

Part # HPU-CL, HPU-CO

DESCRIPTION: Rhino Linings® HP Urethane is a 2:1, high performance, chemically cured aliphatic polyol urethane coating with superior exterior performance. It has excellent gloss and color retention characteristics with no tendency to yellow in sunlight (exterior exposure) or to darken in interior applications. It has superior abrasion and splash resistance to Alkalies (salts), Acids (nonoxidizing) and skydrol (hydraulic fluid), as well as resistance to oils, JP 4 and JP 5 fuel, diesel oil, light fuel oil, lubricating oils and synthetic lubricating products. When a high performance coating is needed, HP Urethane provides an excellent finish coat when it is used over the proper primer depending on the substrate. HP Urethane can be applied over WB Epoxy, Epoxy 200 or Epoxy 600.

TYPICAL USES: High performance weather and chemical resistant coating for piping, machinery, processing equipment, and storage tanks. Provides a high degree of protection against moisture, corrosive fumes, and chemical contact.

FEATURES & BENEFITS:

- Long lasting, deep lustrous gloss
- Non-yellowing, detergent resistant
- Excellent chemical resistance
- Weather resistant
- Meets military specification MIL-C-85285A (AS)
- Can be applied by brush, roller or airless sprayer

CHEMICAL PROPERTIES:

	Result
Solids by Volume	70%
Volatile Organic Compounds	3.5 lbs/gal (420 g/l)
Mix Ratio, parts per volume	2A (resin) : 1B (hardener)
Pot Life @ 77°F (25°C)	1 – 2 hrs (less in hotter temperatures)
Recoat, min / max	8 – 12 hrs / 24 hrs
Dry to Touch @ 77°F (25°C)	4 – 6 hrs
Full Cure	7 days
Recommended Mil Thickness	3-5 mils DFT
Recommended Application Temperature	≥50°F (10°C)
Shelf Life - unopened containers	24 months (when stored at 50 – 80°F)

TYPICAL PHYSICAL PROPERTIES:

	Test	Result
Hardness (Konig) - pendulum	ASTM D-256	127
Impact Resistance (in/lb)	ASTM D-2794	38
Taber Abrasion Resistance (mg of loss/1000 cycles) CS17 Wheel; 1000 grams weight	ASTM D-4060	34
Flexibility	ASTM D-222	passes 1/8 inch
60° Gloss		90-95

SURFACE PREPARATION: The surface must be clean and sound, free from moisture, oil, dirt, waxes, and any other contaminants that may interfere with bonding. Some methods include shot-blasting, or scrubbing with detergent, acid washing, neutralizing, rinsing and wet/dry vacuuming. Do not apply HP Urethane directly over concrete or steel. Apply only over properly primed or previously coated surfaces. For going over an existing epoxy or urethane coating, in good condition, use #80 grit sandpaper, to lightly abraid the surface. If more than one coat of HP Urethane will be applied, the second coat should be applied within a 24 hour period after the first. After 24 hours of curing, the first coat will need to be sanded before applying the second coat, to insure proper adhesion. (For more information on surface preparation, see the Products Manual).

MIXING INSTRUCTIONS: Mix by volume 2 parts A [resin] to 1 part B [hardener] using a slow speed drill and mixing paddle for 3 – 5 minutes. While mixing, scrape the sides and bottom of the mixing container to achieve a uniform consistency. Mix only the amount of material that can be used in 1 – 2 hour period. When using HP Urethane color version, always mix part A separately before adding part B for the best color uniformity. Do not thin HP Urethane when rolling or spraying. Clean equipment with MEK followed by paint thinner to leave in the sprayer until the next use.

RHINO LININGS® HP URETHANE (continued):

APPLICATION INSTRUCTIONS: Apply by brush, roller or airless sprayer at a coverage rate of 300 – 400 sq. ft. per gallon. Use a good quality 1/4” – 3/8” nap roller cover. Rinse the roller with water prior to use and allow to dry to avoid leaving roller hairs behind.

