

We have put our many years of experience with bamboo into the development of solid wood boards to bring you an innovative state-of-the-art product.

GLUING THE BAMBEAU® P1S BOARD TO CARRIER MATERIAL

The quantity of glue applied and the method of gluing depends on how absorbent the carrier panel is. Generally, PVAc glues with a low water content should be used; but full-surface glues or PU adhesives may also be used.

In most cases, however, PU adhesives do not come into consideration for full-surface gluing on account of their short setting time.

Setting takes longer with PVAc glues – because bamboo cells are very dense the rate of glue absorption is slowed down, so dowel action sets in later.

With the P1S veneer sheet (strong), full-surface gluing should not be done until after gluing to the carrier panel. This makes the boards easier to join.

With subsequent compression, you can apply a higher pressure to the joints.

Allow sufficient time between gluing and varnishing to give the moisture that has penetrated into the joint due to gluing a chance to evaporate out of the laminated board.

This can prevent the joints from lifting, breaking or opening after surface finishing.

Using a PU glue instead of a PVAc glue for full-surface gluing has the advantage that you do not have to wait for the glued joints to evaporate. The PU glue cleanly fills a joint that may not be 100% joined, which will not stand out as much as a defect in the surface after varnishing.

Note that with the P1S veneer sheet (strong), joint drying in the veneer press (at 80° – 90°C and approx. 3 minutes dwell time, with closed press, without pressure), taking it out directly and uniform cooling achieves an extremely homogeneous wood moisture. Perform this step twice.

Joint dyeing prevents any remaining moisture pockets from causing stresses in the glued area.

The P1S veneer sheet (strong) can be applied to any carrier material that is compatible with a standard PVAc glue. To promote dimensional stability, the bottom surface should be made of the same bamboo material.

SIZING

The wood should be cut to size and shaped with tungsten carbide tools. Bamboo is very hard on tools on account of its high density and the level of stored silicic acid.

We recommend that you calibrate the thickness of the boards. This is the only way to ensure that no thickness tolerances arise. Make sure that the two veneer sheet (strong) plies are the same thickness above the core after cutting the thickness. Having them the same aids optimal dimensional stability of the board.

INFORMATION ON CORNER JOINTS

Rendering corner joints by dowelling and gluing has proven extremely durable. Drilled corner joints, too – for a glue-free quick fit – have shown high strength due to the strength of the raw material itself in combination with the layered structure of the solid boards.

FASTENING FITTINGS

Any fitting that can be drilled or screwed can be used. Screw connections should, however, be predrilled to prevent the screws from unscrewing. You should not use grease as a lubricant to screw in the screws, as it will permanently stain the material.

WORK TO BE DONE BEFORE SURFACE TREATMENT OF BAMBEAU® SOLID WOOD BOARDS

If you sand the surfaces parallel to the grain, some of the fibres will only be roughened and the loose fibres will stand up when primer is applied – the effect is even worse with water-based primers and varnishes.

For that reason, we recommend you sand at an angle of 20° to the grain, in order to not just loosen the fibres but detach them cleanly.

The intermediate sanding step will be less work as a result, and you will achieve a higher quality finish.

VARNISHING AND STAINING THE BAMBEAU® BAMBOO SURFACE

Processing and application tests conducted by various providers like Hesse, ICI and Clouth in their laboratories have shown that bambeau® furniture boards can be finished with standard nitro varnishes (containing solvent), dispersion or acid-hardening varnishes without any problem. Only with dispersion varnishes was increased raising of fibres found after the primer was applied. For that reason, we recommend you sand particularly carefully at an angle of 20° to the grain if dispersion systems are used.

The results of staining with water or solvent stains have proved excellent; pigmented stains give a very good textured effect.

All standard stain systems can be used without any problem and the results seen in the final surface coating are excellent.

We recommend you perform a test before application on a large scale.

OILING THE BAMBEAU® BAMBOO SURFACE

If the surfaces are to be treated with an oil or oil-wax system, the preliminary work must be carried out as carefully as any other. We also recommend you sand at a 20° angle to the grain, in order to cut all the fibres cleanly. Depending on the solvent content, the oil should be thinly applied in at least two layers. Due to the high density of bamboo cells, the oil absorbs slowly. Excess oil should be removed immediately; otherwise a tacky surface that won't dry out gives a cloudy appearance and uneven sheen, which would have to be intensively polished.

If you wax, oil or varnish the surfaces, work evenly from both sides.

LIGHT-FASTNESS AND HUE OF BAMBEAU® BAMBOO SURFACES

The light-fastness and hue of the bamboo surface strongly depends on the surface system used. You can influence the intensity of hue using different sealing and oil systems. Acid-hardening varnishes and oils with a higher linseed oil content bring out the colour more than water-based varnishes.

We recommend you perform a test before application on a large scale.

The natural pale variant darkens slightly with time, like every wood, while the light brown version fades. In the initial months, freshly finished surfaces should not be partially covered, otherwise natural UV light could cause variations in colour.

STORING BAMBEAU® SOLID WOOD BOARDS

To prevent warping during storage, the boards must always be stored lying flat in air-conditioned rooms.

The veneer sheet (strong) and the solid wood products are acclimatised to a temperature of 20°C and 50-55% humidity, so the products should not be exposed to major fluctuations in humidity or temperature.

Stresses can arise in the solid wood boards if they are exposed to extreme climatic fluctuations.

WOOD MOISTURE CONTENT/MOISTURE CONTENT ON DELIVERY

bambeau® bamboo furniture boards – like other standard solid wood furniture boards – are acclimatised to ambient conditions of 20° Celsius and 50% rel. humidity. In these conditions bamboo has an EMC of 8.3% (% by weight). The moisture content on delivery (wood moisture content) of bambeau® bamboo furniture boards thus corresponds to 8.3%

The EMC of bamboo can be electronically checked using standard wood moisture meters. Most standard wood moisture meters can be individually configured to the particular type of wood. Consult your meter manufacturer or Becker & Grossgarten GmbH if you have questions about the settings.

NOTE

bambeau® solid wood boards are a natural product. Colour variation is typical and is caused by location-specific lignification of the raw material. To create a harmonious colour aesthetic, we recommend you assemble various surface features into an overall scheme before cutting to size.

bambeau® solid wood boards are made of solid bamboo. Laminating largely minimises the growth-related properties of the material, like cracking and warping.

We cannot accept liability for the outcome of surface treatment undertaken by the customer. The user is responsible for application of the products.

State of the art at: October 2007. Subject to change

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