Diama-Poly HS

Item Number: DPDPHS – 100-01

DiamaPro® Diama-Poly HS is a low odor, UV-resistant, 2-component, polyaspartic system. It can be applied in areas where temperatures are high or low. Available in fast and slow set formulas, it offers cure rate options to fit the project and skill level of the installer. It's easy to install with a long working time version, decreasing the chance of roller marks. The fast cure version is used to complete projects faster when there is a time sensitive schedule. At full cure, this system withstands extreme temperatures from (-)20 to 200°F.

ADVANTAGES

- Low odor
- Fast and Cure formulations
- 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
- Antibacterial
- Easy Installation
- Extreme Temperature Resistance, 0–200°F
- Low Maintenance
- Scratch Resistance
- UV Resistance
- Waterproofing

SUGGESTED USES

- Primer
- High UV-Resistant Topcoat
- Decorative Systems
- Industrial, Healthcare, Commercial, Government, Institutional, and Residential

DiamaPro® COATING SYSTEMS AVAILABLE

- DiamaPro® Diama-Flake System
- DiamaPro® Diama-Quartz System
- DiamaPro® Diama-Metallic System
- DiamaPro® Diama-Flow System

FINISH AND COLOR

- High Gloss, Clear
- Opaque with Colorant

PRECAUTIONS AND LIMITATIONS

- Prime Coat required
  - Substrate is highly absorbent.
  - When outgassing is suspected or prevalent
  - When 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 14 mils thick (114 square feet per gallon).
- DO NOT allow material to puddle on floor.
- Application temperatures:
  - For best results, apply when application temperatures are high.
  - Material cures faster as temperature and humidity increase
  - Material cures slower in lower temperatures .

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Item Number: DPDPHS – 100-01

- If application temperatures exceed those recommended, contact your DiamaPro® Technical Representative.
- Apply material when temperature is decreasing – adhere to the DiamaPro® Dew Point Calculation Chart available at DiamaproSystems.com.
- DO NOT apply under direct sunlight.
- DO NOT install under inclement weather conditions.
- Complete samples and onsite mockups to ensure desired results are achieved.

COMPONENTS

- DiamaPro® Diama-Poly HS Slow and Fast
  - Part A: 5 gal.
  - Part B : 5 gal.

Larger kits may be available through DiamaPro Systems® Distributor.

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 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

Average Application Time
DiamaPro® Diama-Poly HS Slow

Ambient Temperature	<80°F, <55% 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	NR	NR	15-25 min	NR	10-15 min
Recoat Window	6-24 hrs.	NR	NR	6-24hrs	NR	3-12 hrs
Return to Service (Foot Traffic)	24 hrs.	NR	NR	24 hrs.	NR	12 hrs
Full Cure	5 days	NR	NR	5 days	NR	5 days

*NR=Not Recommended

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Item Number: DPDPHS – 100-01

DiamaPro® Diama-Poly HS Fast

Ambient Temperature	<80°F, <35% RH	50°F, 30% RH	50°F, 75% RH	70°F, 50% RH	90°F, 20% RH	90°F, 80% RH
Working Time	15-20min.	20-25 min.	15-20 min.	15-20 min.	10-15 min.	5-10 .min
Recoat Window	3-24 hrs.	6-24 hrs.	3-24 hrs.	3-24 hrs.	3-24 hrs.	1-6 hrs.
Return to Service (Foot Traffic)	24 hrs.	24 hrs.	24 hrs.	24 hrs.	24 hrs.	6 hrs.
Full Cure	3 days	7 days	7 days	5 days	3 days	days

SURFACE PREPARATION

- Substrate Condition
  - The substrate must be sound.
  - All necessary concrete repairs have been completed.
  - Must be clean, dry, and free of any bond inhibiting contaminates,
  - Must be dry.
- When applying directly over concrete
  - Substrate must be mechanically profiled to ICRI CSP 3.
  - Different projects may require a different concrete surface profile.
  - Adhere to International Concrete Repair Institute current standards.

MIXING

Standard Kit Mix Ratio	A:B = 5 gal:5 gal
Colorant	16 oz per 2 mixed gal.
Viscosity Reducer	1–2 qt. per 2 mixed gal.
Mixing Drill	Low-RPM, high-torque drill - Jiffy double-bladed mixer
Mixing Drill Combining with Large Aggregates	High-RPM, high-torque drill - Jiffy double-bladed mixer
Mixing Directions	Mix Part A until color and consistency are uniform. Add Part B and mix for 2 minutes or until color and consistency are uniform.
Mixing Directions with Colorant, Pigment, or Matting Additive	Mix Part A with additive until color and consistency are uniform. Add Part B and mix for 2 minutes or until color and consistency are uniform.
Mixing Directions with Viscosity Reducer, Aggregate, or Anti-Slip	Mix Part A and Part B for 1 minute or until color and consistency are uniform. Add additive and mix for 1 minute until color and consistency are uniform.

