



HELMITIN
QUALITY ADHESIVE SOLUTIONS

HELMITHERM 416HV

GENERAL PURPOSE ASSEMBLY HOT MELT ADHESIVE

Product Description

HELMITHERM 416HV is a medium open time, fast setting, general purpose, hot melt adhesive for woodworking. This versatile product was developed for use with core-building and cove-stick insertion machinery in postformed countertop manufacturing..

Benefits

- ✓ Medium open time allows time for parts to be aligned properly
- ✓ Aggressive tack prevents movement after alignment
- ✓ Fast setting for faster line speeds
- ✓ Excellent machinability keeps cutters clean

Suggested Uses

- Postformed countertop manufacturing:
 - Core building
 - Cove-stick insertion
- V-groove folding
- Can be used in conjunction with PVA adhesives to eliminate conventional clamps.
- Case and carton sealing (paper, corrugate, boxboard, etc.).

Certifications & Compliance

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

Physical Properties

Base:	EVA
Form:	Pellets
Application	
Temperature(s):	150°C/302°F - 200°C/392°F
Softening Point:	115 ± 5°C (239 ± 90°F) (ASTM E28)
Melt Viscosity:	1,800 cP @ 177°C/350°F
Specific Gravity:	0.98
Coverage:	1/16 inch dia. bead - approx. 1,690 linear ft/kg (524 linear m/kg) 1/8 inch dia. bead - approx. 420 linear feet/kg (131 linear m/kg))
Open Time:	Open time will vary from 5 - 20 seconds, depending on substrate, hot melt and ambient temperatures, the amount of adhesive applied, the closing speed and pressure applied.
Color:	Clear amber
VHAP:	Not applicable.
VOC:	0 lb/gal (0 g/L); less water and exempt solvents

Handling & Storage

- 3 year shelf life from date of manufacture in unopened containers.
- Freeze/Thaw Stable
- Rotate stock to use the oldest material first
- Store at room temperature. 22°C/72°F.
- Keep unused material covered and free from moisture, dirt, dust and/or other sources of contamination

Packaging

- 20 kg/44 lb bags

Clean-Up

- Finished Parts - SOLVENT 665 or HELMITIN CITRUS CLEANER

APPLICATION GUIDELINES**Conditioning of Materials**

Allow the core and edge 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.

Adhesive Application

1. Regular maintenance of the glue pot in is essential.
 - Remove any buildup of dust and debris at every break.
 - Follow the manufacturer's preventative maintenance schedule.
2. The first sign of a malfunction in the adhesive application system is often a poor bond.
 - Check the glue pot and application nozzle temperatures regularly with a good quality IR thermometer or pyrometer to ensure all thermostats and heating elements are functioning properly.
3. Working temperatures are critical when working with hot melt adhesives.
 - For best results, the manufacturing facility and substrate temperatures should be 20°C/68°F or warmer.
 - Situate machinery away from outside doors; cold drafts will adversely affect the bonding ability of the hot melt and can lead to failures.
4. Application temperature depends on the operation being performed.
 - 177 - 200°C (350 - 392°F) for core building and cove stick inserting applications.
 - 190 - 200°C (375 - 392°F) for V-groove folding applications.
 - 150 - 177°C (300 - 350°F) for paper/corrugate case and carton sealing applications..
5. Apply enough adhesive to fill all voids in porous materials such as particle core. It is desirable to see moderate squeeze out of adhesive when the substrates are mated in core building and cove stick insertion applications.
6. Adhesive degradation and the build-up of hardened and charred hot melt in the glue pot can be reduced by avoiding the prolonged heating of the hot melt when not running parts.
 - Turn the adhesive temperature(s) down 10 - 30°C when idle and not running parts.
 - If excessive adhesive degradation occurs, remove degraded hot melt from glue pot and add fresh hot melt.

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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*SEE SDS FOR REGULATORY INFORMATION