



Diamapro-Flow SL

Item Number: DPDFSL – 100-01

DESCRIPTION

Diamapro® Diamapro-Flow SL (Self-Leveling) is a 100%-solids, 3-component self-leveling urethane polymer concrete. It protects areas that are exposed to hot and cold industrial power washing, high abrasion, extreme temperatures, and aggressive chemical and thermal attacks. Diamapro® Diamapro-Flow SL outperforms and outlasts other heavy duty flooring systems such as epoxy, tile, VCT, and conventional concrete under extreme industrial conditions.

ADVANTAGES

- Moisture Vapor Resistance (up to 25 Pounds MVER and 99% RH)
- Antibacterial
- 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
- Low Maintenance
- Low Odor
- Self-priming Cementitious Urethane
- Thermal Shock Resistance
- Waterproofing

SUGGESTED USES AND APPLICATION AREAS

- Concrete Patching and Crack Repair
- Seamless Moisture Mitigation
- Slurry, Mortar, and Decorative Systems
- Industrial, Healthcare, Commercial, Government, Institutional, and Residential

SUGGESTED USES AND APPLICATION AREAS

- Concrete Patching and Crack Repair
- Seamless Moisture Mitigation
- Slurry, Mortar, and Decorative Systems as a Primer
- Decorative Systems
- Industrial, Healthcare, Commercial, Government, Institutional, and Residential

Diamapro® AVAILABLE SYSTEMS

- Diamapro® Diamapro-Flake System
- Diamapro® Diamapro-Quartz System
- Diamapro® Diamapro-ESD Coating System
- Diamapro® Diamapro-Metallic System

FINISH AND COLOR

- Matte
- Opaque
- With or Without Pigment

PRECAUTIONS AND LIMITATIONS

- Coating will amber over time.
- When color stability is important, use **Diamapro® Diamapro-Poly, Diamapro® Diamapro-Thane HPU or Diamapro® Diamapro-Thane NGU** as the Topcoat.
- As a Primer
 - May be required when the substrate is highly absorbent.
 - When outgassing is suspected or prevalent.



Diamapro-Flow SL

Item Number: DPDFSL – 100-01

- When the substrate is very porous.
- When the substrate is in poor condition.
- All concrete repairs must be completed before installing any system.
- Do not allow the material to puddle on floor.
- Complete samples and onsite mockups to ensure desired results are achieved.
- Application Conditions
 - When temperatures increase, material cures faster.
 - When temperatures decrease, the material cures slower.
 - Apply material when temperature is decreasing.
 - Adhere to the Diamapro® Dew Point Calculation Chart.
 - DO NOT apply under direct sunlight.
 - DO NOT install under inclement weather conditions.
 - If application temperatures are outside of those recommended, contact your Diamapro® Technical Representative.
- Application times are based on test results compiled by lab technicians in a controlled setting.
- 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.
- For best results, apply when application temperatures and relative humidity are low.

COMPONENTS

- Standard Kit
 - Part A: 16 lbs. (Liquid)
 - Part B: 16 lbs. Fast Cure, Standard Cure, Slow Cure (Liquid)
 - Part C: 25 lbs. (SL Powder)

SAFETY AND TESTING

- Safety
 - Personal protective equipment and safety conditions must be worn when installing the systems.
 - Review all relevant and current documentation including Safety Data Sheets.
- Testing: 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

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	40-80°F, <45% RH (Relative Humidity)



Diamapro-Flow SL

Item Number: DPDFS� – 100-01

Average Application Time

Diamapro® Diamapro-Flow SL Fast Cure

Ambient Temperature	40-80°F <45% RH	50°F 50% RH	70°F 50% RH	100°F 50% RH
Working Time	10 min	20 min	10 min	5 min
Recoat Window	3 hrs.	8 hrs.	3 hrs.	2 hrs.
Return to Service (Foot Traffic)	2-5 hrs.	10 hrs.	6 hrs.	4 hrs.
Full Cure (Vehicle Traffic)	3 days	3 days	3 days	3 days

Diamapro® Diamapro-Flow SL Standard Cure

Ambient Temperature	40-80°F <45% RH	50°F 50% RH	70°F 50% RH	100°F 50% RH
Working Time	10 min	20 min	10 min	5 min
Recoat Window	3 hrs.	8 hrs.	3 hrs.	2 hrs.
Return to Service (Foot Traffic)	2-5 hrs.	10 hrs.	6 hrs.	4 hrs.
Full Cure (Vehicle Traffic)	3 days	3 days	3 days	3 days

Diamapro® Diamapro-Flow SL Slow Cure

Ambient Temperature	60-90°F <80% RH	50°F 50% RH	70°F 50% RH	100°F 50% RH
Working Time	30 min.	40 min.	30 min.	20 min.
Recoat Window	12 hrs.	24 hrs.	12 hrs.	10 hrs.
Return to Service (Foot Traffic)	24-36 hrs.	36 hrs.	24 hrs.	24 hrs.
Full Cure (Vehicle Traffic)	7 days	7 days	7 days	7 days

SURFACE PREPARATION

- The substrate must be sound.
- All necessary repairs have been completed.
- The substrate must be clean, dry, and free of any bond inhibiting contaminants.
- When applying directly over concrete, the substrate must be mechanically profiled to ICRI CSP value.
- Different projects require a different CSP level. Contact your Diamapro® Technical Representative.
- Adhere to International Concrete Repair Institute current standards.

