



Technical Data Sheet

Quest D3 PVA Wood Adhesive



QUEST D3 PVA IS A SINGLE COMPONENT PVA WOOD ADHESIVE WITH GOOD WATER RESISTANT CHARACTERISTICS.

QUEST D3 PVA MEETS THE REQUIREMENTS OF BS EN204 CATEGORY D3 FOR WATER RESISTANCE.

Quest D3 PVA can be used for many woodworking applications where a high level of water resistance is required, and has been successfully used for hot and cold pressing applications in the manufacture of windows, doors, cabinets, furniture and surface bonding for laminating applications. Quest D3 PVA can also be cured using radio frequency equipment

BENEFITS

- Excellent water resistance — EN204 D3
- Quick curing
- Excellent bond strength on hard and soft woods.
- Cures radio frequency equipment

TECHNICAL DATA

Brookfield viscosity: **3/20-23°C: 8,000-13,000 mPas**

Solids content: **43-47%**

pH: **3-4**

AVAILABLE SIZES

Polybottle **500g**

Jerrican **25kg**

Drum **225kg**

IBC **1000kg**

AVAILABLE COLOURS

White

COLD PRESS TIMES

Temperature (°C)	15	20	25
Relative humidity %	88	65	65
Time (mins)	40	15	10

HOT PRESS TIMES

Temperature (°C)	50	60	70	80	90	100
Time (mins)	3	2	1 ½	1	½	¼



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PREPARATION AND APPLICATION

Ensure that the surfaces to be bonded are smooth, clean and free from dust or other deposits. Wood, plywood, laminated plastics should be of uniform thickness. Some dense hardwoods may require sanding before bonding. For best results the moisture contents of the surfaces to be bonded should be in the range of 7 – 13%, but when pressing at temperatures above 105°C, moisture content should not exceed 10%. Moisture content variation between adjacent components should not be > 3%.

Quest D3 PVA should be applied evenly to one substrate using a brush, hand roller or mechanical roller. Adhesive coverage between 80 and 180g sq/m are suitable depending on the surfaces to be bonded. When bonding different timbers, such as teak and high-density hardwoods, the adhesive should be applied to both surfaces of the joint. It should be noted that adhesive spread has considerable influence on both assembly and setting times.

Ideally open assembly time should not be more than 5 minutes.

Lay the items to be bonded together within the workable time and press them for as long a time as is needed to achieve the required handling strength. The pressure should be high enough to ensure contact of the parts over the entire area of the joint. Allow 24 hours for full strength to develop. Higher levels of water resistance form more slowly and should be tested not earlier than 7 days after bonding.

Quest D3 PVA, like all other PVA adhesives, may tend to show structuring especially in cold conditions. This effect is generally reversible on slight stirring. Additionally, there may be some increase in viscosity, but this will not detract from the application properties or performance.

HANDLING AND STORAGE

Clean machines, equipment and tools with water before the adhesive dries.

Quest D3 PVA should be stored in the original containers in a cool, dry place, at a temperature range of between 5°C and 40°C. In these conditions it has a storage life of 6 months. Quest D3 PVA must not be allowed to freeze and ideally should be warmed to at least 15°C before use.

LIMITATIONS

Due to the varied nature of wood components, e.g. depending on the area of growth and the type of pre-treatment, unpredictable discoloration may in some cases appear on different types of wood, such as beech and cherry.

In addition, it is possible that iron together with the tannin in wood can cause discoloration, especially in the case of oak. We recommend that this is tested before final application.

DISCLAIMER: Due to the variation in materials likely to be handled by prospective users of this product, together with differences in production techniques and ultimate performance required, it is important that this product is thoroughly evaluated under production and end use conditions before being commercially adopted. Such an evaluation should incorporate an ageing test and this test should be repeated if the substrates on which the this product is used are changed in any way or are purchased from a different source. During the evaluation and testing of the product, it is the purchasers/end user's responsibility to carry out appropriate actions for the protection of the environment, the health and safety of its employees and purchasers of its products. No employee of Quest Hardware has any authority to waive or change the forgoing provisions. The above recommendations are made in good faith for the guidance of users and are without liability. Any queries should be made in writing to the head office of Quest Hardware.

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