



# Diamapro-Deck DTC

## SYSTEM DATA SHEET

Version Number: 100-04

### DESCRIPTIONS

**Diamapro Systems® Diamapro-Deck DTC (Direct to Concrete)** is a durable, cost-effective, and low-maintenance waterproofing system ideal for new concrete construction and restoration projects. Its high-solids acrylic co-polymer admixture improves adhesion, flexibility, and waterproofing characteristics. The final texture coat provides an architectural design option, adding a wide range of textures and colors.

### ADVANTAGES

- Meets USDA, FDA, EPA, and SCAQMD Standards
- Eligible for LEED Points: Made in California from Partially Recycled Materials
- Adhesion to Concrete, Wood, Metal, Non-glazed Tiles
- High Impact Resistance
- High Traffic and Hot Tire Resistance
- Low Maintenance
- Low Odor
- Flexibility
- UV Resistance
- Waterproofing

### SUGGESTED USES AND APPLICATION AREAS

- Waterproof elevated concrete decks
- Slope, Skim/Screed, Slurry, Mortar, and Reinforced Waterproofing
- Decorative Concrete Overlays
  - Knockdown/Orange-peel Texture
  - Simulated tile.
  - Decorative staining
  - Color
- Industrial, Healthcare, Commercial, Government, Institutional, and Residential

### FINISH

- |                           |                           |
|---------------------------|---------------------------|
| ■ Matte Finish Clear      | ■ Gloss Finish Clear      |
| ■ Matte Finish with Color | ■ Gloss Finish with Color |



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### LIMITATIONS

- All concrete repairs must be completed before installing any system.
- DO NOT apply single coat greater than 2" thick.
- Do not let material puddle on floor.
- Complete samples and onsite mockups to ensure desired results are achieved.
- Application temperatures
  - When temperatures increase or humidity decreases, material cures faster.
  - When Temperatures decrease, material cures slower.
- Application times
  - Based on test results compiled by lab technicians in a controlled setting.
- If application temperatures are outside of those recommended, contact your Diamapro Systems® Technical Representative.
- Apply material when temperature is decreasing.
- Adhere to the Diamapro Systems® Dew Point Calculation Chart.
- DO NOT apply under direct sunlight.
- DO NOT install under inclement weather conditions.

### SAFETY AND TESTING

- Safety
  - Personal protective equipment and safety conditions must be considered before using any product.
  - Review all relevant and current documentation including Safety Data Sheets.
- Testing
  - Review Pre- and Post Job Checklists.
  - Before installation: Test and look for any unknown site conditions and/or defects.
  - To ensure desired results are achieved, the system should be tested in a small area on site before full installation begins.

### STORAGE AND APPLICATION TEMPERATURES

<b>Ideal Storage Environment</b>	Dry, Out of Direct Sunlight, 60-80°F
<b>Material Temperature During Application</b>	50-70°F and 5°F Above Dew Point
<b>Minimum Substrate Temperature During Application</b>	5°F Above Dew Point
<b>Recommended Application Temperature</b>	45-100°F, 5-85% RH (Relative Humidity)



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### TECHNICAL DATA

### PROPERTIES WHEN FULLY CURED

#### DiamaPro Systems® Diama-Deck Base

PROPERTIES	TEST METHOD	TYPICAL VALUES
Tensile Strength	ASTM C190	400-500 psi
Compressive Strength	ASTM C109	2,500-3,500 psi
Vapor Permeability	ASTM E 96	1.0-3.0 perms
Fire Resistance	ASTM E648	class 1
Flammability	ASTM D635	self-extinguishing
Adhesion	ASTM D4541	100% substrate failure
Weathering	ASTM G23	no visible degradation
Salt Spray/Fog (1,000 Hours Exposure)	ASTM B117	no visible degradation
Impact Resistance	MIL-D-3134	>160 in-lbs.
Freeze-Thaw Resistance (50 Cycles)	ASTM C67	no scaling/peeling/flaking
Dynamic Coefficient of Friction (Wet/Dry)	ANSI A326.3	0.50-0.60 (wet), 0.65-0.75 (dry)

