



Multibond Advantage 2

PRODUCT DESCRIPTION

Multibond Advantage 2 is a highly water-resistant, 2-part crosslinking polyvinyl acetate emulsion adhesive. It is recommended for applications requiring ASTM D5572 and/or EN 204 Group D4 performance. Multibond Advantage 2 has a good catalyzed pot life and is ideal for finger jointing, edge gluing, radio frequency applications, and hot pressing.

PHYSICAL PROPERTIES

Chemical Family Description: Crosslinking polyvinyl acetate emulsion adhesive

Typical Viscosity (cps): Uncatalyzed; 3,200-4,800

Appearance: Off-white or cream colored liquid

Suggested Minimum Use Temperature:

Freeze/Thaw Stable: Yes

Uncatalyzed: 8°C

Specific Gravity: 1.11

Catalyzed: 16°C

Weight Solids (%): 53.2 - 56.2

pH: 5.0 - 6.0

MIXING INSTRUCTIONS

The normal recommended portion of catalyst to resin is 5% by volume. A reduced proportion can be used under certain conditions such as burning in a radio frequency press. Mixes containing less than 2½% by volume should be avoided.

Place the resin in mixer and slowly add catalyst while stirring. Continue mixing for five minutes after all the catalyst has been added to ensure a uniform mixture.

APPLICATION GUIDELINES

Moisture Content: Six to eight percent is the recommended moisture content of the gluing stock. High moisture content will slow down glue line cure and cause weaker than normal adhesive bonds. Additionally, panel shrinkage may occur resulting in stress cracks or end delamination.

Stock Preparation: The preparation of the stock to be glued is extremely important. Joints cut from rip saws should be free of saw marks. They should also be straight and square. Moulded or jointed stock should be free of knife marks. Glazed or burnished joints will prevent glue penetration and should be guarded against. When possible, glue joints should be prepared and glued the same day. The stock should be machined on both top and bottom surfaces to allow even contact with radio frequency platens.

Spread: Generally, 140-245 g/m² of glue line is adequate. Lower adhesive spreads require better stock tolerances and shorter assembly times. Commonly, a mechanical glue spreader is used to apply a uniform spread to the gluing surfaces.

Pressure: Pressure is dependent upon the species or material to be glued and joint preparation. Direct contact of the gluing surfaces must be made to obtain maximum strength. Suggested pressures for various wood densities are: low 7.0-10.5 Kg/cm²; medium 8.8-12.3 Kg/cm²; high 12.3-17.6 Kg/cm². Clamps for edge gluing should be spaced 20-40 cm apart and 5 cm from the end of the panel to evenly distribute pressure along the entire length of the glue line.



APPLICATION GUIDELINES (Continued)

RF Cure Time: Radio frequency cure times will vary from machine to machine. Machine manufacturers suggest that machines will cure about 645 cm² of glue line per minute per kilowatt. Glue joints should feel warm immediately after the cure cycle. Cure times should be determined through plant trials.

Finger Joints: 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.

PERFORMANCE PROPERTIES

Meets or exceeds the following industry standards:

- NWWDA 1.S. 1-87 Type I and Type II with Catalyst A
- European Standard DIN EN 204 D4
- ANSI/HPMA 1994 Type I and Type II water resistance with Catalyst A
- D-5572 Wet Use (Finger Joint)

Block Shear Strength:

	lb/in ²	Wood failure%
25 °C	3,964	52
65 °C Overnight	1,700	06

Room Temperature Speed of Set: 0.60 with Catalyst A. (Moderate)

RELATED PRODUCTS

Advantage 310 meets or exceeds ASTM D-5751 (Edge Glue) in addition to the tests listed above. Multibond X-016 offers improved pot life and spreader stability, and lower minimum use temperature, making it a good choice for finger joint and other millwork applications. It meets or exceeds the same standards as Multibond Advantage 2. It meets European Standard DIN EN 204 D4 and European E-1 formaldehyde emission standard.

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. Prolonged storage will result in a gradual increase in viscosity. 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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