



Multibond 1080

Multibond 1080 is a one-part crosslinking polyvinyl acetate emulsion that has excellent water resistance. It is widely used for Hardwood Plywood and Engineered Flooring. The product has a low minimum use temperature and a long assembly time. Multibond 1080 can be used in both hot and cold press applications.



PHYSICAL PROPERTIES

Chemical family description: Crosslinking polyvinyl acetate emulsion adhesive

Appearance: Beige colored liquid

Typical viscosity (cps): 2000 - 6000 (3/12/75°F)

Weight solids (%): 47.5 - 52.5%

pH: 2.4 - 3.5

Specific gravity: 1.10 **Weight pounds per gallon:** 9.26

Suggested minimum use temperature: 45°F/ 7°C

KEY PRODUCT FEATURES

- High water-resistance
- Low minimum use temperature; good for cold pressing
- Moderately slow setting
- Used extensively in plywood and composite wood lamination
- Passes CARB regulations

PERFORMANCE PROPERTIES

- Exceeds requirements for ANSI/HPVA HP-1-2000 Type 1
- Exceeds requirements for ASTM D-4317 Type 1 Wet Use
- 175.105 FDA Compliant

Like all adhesives, proper gluing practices are needed to achieve stated performance.

APPLICATION GUIDELINES

Stock preparation: When possible, glue joints should be prepared and glued the same day.

Spread: Generally, 29 - 40 pounds of adhesive per 1,000 square feet or 140 - 200 grams per square meter of glue line is adequate.

Pressure: Pressure is dependent upon the species or material to be glued. Direct contact of the gluing surfaces is required to obtain maximum performance. A Web-based pressure calculator can be found at www.franklinadhesivesanepolymers.com.

Recommended clamping pressures:

Species	Clamping pressure	Example
Low density wood species	100-150 psi or 7-10 kg/cm ²	Pine, Poplar
Medium density species	125-175 psi or 9-13 kg/cm ²	Rubberwood, Cherry
High density species	175-250 psi or 13-18 kg/cm ²	Oak, Maple

Assembly time: The assembly time is influenced by many factors some of which include glue spread, moisture content of the stock, porosity of the stock, environmental conditions and adhesive choice. Assembly times of 5-10 minutes are approximate. It is desirable to see a bead of adhesive squeeze out around the perimeter of the bottom panel of the stack.

Press/ clamp time: Press times are dependent on the adhesive used, gluing stock type, moisture content of the stock, and environmental conditions. Press times can range from a minimum press time of 30 minutes to greater than two hours. Shorter times are required under ideal conditions when using soft wood species at moisture content slightly less than eight to ten percent and factory temperatures of 68 degrees Fahrenheit/ twenty degrees Celsius. Longer press times will be required for higher density species, higher moisture contents and colder factory temperatures. It is recommended that optimum press times be determined in actual plant conditions recognizing that seasonal changes may lead to variable requirements.

Machining/Post Process Conditioning: After the minimum clamping time period, the panel will develop enough handling strength and can be removed and stacked out of the press. Twenty four hours of cure is recommended before further machining.

Minimum Use Temperature: Curing temperatures should be higher than the minimum use temperature of the adhesive. This includes the temperature of the stock to be glued as well as the air and adhesive temperatures. If the temperatures are below the minimum use temperatures you will see a white, chalky appearance of the glue line. These bonds are usually weak.

Press time: Press time is dependent on the adhesive used, gluing stock type, moisture content of the stock and environmental conditions. This hot press schedule is provided as a recommended starting point. In plant testing is recommended especially for temperatures and substrate thicknesses beyond this chart.

		Platen Temperature °F									
		160	170	180	190	200	210	220	230	240	250
Distance to Deepest Glue Line	1/32"	1' 31"	1' 25"	1' 19"	1' 14"	1' 09"	1' 05"	1' 01"	0' 57"	0' 53"	0' 50"
	1/16"	1' 53"	1' 46"	1' 39"	1' 33"	1' 27"	1' 21"	1' 16"	1' 11"	1' 07"	1' 02"
	3/32"	2' 22"	2' 13"	2' 04"	1' 56"	1' 49"	1' 42"	1' 35"	1' 29"	1' 24"	1' 18"
	1/8"	2' 58"	2' 46"	2' 36"	2' 26"	2' 16"	2' 08"	1' 59"	1' 52"	1' 45"	1' 38"
	5/32"	3' 42"	3' 28"	3' 15"	3' 02"	2' 51"	2' 40"	2' 29"	2' 20"	2' 11"	2' 03"
	3/16"	4' 38"	4' 20"	4' 03"	3' 48"	3' 33"	3' 20"	3' 07"	2' 55"	2' 44"	2' 33"
	7/32"	5' 47"	5' 25"	5' 05"	4' 45"	4' 27"	4' 10"	3' 54"	3' 39"	3' 25"	3' 12"
	1/4"	7' 15"	6' 47"	6' 21"	5' 57"	5' 34"	5' 13"	4' 53"	4' 34"	4' 17"	4' 00"

Clean-up: For easy removal of adhesive from equipment, clean up while it is still wet with warm water (this includes the glue roller and pans). For dried glue, steam and or hot water are the most effective. Using glue release agents on equipment will also allow for easier clean up.

STORAGE AND HANDLING

Shelf life: Best if used within six months of date of manufacture. Product increases in viscosity with age and temperature but can be mixed to bring it back to manageable viscosity for application. The performance is not affected. Product is freeze-thaw stable, but may need to be mixed prior to use.

For additional questions, Franklin's technical service team is available at 1.800.877.4583. **24/7** technical service is available online at www.franklinadhesivesandpolymers.com.

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