HELMIBOND 847

PREMIUM SOLID WOOD BONDING ADHESIVE

Product Description

HELMIBOND 847 is a premium quality, fast setting, unextended, high strength PVA adhesive specifically designed for solid wood bonding.

Benefits

- ✓ Fast setting
- ✓ No fillers – Tight, invisible glue lines
- ✓ High solids – Reduces/eliminates sunken glue lines
- ✓ High shear strength
- ✓ Versatile – Can be used to bond HPL, veneer, particle board, MDF, plywood, etc., in general assembly and hot/cold press applications

Suggested Uses

- Edge gluing of high-end solid wood furniture and cabinet
- Panel components
- Face gluing of post and beam components
- Solid wood furniture and chair assembly
- Dowel insertion
- Dovetail joints
- Hot/cold press applications

Applications to Avoid

- Fire retardant core substrates and laminates
- Moisture resistant core substrates
- Melamine (TFL) surfaces including "glueable" melamine backer
- Tempered/sealed hardboard substrates.
- Metallic, polyester and painted surfaces
- Strawboard

Certifications & Compliance

- Complies with SCAQMD Rule 1168 VOC limits
- California compliant
- OTC compliant

Physical Properties

Base:	PVA
Solids Content:	53 - 57%
Viscosity:	3,200 - 3,800 cP
Specific Gravity:	1.10
Weight/Gal:	9.17 lb
Coverage/Gal:	229 ft² @ 7 wet mils
Open Time:	5 minutes
Clamp Time:	20 minutes; minimum
pH:	4-5
Color:	White
VHAP:	0lb/lb of solids
VOC:	0 lb/gal (0 g/L); less water and exempt solvents

Handling & Storage

- 12 month shelf life from date of manufacture in unopened containers.
- Rotate stock to use the oldest material first.
- Freeze/Thaw Stable (One-Cycle - if chilled, warm to 22°C/72°F and mix well.)
- Store between 10°C/50°F and 32°C/90°F.
- Keep container tightly closed and store off the floor when not in use.
- Avoid exposure of containers to direct sunlight.
- If the container has been sitting for an extended period of time and has settled, stir before using.
- **Do Not** apply or make bonds at temperatures below 18°C/65°F.
- Use at room temperature, 18°C/65°F, or warmer. For best results use above 22°C/72°F.

Packaging

- 53 US gallon drums, 5 US gallon pails, 1 US gallon jugs

Clean-Up

- Use warm water when the adhesive is in the wet state
- Cured adhesive will require scraping/sanding

HELMITIN ADHESIVES
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*SEE SDS FOR REGULATORY INFORMATION

APPLICATION GUIDELINES

Conditioning of Materials

1. Moisture content of wood should be 6 - 8%.
2. Substrates should be acclimatized together at 18°C/65°F, or above, for at least 48 hours prior to bonding. Make provisions to allow the free flow of air around substrates.

Adhesive Application

1. Substrates to be bonded should be freshly cut, clean and free from burn or score marks, moisture, dirt, oil, and other contaminants.
2. Adhesive and substrates should be 18°C/65°F or warmer. For best results use above 22°C/72°F.
3. Adhesive can be applied by squeeze bottle, manual roller, or roll coater.
4. At least one substrate must be porous.

Solid Wood & General Assembly

1. Apply HELMIBOND 847 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 moderate squeeze out when clamping.
2. Clamping pressure is species dependent. Generally: 100 - 150 psi for softwoods; 175 - 250 lb/in² for hardwoods. Harder species will require more clamping pressure.
3. Clamp for at least 20 minutes, or until adhesive film dries.
4. Allow a minimum of 1 hour prior to machining. Machining parts before the wood has returned to equilibrium moisture content will cause sunken glue lines when the parts are finished. Depending on the wood species and shop conditions, full drying of the wood may take 12 - 24 hours, or longer.

Cold Press Laminating

1. Apply HELMIBOND 847 using a roll coater utilizing 16 grooves/ in and apply 6 - 8 wet mils of adhesive. Plywood applications may require a higher coat weight of adhesive.
2. Open time is 5 minutes with a closed assembly time of 5 - 10 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 and humidity, stock density, moisture content of substrates, adhesive application amount, etc.
4. For cold pressing, typical pressures are 30 - 100 psi for HPL, 100 - 150 psi for solid core stock and 100 - 250 psi for veneered panels.
5. Press times will vary depending on the substrates being bonded.

Note

- Be careful to avoid contamination by iron (rust) from any source, such as containers, tools or application equipment, as such contamination will lead to dark glue lines.
- This product may not be compatible with fire retardant board. Consult with HELMITIN technical support prior to use with these types of substrates.

Warranty

Because Seller has no control over methods of product application or conditions of use, its product is warranted only to be made of standard commercial grade materials and in conformance with Seller's published specifications, if any. Any recommendations for the use of the product are based on tests or experience believed to be reliable and are furnished without compensation, and Seller does not guarantee the applicability or the accuracy of this information or the suitability of its product in any given situation. Buyer must make its own tests to determine the suitability of Seller's product for Buyer's particular use and Buyer assumes all risk and liability of use of Seller's product.

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