



HELMITIN
QUALITY ADHESIVE SOLUTIONS

HELMIBOND 816

PREMIUM VENEER LAMINATING ADHESIVE

Product Description

HELMIBOND 816 is a fast setting pre-catalyzed PVA designed to have minimal bleed-through in hard wood veneering applications.

Benefits

- ✓ Environmentally friendly
- ✓ Fast setting
- ✓ Type II water resistance
- ✓ Non-staining
- ✓ Excellent adhesion to a variety of substrates including but not limited to HPL, veneer, particleboard, plywood, MDF, etc.

Suggested Uses

- Hardwood veneering; hot, cold or RF press.
- HPL and other decorative overlay lamination to particle board, plywood, MDF, etc.
- Solid wood bonding where Type II water resistance is needed.

Meets or Exceeds

- **LEED Indoor Environmental Quality Credit 4.1; Low Emitting Materials: Adhesives and Sealants**
 - VOC content less than limits imposed by the State of California's South Coast Air Quality Management District (SCAQMD) Rule 1168 (80g/L, less water and exempt solvents)
- **LEED Indoor Environmental Quality Credit 4.4; Low Emitting Materials: Composite Wood and Laminate Adhesives**
 - No added urea-formaldehyde
- **CSA 0112-8M Series 1977 Type II Water Resistance**
- **ANSI / HPVA 1994 Type II Water Resistance**
- **NWWDA Type I and Type II Water Resistance**

Physical Properties

Base:	PVA
Solids Content:	51 +/- 2%
Viscosity:	3,250 cP
Specific Gravity:	1.11
Weight/Gal:	9.26 lb
Coverage/Gal:	228 ft ² @ 7 wet mils
Open Time:	5 minutes
pH:	2 -3
Color:	Beige
VHAP:	0lb/lb of solids
VOC:	0 lb/gal (0 g/L); less water and exempt solvents

Handling & Storage

- 6 month shelf life from date of manufacture.
- Rotate stock to use the oldest material first.
- **Not Freeze/Thaw Stable. Protect from Freezing.** Product cannot be used after being frozen.
- Store between 10°C/50°F and 32°C/90°F.
- Keep containers tightly closed and store off the floor when not in use.
- If the container has been sitting for a period of time and has settled, stir thoroughly before using.
- Avoid exposure of containers to direct sunlight.
- **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 21°C/72°F.

Packaging

- 267 US gallon totes, 53 US gallon drums, 5 US gallon pails

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. Allow the core and overlay materials to acclimate together at the same temperature and humidity for at least 48 hours before bonding. Optimum conditions are approximately 22°C/72°F and relative humidity of 45% - 55%. Provisions should be made for the circulation of air around the components.
2. Moisture content of wood should be 6 - 8%.

Adhesive Application

1. Substrates to be bonded must be 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. At least one substrate must be porous.

Hot and 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 coat weight of adhesive.
2. Open time is 5 minutes with a closed assembly time of 8 - 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, humidity, stock density, moisture content of substrates, application amount, etc.
4. For cold pressing typical pressures are 30 - 100 psi for HPL, 100 - 150 psi for solid core stock and 100 psi to 250 psi for veneered panels.
5. Hot pressing is performed at 82°C/180°F - 93°C/200°F for 60 - 90 seconds. Machining operations can be performed as soon as the panel is cool. Temperatures and press times can vary depending on substrates being bonded. A guideline chart for veneer is shown below:

Veneer Thickness	70°C/158°F	90°C/194°F	100°C/212°F	120°C/248°F
1/16 inch	1' 45"	1' 30"	1' 15"	1'
1/8 inch	3' 15"	2' 20"	1' 55"	1' 40"
1/4 inch	6' 15"	5' 50"	4' 50"	4'

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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V1.0



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