HELMITHERM 406

CONTOUR EDGEBANDING & PROFILE WRAPPING HOT MELT ADHESIVE

Product Description

Low application temperature, long open-time hot melt for manual contour edgebanding and profile wrapping applications. Ideal for use on low speed and manual contour edgebanders which apply the hot melt directly to the edgetape.

Benefits

- ✓ Long open-time ensures good bonds in profile wrapping and low speed/manual edgebanding applications
- ✓ Low application temperature - does not melt or distort thin PVC or other plastic edgetapes when applied directly to the edgetape
- ✓ Unfilled to reduced wear on moving parts and extend mileage

Suggested Uses

- Low speed and manual edgebanding
  - Thin (0.4 - 1.0 mm) PVC, ABS, PP and melamine edgetapes
  - Primed HPL
  - Fleece-backed, paper-backed and raw wood veneer tapes
- Profile wrapping
  - Paper and thin polymer foils
  - Fleece-backed and paper-backed veneers

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

Physical Properties

Base:	EVA
Form:	Pellets
Running Temperature(s):	
	▪ Application roller: 140°C/285°F - 190°C/375°F
	▪ Glue Pot: 140°C/285°F - 190°C/375°F
	▪ Pre-melter: 140°C/285°F - 170°C/340°F
Softening Point:	90 ± 5°C (194 ± 9°F) (ASTM E28)
Melt Viscosity:	17,200 cP @ 177°C/350°F
Specific Gravity:	0.98
Coverage:	1.25 - 2.8 grams/linear foot (per inch of edge thickness)
Running Speed:	0.5 - 6+ m/min. Open time will vary depending on hot melt, substrate, and ambient temperature, the amount of adhesive applied and compression pressure applied to the edge
Color:	Amber
VHAP:	Not applicable
VOC:	0 lb/gal (0 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
- Store at room temperature
- Keep unused material covered and free from moisture, dirt, dust and/or other sources of contamination

Packaging

- Available in 20 kg/44 lb bags

Clean-Up

- Finished Parts - SOLVENT 665 or HELMITIN CITRUS CLEANER

HELMITIN ADHESIVES
Toll Free: 877.823.2624
inquiries@helmitin.com
helmitin.com

*SEE SDS FOR REGULATORY INFORMATION

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APPLICATION GUIDELINES

Conditioning of Materials (Cores, Wood Veneer and HPL Edging)
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 edgebander in general and glue pot in particular are essential.
    - Remove any buildup of dust and debris at every break.
    - Follow the edgebander manufacturer's preventative maintenance schedule.
2. The first sign of a malfunction in the adhesive application system is often poorly bonded edges.
    - Check the glue pot and application roller 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 factory and substrate temperatures should be 20°C/68°F or warmer.
    - Situate edgebanders away from outside doors; cold drafts will adversely affect the bonding ability of the hot melt and lead to edge failures.
4. HPL edges require priming when using EVA based hot melts to obtain optimum results.
5. **Application temperature depends on the edge material.**
    - 140 - 160°C (285 - 320°F) for 0.5mm PVC and other polymer edgetapes.
    - 150 - 180°C (285 - 355°F) for PVC and other polymer edgetapes thicker than 0.5mm
    - 150 - 190°C (300 - 375°F) for veneer tapes and primed HPL.
6. Apply enough adhesive to leave a thin, even coat of adhesive which fills all voids in the core material.
    - Excessive adhesive application will cause cleanliness problems on both the finished parts as well as the edgebanders.
7. 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 through the edgebander.
    - 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.
8. Ensure that the compression rollers are applying enough pressure to properly mate the edge to the core.

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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