

Tips for Success With Your Polycraft Cleartop Epoxy Resin System

Getting familiar with your resin

If you haven't used the material 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 Cleartop epoxy systems are mixed by weight only (digital scales required), precision is key for a successful cure. Mixing by volume will produce the incorrect mixing ratio which will ultimately result with a failure. 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, its 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 levelling on the surface and in extreme cases cause the resin to go cloudy with a sever 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 & Potlife

The potlife stated on the product labels are based on a 200g mix at 25°C. Colder conditions may prolong the potlife as where hotter temperatures will decrease the potlife. Increasing or decreasing the quantity of resin in the pot can also have a big impact on potlife. Mixing large quantities of resin will greatly reduce the potlife, this is especially true on short potlife version (ClearTop 5). its good practice to start out with smaller mixes until you gain experience and get used to the characteristics of the resin.

Quality of Mix

Improper mixing will lead to curing issues, its 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 measure would also be to transfer the primary mix into a secondary mixing vessel and mix again to ensure the material is thoroughly mixed.

Pigmentation

Pigments, Dyes, Pearlscents, Luminescents etc. will all typically work quite well with the Cleartop epoxy systems. These materials typically have 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 potlife resin (ClearTop 35) 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 pearlscents will tend to float as they are often lighter in mass than the resins. Trials on a small scales 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.

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.

Contact Us

If you are still unsure or have a query please don't hesitate to send your technical query to sales@mbfg.co.uk or call on 02890 861992 and we will respond as soon as possible.