



Diama-Thane HPU

Item Number: DPDTHPU – 100-01

DiamaPro® Diama-Thane HPU is a high-solids, UV stable, 2-component system suitable for high-traffic areas such as forklift loading zones, drive aprons, and commercial walkways. This high-performing finish coat is available in gloss and satin finishes. It protects concrete substrates against stains, fading, and degradation caused by chemical spills. Do to the ultra-thin film it is applied at, **DiamaPro® Diama-Thane HPU** it needs to be applied over a neat coat of **DiamaPro® Diama-Poly**, **DiamaPro® Diama-Poxy** or **DiamaPro® Diama-Thane NGU**.

ADVANTAGE

- Meets USDA, FDA, EPA, and SCAQMD Standards
- Antibacterial
- Eligible for LEED Points: Made in California from Partially Recycled Materials
- High Chemical and Stain Resistance
- High Impact Resistance
- High Traffic and Hot Tire Resistance
- Impact and Scratch Resistance
- Low Maintenance
- Low Odor
- UV Resistant
- Waterproofing

SUGGESTED USES & APPLICATION AREAS

- High Chemical Resistant Finish Coat.
- High Abrasion Resistant Finish Coat.
- High UV-Resistant Finish Coat.
- Auto Centers and Repair.
- Aircraft Hangars.

USED IN DiamaPro System SYSTEMS'

- DiamaPro® Diama-Flake System
- DiamaPro® Diama-Quartz System
- DiamaPro® Diama-Industrial Quartz System
- DiamaPro® Diama-ESD Coating System
- DiamaPro® Diama-Metallic System

FINISH AND COLOR

- Gloss, Clear
- Satin, Clear
- Opaque when Pigmented

PRECAUTIONS AND LIMITATIONS

- Prime Coat
 - May be required if substrate is highly absorbent.
 - May be required if outgassing is suspected or prevalent.
 - May be required if concrete is very porous or in poor condition.
- All concrete repairs must be completed before installing any system.
- DO NOT apply single coat greater than 5 mils thick (320 square feet per gallon).
- DO NOT apply directly over moisture sensitive concrete.
- DO NOT apply under direct sunlight.
- DO NOT install under inclement weather conditions.
- DO NOT apply over broadcasted vinyl chip, 30-grit or larger quartz, or 80-mesh or larger aluminum oxide.
- DO NOT let material puddle on floor.



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- Complete samples and onsite mockups to ensure desired results are achieved.
- **Application temperatures**
- Material cures faster as temperature and humidity increase.
 - Material cures slower as temperature and humidity decrease.
 - Application times are based on test results compiled by lab technicians in a controlled setting.
 - If application temperatures are outside of those recommended, contact your Diamapro® Technical Representative.
 - Apply material when temperature is decreasing.
 - Adhere to the Diamapro® Dew Point Calculation Chart.
- **Coverage Rates**
 - Are for estimating purposes only.
 - Factors such as waste, unusual/abnormal substrate conditions, and other unforeseen job site conditions may affect actual product yields.
 - Are the responsibility of the installer.

COMPONENTS

Standard Kit

- Diamapro® Diamapro-Thane HPU Part A
 - Satin – ½ gal. (64 oz.)
 - Gloss – ¼ gal. (32 oz.)
- Diamapro® Diamapro-Thane HPU Part B
 - 1 gal.

SAFETY AND TESTING

- Safety
 - Personal protective equipment and safety conditions must be used with all products.
 - Review all relevant and current documentation including Safety Data Sheets at **DiamaproSystems.com**.
- Testing Before installation
 - Test and look for any unknown site conditions and/or defects.
 - To ensure desired results are achieved, a mockup should be installed on site before full installation begins.

