

## Frequently asked questions about Epoxies

### 1. What is an epoxy adhesive?

Epoxy adhesives are a major part of the class of adhesives called "structural adhesives" or "engineering adhesives" (which also includes polyurethane, acrylic, cyanoacrylate, and other chemistries). These high performance adhesives are used in the construction of aircraft, automobiles, bicycles, boats, golf clubs, and other applications where high strength bonds are required. Epoxy adhesives come as two part systems – resin and hardener, that must be mixed together prior to use.

### 2. What adhesive is best to mend a broken vase?

Alcolin Rapid Epoxy. It bonds well and is gap-filling, dries clear and fast setting.

Alcolin Mix 'n Fix RepairitQuik is an epoxy putty that will also work well, especially if there are some missing parts that need to be remoulded. The RepairitQuik sets to a white colour.

### 3. What is the difference between a liquid epoxy and an epoxy putty?

An epoxy putty, such as Alcolin Mix 'n Fix, is a putty like consistency which eliminates drips and runs that can be a problem in liquid epoxies. The main advantage of the putty is that it can be shaped and formed as needed before cure begins – ideal if one needs to rebuild a missing part

### 4. Why did my epoxy not set?

An epoxy is a two-part adhesive that needs to be mixed in a 1:1 ratio. If incorrect ratios are used, the product will not set and remain sticky. Epoxy putties such as Alcolin mix 'n Fix eliminate this problem by being supplied in a stick format containing pre-measured portions of activator and base – no measuring or mixing tools are necessary. As the epoxy is mixed by hand, the two contrasting colours blend into one colour to indicate complete mixing.

### 5. I am looking for a clear epoxy?

Alcolin Rapid Epoxy.

### 6. I am looking for an epoxy putty?

Alcolin Mix 'n Fix range of epoxy putties.

### 7. Need to repair a crack in a swimming pool

Alcolin Mix 'n Fix Aquamend epoxy putty.

### 8. Can you change the colour of Alcolin Mix 'n Fix Epoxy Putty?

Yes you can change the colour. There are many different types of pigments/dyes to choose from. You can use an iron oxide – 1% or less. And always check first for colour and cure compatibility. Oil base stains are also suitable. Also, you can paint over Alcolin mix 'n Fix with any type of paint.

**9. How do I clean epoxy?**

Latex gloves should always be used when working with epoxy. If you should get epoxy onto your skin, it can be cleaned off with a waterless soap immediately, then thoroughly washed with soap and water. Tools can be washed with vinegar or isopropyl alcohol (IPA), acetone or lacquer thinners. The only way to remove cured epoxy is to re-heat to above its glass-transition temperature. For Alcolin Rapid Epoxy, this would mean heating the epoxy to above 100°C, and then mechanically scraping to remove. Alternatively, heat with a soldering iron and work the tip like a chisel to remove unwanted epoxy.

**10. How can I smooth the surfaces of the Alcolin Rapid Epoxy once applied?**

After applying Alcolin Rapid Epoxy, use a putty knife or rubber gloves that have been dipped in water, to rub on the surface until smooth.

**11. How does the bond of an epoxy adhesive compare to that of a superglue?**

An epoxy adhesive forms a much stronger and more durable bond compared to a superglue. A superglue however is ideal to use when an instant bond is required.

**12. What adhesive can I use to bond hard plastics such as polyethylene and polycarbonate?**

These are very difficult surfaces to glue and it is difficult to achieve a long lasting durable bond. Epoxies and superglues may give a temporary bond to small parts. The best adhesive to use is Bostik Hard Plastics, which is a 2-part superglue, consisting of superglue and special surface primer which is applied to the plastic surface just prior to gluing to enhance adhesion of the superglue.

**12. What surfaces does an epoxy bond to?**

Wood, metals, glass, plaster, concrete, ceramics, brick, and many plastics, e.g. polycarbonate, hard PVC, fibreglass, etc.

**13. Can I speed up the cure by adding more hardener?**

No. Changing the mix ratio will cause your final product to be too flexible or not cure at all.

**14. How much mixing is required?**

Mixing is the key to ensure that your epoxy cures thoroughly to form a strong bond. Most epoxy failures are attributed to inadequate mixing. Fast set epoxies such as Alcolin Rapid Epoxy should be well mixed with a spatula for about 45 seconds, ensuring that all the resin and hardener are thoroughly mixed. Epoxy putties such as Alcolin Mix 'n Fix should be kneaded together for about 1 – 2 minutes until a single homogenous colour is formed throughout.

**15. What is 'blush', and how do I remove it?**

Blush can sometimes form over fast setting liquid epoxies. Blush is noticeable as a slippery film formed over the cured surface. It can be removed by wiping with a damp sponge.

**16. I want to add extra body to my liquid epoxy. How can I do this?**

One can add any dry organic or inorganic filler e.g. kaolin, calcium carbonate, etc.

**17. What surface preparation is needed prior to application of epoxy?**

All surfaces should be cleaned of any contaminants, such as oil, grease and pooled water. Light sanding is recommended. A clean cloth moistened with Isopropyl alcohol or plain water may be used to clean surfaces. Do not use acetone to clean the surface.

**18. How does temperature variation effect epoxy?**

For every 7°C, the temperature falls below 25°C, the pot life will double. Setting time will increase by approximately 1.3 times. The exact opposite will occur as temperatures increase above 25°C.