APPLICATION

Coverage Rates

Application	Coverage Rate
Base Coat, 8-12 mils	135–200 SF/gal
Broadcast System Grout Coat Over 1/4" Color Chip	125–200 SF/gal
Broadcast System Grout Coat Over 30-Mesh Industrial Sand	90–100 SF/gal
Broadcast System Grout Coat Over F-grade or 40-S Color Quartz	90–100 SF/gal
Prime Coat	300–400 SF/gal
Topcoat 4-5 mils	300–400 SF/gal
Topcoat 8-12 mils	135–200 SF/gal

Diama-Poly HS

Item Number: DPDPHS – 100-01

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.

Keep a wet edge while applying product. Wear spiked shoes when walking on material. For more applications and coverage rates, see KRETUS® General Overview (kretus.com/product-general-overviews).

PROPERTIES WHEN FULLY CURED

PROPERTIES	TEST METHOD	TYPICAL VALUES
Abrasion Resistance	ASTM D4060	15 mg loss
Adhesion Strength	ASTM D4541	400 psi, 100% Concrete failure
Adhesion Strength	ASTM D4541	n/a, vinyl failure
Adhesion Strength	ASTM D4541	n/a, natural quartz failure
Adhesion Strength	ASTM D4541	n/a, color quartz 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	Formaldehyde, 37%	3
Acetic Acid, 30%	2	Premium Gasoline	1
Acetone	1	Hydraulic Fluids	2
Ammonia, 30%	1	Hydrochloric Acid, 10%	1
Ammonium Hydroxide, 30%	1	Hydrochloric Acid, 30%	3
Antifreeze (Coolant)	1	Hydrofluoric Acid, 10%	1
Benzene (Component of Crude Oil)	1	Hydrofluoric Acid, 30%	3
Benzyl Alcohol	1	Hydrogen Peroxide, 10%	1
Betadine, 11%	1	Hydrogen Peroxide, 50%	1
Boric Acid, 4%	1	Iodine, 2%	3
Brake Fluid, DOT 3	1	Isopropyl Alcohol	2
Chromic Acid, 10%	1	Jet Fuel	1
Chromic Acid, 30%	1	Lactic Acid, 30% (Dairy Facility)	3
Citric Acid, 30%	1	Lime Juice	1
Ethanol, 95%	1	Magnesium Hydroxide	1
Ethyl Acetate, 99%	1	MEK (Methyl Ethyl Ketone)	1

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Methanol	1	Sodium Hydroxide (Caustic Soda), 50%	1
Methylene Chloride	NR	Sodium Hypochlorite (Bleach), 10%	1
MIBK (Methyl Isobutyl Ketone)	1	Sodium Hypochlorite (Bleach), 30%	2
Mineral Oil	1	Sodium Persulfate	3
Motor Oil, SAE 30	1	Sulfuric Acid, 37% (Battery Acid)	2
Mineral Spirits	1	Tannic Acid, 20%	3
Mustard, Yellow	1	Tartaric Acid, 10%	1
Nitric Acid, 30%	NR	Transmission Fluid	1
Oleic Acid	1	Urine, Dog or Cat	1
Oxalic Acid, 10%	1	Urea (Nitrogen-Rich Fertilizer)	1
Phosphoric Acid, 20%	2	Vinegar, Distilled	1
Potassium Hydroxide, 30%	1	Water (Hard Water from Well)	1
Propylene Glycol	1	Whisky	1
Silver Nitrate, 20% (Photo Labs)	3	Wine, Cabernet Sauvignon	1
Hydraulic Fluid (Aviation), Skydrol LD-4	2	Xylene	1
Sodium Chloride, 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-Poly HS is only available through DiamaPro Systems® Authorized Distributors and Applicators. Packaged in 5-gallon units. For a list of Authorized please contact DiamaPro Systems®.

Conditions of Sale / Limited Warranty: DiamaPro Systems® warrants that its products conform to the label descriptions, are free from manufacturing defects, and are fit for the ordinary purposes for which such goods are used. In as much as the use of DiamaPro Systems® product by others and other factors affecting product performance are beyond DiamaPro Systems® control, DiamaPro Systems® does not guarantee the results to be obtained. There are no warranties except as stated herein, either express or implied, including implied warranties of merchantability or fitness for a particular purpose.

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Technical Services: The DiamaPro Systems® office offers assistance with specifications, performance test data and field services.

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Item Number: DPDPHS – 100-01

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