STORAGE AND APPLICATION TEMPERATURES

Ideal Storage Environment	Dry, Out of Direct Sunlight, 60-80°F
Material Temperature During Application	50-70°F and 5°F Above Dew Point
Minimum Substrate Temperature During Application	5°F Above Dew Point
Recommended Application Temperature	60-80F, <55% RH (Relative Humidity)



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Average Application Time

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Ambient Temperature	60-80°F, <70% RH	50°F, 30% RH	50°F, 75% RH	70°F, 50% RH	90°F, 20% RH	90°F, 80% RH
Working Time	15-25min	15-20 min.	10-15 min.	15-20 min.	10 min.	15 min. **
Recoat Window	4-6 hrs.	3-6 hrs.	2-6 hrs.	3-6 hrs.	2-6 hrs.	2-6 hrs.
Return to Service (Foot Traffic)	12 hrs.	12 hrs.	12 hrs.	12 hrs.	12 hrs.	12 hrs.
Full Cure (Vehicle Traffic)	7 days	5-7 days	5-7 days	5-7 days	5-7 days	5-7 days

** Must add viscosity reducer.

Diamapro® Diamapro-Thane HPU (Gloss)

Ambient Temperature	60-90°F, <70% RH	50°F, 30% RH	50°F, 75% RH	70°F, 50% RH	90°F, 20% RH	90°F, 80% RH
Working Time	20 min.	25-30 min.	10-15 min.	20 min.	15 min.	15 min. **
Recoat Window	4-6 hrs.	3-6 hrs.	2-6 hrs.	3-6 hrs.	2-6 hrs.	2-6 hrs.
Return to Service (Foot Traffic)	12 hrs.	12 hrs.	12 hrs.	12 hrs.	12 hrs.	12 hrs.
Full Cure (Vehicle Traffic)	5 days	5 days	5 days	5-7 days	5 days	5 days

** Must add viscosity reducer.

SURFACE PREPARATION

- Substrate Condition
 - The substrate must be sound.
 - All necessary concrete repairs have been completed.
 - Must be clean.
 - Must be dry.
 - Must be free of any bond inhibiting contaminants

MIXING

Mix Ratio	Satin – Part A - 1/2 gal. (64 oz.) Part B - 1 gal.	Gloss – Part A – ¼ gal. (32 oz.) Part B – 1 gal.
Poly Colorant	16 oz per standard kit	
Viscosity Reducer	1-2 qt. per kit	
Mixing Drill	Low-RPM, low-torque drill with Jiffy double-bladed mixer	
Mixing Directions	Mix A until color and consistency are uniform. Add B and continue to mix for 2 min or until color and consistency are uniform.	
Mixing Directions with Colorant	Mix A with colorant until color and consistency are uniform. Add B and continue to mix for 2 min or until color and consistency are uniform.	
Mixing Directions with Viscosity Reducer	Mix A with colorant until color and consistency are uniform. Add B and continue to mix for 2 min or until color and consistency are uniform.	
Mixing Directions with Anti-Slip	Mix A alone or with or without colorant until color and consistency is uniform. Add B and continue to mix for 1 min. Add additive and continue to mix for 1 min or until color and consistency are uniform.	



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Coverage Rates

Application	Coverage rate
Topcoat	3-5 mil – 320-530 sq.ft./gal.

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PROPERTIES WHEN FULLY CURED

PROPERTIES	TEST METHOD	TYPICAL VALUES
Abrasion Resistance	ASTM D4060	10 mg loss
Adhesion Strength	ASTM D4541	>400 psi, epoxy failure
Coefficient of Friction - Dry	ASTM D2047	0.7
Coefficient of Friction - Wet	ASTM D2047	0.6
Flame Spread/ Critical Flux	ASTM E648	Class 1
Flame Spread/ Rate of Burning	ASTM D635	Self-extinguishing
Flexibility/ Mandrel Bend	ASTM D522	Passes 1/8-in.
Gloss, 60°	ASTM D523	50
Hardness (König Hardness)	ASTM D4366	170
Impact Resistance	ASTM D2794	120 in-lbs.
Indoor Air Quality	CA 01350	Compliant
Microbial Resistance	ASTM G21	Passes, 0 growth
Tensile Elongation at Break	ASTM D2370	8%
Tensile Strength	ASTM D2370	6,500 psi
UV Resistance	ASTM D4587	Mid to High (Level 2)
Water Absorption	ASTM D570	<0.05
Yellowing Resistance	ASTM G154	< 3.0 ΔE, gray (color tested for visible changes)

