ABL (STEVENS) Resin & Glass
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EPOXY RESIN

EPOXY RESINS are generally used where ultimate high strength and adhesion is required. Most commonly combined with fabrics like Carbon fibre, Kevlar and Glass fibre to give high strength to weight ratio composites.
It can be used to bond or laminate wood and other materials, casting and potting can also be done with epoxies.
Its main advantages over polyester are: very low shrinkage, higher adhesion to many materials, higher chemical resistance, up to 50% stronger, more durable and less brittle.

USAGE AND CURE TIME
Our epoxy is a semi-flexible type ideal for laminating due to its low viscosity.
When using epoxy, the hardener ratio must never be altered as under-cure would arise, the ratio is 50% addition to the resin i.e. 2 parts resin to 1 part hardener (by weight).
The hardener we supply is a medium (20 minutes) type, after this time the liquid will become hot and gradually thicken until around 1 hour when a gel like stage arises, After the resin has cooled, full cure is attained after 7 days @25ºC.
The warmer the ambient temperature the faster the cure, post curing can speed the process by heating to 100ºC for 1 hour (only after the material has gelled at room temperature).

RATIO OF RESIN TO FABRICS.
When using Carbon fibre, Glass, or Kevlar fabrics with our epoxy resin, the amount of resin required should equal the weight of the fabric i.e.
1 square Metre of 175g/M² Kevlar would require 175g of epoxy resin; this gives an ideal 50/50 composite.
Where chopped strand mat is used ensure it is the powder bound type as emulsion binder does not fully dissolve so impairing the composite.
THE RESIN SHOULD NOT BE USED IN TEMPERATURES BELOW 16ºc AS HARDENING MAY FAIL TO OCCUR.

Common release agents like PVA liquid and a wax polish can be used when using moulds.

Brushes and tools can be cleaned with Acetone or Cellulose thinner.