



Protection at the Speed of Light

UV-HS PLUS

PROTECTION THAT LIVES ON
MICROBAN

UV-HS Plus with Microban®

Item No: UVHS – 100 – 34

1. Description

Diamapro® UV-HS Plus is a gloss or matte, one-component, ultraviolet-light cured protective coating offering outstanding durability to protect against abrasion and chemical attack. It incorporates a unique resin blend, providing excellent protection properties. Its fast cure allows projects to be completed in less time than when using a conventional chemical cured resinous material. **Microban® Antimicrobial Technology**, an EPA registered chemistry, is infused into **Diamapro® UV-HS Plus** to help prevent the growth of damaging bacteria, as well as inhibit stains and odors caused by bacteria.

2. Recommended Uses

Diamapro® UV-HS Plus is used as a thin mil concrete/terrazzo/vinyl tile floor coating to protect floors in a variety of locations such as: grocery stores, restaurants, warehouse floors, aviation hangars, food processing, industrial areas, automotive service bays, educational facilities to reduce bacteria growth, etc. It may also be used as a topcoat for new and existing, resinous flooring systems.

3. Technical Data

PHYSICAL PROPERTIES

Solids:	99%+	
Cured Film:	1-2 mils	
Cure Time:	Foot/Forklift Traffic	- Immediate
	Full Service	- < 6 hours
Mix Ratio:	Single Component	
Flash Point:	> 200°F	
ASTM D4060	0.05 gr loss	
	CS-17-wheel 1000 cycles	1000 gr
VOC Content:	0.0 g/l	
Slip Resistance		
	SCOF ANSI B101.1	0.78 wet
	DCOF ANSI B101.1	0.60 wet
Meets FDA 21 CFR 175.300 and USDA guidelines - Approved		

24-hour chemical resistance (In-house lab):

Chemical	No Staining	Slight to Mild Staining	Severe Reaction
Skydrol			
(14 day independent testing)	X		
Hydrochloric Acid (32%)	X		
Brake Cleaner	X		
Anti-Freeze	X		
Power Steering Fluid	X		
Thread Cutting Oil	X		
Bleach	X		
Pine-Sol	X		
Whiskey	X		
Soy Sauce	X		
Hydrogen Peroxide (24 hours)		X	
Hydrogen Peroxide (4 hours)	X		
Spaghetti Sauce	X		
Fresh Orange Juice	X		
Red Wine	X		
Raspberry Vinaigrette	X		
Lemon Juice	X		
White Vinegar	X		
Yellow Mustard (24 hours)		X	
Yellow Mustard (4 hours)	X		
A-1 Steak Sauce	X		
Frank's Red-Hot Sauce	X		
Queen City BBQ Sauce	X		
Mango Juice	X		
Jalapeno Juice	X		
Lizard Lick BBQ Sauce	X		
Coffee	X		
Brake Fluid	X		
W-D 40	X		
Red Wine Vinegar	X		
Tea	X		
Iodine	X		

Passed and Independently Certified

(Test report and certification available)

California Department of Public Health
CDPH/EHLB/Standard Method Version 1.2, 2017
(Emission Testing Method for CA Specification 01350)
Standards & Codes Recognizing CDPH Standard Method V1.2 (partial list)
USGBC LEED Version 4/4.1, BD&C, ID&C, Residential BD&C Multifamily
WELL Building Standard, WELL v2, Feature X06
ANSI/GBI 01-2019 Green Globes Assessment Protocol



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When using any **DiamaPro®** material, refer to the material's most current technical data bulletin and Safety Data Bulletin for complete safety and installation instructions.

Grouting: If there is large aggregate exposed during the initial grinding process, air voids within the cement paste will be uncovered. All voids need to be fill with **DiamaPro® Diama-Grout** if a pinhole free finished system is required.

Colorants: Using pigmented **DiamaPro® Diama-TLC** as a primer, it will produce a monochromatic colored surface in a variety for colors.

