



HELMITIN
QUALITY ADHESIVE SOLUTIONS

HELMIBOND 856

PREMIUM FAST SETTING WOOD ASSEMBLY ADHESIVE

Product Description

HELMIBOND 856 is an extremely fast setting, wood assembly adhesive designed for use in high speed assembly processes where short clamping times are necessary.

Benefits

- ✓ Extremely fast setting – Allows for much shorter clamp times
- ✓ High tack for general assembly glue & staple applications
- ✓ High shear strength – Suitable for high stress, solid wood applications

Suggested Uses

- Assembly applications where a fast setting adhesive is desirable:
 - 5-piece rail & stile cabinet doors
 - Automated case clamping of cabinet boxes
 - Dowelled or biscuited cabinet boxes
 - Drawer boxes
- General cabinetry, millwork and furniture assembly applications.

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 Laminated Adhesives**
 - No added urea-formaldehyde
- **OTC Rules for Adhesives & Sealants – Contact Bond Adhesive**

Physical Properties

Base:	PVA
Solids Content:	44 - 48%
Viscosity:	3,500 - 5,500 cP
Specific Gravity:	1.09
Weight/Gal:	9.10 lb
Coverage/Gal:	229 ft ² @ 7 wet mils
Open Time:	5 minutes
Clamp Time:	1 - 20 minutes (varies by application)
pH:	3.8 - 4.7
Color:	Yellow
VHAP:	0lb/lb of solids
VOC:	0.09 lb/gal (10.7 g/L); less water and exempt solvents

Handling & Storage

- 12 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.
- Use at room temperature, 18°C/65°F, or warmer. For best results use above 21°C/72°F.

Packaging

- 275 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

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 856 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 psi for hardwoods Harder species will require more clamping pressure.
3. Clamp for at least 1 minute, or until adhesive film dries (Up to 20 minutes depending on species and joint design).
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.

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.