#### DiamaPro Systems® Diama-Cryl

PROPERTIES	TEST METHOD	TYPICAL VALUES
Abrasion Resistance	ASTM D4060	70 mg loss
Abrasion Resistance with Anti-Slip	ASTM D4060	40-60 mg loss
Flame Spread/ Critical Flux	ASTM E648	Class 1
Flame Spread/ Rate of Burning	ASTM D635	Self-extinguishing
Indoor Air Quality	CA 01350	Compliant
Microbial Resistance	ASTM G21	Passes, 0 growth
Moisture Vapor Emission Rate	ASTM F1869	<3 lbs.
Moisture Vapor Permeance	ASTM E96	0.08 perms
Relative Humidity	ASTM F2170	<80%
UV Resistance	ASTM D4587	Level 1
Water Absorption	ASTM D570	<0.05%



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### CHEMICAL AND STAIN RESISTANCE

1 = Best for chemical resistance: No adverse effects on fully cured coating; Remove within 24 hours.  
 2 = Low potential for stain: No adverse effects on fully cured coating if removed within 24 hours.  
 3 = High potential for stain or degradation: Must be removed within 24 hours of exposure.  
 NR = Not recommended

Acetic Acid (Component of Vinegar), 10%	1	MEK (Methyl Ethyl Ketone)	NR
Acetic Acid, 30%	NR	Methanol	NR
Acetone	NR	Methylene Chloride	NR
Ammonia, 30%	NR	MIBK (Methyl Isobutyl Ketone)	NR
Ammonium Hydroxide, 30%	NR	Mineral Oil	1
Antifreeze (Coolant)	2	Motor Oil, SAE 30	1
Benzene (Component of Crude Oil)	3	Mineral Spirits	NR
Benzyl Alcohol	NR	Mustard, Yellow	3
Betadine, 11%	NR	Nitric Acid, 30%	NR
Boric Acid, 4%	NR	Oleic Acid	1
Brake Fluid, DOT 3	1	Oxalic Acid, 10%	1
Chromic Acid, 10%	3	Phosphoric Acid, 20%	NR
Chromic Acid, 30%	NR	Potassium Hydroxide, 30%	3
Citric Acid, 30%	1	Propylene Glycol	1
Ethanol, 95%	NR	Silver Nitrate, 20% (Photo Labs)	NR
Ethyl Acetate, 99% (Food/Beverage Facility)	NR	Sodium Chloride, 20%	1
Formaldehyde, 37%	NR	Sodium Hydroxide (Caustic Soda), 50%	1
Premium Gasoline	1	Sodium Hypochlorite (Bleach), 10%	NR
Hydraulic Fluids (Machinery, Automobile, Aviation)	2	Sodium Hypochlorite (Bleach), 30%	NR
Hydrochloric Acid, 10%	3	Sodium Persulfate	3
Hydrochloric Acid, 30%	3	Sulfuric Acid, 37% (Battery Acid)	NR
Hydrofluoric Acid, 10%	NR	Tannic Acid, 20%	3
Hydrofluoric Acid, 30%	NR	Tartaric Acid, 10%	3
Hydrogen Peroxide, 10%	NR	Transmission Fluid	2
Hydrogen Peroxide, 50%	NR	Urine, Dog or Cat	2
Iodine, 2%	3	Urea (Nitrogen-Rich Fertilizer)	1
Isopropyl Alcohol	NR	Vinegar, Distilled	1
Jet Fuel	1	Water (Hard Water from Well)	1
Lactic Acid, 30% (Dairy Facility)	NR	Whisky	2
Lime Juice	2	Wine, Cabernet Sauvignon	2
Magnesium Hydroxide	1	Xylene	NR

### COVERAGE RATES PER KIT – DIAMAPRO SYSTEMS®

#### DIAMA-DECK BASE COAT

NOMINAL THICKNESS	COVERAGE RATE
1/8"	48 SF/KIT
1/4"	24 SF/KIT
3/8"	16 SF/KIT
1/2"	12 SF/KIT
3/4"	8 SF/KIT
1"	6 SF/KIT
1.5"	4 SF/KIT
2"	3 SF/KIT



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### COMPONENTS AND COVERAGE RATES