CHEMICAL AND STAIN RESISTANCE

1 = Best for chemical resistance: No adverse effects; Remove within 24 hours.

2 = Low potential for stain: No adverse effects: Removed within 24 hours.

3 = High potential for stain or degradation: Must be removed within 24 hours of exposure.

NR = Not recommended

■ Acetic Acid 10%	1	■ Chromic Acid, 10%	1
■ Acetic Acid, 30%	2	■ Chromic Acid, 30%	1
■ Acetone	1	■ Citric Acid, 30%	1
■ Ammonia, 30%	1	■ Ethanol, 95%	1
■ Ammonium Hydroxide, 30%	1	■ Ethyl Acetate, 99%	1
■ Antifreeze (Coolant)	1	■ Formaldehyde, 37%	2
■ Benzene (Component of Crude Oil)	1	■ Premium Gasoline	1
■ Benzyl Alcohol	1	■ Hydraulic Fluids	1
■ Betadine, 11%	1	■ Hydrochloric Acid, 10%	1
■ Boric Acid, 4%	1	■ Hydrochloric Acid, 30%	3
■ Brake Fluid, DOT 3	1	■ Hydrofluoric Acid, 10%	1



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■ Hydrofluoric Acid, 30%	3	■ Potassium Hydroxide, 30%	1
■ Hydrogen Peroxide, 10%	1	■ Propylene Glycol	1
■ Hydrogen Peroxide, 50%	1	■ Silver Nitrate, 20% (Photo Labs)	1
■ Iodine, 2%	3	■ Hydraulic Fluid (Aviation), Skydrol LD-4	1
■ Isopropyl Alcohol	1	■ Sodium Chloride, 20%	1
■ Jet Fuel	1	■ Sodium Hydroxide (Caustic Soda), 50%	1
■ Lactic Acid, 30% (Dairy Facility)	1	■ Sodium Hypochlorite (Bleach), 10%	1
■ Lime Juice	1	■ Sodium Hypochlorite (Bleach), 30%	2
■ Magnesium Hydroxide	1	■ Sodium Persulfate	3
■ MEK (Methyl Ethyl Ketone)	1	■ Sulfuric Acid, 37% (Battery Acid)	1
■ Methanol	1	■ Tannic Acid, 20%	2
■ Methylene Chloride	NR	■ Tartaric Acid, 10%	1
■ MIBK (Methyl Isobutyl Ketone)	1	■ Transmission Fluid	1
■ Mineral Oil	1	■ Urine, Dog or Cat	1
■ Motor Oil, SAE 30	1	■ Urea (Nitrogen-Rich Fertilizer)	1
■ Mineral Spirits	1	■ Vinegar, Distilled	1
■ Mustard, Yellow	1	■ Water (Hard Water from Well)	1
■ Nitric Acid, 30%	1	■ Whisky	1
■ Oleic Acid	1	■ Wine, Cabernet Sauvignon	1
■ Oxalic Acid, 10%	1	■ Xylene	1
■ Phosphoric Acid, 20%	1		

To ensure desired results are achieved, products should be tested on site before installation.

Colorants

- May affect working times.
- May reduce chemical resistance.
- May increase potential for stain.

Availability: DiamaPro® Diama-Thane HPU is only available through DiamaPro Systems® Authorized Distributors and Applicators. Packaged in 5-gallon units. For a list of Authorized please contact DiamaPro Systems®.

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