

Ultra-Clear, Low Viscosity Epoxy Resin [UV Resistant]

www.resin4art.com

Step-by-Step Application Guide

- [1] Each kit comprises of an **A** part and a **B** part.
- [2] The mixing ratio is 2 parts A to 1 part B.
- [3] Mixing Ratio must be by weight **not** volume (e.g. 2kg A + 1kg B).
- [4] It is recommended to keep part A and part B warm before use by placing them near a heater or a radiator. This will help in the mixing and also help any bubbles to come to the surface so that they can be easily removed with a hair dryer or heat air gun. **Ensure surrounding conditions are reasonably warm and humidity is low when working with epoxy resin. Cold and damp conditions are not conducive to good curing. [see further High Humidity section on next page]**
- [5] Before mixing, the A and B part must be kept separate.
- [6] When ready, take desired amount of A and B, from separate containers.
- [7] Pour A and B parts into a third container (ensure it is clean and dry).
- [8] Stir the mixture thoroughly, for a minimum of 2 minutes.
- [9] After 2 minutes of thorough stirring, the epoxy is ready to be poured over or into your desired application. Make sure the substrate you are pouring the resin over or into is completely dry and clean and free of any oils, sprays, waxing agents, or solvents. Only clean surface with water and cloth.
- [10] Pour the appropriate amount (*note: once the A and B part is stirred, try and apply it within 10 minutes, because the epoxy will get hot and start going hard).
- [11] The epoxy has a self-levelling quality (from 2mm thickness layer and above), although if you get too much or too little poured into an area, you can spread it around. Use a plastic spatula, to gently spread the epoxy and even it out if necessary.
- [12] If you notice any air bubbles that have formed, run them over with a hair dryer/ hot air gun.
- [13] Allow epoxy to cure*.

* **Curing time is directly related to the surrounding atmospheric temperature. The following table gives an estimate of curing time. For floors, please allow 24 hours before walking on the resin surface during warm days, and 48 hours during cold days. Alternatively, check whether the resin is fully hard before applying pressure on it.**

Temperature (°C)	Curing Time (hours)
<25	>10
25	6-9
40	3
60	1.5
100	0.75

The 2:1 Mix Ratio

- 2 parts A: 1 part B mixing ratio, must be by **weight not volume**.
- The 2A: 1B weight ratio is fundamentally important to the curing process of the epoxy.
- Make sure you use a **digital scale not an analogue scale**.
- **Minimum recommended amount per pour: 150g (100g A + 50g B).**

High Humidity

- High humidity (>50%) means that the surrounding atmosphere becomes quite wet. That means that water vapour and moisture can seep into the epoxy while it is curing.
- This can leave an effect on the cured layer of resin that looks like 'hairline fractures'. That is the result of moisture seeping through, and not the resin.
- To ensure that you get the perfect ultra-clear and glossy finish, you must ensure that the epoxy is applied in a **dry** environment. When humidity is high, simply turn on a heating fan or apply the heating to the surrounding area, half an hour before you are ready to apply the epoxy, and during the first hours of the curing process. Try and keep the humidity under 45%. You can track the humidity of a room, with a simple and cheap digital measuring dial.

Epoxy and Pigments

- Our Grade A, ultra-clear epoxy resin can be mixed with metallic colour pigments, photo-luminescent pigments and glitter, to achieve a beautiful, artistic finish.
- **How much pigment will I need to use?** The general rule with our epoxy is this: the weight of pigments you will need is a max of **4%** of the resin you use for **full** colouration. For our Ultra Vivid, Super Bright Fluorescent pigments use no more weight in pigments than **2%** of the resin you use.
- Example: If you are using 1kg of epoxy resin, 4% of means 40g of metallic colour pigments. Simply pour the desired amount of pigment in the A part, then mix with the B part and stir for 2-3 minutes as normal. For our fluorescent pigments, same process, but use 20g per 1kg of resin.
- **NOTE:** Using a disproportionately high amount of pigments, may affect the performance and curing of the epoxy resin.

Epoxy and Surface Area

General rule:

$$1\text{kg of epoxy} = 1\text{m}^2 \text{ surface area} = 1\text{mm thickness layer}^*$$

***Minimum recommended thickness for all surfaces and flooring is 2mm. This enables adequate coverage for uniform application and enables the resin to self-level.**

Maximum Thickness per Pour

- As a preliminary note, there is no problem with doing several layers of resin to finish a project. As long as you wait for a particular layer to fully cure, you can do as many as you'd like. The result will be the same.
- We do not recommend a single layer **>10mm thickness**. This is because resin undergoes an exothermic reaction and can heat up quickly when it is too concentrated or in large volumes. If the resin heats up too quickly it can affect the clarity and consistency of the cured layer. If you need to achieve a thicker layer, you can do so by completing the project in multiple layers of pouring, wait until the layer you poured is cured before pouring the subsequent one.

Storage of Epoxy Resin/ Heat Resistance

- Shelf-life is 6 months when stored away from direct sunlight, in conditions over 20C.
- When you store epoxy resin, always ensure the containers have the cap on. Do not leave in open containers for long periods. When epoxy resin is stored in low temperatures, **crystallization** can occur (lumps/crystals in the resin, particularly the Part A). If that occurs due to improper storage, heat up epoxy resin for the crystals to disintegrate (**heat Part A separately from Part B**).
- Maximum Heat Resistance of this Epoxy Resin when cured is **100C**. At that temperature, and above, the resin can begin to soften. However, even when placing hot objects on the resin (such as coffee/tea cups), even when less than 100C, while they will not soften/degrade the resin, they can still leave a mark. For best use and protection of the resin, we recommend use of coasters.