



## Instant Glues

Cyanoacrylate adhesives were once almost totally on the periphery of woodworking, but their development and improvement over the past few years has been of tremendous help to woodturners and people who do a lot of inlay work, as well as becoming very useful in the small repair field (there really isn't a much better way to replace a small chip). Turners working with spalted or split woods are benefited by being able to work with wood that was previously unworkable, adding greatly to the choices and chances of getting an attractive piece. Versatility has increased greatly, while toxicity has dropped. All the CA adhesives listed here are classed as non-toxic, a fact that makes them even more desirable for a lot of uses. It must be kept in mind, though, that CA fumes can irritate eyes and other sensitive tissue. CA adhesives bond to skin instantly, so avoid skin contact. On a per ounce basis, CA is expensive, but is usually only used for small areas, so per project cost is low.

Today, CA adhesives come from water-thin to thick as most epoxies, with a mid-range type that is about the consistency of good syrup, and works well to fill small gaps. Their jobs start with the water-thin that is for bonding parts that fit really well. This has a very fast bonding time, as little as two seconds under ideal conditions. The slightly slower bonding time of Super T with its syrupy, more filling consistency, allows it to flow out and fill in, is 10 to 25 seconds (bonding time depends on conditions, including temperature--the warmer it is, the faster the bond will set up). Special T CA has the slowest bonding time of all the CAs, from 30 to 50 seconds. Because Special T is as thick as most epoxies, that time is needed to spread the material. This is the adhesive to use to repair cracked turning blanks and to stabilize spalted turning materials.

Keep temperatures over 60° for best results. When temperatures are specified for adhesive use, those temperatures apply to the material being glued as well as to the adhesive material, so it's usually best to reach and maintain a shop temperature of at least the recommended lower end.

CA adhesives have very short set times, so do not normally need clamping. Current versions have good water resistance (they are not waterproof, though), and sand very well. The glue line is clear.

CA is obviously not going to work for complex assemblies, unless they can be put together piece-by-piece. The open time, even with the slower bonding types is far too short for anything more than two, at most three, pieces with simple fits to come together in one glue-up operation. But the bonding time is so quick (even the long bonding time is under a minute in most cases), that reasonably complex assemblies can be made in steps, without clamps. For normal woodworking, though, standard woodworking glues are still by far the best, but for those special needs, CA adhesives can't be beat.