<b>Base Coat</b>	DiamaPro Systems® Diama-Deck Concentrate Part A (1 gal.) DiamaPro Systems® Diama-Deck Base Part B (50 lbs.)	30 sq.ft./kit
<b>Body Coat</b>	DiamaPro Systems® Diama-Deck Chop Mat (72 oz./sq.ft.) DiamaPro Systems® Diama-Deck PrimeBond (45 sq.ft./gal.)	Place Chop Mat – overlapping ½.” Saturate with Prime Bond
<b>Screed Coat</b>	DiamaPro Systems® Diama-Deck Concentrate Part A (1 gal.) DiamaPro Systems® Diama-Deck Texture Smooth Part B (50 lbs.)	100 sq.ft./kit
<b>Texture Coat</b>	DiamaPro Systems® Diama-Deck Concentrate Part A (1 gal.) DiamaPro Systems® Diama-Deck Texture Smooth Part B (50 lbs.)	125-175 sq.ft./kit Hopper Gun / Pool Trowel
<b>Seal Coat</b>	DiamaPro Systems® Diama-Cryl (5 gal.) Light, Medium or Deep Base Colorant: 1 Colorant Pack / 5 gals.	200 sq.ft./gal.

- 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 and are the responsibility of the installer.

### INSTALLATION INSTRUCTIONS

#### SURFACE PREPARATION

- Mechanically remove all release agents, curing compounds, salts, efflorescence, grease, oil, dust, and other bond inhibiting contaminates.
- New concrete must be a minimum of 30 days old.
- Mechanically prepare concrete (grind or shotblast) to an ICRI CSP 3.
- Adhere to ICRI (International Concrete Repair Institute) current standards.
- Complete all repairs during the surface preparation step.
- Fill all joints during the surface preparation step.
- Vacuum well to remove all imbedded dust created during the surface preparation step.



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### MIXING

- Premeasure components to make sure you are using the correct mix ratio.
- Combine components according to mix instructions.
- Continue mixing until the coating's consistency is uniform.
- The coating must remain thoroughly mixed during the application.
- Keep a wet edge while applying product.
- Wear spiked shoes when walking on material.

#### Diamapro Systems® Diamapro-Deck Base Coat

<b>Standard Kit Mix Ratio</b>	Diamapro Systems® Diamapro-Deck Concentrate Part A – 1 gal. Diamapro Systems® Diamapro-Deck Base Part B – 50 lbs.
<b>Accelerant: Diamapro Systems® Diamapro-Deck Additive Fast</b>	1 oz. per standard kit
<b>De-accelerant/Viscosity Reducer: Diamapro Systems® Diamapro-Deck Additive Slow</b>	1 oz. per standard kit
<b>Mixing Drill</b>	High-RPM, high-torque drill Mud mixing paddle
<b>Mixing Directions</b>	Slowly add Part B to Part A and mix for 2 minutes or until consistency and color are uniform.
<b>Mixing Directions with Accelerant, or De-accelerant</b>	Mix Part A and additive for 30 seconds. Slowly add Part B and continue mixing until consistency and color are uniform.

#### Diamapro Systems® Diamapro-Deck PrimeBond with Fiberglass

<b>Saturation Coat</b>	Diamapro Systems® Diamapro-Deck PrimeBond Fiberglass Chop Mat .75 oz.
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#### Diamapro Systems® Diamapro-Cryl

<b>Standard Kit Mix Ratio</b>	Diamapro Systems® Diamapro-Cryl 5-gal. 16 oz – Colorant
<b>Colorant</b>	Waterborne Colorant – 16 oz.
<b>Matting Additive</b>	1-3 lbs./gal.
<b>Anti-Slip: Bead 50 Bead 100 Tex 50</b>	12-16 oz./gal.
<b>Mixing Drill</b>	low-RPM, low-torque drill - Jiffler double-bladed mixing paddle
<b>Mixing Tool(s)</b>	Paint mixing stick to scrape the bucket sides when mixing.
<b>Mixing Directions</b>	Mix base and colorant for 5 minutes or until color is uniform
<b>Mixing Directions with Matting Additive</b>	Mix additive with Diamapro Systems® Diamapro-Cryl Mix until consistency is uniform.

