



HELMITIN
QUALITY ADHESIVE SOLUTIONS

HELMIBOND 897WH

HIGH TEMPERATURE TWO-PART 3D LAMINATING ADHESIVE

Product Description

HELMIBOND 897WH is a waterborne polyurethane adhesive used for membrane pressing or vacuum forming thermoplastic foils in the manufacture of kitchen cabinet doors, furniture components and other 3D applications. It is used in conjunction with 5% HARDENER 560 to provide increased heat and water resistance.

Benefits

- ✓ White color offers easy visibility during application and after drying
- ✓ High initial Green Strength
- ✓ Higher activation temperature
 - Ideal for Kolmag and other high temperature presses
 - Excellent for parts with deep draw downs
- ✓ 2-part system delivers outstanding heat and water resistance

Suggested Uses

- 3D Laminating of vinyl and similar thermoplastic foils in the manufacture of kitchen cabinet doors, furniture components and similar RTF parts.

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
- **ANSI/KCMA A161.1 – 2000 for:**
 - Shrinkage and heat resistance
 - Hot and cold check resistance

Physical Properties

Base:	Polyurethane
Solids Content:	40 +/- 2%
Viscosity:	2,000 - 2,400 cP
Specific Gravity:	1.07
Weight/Gal:	8.92 lb
pH	6.0 - 8.0
Coverage/Gal:	532 ft ² @ 3.1 dry grams (approx 3 wet mils)
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 totes, 55 gallon drums, 5 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

Substrates should be acclimatized 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

Substrates to be bonded must be clean and free from burn or score marks, moisture, dirt, oil, and other contaminants. Adhesive and substrates should be 18°C/65°F or warmer. For best results use above 22°C/72°F. At least one substrate must be porous.

General Assembly

1. Use a clean plastic pail/bucket to mix enough adhesive to be used within 4 – 6 hours.
2. Add 5% by weight HARDENER 560 slowly to the HELMIBOND 897WH and mix thoroughly for 5 minutes utilizing a squirrel mixer on a variable speed drill or air mixer.
3. Filter mixed adhesive through a fine mesh filter into the pressure pot.
4. When HELMIBOND 897WH is mixed with 5% HARDENER 560, the pot life is 8 hours at 21°C (75°F). At higher temperatures the pot life is shorter.
5. The adhesive should be applied utilizing an HVLP spray gun with a minimum fluid tip and needle of 055" (1.4 mm). Coating weight applied should be approximately 3 wet mils or 7.7 wet grams per ft² completed bond. When applying to porous substrates, it may be necessary to increase coating amounts or apply two coats of adhesive. The atomization pressure at the gun should be 45 – 65 psi triggered and the fluid pressure/pot pressure should be 10 – 20 psi. **Do Not** apply the adhesive if the temperature of the adhesive, environment or substrates drops below 10°C (50°F).
6. Allow the adhesive to dry thoroughly. When force drying the adhesive, do not exceed 50°C (122°F).
7. Parts may be bonded up to 6 hours after drying.
8. Press times should be 30 seconds to 4 minutes with a glue line temperature of 71°C – 77°C (160°F – 171°F). The minimum adhesive reactivation temperature is 71°C (160°F) at the glue line.
9. Forming pressures depend on the press system and are approximately 3 bar (44 psi).
10. Final bond strength is achieved after 72 hours.

Recommended Equipment

	Binks	DeVilbiss	Binks	DeVilbiss
Spray Gun	Mach 1A	AGX-541	Mach 1A	JGHV-531
Fluid Tip	94	FF	94	FF
Fluid Needle	47-478	FF	54-3941	FF
Air Cap	94P	46	94P	46

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.