



Tips for Success With Your CLEARPOX Epoxy Resin System

Getting Familiar With Your Epoxy Resin

If you haven't used epoxy resin before we recommend a trial mix on a small scale just so you can familiarise yourself with the resin, which will give a better idea and provide some essential experience which is ideal before undertaking large projects.

Mixing Ratio

It is vital that the resin is mixed at the right ratio. The ClearPox epoxy systems are mixed by volume 2:1. Mixing ratios are provided on product labels, they can also be accessed via the technical datasheet which can be viewed and downloaded from the website on the products page.

Temperatures & Humidity

Epoxy resins are temperature sensitive, it is important to pay attention to all aspects of temperatures, from the resin itself to the room in which the resin will spend its time curing. The ideal room temperature for the epoxy to cure is 25°C. The mould or object in which the resin will be poured in/on should ideally be around the same temperature.

Colder conditions will slow the cure of the resin and will not produce as high a quality finish as when used in the recommended conditions. Cold temperatures may cause the resin surface to blush, a lesser degree of self leveling on the surface and in extreme cases cause the resin to go cloudy with a severe reduction in clarity. Relative humidity also plays a part and ideally the humidity levels will be below 70% for best results. These specs are the 'ideal' however the epoxies will perform well from 18°C upwards, temperatures lower than 15°C will likely result in a poor finish.

Resin Quantities & Pot-life

The pot-life stated on the product TDS Technical Data Sheet is based on a 200g mix at 25°C. Colder conditions may prolong the pot-life as where hotter temperatures will decrease the pot-life. Increasing or decreasing the quantity of resin in the pot can also have a big impact on pot-life. Mixing large quantities of resin will greatly reduce the pot-life, this is especially true on short pot-life version (ClearPox). It is good practice to start out with smaller mixes until you gain experience and get used to the characteristics of the resin.

Cure Time

The cure time depends on the ambient temperature; if it's hotter it will cure quicker. Generally, please allow 24 hours for your resin to cure at 25 degrees Celsius. Your project will be fully cured after 7 days



Quality of Mix

Improper mixing will lead to curing issues, so it's vital the materials are well mixed. When the two components of the epoxy system are combined you will notice the material will turn hazy. Once mixing begins the clarity will return. It is important to mix until the material has cleared and there are no streaks. Take extra care to carefully scrape the sides and bottom of the mixing vessel. A good practice would also be to transfer the primary mix into a secondary mixing vessel and mix again to ensure the epoxy is thoroughly mixed.

Pigmentation

Pigments, Dyes, Pearlescent, Luminescence etc. will all typically work well with the ClearPox epoxy systems. These materials typically have a wide scope on quantities that can be added to the resin. Paste pigments and dyes will often have a recommended maximum addition due to the carrier used. Powder pigments and metallic powders would be a personal choice on quantities.

Metallic powders are not ideal for long pot-life resin (ClearPox) due to the powders densities which often cause them to drop out of suspension over time sinking to the bottom of the cast. Simulated metallic pigments and some pearlescent will tend to float as they are often lighter in mass than the resins. Trials on a small scale basis will again help you determine how much pigment suits your needs and provide the effect you require, and a good measure to test compatibility before using the material on a full scale.

Casting Depth

The recommended depth of cast on each system is primarily a recommended safe limit which is to ensure they will perform as expected providing they are used correctly. There are many variables involved in the depth of cast that might allow the resin to be used slightly over the recommended limits a few examples such as temperatures, filler added, shape of void (if filling), the substrate in which the epoxy is being cast in/on, all of which can have an effect. If unsure a trial test would help determine what will/won't work. We recommend a pour depth of 20mm per pour with ClearPox. A deeper pour is possible once the first layer is set.

Sealing Coat

For porous surfaces such as wood, concrete or similar a sealing coat is recommended especially when deep casts are involved, a sealing coat stabilises the surface and also prevents air from escaping from the pores and getting trapped in suspension whilst the resin cures. The sealing coat would left to cure before sanding and cleaned to leave a keyed surface ready for the next layer or main layer.

Please visit the FAQ section on the ClearPox website for more information