MIXING AND APPLICATION

Mix Ratio	Part A: 16 lbs. Part B: 16 lbs. Part C: 25 lbs.
Colorant	8 oz per single kit
Accelerant (at 70°F, decreases working time by 5 min, return to service by 1 hr.)	2-4 oz Poly Accelerant per single kit
Mixing Drill	High-speed, high-torque drill Jiffy-style double-bladed mixer
Mixing Directions	Mix Part A for 15 seconds. Slowly add Part C and mix for 2 minutes or until consistency is uniform. Add Part B and mix for 30 seconds or until color and consistency are uniform.
Mixing Directions with Colorant	Mix Part A and colorant for 15 seconds. Slowly add Part C and continue mixing for 2 minutes or until consistency is uniform. Add Part B and mix for 30 seconds or until color and consistency are uniform.



Diamapro-Flow SL

Item Number: DPDFSL – 100-01

Coverage Rates

Refer to the Diamapro® Diamapro-Flow SL System installation guide for project-specific coverage rates.

PROPERTIES WHEN FULLY CURED

PROPERTIES	TEST METHOD	TYPICAL VALUES
Abrasion Resistance	ASTM D4060	70 mg loss
Abrasion Resistance with Anti-Slip	ASTM D4060	40-60 mg loss
Adhesion Strength	ASTM D4541	>500 psi, concrete failure
Compressive Strength	ASTM C579	7,000 psi
Flame Spread/ Critical Flux	ASTM E648	Class 1
Flame Spread/ Rate of Burning	ASTM D635	Self-extinguishing
Flexural Modulus of Elasticity	ASTM C580	3.5 x 10 ⁶ psi
Flexural Strength	ASTM C580	2,700 psi
Hardness (Shore D)	ASTM D2240	80
Impact Resistance	ASTM D2794	>160 in-lbs
Indoor Air Quality	CA 01350	Compliant
Linear Shrinkage	ASTM C531	0.20%
Microbial Resistance	ASTM G21	Passes, 0 growth
Moisture Vapor Permeance	ASTM E96	0.15 perms
Tensile Strength	ASTM C307	2,000 psi
Thermal Coefficient of Linear Expansion	ASTM C531	2.0 x 10 ⁻⁵ in/in/°F
Thermal Shock Resistance	ASTM C484	50 cycles, no cracking
Water Absorption	ASTM C413	<0.10%

CHEMICAL AND STAIN RESISTANCE

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

2 = Low potential for stain: No adverse effects: Must be removed within 24 hours.

3 = High potential for staining: Must be removed within 24 hours of exposure.

NR = Not recommended

Acetic Acid 10%	1	Hydrogen Peroxide, 50%	3
Acetic Acid, 30%	2	Iodine, 2%	3
Acetone	1	Isopropyl Alcohol	1
Ammonia, 30%	1	Jet Fuel	1
Ammonium Hydroxide, 30%	1	Lactic Acid, 30% (Dairy Facility)	1
Antifreeze (Coolant)	1	Lime Juice	1
Benzene	3	Magnesium Hydroxide	1
Benzyl Alcohol	3	MEK (Methyl Ethyl Ketone)	NR
Betadine, 11%	2	Methanol	NR
Boric Acid, 4%	3	Methylene Chloride	3
Brake Fluid, DOT 3	1	MIBK (Methyl Isobutyl Ketone)	NR
Chromic Acid, 10%	1	Mineral Oil	1
Chromic Acid, 30%	1	Motor Oil, SAE 30	1
Citric Acid, 30%	1	Mineral Spirits	NR
Ethanol, 95%	3	Mustard, Yellow	3
Ethyl Acetate, 99%	NR	Nitric Acid, 30%	2
Formaldehyde, 37%	2	Oleic Acid	1
Premium Gasoline	1	Oxalic Acid, 10%	1
Hydraulic Fluids	1	Phosphoric Acid, 20%	1
Hydrochloric Acid, 10%	1	Potassium Hydroxide, 30%	1
Hydrochloric Acid, 30%	1	Propylene Glycol	1
Hydrofluoric Acid, 10%	1	Silver Nitrate, 20% (Photo Labs)	3
Hydrofluoric Acid, 30%	1	Sodium Chloride, 20%	1
Hydrogen Peroxide, 10%	1	Sodium Hydroxide	1



Diamapro-Flow SL

Item Number: DPDFSLSL – 100-01

Sodium Hypochlorite 10%	2	Urine, Dog or Cat	1
Sodium Hypochlorite 30%	2	Urea (Nitrogen-Rich Fertilizer)	1
Sodium Persulfate	2	Vinegar, Distilled	1
Sulfuric Acid, 37% (Battery Acid)	1	Water (Hard Water from Well)	1
Tannic Acid, 20%	2	Whisky	1
Tartaric Acid, 10%	1	Wine, Cabernet Sauvignon	1
Transmission Fluid	1	Xylene	3

Colorants

- May affect working times.
- May reduce chemical resistance.
- May increase potential for stain.
- Coatings tested at ambient temperature over 1-3 days' exposure to chemical.
- To ensure desired results are achieved, products should be tested on site before installation.

Availability: Diamapro® Diamapro-Flow SL 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: 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® product FAIL TO 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 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