



TECHNICAL DATA SHEET

ALCOLIN FAST SET

Description

ALCOLIN FAST SET WOOD GLUE is a high quality, fast setting polyvinyl acetate-based wood adhesive. It dries clear to form a tough, non-visible glue-line which is stronger than wood.

Features & Benefits

- Fast setting – reduced clamp time, increases turnaround time.
- High strength – final bond stronger than wood.
- Clear drying – non-visible glue line.
- Versatile – bonds to a variety of porous substrates.
- Water-based formulation – cleans up with water, non-flammable.
- Low VOC – non-toxic.

Applications

- Ideal for indoor furniture, model building and craftwork. Suitable for assembly, doweling, laminating, veneering, paper foiling and finger-jointing processes.

Adhesion

- Excellent adhesion to hard woods (Imbuia), soft woods (Pine, Meranti) and processed boards (hardboard, chipboard, supawood, high pressure laminates), leather, cloth, felt, paper, polystyrene, cardboard, cork and most other porous materials.

Limitations

- ALCOLIN FAST SET WOOD GLUE is not intended for exterior use or where moisture is likely. For exterior applications use ALCOLIN ULTRA WOOD GLUE or ALCOLIN WATERPROOF GLUE. If ALCOLIN FAST SET WOOD GLUE is to be used outdoors, or if it will be exposed to the elements, the joints should be covered with paint or varnish once the adhesive has dried.
- Should not be used to adhere coated woods, synthetic woods and melamine.
- Not suitable for structural or load bearing applications, or where gap filling properties are required.
- Do not use when temperature, glue or materials are below 4°C. Because of variances in the surfaces of treated lumber, it is a good idea to test for adhesion.

Safety instructions

ALCOLIN FAST SET WOOD GLUE is non-toxic; however, safe handling practices should be implemented to avoid irritating sensitive skin. It is advisable to wear gloves in order to avoid direct skin contact. If glue comes in contact with skin or eyes, flush thoroughly and immediately with water. If irritation continues, seek medical attention.



Glue is slippery when wet, so care should be taken when cleaning spillages that occur. Refer to our Safety Data Sheets for further toxicological information and comprehensive handling instructions.

Surface preparation

- The surface must be clean, dry, free from all loose materials, dust, dirt, rust and any other contaminants.
- When working with woods that are oily or high in tannic acid, 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. For the best result, planing of the wood should take place within 24 hours of gluing.
- After this time, the cell structure of the wood closes, which may significantly reduce the ability of the glue to penetrate sufficiently, resulting in a poor bond.
- The moisture content of the wood should be between 8 – 12%. Higher moisture contents will result in longer pressing times and will lead to risk of delamination and wood splitting due to shrinkage of the wood on either side of the bond-line.
- To avoid wood shrinkage or swelling after processing, it is very important to ensure that the wood is dried to a moisture content corresponding to the equilibrium moisture content (EMC) at the site where the article will be used. EMC is the moisture content of the wood that corresponds to a given relative humidity. If the moisture content of the wood is higher than EMC, it will lose moisture until it reaches EMC. A corresponding shrinkage in the wood will occur which may result in delamination along the glue line and/or wood splitting. *Consult with your Alcolin Rep for further information.*
- To prevent “stepped joints”, it is important to ensure that all the wood has similar moisture content. This can be achieved by allowing the wood to acclimatize in your shop for 7 – 14 days.
- Care should be taken to ensure a tight fit between wood pieces with no saw marks and no burnishing of the surfaces to be glued.
- Poor surface preparation may result in the delamination of the glued joint.

Directions for use

1. Ensure that surfaces are prepared as above and ensure that all joints fit tightly.
2. For a successful gluing operation, consideration must be given to each of the following points discussed in detail below: Glue Spread Rate, Assembly Time, Press Time, Press Temperature, and Press Pressure.
3. Apply glue with a roller, wheel, toothed trowel, brush or spatula. Apply a spread rate of approximately 200g/m² (glue “squeeze out” should be seen coming from the joint). The glue spread rate is dependent on the object of gluing and the wood species and must be determined in each specific case. When gluing hard and oily wood species, the substrates should be newly planed and the adhesive should be spread on both surfaces. Foiling and Veneering applications will require a lower spread rate of approximately 60g/m² and 100g/m² respectively.
4. The **assembly time** refers to the time lapse between glue spreading and application of pressure. The time between glue spreading and closing the assembly is **open assembly time**, which in the case of ALCOLIN FAST SET WOOD GLUE is approximately 5 minutes at 21°C and 50% relative humidity. It is recommended that only the amount of adhesive that can be used within this period be applied at any one time. The time between closing the assembly and pressure application is called the **closed assembly time**, which is approximately 5 minutes. The assembly time is influenced by the glue spread rate, environmental conditions, and wood species. Assembly time is increased by cold weather, high humidity; high spread rate and high-density wood species (slow absorption of the adhesive into the wood).
5. **Press time** is dependent on wood species, moisture content and environmental conditions. Cold temperatures and higher humidity levels may require longer press times. Denser wood species, oily woods and those with higher moisture content will also require longer press times. We recommend pressing an unstressed joint for 30 minutes to two hours.
6. Temperature in the glue line can be between 4 - 70°C. Use of the adhesive below 4°C will result in ‘chalking’ and subsequent delamination. Higher temperatures (up to 110°C) can be used if the press times are kept very short. For press temperatures above 50°C, it is recommended that the shortest possible press time be determined.

