



# ALCOLIN® For the love of woodworking



## Alcolin leadership & commitment

As the industry leader in wood adhesives, Alcolin has diligently built up a tradition of excellence. We measure ourselves on over 50 years of market innovation, unsurpassed product quality, personalised customer service and reliable technical support. Understanding and catering for the needs of the wood glue market has been the foundation of the Alcolin brand since 1952 and this commitment to excellence in providing the most cutting edge market solutions continues to drive Alcolin into a promising future.



## Alcolin Cold Glue

It is the original, high quality wood glue and has been the best selling wood glue in SA for over 50 years! Alcolin Cold Glue is ideal for everyday woodworking projects and offers long open time and great versatility.



### Features

- ▶ Very versatile (can be used on wood, paper, board, felt, cloth, leather, stone, cork and many other substrates)
- ▶ Long open assembly time

### Ideal Applications

Great for most wood projects and its versatility makes it perfect for many of your day-to-day adhesive needs.

Superior open assembly time makes it especially suited to intricate joints, which take more time to assemble.



## Alcolin Fast Set

Alcolin Fast Set Wood Glue is a faster setting, 100% clear drying PVA - ideal for creating tough, moisture resistant bonds to soft woods and especially to hard and oily woods.

### Features

- ▶ Fast setting
- ▶ Clear glue line
- ▶ Better penetration for hard and oily woods
- ▶ Long open assembly time



### Ideal Applications

Ideal for when shorter clamping times are needed (i.e. when laminating) and when hard or oily wood is being used.

Also perfect for projects that require a clear glue line.



## Alcolin Professional

An aliphatic resin based adhesive designed for the more serious woodworker and hobbyist. It is ideal for furniture restoration and for stress joints, as it provides the hardest (least flexible) glue line. Provides excellent adhesion to all woods and offers a number of unique advantages over normal PVA glues.

### Features

- ▶ High creep resistance (more resilient glue line)
- ▶ Fast setting and long open time
- ▶ Good initial wet tack and excellent sandability
- ▶ Temperature and solvent resistance



### Ideal Applications

The high creep resistance is essential when bonding stress joints and curved joints on table tops, chairs etc.

Ideal for antique restoration.

Alcolin Professional's advanced adhesion provides a strong bond to previously glued areas.

The perfect adhesive for hobbyists and model builders, since the wet tack feature ensures that components don't slip and slide during assembly.

Heat resistance makes Alcolin Professional the best glue for wood turning.



## Alcolin Ultra

Simply the world's most advanced wood glue. It is the first waterproof, water-based wood glue ever developed and also offers the ultimate in strength and setting time. A great alternative to polyurethane adhesives, which are expensive, slower drying and messy to work with.

### Features

- ▶ Waterproof – passes ANSI/HPVA Type I Specification
- ▶ Ultra strong & ultra fast
- ▶ Easy to use – washes up with water while still wet
- ▶ Provides a long open assembly time
- ▶ Easy to sand and is unaffected by finishes
- ▶ Resists solvents, heat and mildew
- ▶ Non-toxic and non-flammable
- ▶ FDA approved for indirect food contact

### Ideal Applications

The perfect choice for exterior applications such as outdoor furniture, door and window frames, bird boxes and picnic tables.

Ideal for articles that come into contact with food i.e. cutting boards.

Ideal for when very short clamping times are necessary.



## Alcolin Xtreme

Alcolin Xtreme is an advanced, waterproof polyurethane adhesive, specifically formulated for bonding a wide range of materials. It is suitable for softwoods, hardwoods and oily exotics, as well as for a huge variety of dissimilar materials such as metal, ceramic, most plastics, HPL, Corian or stone. Alcolin Xtreme is 100% waterproof and is able to withstand the harshest weather conditions.

### Features

- ▶ World's toughest glue
- ▶ Easy to sand and is unaffected by finishes
- ▶ 100% waterproof
- ▶ Epoxy-like strength
- ▶ Bonds almost anything
- ▶ Long open assembly time
- ▶ Gap filling



### Ideal Applications

The glue of choice when sticking wood to dissimilar (non-wood) substrates.

