

HARDENER 505

CROSSLINKING & ADHESION PROMOTING AGENT FOR SOLVENTBORNE POLYURETHANE ADHESIVES

Product Description

HARDENER 505 is a crosslinking agent used in conjunction with solventborne polyurethane adhesives to increase their heat resistance, water resistance, bond strength and long term performance.

Benefits

- ✓ Enhances adhesion
- ✓ Improves heat, oil, and solvent resistance
- ✓ Room temperature cure
- ✓ UV stable
- ✓ Light color
- ✓ Easy mixing

Suggested Uses

- High performance sole attaching to meet fire, heat and chemical resistant footwear requirements.
- Improving adhesion to flexible membranes bonded with polyurethane adhesives.

Physical Properties

Base:	Polyisocyanate adduct in ethyl acetate
Solids Content:	38 - 42%
Viscosity:	Thin liquid
Specific Gravity:	1.04
Weight/Gal.:	9.6 lb
Mixture:	Add 5 - 10% by weight based on the weight of the adhesive
Pot Life:	Depends on the adhesive used with, percentage added, temperature and humidity.
Color:	Clear yellowish
VHAP:	0 lb/lb of solids
VOC:	5.21 lb/gal (624 g/L); less water and exempt solvents

Handling & Storage

- HARDENER 505 is an organic isocyanate which requires care in handling as it reacts with water and compounds containing active hydrogen groups to produce carbon dioxide gas.
- Very high reactivity with moisture makes it essential to store HELMITIN HARDENER 505 in tightly sealed, air-tight containers.
- Avoid repeated opening of larger shipping containers by transferring to smaller containers the size of a single day's usage.
- Containers that have become contaminated with moisture should not be sealed as a hazardous increase in pressure may result.
- 6 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.
- Store between 10°C/50°F and 32°C/90°F.
- Keep containers stored off of the floor when not in use.
- Avoid exposure of containers to direct sunlight.

Packaging

- Cases of 11 x 1 US quart bottles

Clean-Up

- SOLVENT 672

HELMITIN ADHESIVES
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*SEE SDS FOR REGULATORY INFORMATION

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GUIDELINES FOR USE

Mixing with Adhesive

1. HARDENER 505 is normally used at 5 – 10% by weight, based on the weight of the adhesive.
2. Add HARDENER 505 to the adhesive, taking care not to spill or splash the hardener while mixing.
3. Mix only as much material as can be used within the pot life of the mix.
4. Mix thoroughly.
5. Immediately reseal the hardener container airtight to keep atmospheric moisture away.
6. The pot life of the mixture will vary, depending on the adhesive product that it is mixed with, the percentage of hardener added, the temperature of the mix and the amount of exposure to moisture. This can only be determined by the user for each individual set of conditions.
7. Indications of the end of the pot life are increasing viscosity or gelling, resulting in more difficult application.
8. Gelled adhesive cannot be thinned by the addition of solvent - discard a mixture that has reached the end of its pot life and mix fresh material -

Note

- HARDENER 505 is a pre-reacted polyisocyanate with an extremely low level of volatility at room temperature. It should not be confused with monomeric isocyanates which are far more volatile. When HARDENER 505 is used under normal conditions, no measures beyond those ordinarily taken during work with organic solvents are usually necessary.
- HARDENER 505 will vary in color from clear to yellowish - such variation in color does not affect the performance of the product.
- Beyond the shelf life limit, the product may become cloudy, thicken or gel. If this occurs the product is unusable

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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