Diama-Thane NGU

Item Number: DPDTNGU – 100-01

DiamaPro® Diama-Thane NGU is a 2-component system with an option of a fast-cure (FC) or slow-cure (SC) hardener (Part B). With two different controlled set times, **DiamaPro® Diama-Thane NGU** can meet the needs of any project and environmental condition.

Perfect for high traffic areas like forklift loading zones, drive aprons, and commercial walkways, this UV-resistant coating is designed for high build applications (up to 20 mils) and can be used as a prime, body, and top when simplicity best suits the project.

ADVANTAGE

- Meets USDA, FDA, EPA, and SCAQMD Standards
- Adhesion to Concrete, Wood, Metal, Non-glazed Tiles
- Antibacterial
- Fast Cure can Be Applied at or Below 40°F
- Eligible for LEED Points: Made in California from Partially Recycled Materials
- High Impact Resistance
- High Traffic and Hot Tire Resistance
- Low Maintenance
- Low Odor
- Scratch Resistance
- UV Resistance
- Waterproofing

SUGGESTED USES AND APPLICATION AREAS

- Prime, Base, and Topcoats
- Vertical Surfaces

SUGGESTED USES & APPLICATION AREAS

- High Chemical Resistant Topcoat.
- High Abrasion Resistant Topcoat.
- High UV-Resistant Topcoat.
- 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
- 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.

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    - 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 20 mil thick (80 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 let material puddle on floor.
- 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

3 gal. Kit

- **DiamaPro® Diama-Thane NGU**
- Resin - Part A: 2 gal.

- **DiamaPro® Diama-Thane NGU**
- Slow Cure - Part B: 1 gal.
- Fast Cure – 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

DiamaPro® Diama-Thane HPU (Satin)

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® Diama-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 contaminates.

MIXING

Mix Ratio	Part A: 2 gal. Part B: 1 gal.
Poly Colorant	16 oz per standard kit
Viscosity Reducer	1-2 qt. per kit
Fumed Silica	2 qt.
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 RATE

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Application	Coverage Rate
Prime Coat	300 sq.ft./gal.
Base Coat, 8-12 mils	100-150 sq.ft./gal.
Metallic Base Coat, 15-20 mils	80-105 sq.ft./gal.
Broadcast System Cap Coat Over 1/4" Color Chip	125-200 sq.ft./gal.
Broadcast System Cap Coat Over F-Grade, 40-S, or 30-Mesh Quartz or Sand	90-100 sq.ft./gal.
Vertical Coat, 12 mils	400 sq.ft./gal.

Coverage rates re 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.

PROPERTIES WHEN FULLY CURED

DiamaPro® Diama-Thane NGU

PROPERTIES	TEST METHOD	TYPICAL VALUES
Abrasion Resistance	ASTM D4060	15 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	90
Hardness (König Hardness)	ASTM D4366	150
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	5%
Tensile Strength	ASTM D2370	6,000 psi
UV Resistance	ASTM D4587	High (Level 3)
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
- Acetic Acid, 30% 2
- Acetone 1
- Ammonia, 30% 1
- Ammonium Hydroxide, 30% 1
- Antifreeze (Coolant) 1
- Benzene (Component of Crude Oil) 1
- Benzyl Alcohol 1
- Betadine, 11% 1
- Boric Acid, 4% 1
- Brake Fluid, DOT 3 1
- Chromic Acid, 10% 1
- Chromic Acid, 30% 1
- Citric Acid, 30% 1
- Ethanol, 95% 1
- Ethyl Acetate, 99% 1

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