DiamaPro® Diama-TLC produces a more solid, semi-opaque appearance. Although the texture of the substrate will not be altered, the color will become more uniform. Patches and defects will blend minimizing the color differences. When using **DiamaPro® Diama-TLC**, two coats of **DiamaPro® UV-HS Plus** is required to produce a void free film for the highest level of protection.

DiamaPro® UV-HS Plus Matte: Can be used when **DiamaPro® Traction Additive** is being induced into the final coat. Using matte finish will minimize gloss level differences in the coated area. The matte version will produce a more even, lower gloss floor. Matte is a special-order material.

4. Limitations

DiamaPro® UV-HS Plus must only be used on substrates with the correct Moisture Vapor Emissions Rate (MVER). The following values are listed as maximum MVER levels:

- Relative Humidity: 80%
- Calcium Chloride: 5 lbs.
- TrameX: 4%

If higher moisture levels are determined, contact **DiamaPro® Systems** for additional information on **DiamaPro® Moisture Control**.

When using **DiamaPro® UV-HS Plus** in an environment that will be in contact with chemicals, a mock-up must be placed to determine the actual chemical resistance in the environment that it will be used. Most chemicals react faster or slower depending on temperature, contact time, concentration, and multiplicity. Once cured, the mock-up must be subjected to conditions replicating actual usage to determine suitability.

Exceeding the recommended wet film thickness or improper surface preparation could cause blistering or cure lines during the curing process. **DiamaPro® UV-HS Plus** has been designed to be placed at maximum thickness of 1.0 wet mil per coat and this must not be exceeded.

The grit level to prepare the surface must not exceed a 50-grit hybrid unless the system has been tested for bond on the mock-up.

5. Application Procedures and Instructions

Before using this product, read not only this technical data bulletin but also the Safety Data Sheet (SDS) and label in its entirety and follow all the safety precautions.

CAUTION: The wearing of a disposable suit and gloves are required during the application and curing of the DiamaPro® UV-HS Plus System. The suit and gloves must be discarded at the end of the day or as needed, and new suit and gloves must be worn the next workday. If the clothing under the suit encounters the wet material it must be removed immediately and washed before use. During long, constant contact with material to the skin, signs of



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redness or even blistering may appear and must be avoided. Some workers might show signs of an allergic reaction if they contact the wet material for prolonged periods of time. To remove the wet material from skin, use a citrus degreaser hand cleaner. In areas where ventilation is minimal, use an air scrubber or fans to move air in and out of the work area.

Mock-up Test Section: Before finalizing application techniques and product selection a job site mock-up must be installed to determine suitability for gloss level, SCOF (Static Coefficient of Friction), color enhancement, overall appearance and must be approved by the owner or owner's representative prior to the start of the installation.

American Society of Contract Contractors – Concrete Polishing Counsel (ASCC-CPC): Maximum Refinement - The point in time when the diamond tool has refined the surface to the degree to which it no longer cuts or cuts very little under its current weight and variables as defined by the ASCC-CPC.

Preparation: The surface must be clean, dry and free of any dirt or dust before application is performed. The method of preparing the surface is to grind only with a diamond tool (30, 70 grit metal – 50 grit copper) to maximum refinement showing no or minimal scratch pattern.

Always finish with a thorough auto-scrubbing with clean water removing all impacted grinding dust.

Note: The surface preparation process must start with a 30-70 grit metal bond diamond and finish no higher than a 50-grit Copper tool. No resin bond diamonds should be used.

Mixing: Diamapro® UV-HS Plus is shipped as a single component clear resin. DO NOT THIN. Agitate/mix for 1-2 minutes prior to use.

Coverage: Average coverage rate for this product is 850-1000 ft²/gallon total for a 2-coat application. This should be used as a guideline only as actual coverage rates will vary due to substrate porosity.

For increased chemical resistance, grout the floor with **Diamo-Grout** to fill pinholes and apply 3 coats of **Diamapro® UV-HS Plus**.

