Diama-Poxy

Item Number: DPDP – 100-01

DESCRIPTION

DiamaPro® Diama-Poxy Part A is the base resin for all DiamaPro® Diama-Poxy formulations. When combined with the appropriate Part B, it is a 100%-solids resinous system that can be applied in mid- to high-temperature environments, offering multiple set times. Being highly versatile, this system can be used as a primer, body coat, or topcoat. It's adhesion to concrete is exceptionally high with 24-hour return-to-service and 7 days to full cure.

When DiamaPro® Diama-Poxy Part A is combined with DiamaPro® Diama-Poxy MVR Part B, it can be applied on concrete with a Moisture Vapor Emissions Rate (MVER) up to 25 lbs. and RH up to 99%. This moisture vapor resistant system has high adhesion to concrete and a long working time – decreasing the risk of roller and brush marks.

ADVANTAGES

- DiamaPro® Diama-Poxy can withstand up to 10 lbs. of vapor.
- DiamaPro® Diama-Poxy MVR can withstand up to 25 lbs. of vapor.
- Multiple cure times available to meet the needs of the project.
- Meets USDA, FDA, EPA, and SCAQMD Standards
- Anti-bacterial
- Eligible for LEED Points: Made in California from Partially Recycled Materials
- Adhesion to Concrete, Wood, Metal, Non-glazed Tiles
- High Traffic and Impact Resistance
- Low Maintenance
- Low Odor
- Waterproofing

SUGGESTED USES AND APPLICATION AREAS

- Primer
- Elevated Moisture Vapor Emissions Rate (MVER)
- Slurry, Mortar, and Decorative Systems
- Industrial, Healthcare, Commercial, Government, Institutional, and Residential

DiamaPro Systems® USING DiamaPro® Diama-Poxy

- DiamaPro® Diama-Flake System
- DiamaPro® Diama-Quartz System
- DiamaPro® Diama-Coat ESD System
- DiamaPro® Diama-Metallic

FINISH AND COLOR

- Gloss Clear
- Opaque when Pigmented

COMPONENTS

- Part A: Resin – 1-10 gal. units
- Part B: Catalyst – ½-5 gal. units

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	60-95°, < 90%

Diama-Poxy

Item Number: DPDP – 100-01

SAFETY AND TESTING

- Safety
  - Personal protective equipment (PPE) and safety conditions must be considered before using any product.
  - Review all relevant and current documentation including Safety Data Sheets.
- Testing: Before installation:
  - Evaluate the site for any unknown 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.
  -

LIMITATIONS

- Coating will amber over time.
- If color stability is important, use UV-stable **DiamaPro® Diama-Poly, DiamaPro® Diama-Thane NGU or DiamaPro® Diama-Cryl.**
- Primer
  - May be required if the 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.
- All concrete repairs must be completed before installing any system.
- DO NOT apply single coat greater than 1/8" (25 SF/gal).
- DO NOT allow material puddling on floor.
- Complete onsite mockups to ensure desired results are achieved.
- Application temperatures
  - When temperatures increase, material cures faster.
  - When temperatures decrease, material cures slower.
- If application temperatures are outside of those recommended, contact your DiamaPro® Technical Representative.

Coverage rates

- For estimating purposes only.
- Waste, unusual/abnormal substrate conditions, and other unforeseen job-site conditions may affect actual product yields.
- Final coverage rates are the responsibility of the installer.

PART B COMPONENTS (Combined with Part A)

Product (B component)	MVR-Slow Cure	MVR-Fast Cure	Slow Cure	Standard	Fast Cure
Application Temperature	60-95°F	41-77F	60-110°F	60-95°F	41-85°F
	<90% RH	<90% RH	<90% RH	<90%RH	90% RH
Working Time	25-30 min.	15 min.	40-50 min.	25-35 min.	15-20 min.
Recoat Time	8.5-24 hrs.	3-16 hrs.	9-36 hrs.	7.5-36 hrs.	5.5-24 hrs.
Return to Service	24 hrs.	5-6 hrs.	24 hrs.	24 hrs.	10 hrs.
Full Cure	7 days	5 days	7 days	7 days	5 days

Diama-Poxy

Item Number: DPDP – 100-01

- To ensure desired results are achieved, products should be tested on site before installation.
- Keep a wet edge while applying product.

PROPERTIES WHEN FULLY CURED (Combined with all Part B components)

PROPERTIES	TEST METHOD	TYPICAL VALUES
Abrasion Resistance	ASTM D4060	40 mg loss
Abrasion Resistance with Anti-Slip	ASTM D4060	24-30 mg
Adhesion Strength	ASTM D4541	400 psi, concrete failure
Adhesion Strength	ASTM D4541	400 psi, vinyl failure
Adhesion Strength	ASTM D4541	500 psi, natural quartz failure
Adhesion Strength	ASTM D4541	450 psi, color quartz failure
Compressive Strength	ASTM D695	13,700 psi
Flame Spread/Critical Flux	ASTM E648	Class 1
Flame Spread/Rate of Burning	ASTM D635	Self-extinguishing
Flexural Strength	ASTM D790	9,000 psi
Hardness (Shore D)	ASTM D2240	85
Impact Resistance	ASTM D2794	120 in-lbs
Indoor Air Quality	CA 01350	Compliant
Microbial Resistance	ASTM G21	Passes, 0 growth
Modulus of Elasticity	ASTM D790	5.0 x 10^5 psi
Moisture Vapor Permeance	ASTM E96	0.08 perms
Tensile Elongation at Break	ASTM D638	5%
Tensile Strength	ASTM D638	7,800 psi
Thermal Coefficient of Linear Expansion	ASTM D696	18.0 x 10^(-)6 in/in/°F
Water Absorption	ASTM D570	<0.05%
Moisture Vapor Emission Rate	ASTM F1869	8-10 lbs
Relative Humidity	ASTM F2170	<80%

