



HELMITIN
QUALITY ADHESIVE SOLUTIONS

HELMIBOND 52-042-2

A FAST SETTING YELLOW PVA THAT IS USED FOR HIGH SPEED ASSEMBLY PROCESSES

Product Description

Helmibond 52-042-2 is a fast-setting yellow PVA that is used for high speed assembly processes, offering short clamping times. It is designed for general assembly of all types of wood products and applications including edging, face gluing, tongue and groove, corner blocks, panel to frame, dowelling, etc.

Benefits

- Environmentally friendly.
- High shear strength.
- High initial tack.
- Fast setting.
- Non-toxic.
- Excellent bond adhesion to a variety of substrates, including but not limited to softwoods, hardwoods, DHPL, veneer, particleboard, plywood, MDF, etc.

Applications to Avoid

- Consult the Material Safety Data Sheet prior to use.
- Avoid contact with skin and eyes. Rinse affected areas immediately with water.
- Keep container tightly closed and store off the floor when not in use.
- Protect from freezing.
- Store containers where temperatures will not be less than 10°C/50°F and will not exceed 32°C/90°F.
- Use at room temperature 20°C/68°F.
- **Be careful to avoid contamination by iron (rust) from any source, such as containers or application equipment, as such contamination leads to dark glue lines and staining on woods high in tannic acid.**

Note: This product may not be compatible with fire retardant board. Consult with HELMITIN technical support prior to use with this type of substrate

Physical Properties

Solids Content:	46.0% ± 2.0%
Viscosity:	2900 ± 100 cps
Weight/Gal:	9.13 lbs ± 0.2 lbs
Shelf Life:	6 months from date of manufacture
pH:	4.0 - 5.0
Color:	Yellow
Coverage:	229 ft ² @ 7 wet mils
Packaging:	Totes, drums, pails, and gallons
VOC:	0.00lbs/gal (0 grams/L) < water and exempt solvents

Health Hazard Data/Target Organ Effects

See Safety Data Sheet for complete data.

First Aid

See Safety Data Sheet for complete data.

Volatile Organic Compounds (VOC):

The use, supply, sale or offer for sale of this product in certain province/states and localities may be prohibited if it exceeds certain VOC limits. Please check provincial/state and local regulations for any prohibitions on the sale and use of this product.

Proposition 65 Warning

This product contains substances known to the State of California to cause cancer or reproductive harm.

Suggested Uses, Tips and Trouble Shooting

1. In times of high humidity, “blushing” may occur. A “blush ” is caused from the rapid evaporation of the solvents, which causes the temperature in the immediate area to drop. When the temperature reaches the dew point, moisture will form on the surface of the adhesive. Once the “blush” has formed, the solvent cannot penetrate the moisture, and the moisture will act as a barrier between the two glue lines. The moisture must be allowed to dry before bonding. The best method to help speed drying is with air movement. Once the moisture is removed and you give the solvents time to flash off, the bond can be made.
2. A dull appearance is a symptom of under-applying adhesive.
3. A very shiny appearance or a failed bond is a symptom of inadequate assembly pressure and/or exceeding the open time. Keep adhesive container closed tightly when not in use.

Application Guidelines

1. Substrates to be bonded should be clean and free from moisture, dirt, oil and other contaminants.
2. Adhesive and substrates should be at 18°C/65°F or above.
3. Adhesive can be applied by squeeze bottle, manual roller or roll coater.
4. Moisture content of wood should be 6%–10%.
5. At least one substrate must be porous.

General Assembly

1. Apply Helmibond 52-042-2 in a continuous coat to the entire area of one or both of the surfaces to be bonded. Adequate adhesive should be applied to achieve a slight squeeze-out when clamping.
2. Clamp for 30 minutes minimum or until adhesive film dries.
3. Allow a minimum of 1 hour prior to machining.

Cold Press Laminating

1. Apply using a roll coater utilizing 16 grooves/inch and apply 6–8 wet mils of adhesive. Plywood applications may require a higher coating of adhesive.
2. Open time is 2–3 minutes with a closed assembly time of 5 minutes.
3. Cold press time is a minimum of 30 minutes at 50 psi at 21°C/70°F and an RH of 45%–50%. Press time can be up to 2 hours depending on plant temperature, humidity, stock density, moisture content of substrates, application amount, etc.
4. For cold pressing, typical pressures are 30–100 psi for DHPL, 100–150 psi for solid core stock, and 100–250 psi for veneered panels.