

# Moisture Control Plus

Item No: MCP – 100 – 01

## 1. Description

**DiamaPro® Moisture Control** is a water-based penetrating sealer that provides a unique internal barrier that controls moisture vapor that has a negative effect on topically applied coatings, moisture sensitive flooring systems and polished concrete dyes. **Microban®** Antimicrobial Technology, an EPA registered chemistry, is infused into **DiamaPro® Moisture Control Plus** to help prevent the growth of damaging fungal and bacterial microbes, as well as inhibit stains and odors caused by bacteria.

It penetrates below the surface to become an integral part of the concrete, filling micro voids and bonding into a dense mass creating a long-term internal seal. The proprietary complex wetting agents dramatically reduce the liquid's surface tension which enables deep and efficient penetration even in dense concrete substrates.

## 2. Recommended Uses

- Manage moisture vapor transmission under most non-breathable coatings and flooring systems
- Minimize the effect of osmotic pressure; moving or flowing water must be stopped before application
- Replace a liquid densifier / hardener to densify and harden the surface of cementitious substrates when polishing concrete or cement-based overlays
- Stabilize dyes due to moisture vapor movement in dyed/polished concrete

- Reduce the growth of fungal and bacterial microbes at the near surface of the substrate
- Can be applied as early as 4 hours after fresh concrete placement. When applied early, it will reduce rapid evaporation of the mix water during the hydration process

## 3. Technical Data

### PHYSICAL PROPERTIES

- Appearance: Colorless
- Odor: Negligible
- Flash Point: None
- Alkalinity: pH 12.1

### *ASTM-96 Moisture Vapor Transmission:*

Significantly reduces moisture vapor transmission. CTL results show significant reductions when compared to non-treated control samples.

### Moisture Limits before application:

|                   |                         |
|-------------------|-------------------------|
| Relative Humidity | 95%                     |
| Calcium Chloride  | 12 lbs/1000 sqft/24 hrs |
| Tramex            | 7.0                     |

Coverage Rate 300-400 sq.ft./gal.

## 4. Limitations

**DiamaPro® Moisture Control Plus** is formulated for substrates containing calcium carbonate and lime. Does not provide protection for asphalt, metal, wood, or clay products.

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Must not contact aluminum, glass, or brass surfaces. All surfaces that the wet material will contact must be tested for compatibility.

If the **Diamapro<sup>®</sup> Moisture Control Plus** puddles and dries on the surface, a white deposit will develop over time. A light mechanical grind must be performed once the material is dry if the white deposits are an issue.

**Diamapro<sup>®</sup> Moisture Control Plus** is not recommended on substrates containing any type of polymer modifier.

Ambient and substrate temperatures must be 45F and rising during application and remain there for 72 hours after application. Material must not freeze during shipping or storage.

## 5. Application Procedures and Instructions

### *Surface Preparation:*

Hardened concrete; grind the surface with a metal or hybrid tool. Vacuum well removing all impacted dust within the surface pore structure.

*Material Application:* **Diamapro<sup>®</sup> Moisture Control Plus** must be used full strength to obtain the full performance properties. Do not dilute. Using a pump or airless sprayer saturate the surface thoroughly at a rate of 300-400 sq.ft./gallon. Do not allow the material to puddle and then dry. Move wet material out of the low areas with a broom, squeegee or mop. Allow to absorb for 15 minutes. All remaining material on the surface should be removed with a wet-dry vacuum or auto-scrubber.

If the **Diamapro<sup>®</sup> Moisture Control Plus** absorbs into the surface and becomes dry within 15 minutes, apply another coat until the pores of the substrate are filled and will except no additional material. Approximately 2-3 hours after the final application apply a fine mist of clean water over the treated area. This will minimize the amount of material left on the surface that will need to be removed later.

After 24 hours the **Diamapro<sup>®</sup> Moisture Control Plus** might push contaminates to the surface that are naturally in concrete. Remove these contaminates with the next diamond grinding step. These contaminates can be a bond breaker for some topical coatings and flooring materials.

### *Polished concrete with dyes:*

Before the last diamond cut before applying the dye, apply **Diamapro<sup>®</sup> Moisture Control Plus** as described above. Once the material has dried, continue with the next honing step. Apply your dye, continue honing/polishing, and apply protection guard as normal. No other liquid densifier/hardener is required.

### *Fresh Concrete:*

Do not burnish/burn the surface on the last pass with the power trowel. If a curing compound is being applied, it must be applied after the **Diamapro<sup>®</sup> Moisture Control Plus** has been applied. Slab must be porous enough at the surface, after troweling is completed, to absorb moisture. Once the concrete surface is hard enough to walk on without indentations, apply the sealer in 1,000-2,000 square foot sections. Allow material to absorb for 5-8 minutes. After

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5-8 minutes, apply a second light coat in the dry areas.

## 6. Availability

**DiamaPro<sup>®</sup> Moisture Control Plus** is only available through **DiamaPro<sup>®</sup> Systems** Authorized Distributors. Packaged in 1-gallon and 5-gallon units. Only **DiamaPro<sup>®</sup> System Certified Installers** are to install the **DiamaPro<sup>®</sup> Moisture Control Plus** material. For a list of Authorized Distributors please contact **DiamaPro<sup>®</sup> Systems**.

## 7. Conditions of Sale / Limited Warranty

**DiamaPro<sup>®</sup> 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 replacement of this product exclusive of any labor costs at the discretion of **DiamaPro<sup>®</sup> Systems**.

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## 8. Technical Services

The **DiamaPro<sup>®</sup> Systems** office offers aid with specifications, performance test data and field services.

## 9. Disclaimer

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