7. Appropriate press pressure is essential for a successful bond. Sufficient press pressure is required to bring the joint tightly together. Too high pressure and short assembly times when gluing hard wood species may cause the glue to be squeezed out of the glue line, resulting in glue starvation and delamination. Too little pressure will not bring the surfaces together closely enough to form a strong bond along the glue line.
100-150 psi (7-10 bar or kg/cm²) is recommended for soft woods, 125-175 psi (9-12 bar or kg/cm²) for medium woods, and 175-250 (12 – 17 bar or kg/cm²) for hardwoods. Clamps should be positioned a minimum of 4cm away from the sides and evenly spaced at 20-30cm throughout the piece.
8. Remove excess glue immediately by wiping with a clean damp cloth.
9. 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.
10. ALCOLIN FAST SET WOOD GLUE does not discolour wood, however, iron which might come from the glue spreader, rusted cutter blades, or from tannic acids in some wood species, e.g. oak, may contaminate the glue and darken the glue line. For this reason, always use clean, sharp, and un-rusted cutter blades for cutting the wood and avoid using metal tools with the adhesive.

Cleaning

- Tools can be cleaned with water.

Storage stability

ALCOLIN FAST SET WOOD GLUE has a shelf life of at least 12 months if stored in a cool (below 25°C), dry place in its original moisture-tight container. If the material is kept beyond the recommended shelf life, it is not necessarily unusable. A check should be performed to observe whether the product has not separated, thickened, or shows signs of bacterial degradation (bad smell, discoloration and low viscosity). To maximize the shelf life of the opened container, ensure that the packaging is closed to create an airtight environment when not in use. If the package is left open for long periods, the product will thicken due to evaporation. It is recommended to stir product before use to ensure even consistency.

Product packaging

- 250ml bottle
- 500ml bottle

Product data

i. Physical data

Type	Polyvinyl acetate dispersion
Appearance	White, viscous liquid
Density	Approximately 1.06g/cm ³
Solids	Approximately 50%
Viscosity	Approximately 14000cPs
PH	Approximately 4.0
MFFT	Approximately 8°C

ii. Application data*

Minimum application temperature	4°C
Spread rate	Approximately 200 – 250g/m ² for assembly Approximately 150 - 200g/m ² for laminating Approximately 100 - 150g/m ² for veneering Approximately 60 - 90g/m ² for foiling
Assembly time (21°C at 50% RH)	5 minutes (Open) 5 minutes (Closed)
Press time (21°C at 50% RH)	Unstressed joints: 30 - 120 minutes
Press temperature	Room temperature to 110°C
Press pressure	Soft woods : 7 – 10 Bar

	Medium woods: 9 – 12 Bar Hard woods : 12 – 17 Bar
--	--

**Please refer to “Directions for Use” section for further details*

iii. Performance data

Minimum application temperature	4°C
Bond strength	9.5N/mm2 (63% wood failure on beech)
Glue line	Meets SABS 0183 – 2000 exposure class for 4 standard for closed joints

Head Office: +27(0)21 555 7400
Toll free no: 0800 222 400
1 Beverley Close, Montague Gardens
PO Box 37008, Chempet, 7442
www.alcolin.com



All advice, recommendations, figures and safety regulations provided are based on careful investigations, as well as the current state of our experience and are without obligation. Although the documentation has been compiled with the greatest care, we do not accept any liability for inaccuracies, mistakes, typesetting or printing errors. We reserve the right to modify the respective product if we deem it necessary. Since the design, the quality of the substrate and the processing conditions are beyond our assessment, no liability can be accepted for work performed on the basis of this documentation. We therefore advise you to carry out practical tests on site yourself. Our general Terms and Conditions of Sale and Delivery apply to all our sales and deliveries.