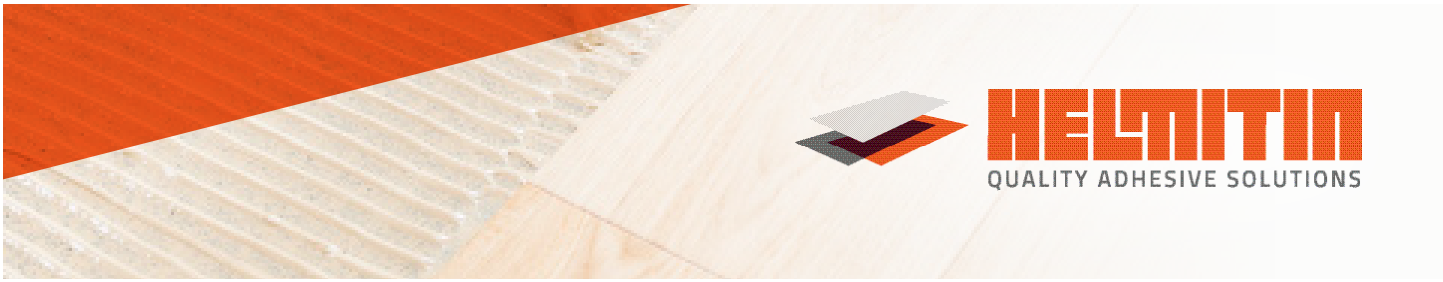

HELMIBOND 805

RF CURABLE, TYPE II WATER RESISTANT, HOT/COLD PRESS & WOOD BONDING PVA ADHESIVE

Product Description

HELMIBOND 805 is a radio-frequency curable, pre-catalyzed PVA adhesive with Type II water resistance. Its long working times and short press time make HELMIBOND 805 ideal for hot and cold pressing decorative overlays to particleboard and MDF. An excellent choice as well for wood assembly applications where water resistance is needed.

Benefits

- ✓ Excellent machining on glue spreaders
- ✓ Long open time (≈5 min); long closed assembly time (≈15 min)
- ✓ Fast setting
- ✓ Pre-Catalyzed for Type II Water Resistance
- ✓ High shear strength
- ✓ Radio frequency active

Suggested Uses

- Hot or Cold press laminating of paper-backed veneers, HPL and similar decorative overlays to particleboard, MDF, etc..
- Solid wood bonding.
- RF gluing operations.
- 5-piece mitered door joints.
- Assembly applications where a long closed working time is needed; laminate countertop miter joints, curved stair railings, etc.
- **Note:** The use of plywood as a core material with HPL may void the HPL manufacturers warranty. See HPL manufacturer's specifications.

Meet 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
- **ANSI/HPVA Type II Water Resistance**

HELMITIN ADHESIVES
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Physical Properties

Base:	PVA
Solids Content:	50 +/- 2%
Viscosity:	3,600 - 4,800 cP
Specific Gravity:	1.12
Weight/Gal:	9.23 lb
Coverage/Gal:	229 ft² @ 7 wet mils
Open Time:	5 minutes
Clamp Time:	20 - 60 minutes (hardwood)
pH:	3.5-4.5
Color:	White
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

- 275 gallon US 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

*SEE SDS FOR REGULATORY INFORMATION

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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.

General Assembly

1. Apply HELMIBOND 805 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 squeeze out when clamping.
2. Assemble parts. Open time will vary depending on wood species, temperature and moisture content.
3. **Do Not** exceed the open time before clamping. Adhesive must squeeze out freely when clamping pressure is applied.
4. Clamp for 20 minutes minimum. Clamp times will vary depending on wood species, moisture content and temperature.
5. Scrape excess glue from joints once dry.
6. Allow parts to dry thoroughly and stabilize before further processing.

Hot and Cold Press Laminating

1. Apply using a roll coater utilizing 16 grooves/inch and apply 6 - 8 wet mils of adhesive. Porous cores may require more adhesive and tight or less absorbent cores a lower amount.
2. Open time is 5 minutes with a closed assembly time of 10 - 15 minutes after which parts must be pressed.
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 - 250 psi for veneered panels.
5. Hot pressing is performed at 70°C/158°F - 120°C/248°F for 60 - 90 seconds. Machining operations can be performed as soon as the panel is cool. Temperatures and press times will depend on the previously noted variables.

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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HELMITIN
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