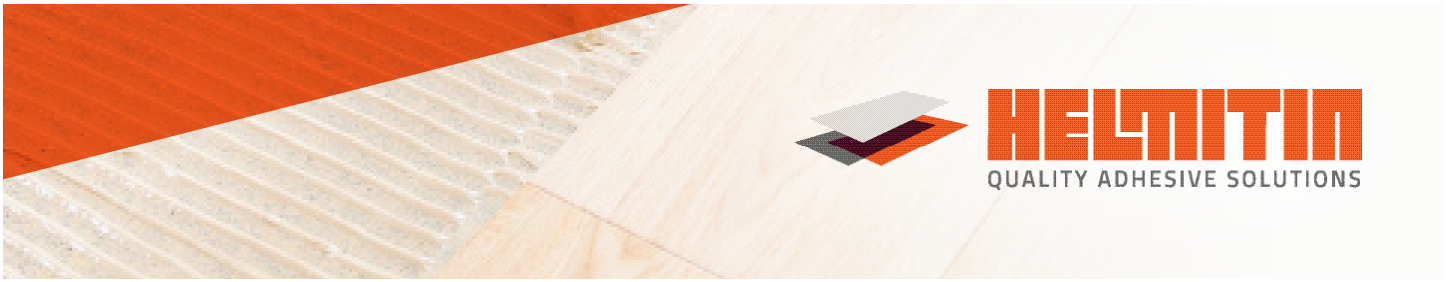

HELMISTIK 1580

HAPS-FREE, HIGH SOLIDS SPRAY GRADE CONTACT ADHESIVE

Product Description

A methylene chloride-free, HAPS-free, high heat resistance, high solids contact adhesive featuring a fast dry time, aggressive initial tack and high final bond strength. HELMISTIK 1580 is designed to bond HPL and other decorative overlays to common core materials (particle board, MDF, OSB, etc.).

Benefits

- ✓ HAPS-free
- ✓ Methylene chloride-free
- ✓ High tack
- ✓ Aggressive, permanent room temperature contact bonds
- ✓ Strong, high heat resistance final bonds
- ✓ Fast drying with a long open time
- ✓ Excellent spray characteristics for even coverage

Suggested Uses

- Lamination of High Performance Laminate (HPL) to particleboard and/or MDF core materials in the fabrication of store fixtures, millwork, cabinets, work surfaces, decorative panels and similar products.
- Lamination of a wide range of porous and non-porous materials to themselves and each other including, but not limited to: HPL, melamine, wood veneer, decorative metal overlays, decorative plastic overlays, foam, fabric, some rubbers, some plastics.
- **Do Not** use with unbacked, plasticized vinyls.
- **Note**: The use of plywood as a core material with HPL may void the HPL manufacturers warranty.

Meets or Exceeds

- **LEED Indoor Environmental Quality Credit 4.4; Low Emitting Materials: Composite Wood and Laminate Adhesives**
  - No added urea-formaldehyde

Physical Properties

Base:	Synthetic rubber
Solids Content:	33 - 36%
Viscosity:	150 - 300 cP
Specific Gravity:	0.83
Weight/Gal:	6.92 lb
Coverage/Gal:	360 ft² @ 3.0 dry grams/ft²; 180 ft² completed bond
Open Time:	60 minutes
Color:	Amber (1580) Red (1580RD)
VHAP:	0 lb/lb of solids
VOC:	3.6 lb/gal (431 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.
- Does Not Freeze; If chilled below 10°C/50°F – agitate well after first warming to 22°C/72°F.
- Store between 10°C/50°F and 32°C/90°F.
- Keep container tightly closed and store off of the floor when not in use.
- Avoid exposure of canisters 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

- 53 US Gallon Drums, 5 US Gallon Pails

Clean-Up

- Use HELMITIN SOLVENT 665 or CITRUS CLEANER
- **Never** use lacquer thinner to thin adhesive or clean equipment.

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

*SEE SDS FOR REGULATORY INFORMATION

HELMISTIK 1580

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APPLICATION GUIDELINES

Conditioning of Materials

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.

Adhesive Application

1. Substrates to be bonded with HELMISTIK 1580 must be clean, dry and free from dust, dirt, grease, oils, solvents or any other contaminants.
2. Ensure that the spray system oil and water traps are functioning, drained regularly and are at least 25 ft from the air compressor.
3. HELMISTIK 1580 should be applied at a coating weight of 2.8 - 3.0 dry grams per ft² to achieve 80% coverage by hand spray application, with near 100% coverage around the edges. For automatic spray applications, a minimum of 2.5 dry grams per ft² should be applied. The atomization pressure at the gun should be 80 - 100 psi, fluid pressure should be 10 - 15 psi.
4. Allow the adhesive to dry properly before bonding.
    i. To check for dryness press the back of your fingers into the adhesive and lift up; any adhesive transfer or legginess indicates that more dry time is required.
    ii. **Do Not** use the palm of your hand to check for dryness, it is often dirty and may leave oily residues which will interfere with bonding.
    iii. Heavy areas on the adhesive may form a skin on the surface of the adhesive. Press the back of your fingers into the adhesive and twist to tear the skin open. Allow more dry time.
    iv. The adhesive is ready for bonding when it feels tacky, but there is no transfer or legginess.
    v. Drying time will vary depending on ambient temperature, humidity and coat weight. Drying time can be reduced by using air movement, drying ovens, etc.
5. Bonds can be made as soon as the adhesive is dry. Bonds made any time during the 60 minute open time will be as strong as those made immediately after drying.
6. Apply two coats of HELMISTIK 1580 to porous materials such as plywood and edges. Allow the first coat to dry (this will act as a sealer) before applying the second coat. Allow the second coat to dry completely before bonding. This ensures that the adhesive does not soak in below the board surface and that there is enough adhesive on the surface to achieve a strong, permanent bond.
7. A dull appearance to the dry adhesive surface indicates that an insufficient amount of adhesive has been applied.
8. Position the pieces carefully as a strong, irreversible bond is made instantly upon contact.
9. Apply uniform pressure to ensure proper fusion of the adhesive surfaces. A pinch roller is the best method of applying pressure. Apply the maximum amount of pressure possible without damaging the substrates. **Minimum recommended pressure is 25 psi.** This is easily achieved with a 3" J-roller. ***RUBBER MALLETS, BLOCKS OF WOOD, FLOORING ROLLERS, ETC.*** may not apply sufficient pressure to achieve good fusion of the adhesive surfaces and are not recommended.

Note

- A drying issue called "***Blushing***" often occurs under extremely humid conditions. "***Blushing***" occurs when rapidly evaporating solvents cause the temperature of the adhesive surface to drop below dew point. Condensation then forms on the surface of the adhesive and acts as a barrier to further drying; it also interferes with the fusion of the two glued surfaces and prevents them from bonding. All moisture Must be completely evaporated before bonding. Moderate air movement (shop fan) is the preferred method to speed drying while reducing or eliminating "Blushing" issues. Bonds can be made once all moisture and solvents have completely evaporated.
- A failed contact adhesive bond with a shiny appearance to the surface of the adhesive is an indication that the recommended open time was exceeded and/or that inadequate laminating pressure was applied during assembly.
- **Do Not Exceed the Recommended Open Time! Apply Sufficient Laminating Pressure!**
- **Do Not** use copper or its alloys to transfer or contain any contact adhesive.
- Thinning the adhesive is not recommended.

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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