Application: Pre-condition the material to a minimum of 60°F prior to use.

OPTION #1

Squeegee/Roller: When thoroughly agitated, pour a “ribbon” of the material onto the prepared floor, and spread with an approved squeegee. Follow with a back-rolling technique using the roller approved for the system to level the material.

Curing: After allowing the material to level for 10-15 minutes, cure the material with the **Diamapro Systems** approved UV curing system. The correct wavelength and speed of the machine is critical in the development of the material's cured properties.

Solvent Wipe: After the first coat has been cured, completely remove all residual debris/dust from the surface with a solvent wipe using acetone. Allow surface to completely dry before continuing. Apply and cure second coat in the same manner as the first coat with an acetone wipe between coats.

OPTION #2

After the floor has been auto-scrubbed after the surface preparation step, using a 1/2”-3/4” nap roller, apply **Diamapro® Diama-TLC** at a rate of 600-700 sq.ft./gallon/coat coating the entire area. Allow each



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coat to dry for a minimum of one hour prior to continuing. This time might be altered by the humidity and temperature of the ambient conditions.

When pigmented **Diama-TLC** is used, apply enough coats to produce the desired color but do not exceed 3 coats.

After the final coat is applied, allow to dry for a minimum of 2 hours before applying the **DiamaPro® UV-HS Plus**. There is no maximum time limitation before continuing.

Squeegee/Roller: When thoroughly agitated, pour a “ribbon” of the **DiamaPro® UV-HS Plus** onto the floor and spread with an approved squeegee. Follow with a back-rolling technique using the roller approved for the system to level the material.

Curing: After allowing the material to absorb and flow for 10-15 minutes, cure the material with the **DiamaPro® Systems** approved UV curing system. The correct wavelength and speed of the machine is critical in the development of the material’s cured properties.

After the first coat has been cured, solvent wipe the cured floor with acetone removing all dust that has been tracked onto the floor during the curing process of the first coat. Once dry, apply the second coat of **DiamaPro® UV-HS Plus** in the same manner as the first coat. The coverage rate will be greater than the first coat.

Clean Up: **DiamaPro® UV-HS Plus** - Clean tools and equipment with xylene, methyl ethyl ketone or acetone before the material is cured. Once the material is cured with the approved UV light source it can only be mechanically removed.

Precautions: Avoid contact with eyes, skin, and clothing. Avoid inhalation of vapors. Wash thoroughly after handling this material. KEEP OUT OF REACH OF CHILDREN. Remove animals from the area until the material has been cured. Do not reuse the empty container and dispose of containers in accordance with all applicable regulations. Cured material is considered non-hazardous. Consult the materials current SDS.

Maintenance: Minimal maintenance is required other than normal auto-scrubbing, sweeping, dusting, or mopping keeping the finished floor free from abrasive particulates. For deep cleaning select a cleaning solution that will remove contaminants from the floor. Always test the cleaning solution for compatibility on a small section of the cured coating before continuing. A high speed burnisher may be used with a 3,000-grit diamond impregnated pad to provide additional cleaning.

6. Availability

All **DiamaPro® Systems** products are only available through **DiamaPro® Systems** Authorized Distributors and Applicators. Packaged in 1-gallon and 5-gallon units. Only **DiamaPro® Systems Certified-Applicators** can install the **DiamaPro® Systems** material. For a list of Authorized Distributors or Applicators please contact **DiamaPro® Systems**.

7. Conditions of Sale / Limited Warranty

DiamaPro® Systems warrants this product for one year from date of purchase to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product’s shelf life. User determines suitability of product for intended use and assumes all risks. User’s and/or buyer’s sole remedy shall be limited to the purchase prior



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replacement of this product exclusive of any labor costs at the discretion of **Diamapro® Systems**.

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8. Technical Services

The **Diamapro® Systems** office helps with specifications, performance data and field services.

9. 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.

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