



WOODBOND X-338

PRODUCT DESCRIPTION

Woodbond X-338 is a medium-viscosity adhesive specifically formulated for finger jointing interior stock. A notable attribute of Woodbond X-338 is that it is capable of passing the ASTM- 5572 3 cycle water soak, while maintaining a high level of heat resistance. Woodbond X-338 can also be used for edge and face gluing.

PHYSICAL PROPERTIES ¹

Chemical Family Description: Polyvinyl acetate emulsion adhesive

Typical Viscosity (cps): 2,600 - 4,000

Appearance: White colored liquid

Suggested Minimum Use Temperature³: 4 °C

Freeze/Thaw Stable²: yes

Specific Gravity: 1.15

Weight Solids (%): 46.0 - 50.0

pH: 4.0 - 5.0

APPLICATION GUIDELINES

The finger jointing of lumber is increasingly popular as a method of reducing wood waste and providing maximum wood utilization resulting in lower raw material costs. Structural and non-structural finger jointed products have gained wide acceptance throughout the wood industry. The preparation of these joints, as well as the adhesive, plays a critical role in the quality of finger jointed products. Most failures of finger jointed lumber are caused by poorly machined and poorly fitted dry joints. The adhesive plays a role in finger joint back off, heat and water resistance. However, even the best adhesive available cannot make up for a poor fitting joint. The fit of the dry finger joint should be checked before gluing begins. The following tips may help you in reaching a properly fitting finger joint or trouble shooting finger jointing problems in your operation.

Knives and Cutterhead: Be sure to check overall knife stack for accuracy. Keep cutterheads in pairs and properly cleaned. Cutterheads should be sharpened as a set. Knife set should cut only .3 mm to .8 mm of wood. Knives should be sharpened after running approximately 70 m³ (wood species may cause this to vary).

Cutting Machine: Make sure cutterhead spindle is set vertically with no wear or play in the bearings. Chain carrier lugs should be squared with the trim saws and cutterheads. Make sure trim saws are set true. Check bed rails for wear on a regular basis. Check hold down pressure to provide sufficient pressure to prevent movement of stock while cutting the joint.

Joint Assembly: Pressure should be held constant until joint is cured. End pressure should be set to provide 10-14 Kg/cm² pressure for non-structural joints. Crowder wheels should be aligned to match fingers accurately.

Adhesive Application: Sufficient adhesive spread will provide a uniform coverage that should cover 1/2-2/3 the length of the finger on both sides in a thin continuous film. Make sure fingers aren't skipped and that the adhesive is applied to the whole joint, not just the tips of the fingers. Excess adhesive squeeze-out can cause arcing in a Radio Frequency tunnel. It also causes adhesive build-up and poor adhesive efficiency. Too much adhesive can cause a hydraulic effect in finger joint back off.



PERFORMANCE PROPERTIES

Meets or exceeds the following industry standards:

- ASTM D-5572 Dry Use

Finger Joint

Adhesive	Exposure	Test Results				Requirements		Wood failure %	
		Strength (psi) Avg.	Min.	wood failure% Avg.	Min.	Strength (psi) Avg.	Min.	Avg.	Min.
Woodbond X-338	Dry	4,504	N/A	95	80	2,000	N/A	60	30
	Three-Cycle Soak	2,503	N/A	62	15	1,000	N/A	30	15
	Elevated Temp.	2,817	N/A	N/A	N/A	1,000	N/A	N/A	N/A

Room Temperature Speed of Set⁵: 1.2 (Fast)

¹ All numerical values represent typical properties.

² If product has been frozen, contact Technical Service for instructions.

³ Measured by Franklin's film formation test. Gluing conditions will affect minimum use temperature.

⁴ Performed according to ASTM D-5572 on ponderosa pine.

⁵ Measured by Franklin's torsion speed of set tester on hard maple. The higher the value, the faster the speed of set.

RELATED PRODUCTS

Woodbond 1800 and Woodbond 1810 are lower viscosity alternatives to Woodbond X-338. Woodbond 1850 is a higher-viscosity alternative to Woodbond X-338. Multibond EZ-1 and Multibond EZ-2 may be used if a bond possessing higher interior use water resistance is needed. Multibond X-016 and Advantage 310 will exceed the demanding Wet Use requirements of ASTM D-5572.

HANDLING AND STORAGE

Shelf life: Six months. Store in tightly closed original container. Protect from freezing. Storing at temperatures above 25°C will reduce the maximum storage time. If thickening, separation or settling occurs, the adhesive should be thoroughly mixed and will then be ready to use again.

IMPORTANT NOTICE TO CUSTOMER:

The recommendations and data contained in this Product Data Sheet for use of this product are based on information Franklin believes to be reliable. They are offered in good faith without guarantee, as conditions and methods for use of our product by Customer and are beyond Franklin's control. Customer must determine the suitability of the product for a particular application before adopting it on a commercial scale. Discoloration and checking of wood veneer materials may occur with use of the product. These occurrences range in appearance, color and may also vary depending upon the species of wood veneer to which the product is applied. Such discoloration and checking may appear during or after the manufacturing process which utilizes the product. Environmental conditions in some manufacturing plants and end-use locations can contribute to discoloration and checking. Because such discoloration and checking are attributable to conditions beyond Franklin's control, Franklin cannot assume any responsibility or liability for any discoloration and/or checking problems that might occur.

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