PERFECT COAT & PERFECT CAST FAQS

ULTRA-CLEAR EPOXY RESIN

The Perfect Coat and Perfect Cast Epoxy Systems have been specifically designed to create a clear coating or casting that showcases the beauty of wood in multiple applications including:

- Filling knot holes and cracks
- Clear coating of tables and other timber surfaces
- River Table manufacture

Each system has been formulated to cure at room temperature, with excellent air release and enhanced UV stability, to produce a deep gloss surface that does not require polishing.

Pigments and dyes can be added to the systems to produce a variety of colours, and special effects can be created by embedding stones, shells, coins, or other decorative items in the Rigid and Deep Casting systems.

PERFECT COAT is a solvent free, liquid epoxy resin specifically designed as a crystal clear, high-gloss coating system for timber that will self-level, and cure at room temperature.

- Improved Air release
- Excellent Clarity and UV stability
- Easy 1: 1 mix ratio
- Pour or Brush-On
- Pot Life - 100g @ 25°C (in air) = 55 Minutes
- 24 hours to Cured to Solid State
- 3 days to Cure to maximum strength

PERFECT CAST / RIGID is a solvent free, liquid epoxy resin system specifically designed as a crystal clear, high-gloss rigid casting system that will self-level and cure at room temperature.

- Excellent Air Release
- Ideal for Filling Knot Holes or Cracks in Timber
- Up to 20mm Thickness can be achieved in a single pour.
- Ideal for River Tables – achieved with multiple pours
- Pot Life - 100g @ 25°C (in air) = 59 Minutes
- 7 days to Cured to Solid State
- 7 days to Cure to maximum strength

PERFECT CAST / DEEP is a solvent-free, liquid epoxy system designed to create thick, crystal clear, high gloss castings in Timber.

- Up to 50mm thicknesses can be achieved in a single pour.
- Self –Levelling
- Excellent UV resistance and air release
- Extended gel time minimizes the chance of exotherm.
- Suitable for supported, larger cavity applications.
- Pot Life - 100g @ 25°C (in air) = 13 hours
- 7 days to Cured to Solid State
- 7 days to Cure to maximum strength

WHAT MAKES PERFECT COAT & PERFECT CAST SYSTEMS SAFE TO USE?

Perfect Coat and Perfect Cast Systems are a 100% solids formulation, meaning that it does not contain volatile organic compounds, so there are no hazardous vapours. The Safety Data Sheets provide accurate information to allow safe handling.

DOES YELLOWING OCCUR TO THE RESIN?

Perfect Coat and Perfect Cast Systems include UV stabilizers to minimise the harmful effects of UV light on epoxy resins, these stabilisers provide long term UV protection.

WHAT IS UV STABILIZATION?

UV stabilisation protects the backbone of the epoxy resin from bond cleavage, that occurs when UV light penetrates the coating, by absorbing the UV light and converting it to heat.

WHAT KIND OF COVERAGE CAN I EXPECT?

1 mixed litre of Perfect Coat Resin and Hardener delivers approx 0.60m^2 depending on surface porosity.

CAN EPOXY RESIN BE TINTED?

Tints, pigments and dyes can be added to the system to produce a variety of colours. Refer to manufacturer's instructions to ensure suitability.

WHAT IS THE SHELF LIFE OF EPOXY RESIN?

Perfect Coat and Perfect Cast Resins and Hardeners will keep for 2 years if kept in original containers at room temperature (15°C to 32°C) and out of direct sunlight. Containers should be tightly sealed to prevent moisture absorption.

WHAT SAFETY PRECAUTIONS SHOULD I TAKE WHEN USING EPOXY RESIN?

Gloves and safety glasses should be used, work in a well-ventilated area. Place left over mixed material in a ventilated area and be aware that bulk material can get hot.

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HOW DO I PREPARE THE SURFACE OF MY PIECE FOR PERFECT COAT?

For good adhesion, bonding surfaces should be:

1. Clean -
Bonding surfaces must be free of any contaminants such as grease, oil, wax or mold release. Clean contaminated surfaces with lacquer thinner, acetone or other appropriate solvent. Wipe the surface with paper towels before the solvent dries.

Clean surfaces before sanding to avoid sanding the contaminant into the surface. Follow all safety precautions when working with solvents.

2. Dry -
All bonding surfaces must be as dry as possible for good adhesion. If necessary, accelerate drying by warming the bonding surface with a hot air gun, hair dryer or heat lamp. Use fans to move the air in confined or enclosed spaces.

Watch for condensation when working outdoors, or whenever the temperature of the working environment changes.

3. Sanded -
Sand smooth non-porous surfaces - thoroughly abrade the surface 80-grit aluminum oxide paper will provide a good texture for the epoxy to "key" into. Be sure the surface to be bonded is solid. Remove any flaking or chalking.

Make sure the surface is level, dry and dust free.

Hardwoods - Sand with 80-grit paper.

Teak/Oily Woods - Wipe with acetone 15 minutes before coating, allowing the solvent to evaporate before coating.

