Frequently Asked Questions

EPOXY RESIN

Q. Why is my laminate / gelcoat still soft even after the suggested cure times on the technical data sheet?

A. The potlife and cure times of thermoset resins are dependent on temperature. The information stated on our technical data sheets is usually quoted at 20 – 25°C. If the ambient temperature drops below this, as often it does in the winter and in the evenings, the potlife and cure time of the epoxy resins are extended.

Q. Why is my epoxy tool de-laminating?

A. The second layer of gelcoat and subsequent layers of laminate must be applied at the 'tack free' stage. This is the point at which you can drag your finger lightly across the gelcoat or laminate without any material coming off on to your finger, but leaves a slight trail behind your finger. If you leave layers to fully cure between coats adhesion between layers is lost and de-lamination will occur.

Q. What coverage area can I expect to get with a 1kg kit of EP 401?

A. 1mm layer = 3846cm² 2mm layer = 1923cm²

Q. How much laminating resin do I require if I am using 600gsm chopped strand mat?

A. Roughly speaking you need 1kg of resin for every 2kg of chopped strand mat.

Q. Why has my epoxy tool cracked?

A. Epoxy tools are sensitive to temperature change, they should be slowly warmed to the required moulding temperature. Once moulding is complete they should be slowly cooled to room temperature.

A tool should never be removed from an oven to cool as this can cause thermal shock and result in cracking of the tool.

Q. How much casting resin do I need to fill my mould?

A. The amount of resin/hardener required to fill a mould cavity will be dependant on the size of the mould and the density of the material. For example to fill a mould 200 x 200 x 200mm with a material that has a mixed density of 1.2g/cm³. Use the calculation:

Convert the measurements to metres:	length= 0.2m, width= 0.2m, height= 0.2m
Calculate the volume in m^3:	0.2 x 0.2 x 0.2 = 0.008m^3
Multiply by the mixed density:	0.008 x 1.2 = 0.0096
Multiply by 1000 to give the amount required in kg:	0.0096 x 1000 = **9.6kg**

Q. Can I use wood, polystyrene or resin blocks to reduce the amount of resin needed in my vacuum forming tool?

A. For larger tools it is advisable to block the material out to reduce the resin used and the cure exotherm. The blocks should leave at least a 25 – 30mm wall and rib section to the tool. It is VERY important to remove the blocks before heating the tool as the different block materials will expand and contract at a different rate to the resin which can cause the tool to crack.

FURTHER INFORMATION

Our technical advice, whether verbal, or in writing is given in good faith, but without warranty – this also applies where proprietary rights of third parties are involved. It does not release you from the obligation to test the products supplied by us as to their suitability for the intended process and use.

Before using any of our products, users should familiarise themselves with the relevant Technical Data Sheets and MSDS provided by Alchemie Ltd.