTIONS?