Perfect for marine applications, as well as applications exposed to the harshest weather conditions.

Ideal when sticking woods with high moisture content.





### Designed with the woodworker in mind

Although particular applications may demand varied gluing techniques, the majority of professional woodworkers have clearly defined the critical aspects demanded by the ultimate wood glue range. Through research, exhibitions and industry forums, we have gained invaluable insight into desired product performance and proven application techniques. This insight has been instrumental in shaping our product development efforts to provide a comprehensive range for every application. This has led to the launch of Alcolin Ultra - the world's most advanced water-based wood glue and the first wood glue of its kind to offer the waterproof feature. With an in-depth understanding of our market and a handle on the world's most cutting edge technology, we can proudly continue our leadership within this industry.

**DIY Problem? Call the Alcolin Helpline toll-free 0800 222 400**

**PERMOSEAL**

An ISO 9001:2000 Company

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## ALCOLIN® For the love of woodworking

### ► Frequently Asked Questions

#### Are Alcolin Wood Glues safe to use?

Yes. Alcolin Wood Glues are non-toxic and produce no harmful fumes. Alcolin Ultra has even been approved for indirect food contact. However, we do recommend wearing gloves when working with Alcolin Xtreme - to prevent skin from being stained.

#### How do I clean up wet glue or remove dried glue?

For most of our wood glues, it is often best to use a damp cloth and remove excess glue before it has dried. After the glue has dried, scraping or sanding works best. When wet, Alcolin Xtreme may be removed with acetone, but it is much easier to sand or chip off the foam after the glue has cured.

#### Is it possible to dye Alcolin wood glues a different colour?

Yes. It is possible to change the colour of all Alcolin water-based wood glues by adding a universal paint tint. Call our toll free helpline on **0800 222 400** for more information.

#### What is the shelf life of Alcolin wood glues?

Although some of Alcolin's glues last well beyond two years, the freshest material provides the best results.

#### Can Alcolin wood glues be thinned?

Yes. Alcolin's water-based wood glues can be thinned with water up to 5% by weight or volume. Adding more than 5% water could negatively affect the bond strength. Alcolin Xtreme can be thinned by carefully heating the bottle in a pan of warm water.

#### How do I obtain a technical data sheet or a material safety data sheet? Visit [www.alcolin.com](http://www.alcolin.com) or call our toll free helpline on **0800 222 400**.

### ► Application guidelines

#### Wood Surface Preparation

For best results, we recommend the moisture content of the wood be between 8 - 12% and the relative humidity between 40 - 60%. Because Alcolin Xtreme needs moisture to cure, lightly dampen the joint with water before gluing (moisture content can be determined with a moisture meter).

To prevent "stepped joints", it is important to ensure that all the wood has a similar moisture content. This can be achieved

by allowing the wood to acclimatise in your workshop for 7 - 14 days.

When working with woods that are oily or high in tannins, wipe the joints with acetone before gluing. Acetone clears the contaminants from the wood pores on the bonding surface and dries quickly without leaving any residue. If you sand or plane the wood before gluing, this will also help create a better bonding surface.

Care should be taken to ensure a tight fit between wood pieces.

#### Clamping Guidelines

Appropriate clamp pressure is essential for a successful bond. We recommend the following guidelines:

#### For softwoods (pine, meranti):

7-10 bar or kg/cm<sup>2</sup>

#### For medium density woods (oak, beech):

9-12 bar or kg/cm<sup>2</sup>

#### For hardwoods (imbuia, teak):

12-17 bar or kg/cm<sup>2</sup>

Clamping times are dependent on wood species, moisture content and environmental conditions. For most of our wood glues, we recommend clamping an unstressed joint for at least 30 minutes. Stressed joints, such as bent laminations, need to be clamped for 24 hours. Do not stress the new joint until totally cured (for at least 24 hours). For Alcolin Xtreme, we recommend clamping for at least 45 minutes. The glue is completely cured within 6 hours.

Clamps should be positioned a minimum of 4cm away from the sides and evenly spaced at 20 - 30 cm intervals throughout the piece. Remove excess glue immediately by wiping with a clean damp cloth.