Porous Woods - No special preparation needed. If surface is burnished, possibly by dull planer or saw blades, sand with 80-grit paper to open pores. Remove dust.

WHERE SHOULD I APPLY PERFECT COAT AND CASTING SYSTEM TO MY PROJECT?

Well-ventilated, dust free environment is recommended for the best result. Ideally apply at a constant temperature and humidity.

For best results, apply at temperatures between 15°C to 30°C and at below 85% humidity.

WHY SHOULD I USE STANDS/SUPPORT BLOCKS WHEN USING PERFECT COAT?

It allows the resin to evenly run off the surface and prevent adhesion to work area.

HOW DO I MIX AND STIR THE RESIN PROPERLY?

Use a flat mixing stick to stir the two ingredients together for at least 4 minutes - longer in cooler temperatures.

Take care to stir the material slowly, so air entrapment is kept to a minimum.

HOW DO I PROPERLY SPREAD PERFECT COAT EPOXY RESIN?

Perfect Coat will naturally self-level, however a disposable foam brush or flat surface plastic spreader can be used to assist with spreading the resin.

HOW DO I GET RID OF BUBBLES?

Hold the heat gun or gas torch 15 cm - 20 cm away from the surface and sweep the torch continuously across the surface of the mixed material, it will assist with air release, popping any stubborn bubbles that mixing can trap.

This light heating will lower the viscosity and break the surface tension in the bubbles allowing them to pop.

*Take care when using alcohol-based inks or pigments.

HOW CAN I THIN THE PERFECT COAT AND CAST EPOXY RESIN MIXTURE?

It is not recommended to thin the epoxy as it has been formulated to have the optimum viscosity for the application.

HOW DO I GET PERFECT COAT AND CAST EPOXY RESIN TO DRY FASTER?

You can increase the ambient temperature, but be aware of too much, or uneven artificial heating, as it can create surface imperfections.

THE COATING/CASTING RESIN HAS BECOME VERY HOT AND CURED TOO QUICKLY?

The batch of resin was too large, or left in the mixing pot for too long, or the ambient temperature was too high.

- Mix smaller batches
- Transfer the mixture to a container with more surface area, such as a paint roller tray, immediately after mixing.

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THE EPOXY MIXTURE AS NOT CURED AFTER THE RECOMMENDED CURE TIME HAS PASSED?.

• Off ratio - too much or too little hardener will affect the cure time and thoroughness of the cure. Remove epoxy. Do not apply additional material over non-curing epoxy.

• Low temperature - epoxy mixtures cure slower at low temperatures.

• Insufficient mixing - mix for a minimum of 4 minutes, stirring slowly and taking care to scrape the walls of the container to disperse the resin and hardener evenly

HOW TO REMOVE UNCURED EPOXY RESIN?

Uncured epoxy is removed as you would remove spilled resin. Scrape as much material as you can from the surface using a stiff metal or plastic scraper - warm the epoxy to lower its viscosity.

Clean the residue with lacquer thinner, acetone, or alcohol. (Follow safety warnings on solvents, and provide adequate ventilation.) Allow solvents to dry before re-coating.

HOW TO STOP RUNS OR SAGS IN COATING RESIN?

•The Epoxy was applied too thickly. Roll the coating out into a thinner film. A thin film will flow out much smoother than a thicker film after it is tipped off with the foam roller brush. Or warm the epoxy to thin it, or apply the coating at a warmer temperature.

•The coating resin cured too slowly. Apply the coating at a warmer temperature. Warm the resin and hardener before mixing, to speed the curing process in cold weather.

HOW DID I END UP WITH FISH EYES?

Contamination of the coating or surface or improper abrasion for the coating.

• Be sure mixing equipment is clean.

• Avoid waxed mixing containers. Be sure surface is properly prepared. Use proper grit sandpaper for the type of coating you are applying. (See coating manufacturer's instructions for proper surface preparation.)

After surface is prepared, avoid contamination - fingerprints; rags with fabric softener (silicone). Coat within hours of preparation.

BUBBLES FORMED IN PERFECT COAT / PERFECT CAST OVER A POROUS SURFACE?

Air trapped in the material escapes through the epoxy (out-gassing) as the material's temperature is rising.

• Coat the wood as the temperature is dropping - after warming the wood with heaters or during the later part of the day.

• Apply a thinner coat, allowing air to escape easier.

• Tip off the coating with a roller cover brush to break bubbles.

CLEAR COATING TURNED CLOUDY?

• Moisture from condensation or very humid conditions reacts with components in uncured hardener. Apply moderate heat to partially cured coating to remove moisture and complete cure.

• Entrapped air from aggressive roller application. Apply coating at warmer temperature - epoxy is thinner at warmer temperatures. Apply epoxy in thin coats. Apply moderate heat to release trapped air and complete cure

CAN I DO A SECOND COAT OR MULTIPLE COATS OF PERFECT COAT?

Yes, you can do multiple coats.

Re-coating is possible when the previous coat is still tacky (about as tacky as masking tape). To avoid sanding between coats, apply all of the coats when previous coats have cured to this tacky stage. After the final coat has cured, wash and sand it to prepare for the final finish