



TECHIE TIPS

With the gee-gee season upon us I thought it might be timely to look at 'Horses-for-Courses' as in **Glueing - up**.

Just as some horses perform better with certain types of track conditions, some jobs work better with certain glues.

The words **glue** and **adhesive** have the same meaning - older type *animal glues* such as Casein are the ones you recall in the double walled glue pot on the stove whereas modern glues such as PVA 'white glue', PVA 'Yellow glue', UF, Polyurethane and Epoxy Resins are made in chemical plants and are called *Adhesives*.

In terms of what we mostly need for our Shed timber projects, lets just look at the most common:

PVA (*polyvinyl acetate*) is the familiar all purpose white glue used for most timber work.

Pros: non toxic, dries clear, is relatively fast drying, has a moderate bond strength when correctly applied and is perfectly safe to handle with bare hands. Common brands are Aquadhere, Bostic.

Cons: joints are not fully waterproof, excess glue must be wiped away during assembly, takes 24 hours to achieve full strength, can be painted over but not varnished. Not gap-filling and needs to be clamped.

Yellow Glue (*aliphatic resin*) is a light **yellow** color and creamy texture and is sometimes called 'carpenter's glue'. Common brands are Titebond, WoodWorks 'Yellow Glue'.

Pros: low odour, better bonding strength than 'white' PVA, and moderate moisture resistance. Better heat and water-resistance than PVA 'white' glues, available in different configurations for different applications.

Cons: the joint can be brittle, has a yellow glue line so not good with dark woods.

UF (*urea formaldehyde*) famously known as the adhesive used to build the WW2 *De Havilland Mosquito* aircraft is favoured whenever strong structural joints are required and for bonding wood particles to make composite timber products. Common brand: Jowat UF Resin

Pros: gap-filling, has very strong bond and is the 'go to' adhesive for laminating timbers into different shapes (such as furniture), does not 'creep' when set.

Cons: fumes are carcinogenic and work must be carried out in well ventilated areas (such as in the open air). It is a two part system which must be mixed just prior to use. Limited shelf life.

Polyurethane is a multipurpose glue that comes in one part and two part options. The one part option is commonly used with woodworking. Common brands are Gorilla Glue, Sika

Pros: works well on a wide variety of wood species, particularly on woods with high moisture content or on oily woods. Achieves a very strong and tough bond. Often used as sealants.

Cons: Clamping is required until full strength is achieved in six to eight hours.

Epoxy resins (*polyepoxides*) are generally two part systems designed for high performance bonding. Common brands are Araldite, Loctite Epoxy Adhesive

Pros: have excellent gap filling properties due to their high cohesive strength, fast acting

Cons: can trigger long-term sensitivity (allergies) from overexposure.

QUICK TWEAKS



SELF EXPLANATORY



CREDIT CARD GLUE SPREADER