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	NR	Hydraulic Fluids	2
Ammonia, 30%	1	Hydrochloric Acid, 10%	3
Ammonium Hydroxide, 30%	1	Hydrochloric Acid, 30%	3
Antifreeze (Coolant)	1	Hydrofluoric Acid, 10%	1
Benzene	3	Hydrofluoric Acid, 30%	3
Benzyl Alcohol	3	Hydrogen Peroxide, 10%	NR
Betadine, 11%	NR	Hydrogen Peroxide, 50%	NR
Boric Acid, 4%	1	Iodine, 2%	3
Brake Fluid, DOT 3	1	Isopropyl Alcohol	3
Chromic Acid, 10%	3	Jet Fuel	1
Chromic Acid, 30%	3	Lactic Acid, 30%	NR
Citric Acid, 30%	1	Lime Juice	2
Ethanol, 95%	NR	Magnesium Hydroxide	1
Ethyl Acetate, 99%	NR	MEK (Methyl Ethyl Ketone)	NR

Diama-Poxy

Item Number: DPDP – 100-01

Methanol	NR	Sodium Hydroxide 50%	1
Methylene Chloride	NR	Sodium Hypochlorite 10%	2
MIBK (Methyl Isobutyl Ketone)	NR	Sodium Hypochlorite 30%	3
Mineral Oil	1	Sodium Persulfate	3
Motor Oil, SAE 30	1	Sulfuric Acid, 37%	NR
Mineral Spirits	NR	Tannic Acid, 20%	3
Mustard, Yellow	2	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%	3	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	2
Hydraulic Fluid Skydrol LD-4	2	Xylene	3
Sodium Chloride, 20%	1		

Colorants

- May reduce chemical resistance.
- May increase potential for stain.
- Coatings tested at ambient temperature over 1-3 days' exposure to chemical.

General Coverage Rates

APPLICATION	COVERAGE RATES
Primer Coat	250-300 SF/gal
Topcoat, 8-12 mils	140-200 SF/gal
Topcoat, 15-20 mils	80-100 SF/gal
Topcoat, 25-30 mils	50-60 SF/gal
Base Coat, 1/8"	50 SF/KIT
Base Coat, 3/16"	35 SF/KIT
Broadcast System Cap Coat Over 1/4" Color Chip	150 SF/gal
Broadcast System Cap Coat Over 30-Mesh Industrial Sand	90-100 SF/gal
Broadcast System Cap Coat Over F-grade or 40-S Color Quartz	90-100 SF/gal
Metallic Base Coat, 15-20 mils	80-100 SF/gal
Metallic Base Coat, 25-30 mils	50-60 SF/gal

MIXING

Standard Kit Mix Ratio	Part A - 1 gal. or 10 gal. Part B - 1/2 gal or 5 gal. (All Part B's)
Viscosity Reducer	1 -2 qtrs. / 3 mixed gals.
DiamaPro® Diama-Poxy Colorant	16 oz / 3 mixed gals.
Mixing Drill	Low-RPM, High-torque drill Jiffy double-bladed mixer
Mixing Directions	Mix A until color and consistency are uniform. Add B and continue to mix for 2 min.
Mixing Directions with Colorant	Mix A with colorant until color and consistency is uniform. Add B and continue to mix for 2 min.
Mixing Directions with Viscosity Reducer	Mix A with B for 1 minute. Add additive and continue to mix for 1 minute or until color and consistency is uniform.

Diama-Poxy

Item Number: DPDP – 100-01

GENERAL SURFACE PREPARATION REQUIREMENTS

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

CLEAN UP

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

MAINTENANCE AND CLEANING

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

Availability: DiamaPro® Diama-Poxy is only available through DiamaPro Systems® Authorized Distributors. For a list of Authorized Distributors 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.

SHOULD ANY DiamaPro Systems® NOT MEET INDUSTRY STANDARDS, DiamaPro Systems® WILL REPLACE THE PRODUCT, OR AT ITS OPTION, REFUND THE PURCHASE PRICE. THIS IS THE SOLE AND EXCLUSIVE REMEDY FOR ANY FAILURE OF DIAMAPRO SYSTEMS' PRODUCTS TO PERFORM AS WARRANTED AND SHALL ALSO CONSTITUTE LIQUIDATED DAMAGES IN CASE OF LOSS. UNDER NO CIRCUMSTANCES SHALL THE BUYER BE ENTITLED TO ANY OTHER

Diama-Poxy

Item Number: DPDP – 100-01

REMEDY OR DAMAGES. REMEDIES FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES ARE SPECIFICALLY EXCLUDED.

DiamaPro Systems® does not authorize any person to assume any other liability in connection with the sale or use of its products unless specifically authorized by DiamaPro Systems® in writing.

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

Disclaimer: Every effort has been made to ensure the accuracy of the above information and to avoid infringement of any patent or copyright. The information is based on field tests by government and private agencies, as well as lab tests, and on technical data from raw material manufacturers.

The person(s) specifying or requesting the use of these products is responsible for assuring their suitability for a specific use, as well as the proper application of the products.

FOR INDUSTRIAL AND COMMERCIAL USE ONLY