



HELMITIN
QUALITY ADHESIVE SOLUTIONS

HELMICOL 3451

100% SOLIDS, LIQUID MOISTURE-CURE ADHESIVE

Product Description

HELMICOL 3451 is a 100% solids, liquid Polyurethane moisture cure adhesive. It designed for roll coating applications requiring long term adhesion and durability. It is designed for bonding rubber, metal, and wood composite materials.

Benefits

- ✓ Aggressive tack
- ✓ Excellent adhesion to many substrates
- ✓ Moisture cure achieves tough, flexible bond
- ✓ High heat resistance
- ✓ Very good water resistance

Suggested Uses

- Resilient Flooring
- Ideal for laminating sheet materials
- Rubber
- Metal
- Plywood/Composite wood
- EPS foam
- Cement & mineral board
- Honeycomb, foam and insulated cores to wood/metal skins
- Lightweight and insulated panels
- Locker partitions

Clean-Up

- SOLVENT 671 or SOLVENT 665
- Dispose of waste in accordance with provincial/state regulations.

Physical Properties

Base:	Polyurethane Prepolymer
Solids Content:	100%
Viscosity:	1,800 – 3,500 cP @ 68F
Specific Gravity:	1.09 @ 68F
Weight/Gal:	9.0 lb
Coverage/Gal:	200 ft ² - 400ft ²
Color:	Pale Yellow

Handling & Storage

- 12 month shelf life from date of manufacture in sealed, unopened containers.
- Rotate stock to use the oldest material first.
- **Freeze/Thaw Stable**; if chilled below 10°C/50°F – agitate well after first warming to 22°C/72°F.
- Store between 18°C/65°F and 27°C/80°F.
- Open containers of HELMICOL 3451 should be sealed when not in use.
- Opened pails should be used within a few weeks to prevent premature curing.
- Drums should be capped with dry nitrogen to create a dry headspace for storage.
- **CAUTION - DO NOT LEAVE ADHESIVE IN EQUIPMENT**
- Any liquid adhesive remaining in or on the equipment or rollers will cure. Once cured, the adhesive will be very difficult to remove.

Packaging

- 53 US Gallon Drums and 5 US Gallon Pails

APPLICATION GUIDELINES

Adhesive Application

1. Substrates to be bonded must be clean, dry and free of dirt, oil and other contaminants. Surface condensation must be avoided
2. Substrates and adhesive must 18 C/65 F or warmer. Maintain this temperature during the curing period.
3. Adhesive should be applied to rigid, non porous substrates that can be fed through a roll coater at an applied thickness of 4-8 wet mils. Ensure that enough adhesive is applied to sufficiently wet opposing substrate. If the opposing substrate is rough or extremely porous, a thicker coat of adhesive will be required to ensure proper adhesive transfer to the second substrate.
4. Once the parts are mated, the assembled parts should be dead stacked or pressed until the adhesive has cured.
5. The cure time will depend on the moisture content and temperature of the ambient air. High humidity levels will promote a faster cure, while low humidity levels will take longer to cure. Higher temperatures will also aid curing. End users must perform their own tests with the substrates to be bonded to establish the time needed to achieve adequate curing in their process.
6. When production has finished, it is critical to drain remaining adhesive from the pan and thoroughly clean roll coater. **DO NOT LEAVE ADHESIVE IN EQUIPMENT.** Any liquid adhesive remaining in or on the equipment or rollers will cure. Once cured, the adhesive will be very difficult to remove.
7. Use **SOLVENT 665, SOLVENT 671** or other suitable cleaner recommended for liquid polyurethane clean up. It is recommended that **dry** solvents be used avoid using solvents that have a high water content as they can gel the adhesive and interfere with cleaning.

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.