When using an airless sprayer, a 15 degree tip with a 10 inch fan should be sufficient. Apply a thin, even coat or coats (one coat, two coats or three coats according to the job requirement). Wait a minimum of 8 – 12 hours, but no longer than 24 hours between coats. After 24 hours, lightly sand the surface with 100 grit sandpaper before re-coating.

Accelerator - HP Urethane can be made to dry faster by using HP Accelerator. When using the Accelerator, mix 10 – 30 drops of Accelerator in a small amount (1/4 cup) of MEK (Methyl, Ethyl, Ketone) and mix to a uniform consistency. Add the mixture of Accelerator and MEK to the already mixed HP Urethane, then apply as usual. Accelerated HP Urethane can generally be re-coated in 4 – 6 hours.

NOT RECOMMENDED FOR: Do not apply over Stamped Concrete Sealer, Sealcoat 1000 or Concrete Colorcoat.

SUBSTRATES:

24 HOUR IMMERSION (ASTM D-1308)

Motor Oil	no effect	Skydrol B-4.....	no effect
Gasoline.....	no effect	Whiskey	no effect
Transmission Fluid	no effect	25% Hydrochloric Acid	no effect
Urine	no effect	25% Sulphuric Acid.....	no effect
Blood	no effect	50% Sodium Hydroxide	no effect
Black Ink	no effect	25% Acetic Acid.....	no effect
Mineral Spirits.....	no effect	25% Nitric Acid	no effect
Hydraulic Fluid #83282.....	no effect		

SALT WATER SPLASH TEST

2000 hrs. Passes

COLOR OPTIONS: Available in clear and 8 standard colors. Custom colors are also available by special order.

HOW SUPPLIED: Available in 1.5 gallon and 3 gallon kits

SLIP/FALL PRECAUTIONS: Rhino Linings recommends using slip resistant granules in all outdoor applications where the HP Urethane will be used as a topcoat sealer and on indoor applications that may be exposed to water, oil or other spills that may cause a slippery environment. Aluminum oxide granules #80 grit or courser may be broadcast into the prime coat to achieve the amount of slip resistance desired. It is the end users responsibility to determine the suitability of a coating for their particular application. Rhino Linings or its sales people will not be responsible for injury incurred in a slip/fall accident.

WARNING: HP Urethane is combustible and should be kept away from open flames. Turn out all pilot lights. Wear the proper breathing mask in areas with poor ventilation. Read Material Safety Data Sheet before using. For professional use only!

SAFETY PRECAUTIONS: Health Considerations: Consult the Rhino Linings® Safety Data Sheets (SDS)

Chemical systems require the use of proper safety equipment and procedures. Please follow the Rhino Linings® product SDS and Safety Manual for detailed information and handling guidelines.

For Your Protection: The information and recommendations in this publication are, to the best of our knowledge, reliable. Suggestions made concerning the products and their uses, applications, storage and handling are only the opinion of Rhino Linings Corporation. Users should conduct their own tests to determine the suitability of these products for their own particular purposes and of the storage and handling methods herein suggested. The toxicity and risk characteristics of products made by Rhino Linings Corporation will necessarily differ from the toxicity and risk characteristics developed when such products are used with other materials during a manufacturing process. The resulting risk characteristics should be determined and made known to ultimate end-users and processors. Because of numerous factors affecting results, **Rhino Linings Corporation makes no warranty of any kind, express or implied**, other than that the material conforms to its applicable current Standard Specifications. Rhino Linings Corporation hereby disclaims any and all other warranties, including but not limited to those of merchantability or fitness for a particular purpose. No statements made herein may be construed as a representation or warranty. The liability of Rhino Linings Corporation for any claims arising from or sounding in breach of warranty, negligence, strict liability, or otherwise shall be limited to the purchase price of the material.

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