



# Diama-ESD System Static Control Clear Coating

Item No: DPESD – 100 – 5

## 1. Description

**DiamaPro® Diama-EDS System** is a film-forming urethane conductive floor treatment that meets the latest ANSI ESD static control standards. **DiamaPro® Diama-ESD System** seals properly prepared substrates with an effective static control formulation while eliminating surface dusting produced by a friable concrete substrate.

**DiamaPro® Diama-ESD System** produces a high gloss appearance that minimizes the potential of liquid staining but is yet breathable. Elevated moisture vapor transmission levels will not affect the static control properties of the system. The **DiamaPro® Diama-ESD System** can be burnished using a high-speed propane or electric burnisher with a **DiamaPro® Easy Finish Pad** to retain the system's initial gloss and appearance.

If a color is being required, **DiamaPro Diama-TLC Plus** with Microban should be used as the pigmented primer/colorant. **DiamaPro Diama-TLC Plus** is infused with Microban, an antimicrobial additive that dramatically reduces the growth of bacterial, mold and fungi.

## 2. Features / Recommended Uses

### Features

- **DiamaPro® Diama-ESD System** provides permanent static control when the surface film remains in tacked and maintained properly
- Provides static protection in residential, commercial and industrial applications

- Will provide a high gloss appearance once burnished.
- Breathable – allows water vapor to pass through the cured film while blocking water droplets from penetrating
- Minimizes the penetration of oil
- Will provide a natural polished concrete appearance
- Can be used on cement-based Terrazzo flooring
- Provides a “window” to remove stain causing liquids
- Will increase the slip coefficient of friction of the surface to meet or exceed industry standards
- Low VOC – Meets new green building standards
- One component – ready to use

### Recommended Uses

- Facilities where static control is required and/or desired
- Concrete filled Access Flooring Systems
- New and existing concrete/terrazzo substrates

## 3. Technical Data

### Physical Properties

- ESD S7.1 (PTP and RTG) C@ 100 VDC
- Static Dissipation - <0.02 Seconds
- Appearance: Transparent white – wet  
Clear – when cured
- Odor: Negligible
- VOC Compliant – 55 gr/l
- Gloss @ 60° - 85



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- Slip Resistance – 0.65 minimum
- Shelf Life – 2 years in original unopened container
- Dry time between coats – 2 hours
- Coverage Rate – 1500 sq.ft./coat:
- Water Resistance – Good
- Weight per gallon – 8.45 – 8.6 lbs.
- Each component of the system is a one component material

## 4. Limitations

All components of the **DiamaPro® Diama-ESD System** must be stored and transported in a non-freezing environment. **DiamaPro® Diama-ESD Systems** components are water-borne materials that must be applied and remain in temperatures 50°F-90°F for 24 hours after placement. Store material in a sealed container.

After **DiamaPro® DiamaESD** has been applied it will have a slight white haze appearance but will dry clear if applied at the correct coverage rate. Applying the **DiamaPro® DiamaESD** at a rate greater than recommended, the white haze could remain after it has cured.

**Always install a mock up to determine suitability.**

## 5. Application Procedures and Instructions

*Mock-up:* During the installation of the mock-up apply the **DiamaPro® Diama-ESD** on all substrates including repairs that will be on the actual project and have them approved for suitability. Conductivity must be determined at this time.

*Surface Preparation:* All joint filling and repairs should be completed before the application of the **DiamaPro® Diama-ESD** using **DiamaPro® Diama-Joint Fill** and **DiamaPro® Diama-Grout**.

Prepare the substrate with diamond tooling and a planetary grinder. If a coating must be removed prior to application, select one of the **DiamaPro® Star Diamond Tools** to remove it accordingly to the hardness of the concrete substrate and thickness of the coating. If you are unsure of how to approach this step, contact the **DiamaPro® Systems** technical manager (404.834.1162) or your **DiamaPro® System's** Sales Representative for advice.

After the concrete substrate is free from all coatings, cut the floor with a **DiamaPro® 60-80** double button metal bond tool in the bond hardness associated to the hardness of the substrate.

The final grinding step is to be performed with a **DiamaPro® 50** grit hybrid diamond tool. This will remove scratches induced caused by the metal bond tooling.

Vacuum and auto-scrub the floor removing all dust and contaminates.

*Grounding of the system:* **DiamaPro® Diama-ESD System** requires two ground connections for small floors (under 3,000 sq.ft.) and one additional ground connection for every 3,000 sq.ft. thereafter. By adding more ground connections than recommended, the conductivity or static control properties will not be increased.



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**Method #1** – Locate the AC power wall outlets in the area to be coated. (**NOTE:** turning off the current to the wall outlet you will be working on is highly recommended) Remove the center screw on the plastic face plate. Remove the plate exposing the electrical socket and run the aluminum foil tape into the box and down the wall onto the floor. Make sure the floor is very clean and free from dust and any other bond inhibiting materials. At the intersection of the floor and wall bring the foil tape out perpendicular to the wall 4 inches and adhere it to the floor. Cut a 12” piece of foil tape and create a “T” at the end of the foil on the floor. This piece should be running parallel to the wall. If there is a base molding, that can be cut or removed and reattached after the foil tape has been installed.

Abrade the foil tape with a course scotch bright pad and remove the dust. Coat over the top of the foil tape on the floor with a thin layer of the **DiamaPro® Diama-ESD Seal** sealing it to the floor.

Replace the plastic face cover plate with a metal cover. This will create the connection required to ground the system. It is critical that the metal face plate contacts the aluminum grounding foil strip.

**Method #2:** Steel column attachment. Grind all paint and rust from the base of the steel column 4” up from the floor and 2”-wide. Adhere the aluminum grounding foil to the steel column and onto the clean floor 4” out into the room. With a 6” long piece of grounding foil, make a “T” at the end of the foil on the floor.

Abrade the foil tape with a course scotch bright pad and remove the dust. Coat over the top of the foil tape on the floor with a thin layer of the **DiamaPro® Diama-ESD Seal** sealing it to the floor.

**Application:** The application of **DiamaPro® Diama-ESD Seal** is applied after the substrate has been approved to coat. The scratch pattern and aggregate exposure must be acceptable to the owner/GC before continuing.

Shake or power mix the **DiamaPro® Diama-ESD Seal** for 2 minutes. Using a low-pressure pump sprayer fitted with a conical tip apply a light coat of material to the prepared area. Immediately after application, microfiber the material onto the floor using a “figure 8” motion removing all streaks or puddles. Continue applying the material until the entire area has been coated. Wait two hours before continuing.

Apply two more coats in the same manner as the first coat allowing each coat to dry for two hours before continuing.

The final material application step is to apply one coat of **DiamaPro® Diama-ESD Finish** in the same manner as the **DiamaPro® Diama-ESD Seal**. Allow to cure for 24 hours before continuing.

Burnish with a high-speed propane or electric burnisher fitted with a **DiamaPro® Easy Finish Pad**. The floor is ready for use.

**Maintenance:** Follow the maintenance procedures outlined in the **DiamaPro® Diama-**



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**ESD System Maintenance Requirement** document.

## 6. Availability

**DiamaPro® Diama-ESD System** is only available through **DiamaPro® Systems** Authorized Distributors. Packaged in 1 or 5-gallon units. For a list of Authorized Distributors 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 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 offers assistance with specifications, performance test data and field services.

## 9. Disclaimer

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