



Technical Data Sheet

PROTALL BOND

ADHESIVES Water-based product

Description:

PROTALL BOND is a high quality, high viscosity, white glue based on PVA. Suitable for soft and hard wood, papers, and pressing and interior applications which are not exposed to weather conditions.

Conforms to Egyptian Standards 4025/2008 2A

Features:

- Excellent bonding strength
- High dilution capability
- Easy to use
- Fast drying Time
- High Viscosity

Physical Properties:

Color	White
Consistency	High viscous fluid
Curing system	Physical drying
Solid Content by volume	28% ±3
Specific Gravity	1.08 ± 0.05
Thinning	Water up to 100%
Theoretical Spreading Rate	40-70 g/m ² in full surface bonding
	80-90 g/m ² in assembly
	(The Actual coverage depends on substrate nature and preparation & method of application)
Open Time	Ca. 8 min
Pressing Pressure	1 Kg/cm ² - 2 Kg/cm ²

Application Conditions:

Temperature: 15 to 30° C (ideal 20° C \pm 5° C). Relative humidity: Ideal between 15 and 55%, maximum 85%. Maintain these conditions during the application and the following 24 hours. Low temperature, high humidity, thick films, or poor ventilation extend drying time.

Surface Preparation:

All surfaces to be glued must be clean, dry, and free of all foreign material. Wood requires no special preliminary treatment; however, the most efficient bonds develop when the wood has been resurfaced just prior to applying glue. Moisture content of wood may run as high as 15% but best bonds are obtained when moisture content ranges between 8% and 12%.

Application Procedure:

FURNITURE JOINT GLUING: Wood surfaces should be smooth and snug fitting. Avoid excessive sanding or handling of joint surfaces. Spread glue evenly onto surfaces, assemble within 5 to 7 minutes and clamp if possible. Clamp or weight for a minimum of 30 minutes. Allow to dry overnight before sanding and handling. **WOOD AND COMPOSITION BOARD:** Soft wallboard should be pre-sized with diluted glue before gluing (equal parts of water and glue). Allow haze to disappear and then apply full strength to board surface. Press together. Allow to remain undisturbed for at least one hour.





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HARDBOARD LAMINATION: Apply glue to one surface. Use sufficient pressure to assure contact of all gluing surfaces. When glue becomes colorless, a full-strength bond has been formed. Tempered hardboard produces the best results when scuff-sanded before applying glue.

REPAIR GLUING: Remove all old adhesive or finish. Coat all surfaces with glue, assemble parts and clamp. Allow to dry overnight. Excess glue should be removed immediately with a damp cloth prior to drying.

ASSEMBLY: Assembly time (from application of glue to application of pressure) should not exceed 10 minutes, and in general, should be as soon as possible after glue application. The length of time glue may be exposed to the air is determined by the absorptivity of the substrates, moisture content and relative humidity of the air. **PRESSURE**: May range from 25 to 100 lbs. per square inch, depending upon the fit of the joint. Soft wood and carefully cut hard wood can be glued at relatively low pressure. A carefully machined, close fitting joint requires much less pressure than a rough fitting one. Pressure of 25 to 50 lbs. per square inch is usually sufficient on well fitted parts. Higher pressures are necessary for rough cut joints. However, high bonding pressure does not compensate for poor fitting joints. Pressure may be applied by spring clamps, "C" clamps, wood clamps, inflated bags, mechanical or hydraulic presses. Excellent for glue-nail constructions.

SETTING TIME: On flat laminations and tight-fitting joints, pressure may be released before glue has completely set if rough handling is avoided. The pressure period will vary from 30 minutes to 2 hours, depending on the species of wood, thickness of the layup, temperature, and relative humidity at the time of gluing. Pressure periods for spruce, mahogany, maple, and birch are approximately the same. Under normal conditions, the joint reaches maximum strength in 72 hours.

Heat may be used to accelerate the drying period if desired. Drying chambers, heat lamps, hot press plates, heat rooms, or any suitable method for imparting heat to the assembly is acceptable. If heat is used, the assembly must be held under pressure until sufficiently cooled to maintain bond.

Shelf Life & Storage Conditions:

Keep in a dry and ventilated area, between 10 and 30°C away from direct sunlight, heat sources or freezing temperatures.

Under such conditions, unopened containers may be stored up to 12 months from manufacturing date.

Disposal:

Clean up any minor spills and spatters immediately with Water, as well as all tools. More serious spills should be contained and removed with inert absorbent material. Dispose of contaminated absorbent, container, and unused contents in accordance with local regulations.

Health & Safety Precautions:

Please observe the precautionary notice displayed on the container. Use under well-ventilated conditions wearing suitable protective clothes. Sanding and grinding dusts may be harmful if inhaled.

FIRST AID TREATMENT:

In case of skin contact, wash thoroughly with plenty of warm soapy water. For eye contact, flush with plenty of water for 15 minutes and get medical attention immediately. If you experience difficulty breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical attention immediately. If swallowed, do not induce vomiting, get medical attention immediately.