### ► Application Tips

Allow projects glued with water-based adhesives to dry for several days before sanding or planing. This allows the swollen wood on both sides of the bonded joint time to dry and shrink, thus preventing "sunken" joints.

Do not use metal tools with any Alcolin Wood Glue. While it will not adversely affect the strength of the glue, iron may contaminate the glue and darken the glue line.

Apply a sufficient amount of glue to ensure adequate adhesion. You should experience glue coming from the joint or

Product	Alcolin Cold Glue	Alcolin Fast Set	Alcolin Professional	Alcolin Ultra	Alcolin Xtreme
type	classic PVA	high solids PVA	aliphatic resin	advanced PVA	polyurethane
max. assembly time	15 mins	8 mins	15 mins	15 mins	30 mins
clamping time	2 hrs	1 hr	45 mins	30 mins	2 hrs
coverage	200-250g/m <sup>2</sup>	200-250g/m <sup>2</sup>	200-250g/m <sup>2</sup>	200-250g/m <sup>2</sup>	200-250g/m <sup>2</sup>
bond strength (beech wood)	good 6,5N/mm <sup>2</sup>	good 8,7N/mm <sup>2</sup>	very good > 10N/mm <sup>2</sup>	excellent > 10N/mm <sup>2</sup>	very good 9,6N/mm <sup>2</sup>
dried film	translucent	clear	yellow	light brown	transparent tan
cleaning	water when wet, sand when dry	water when wet, sand when dry	water when wet, sand when dry	water when wet, sand when dry	mineral turps when wet, sand when dry
shelf life	2 years	2 years	1 year	1 year	1 year (unopened)
stress joints	no	no	yes	yes	yes
sanding	fair	fair	excellent	good	very good
waterproof	no	no	no	yes	yes
heat resistant	no	no	yes	yes	yes
solvent resistant	no	no	yes	yes	yes
adhesion to non-wood substrates	fair	fair	fair	fair	excellent

Table to be used as a guide only

"squeeze out". Glue joint "squeeze out" may make the area around the joint difficult to stain. Although sanding the area will help, we recommend using masking tape to cover the areas that you do not want exposed to glue.

### ► Common gluing terms

**ANSI / HPVA** American National Standard Institute / Hardwood Plywood & Veneer Association.

**Bond Strength** The unit load applied in tension, compression, flexure, peel, impact, cleavage or shear, that is required to break an adhesive assembly with failure occurring in or near the plane of the bond.

**Clamping Time** The period of time that the substrates being glued together need to remain clamped.

**Open Assembly Time** Period of time between initial glue application and bringing the substrates together.

**Polyvinyl Acetate (PVA) Glue** Any glue consisting primarily of polyvinyl acetate polymer. This category includes most traditional white glues and more advanced yellow aliphatic resin glues. Although PVA glues can vary in strength, flexibility, water-resistance and sandability, they offer good performance, they clean-up with water and are non-toxic. Because

PVA glues tend to "creep", or slowly stretch under long-term loads, they are not recommended for structural applications.

**Porous Substrate** A substrate that is permeable by air and water, eg wood, concrete, chipboard etc.

**Speed of Set** The rate at which an adhesive can build strength.

**Squeeze-out** Adhesive pressed out at the glue line due to pressure applied on the substrates.

**Starved Joint** A joint in which there is not enough glue for a proper bond to form.

**Stepped Joint** A joint in which there is a small change in height of adjacent pieces of wood caused by changes in moisture content.

**Storage Life** The period of time during which a packaged adhesive can be stored under specified temperature conditions and remain suitable for use.

**Sunken Joint** A joint where the wood at the joint is lower or has "sunken" when compared to the surrounding wood; caused by machining the piece before water from the glue has completely evaporated.

**Wet Tack** The property of an adhesive that enables it to form a bond of measurable strength immediately after the adhesive and substrate are brought into contact under low pressure.

**ALCOLIN®**

# Wood Glue

a complete guide



## a bond for life...

Alcolin, proudly leading the wood working industry for over 50 years.



The range you can trust.