

HELMIPLAST 2501

VOC-FREE URETHANE SOLE ATTACHING CEMENT

Product Description

HELMIPLAST 2501 is a VOC-free, flammable solventborne polyurethane cement designed to bond various shoe materials such as leather, vinyl, urethane, rubbers, and most synthetic materials. It can also be used for direct injection molding of vinyl to cemented uppers. Can also be cold-bonded as a contact adhesive while still in a semi-dry state.

Benefits

- ✓ VOC-free
- ✓ Easy to apply
- ✓ Can be applied by brush or spray
- ✓ Tack-free once dry - allows easy positioning of parts before reactivation/bonding
- ✓ High initial bond strength
- ✓ Strong final bonds
- ✓ Excellent aging properties
- ✓ Heat, oil, and moisture resistant
- ✓ Good plasticizer resistance

Suggested Uses

- Sole attaching - bonding uppers made of leather and other common upper materials to soles in a sole press
- Direct injection molding of vinyl soles to uppers
- Bonding leather, vinyls, rubbers, foams, etc. to metal and some powder coated surfaces
- Multiwall hose construction (i.e. firehoses)
- Heat activated molded seating and furniture fabric bonding applications
- Applications where a high degree of plasticizer resistance is required.

Certifications & Compliance

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

Physical Properties

Base:	Polyurethane
Solids Content:	16.5 - 18.5%
Viscosity:	3,000 - 3,500 cP
Specific Gravity:	0.83
Weight/Gal:	6.9 lb
Coverage/Gal:	approx. 205 ft² @ 2.5 dry grams/ft²
Color:	Clear to Translucent
VHAP:	0 lb/lb of solids
VOC:	0 lb/gal (0 g/L); less water and exempt solvents

Handling & Storage

- 12 month shelf life from date of manufacture in unopened containers..
- Rotate stock to use the oldest material first.
- Freeze/Thaw Stable - if chilled, warm to 22°C/72°F and mix well.
- Store between 15°C/59°F and 32°C/90°F.
- Keep container tightly closed and store off of the floor when not in use.
- 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

- 53 US gallon drums, 5 US gallon pails

Clean-Up

- HELMITIN SOLVENT 670
- **Never** use lacquer thinner to thin adhesive or clean equipment.

HELMITIN ADHESIVES
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*SEE SDS FOR REGULATORY INFORMATION

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APPLICATION GUIDELINES

Sole Attaching

1. In order to achieve good bonds, leather upper materials must be thoroughly roughed to the corium layer. Some vinyl-coated or polyurethane-coated upper materials may require light roughing or a SOLVENT 670 wipe prior to adhesive application. Outsole materials such as Kraton, composition rubber, EVA and rigid nylon require special primers to promote adhesion (contact Helmitin Technical Service for more information).
2. Adhesive can be applied by brush or extruded.
3. Outsoles and uppers must receive a complete and even coating of HELMIPLAST 2501 and be allowed to dry thoroughly.
    - Areas with no adhesive applied to them will not bond.
    - Overnight drying of outsoles is recommended.
    - Freshly cemented uppers require 1 - 2 hours dry time at room temperature.
4. Heat reactivation of the adhesive layers occurs at approximately 75°C/167°F - 80°C/176°F; soles must be immediately attached to the uppers by means of a sole press.
5. Allow the adhesive to cure for 2 - 3 days prior to testing bond strength.
6. Trials are recommended before commencing production to determine the suitability of this adhesive with individual materials and processes.

Note

- The addition of Helmitin HARDENER 505 at 5-10% by weight to HELMIPLAST 2501 is suggested for applications where hight heat, plasticizer, and/or chemical resistance is required. HARDENER 505 is also suggested for use as an adhesion promoter when bonding to difficult substrates.
- Thinning the adhesive is 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.
- 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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QUALITY ADHESIVE SOLUTIONS

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