**Diamapro-Deck Acrylic Sealer - Base Color Choices – Light Base, Medium Base or Deep Base**



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### AVERAGE APPLICATION TIME

#### Diamapro Systems® Diamapro-Deck Base/Texture Coat

Ambient Temperature	45-100°F, 5-85% RH
Working Time	20-25 min
Recoat Window	2-24 hrs.
Return to Service (Foot Traffic)	24 hrs.
Full Cure (Vehicle Traffic)	28 days

#### Diamapro Systems® Diamapro Deck-PrimeBond

Ambient Temperature	35-100°F, 80 % RH	50°F, 50 % RH	70°F, 50 % RH	100°F, 50 % RH
Working Time	20-25 min	30-35 min	20-25 min	10-15 min
Recoat Window	2-48 hrs.	2-48 hrs.	2-24 hrs.	2-24 hrs.
Return to Service (Foot Traffic)	24-48 hrs.	24-28 hrs.	24-48 hrs.	24 hrs.
Full Cure (Vehicle Traffic)	7 days	7 days	7 days	7 days

#### Diamapro Systems® Diamapro-Cryl

Ambient Temperature	35-100°F, <80% RH	50°F, 50 % RH	70°F, 50 % RH	100°F, 50 % RH
Working Time	20-25 min	30-35 mins	20-25 mins	10-15 min
Recoat Window	2-48 hrs.	2-48 hrs.	2-48 hrs.	2-24 hrs.
Return to Service (Foot Traffic)	24-48 hrs.	24-48 hrs.	24-48 hrs.	24 hrs.
Full Cure (Vehicle Traffic)	7 days	7 days	7 days	7 days

### INSTALLATION

- Substrate is prepared to a CSP-3.
- Base Coat
  - Diamapro Systems® Diamapro-Deck Base / Diamapro-Concentrate
    - Spread evenly using a pool trowel.
      - 30 sq.ft./kit
    - Once dry, sand and smooth any imperfections.
    - Remove all debris.
- Fiber Coat
  - Diamapro Systems® Diamapro-Deck Chop Mat
    - Cut and lay the Deck Chop Mat covering base coat.
    - Mat should extend to the furthest edges of the deck up to the metal flashing.
    - Cut mat to fit around drains and posts.
    - Any overlap must be ½”.
- Saturation Coat
  - Diamapro Systems® Diamapro-Deck PrimeBond
    - Saturate the mat with a **Diamapro-Deck PrimeBond** using a flat flexible or flat ridged blade.
      - 45 sq.ft./gal.
    - Back roll with a microfiber 1/2” roller.
    - If mat curls, use a metal, fiberglass laminating roller to flatten.
    - Allow to cure.



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- Screed Coat
  - Diamapro Systems® Diamapro-Deck Texture Smooth
    - Spread evenly using a pool trowel.
      - 100 sq.ft./kit
    - When application is dry, sand and smooth any imperfections.
    - Remove all debris.
- Texture Coat
  - Diamapro Systems® Diamapro-Deck Texture Smooth
    - Flat Trowel / Skip Trowel Finish
      - Apply with a pool trowel.
      - 125-175 sq.ft./kit
    - Knockdown finish
      - Apply with a hopper gun.
      - 10-60 psi.
      - Low pressure produces larger splatter droplets.
      - Use a finishing trowel, flatten the high points.
      - 125-175 sq.ft./kit
- Seal Coat
  - Diamapro Systems® Diamapro-Cryl
    - Gloss - Clear
    - Gloss with Color
    - Matte - Clear
    - Matte with Color
    - Apply with a microfiber 3/8" nap roller.
    - 200 sq.ft./gal.

### CLEAN UP

- Allow the unused material to cure in the mixing vessels.
  - Discard the mixing vessels according to the Federal, State and Local regulations.
- Uncured material can be cleaned up using **Diamapro Systems® Diamapro-Solvent VOC**.
- Properly discard any rags that might have been used.
- Cured material needs to be mechanically removed from mixing paddles.



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### MAINTENANCE AND CLEANING

- Daily
  - Sweep, removing all abrasives and remove stain producing liquids as soon as they happen.
- Auto-scrubber
  - Fit with a soft, non-abrasive white pad.
  - Use **Diamapro Systems® Diamapro-Clean 30** in the freshwater tank according to the materials dilution rate.
- Mop and Bucket
  - Use **Diamapro Systems® Diamapro-Clean 30** diluted in the freshwater.

### AVAILABILITY

**Diamapro Systems® Diamapro-DTC System** is only available through Diamapro Systems® Authorized Distributors and Applicators. For a list of Authorized Distributors please contact Diamapro Systems®.

### CONDITIONS OF SALE / LIMITED WARRANTY

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### TECHNICAL SERVICES



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The Diamapro Systems® office offers assistance with specifications, performance test data and field services.

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