

Purbond®

The Professionals Choice

easy for the amateur craftsman to use too.

A single pack waterproof PUR adhesive

Comes in three Speeds:- Purbond Standard, Purbond F20, Purbond Fx

Purbond is a adhesive manufactured by BoatCraft Pacific for bonding timber, semiporous and non-porous surfaces. Features of **Purbond** are

- * high adhesive strength
- * no long term creep in stressed joints
- * suitable for use on damp surfaces
- * can be applied direct from the bottle
- * application is to one surface only, coverage 200 - 250 ml per square metre
- * 100% waterproof, withstands 72 hour boiling water test
- * sets in (Standard :-1 - 2 hours, F20:-20 minutes, Fx:- 5 minutes). Fully cured in 24 hours
- * invisible in close fitting glue lines
- * contains no volatile or flammable ingredients
- * sands easily and *does not blunt cutting tools*
- * **ZERO VOC. NO FORMALDEHYDE**

TECHNICAL DATA

Purbond is a moisture curing, 100% solids, polyurethane adhesive. It reacts with surface moisture on any substrate, especially semiporous materials, which initiates its curing reaction. In the process of this reaction, **Purbond** foams and expands slightly, forcing its way into gaps, unevenness, or pores on each of the mating surfaces, thus enhancing the contact area of the joint. It has high shear strength and is creep resistant.

Purbond can be used for bonding most materials including timber, plywood, fibre and particle boards, foamed plastics, concrete, even metals. While a strong bond will be formed to most substrates, it may not be structural with all materials. The bond is stronger than all timbers softer than pine and oregon, especially Western Red Cedar, and breaks the timber grain of them. Harder timbers will be bonded with equal strength, but the glue line may break before the timber. In test pieces we have obtained 100% wood failure with hard timbers such as Rosewood, Tasmanian Oak and Spotted Gum.

Purbond is recommended for wooden boat building applications including both timber laminating and cedar strip planking, where its ease of use will be particularly appreciated. It is suitable for all interior and exterior joinery and fitting out, and wherever surfaces are imperfectly mated. It is not recommended for gap filling of open joints, where the glue can expand out of the joint, or for joints subject to forces of peel or direct tension. For such applications, use Bote-Cote® Epoxy adhesive.

Used by

University of Queensland, Engineering School
Griffith University, Engineering School
University of Technology Sydney, Engineering School
Monash University Arts & Architectural School
University of Tasmania, Architectural School



Available from Distributors Nationwide

Proudly manufactured by BoatCraft Pacific® Pty. Ltd
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PREPARATION AND APPLICATION

Surfaces to be bonded must be sanded, clean, and free from dust, grease or other contaminants. Timber and concrete generally have adequate surface moisture to initiate cure. Other dry surfaces may be dampened with water before application by wiping with a damp cloth.

Apply **Purbond** directly from the bottle to one surface only. Spread with a scraper to a thin layer, then join and clamp the parts. Application rates will vary with the roughness of the surface. On an average surface, coverage will be 200 - 300 ml per square metre. Clamps may be removed when the exudate is hard, generally after 2 - 3 hours unless temperatures are very cold. At temperatures below 10 deg C, allow 5 - 6 hours for cure. Some adhesive will expand out of the joint. It is best left to harden, and cut off or sanded after it has cured. Purbond sands easily without clogging the paper. It does not blunt cutting tools such as chisels and planes.

SOME USES OF PURBOND

Purbond is most effective in sliding type ("shear") joints, but is less effective in peel or tensile joints. Some examples of its best usage are:

- Laminating beams especially curved beams and similar moderately stressed laminates
- Mortise and tenon and biscuit joints
- Glueing dowels
- Bonding plywood e.g. to make thick ply panels, or to timber reinforcing strips
- Scarfiging plywood
- Bonding veneer to a substrate
- Laminating bench tops
- Boat building using cedar strip planking
- Glueing to aluminium
- Glueing to concrete
- Glueing Stainless Steel to MDF and Plywood
- Glueing foams including expanded polystyrene, PVC, polyurethane, or polyethylene

PURBOND FOR CEDAR STRIP PLANKING

Purbond is especially useful for the Strip Planking method of boat building, and great efficiency will be obtained by using it with Quickstrip profiled strips.

Assemble Quickstrip planks onto the boat with the **tongue uppermost**. Place each fresh strip in a glueing jig with its groove uppermost, and simply run a bead of Purbond along the groove direct from the bottle. Spread the bead out into the groove with a suitably shaped wooden spatula. Then flip the strip over, and mount it onto the tongue of the previously fitted strip. Fasten at each station in the usual way, nailing into the upper half of the strip to force it down onto the station.

STORAGE AND HANDLING

Purbond is moisture sensitive, and containers must be kept sealed after use. If left unsealed, a skin may form, but the rest of the product will remain useable. If the bottle is stored upside down, this skin will then be at the bottom, and cannot prevent Purbond being squeezed out of the bottle. Shelf life is at least one year.

Always wear rubber gloves when using Purbond. Contact with the skin will cause temporary blackening which cannot be removed by washing. Prolonged contact may induce allergenic reactions such as rashes or breathing congestion in sensitive people.

Clean up with most solvents such as acetone. Do not thin Purbond with solvents.

PROPERTIES OF PURBOND

Chemical type	Moisture curing polyurethane
Colour	Honey colour
Solids content	100 %
Specific Gravity	1150 kg/m ³
Viscosity	3000 mPa.sec
Spread rate	200 – 300 gm per m ²



Version	Purbond Std	Purbond F20	Purbond Fx
Open Time	45-60 minutes	5 minutes	1 minute
Clamp Time	3hrs plus	20 minutes	5 minutes
Cure Time	24 hours	24 hours	24 hours

Full cure time	24 hours
Temperature resistance	120 Deg C
Boil resistance	72 hours
Flammability	Non flammable
Flash Point	>200 Deg C
Shear strength	exceeds 10 MPa



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