

# DecoSpec LumiSwirl

## Decorative Metallic Pigment Flooring System



7875 Bliss Parkway North Ridgeville, OH 44039  
440-327-0015 440-353-0549 - FAX

**DESCRIPTION:**

DecoSpec LumiSwirl is a decorative flooring system which combines reflective pearlescent pigments with a clear epoxy coating rendering a completely unique, decorative, random, mono or multi-chromatic reflective flooring system.

Often compared to the look of variegated stained concrete, this system provides a thick, smooth, protective, durable flooring system which provides a deep and brilliant luminescent appearance.

DecoSpec LumiSwirl, with its virtually limitless color combinations and saturation, can be custom designed to subtly compliment an areas existing color scheme or become the focal point in highly visible areas such as automobile dealerships, office vestibules, entranceways, restaurants, retail stores, or residential recreation rooms, garages or basements. UV protection along with increased abrasion, gloss retention, and chemical resistance is achieved by the application of an aliphatic polyurethane top coat. This combination produces an easy-to-maintain, truly unique unto itself seamless decorative floor.

**ADVANTAGES:**

- Low maintenance, seamless floor
- Fast installation
- Durable and tough
- Multiple color blend options
- Low odor
- Unique

**TYPICAL PROPERTIES:**

Compressive Strength	ASTM C-579	10,500 psi
Tensile Strength	ASTM D-638-91	7,500 psi
Impact Resistance	Gardner Impact Test	>160 in/lb
Abrasion Resistance	ASTM D-4060	18-70 mg loss (depending on finish coating)
Flammability	ASTM D-635	Self-Extinguishing
Water Absorption	ASTM C-413-88	<0.2%
Flexural Strength	ASTM C-580-90	3800 psi
Hardness (Shore D)	ASTM D-2240-91	88
COF-James Test	ASTM D-2047	(dependant on finish coating)

\*Properties and results are based on laboratory testing at 72°F (22°C) %50 RH, theoretical calculations and estimates. Typical properties, as stated, are to be considered as representative of current production and should not be treated as specifications.

**INSPECTION AND APPLICATION:**

**Caution! Follow all precautions and instructions prior to installation.**

**SUBSTRATE:** The substrate must be free of curing membranes, silicate surface hardener, paint, or sealer and be structurally sound. If you suspect concrete has been treated or sealed, proceed with complete removal process. Consult your PIP representative for further instruction if silicate hardeners or membranes have been utilized.

**MOISTURE:** Moisture and moisture vapor transmission rates are dynamic in nature and may change over time. Initial testing does not guarantee future results. If the relative humidity of the concrete substrate is over 75% (using ASTM F2170), Protective Industrial Polymers must be consulted and issue a written moisture mitigation recommendation prior to product use.

**VAPOR/CONTAMINATION:** Testing for MVT does not guarantee against future problems. If there is no known vapor barrier or the vapor barrier is inadequate, there is an elevated risk of bond failure. Other factors including the migration of oils, chemicals, excessive salts or Alkali Silica Reaction (ASR) from the concrete from may also elevate the risk of adhesion difficulties. Consult your PIP representative for approved mitigation treatments.

**TEMPERATURE AND HUMIDITY:** During the application and cure of the coating, the substrate temperature, material temperature and room conditions must be maintained between 65°F (18°C) and 90°F (32°C). Relative Humidity (RH) should be limited to 30-80%. DO NOT apply coatings unless the surface temperature is more than five degree over the dew point.

**APPLICATION EQUIPMENT:**

- Protective equipment and clothing as called for in the SDS (Safety Data Sheet)
- Jiffy® Mixer Blade model ES
- Clean container for mixing material
- Low speed high torque drill motor
- High quality shed and solvent resistant roller covers
- Application Squeegee

**PREPARATION:**

Surface dirt, grease, oil and contaminates must be removed by detergent scrubbing and rinsing with clean (clear) water.

*Mechanical Preparation:* Shot Blasting or diamond grinding the surface is the preferred method of preparation. The results of industrial diamond grinding will vary depending on technique and the hardness of the concrete.

**JOINTS:** All non moving joints (control joints) can be filled with a rigid or semi-rigid joint compound. Construction joints may be filled with semi-rigid joint filler and might need to be re-built and re-cut depending on conditions. Isolation or expansion joints must be filled with a flexible material designed for expansion and should not be coated over.

**MIXING AND APPLICATION**

*Refer to individual Technical Data sheet for detailed mixing instructions for each product mentioned below.*

**PRIME/PIGMENTED BASECOAT:** Apply Protective Industrial Polymers 1000 HB, 1000FS or 1200WR pigmented primer at a rate to sufficiently wet and uniformly color saturate the concrete or approved substrate. Typical rates of application are 8-15 mils. Let

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coating sufficiently cure to a point to where it can support foot traffic of the next coating process. Adhere to specific recoat windows specified on individual Product Data Sheets for the primer used.

### LumiSwirl Mixing and Coating Application:

**IMPORTANT NOTE: Varying application finishing techniques, color concentrations and number of colors blended are virtually limitless. Outlined below are the basic guidelines and fundamentals of achieving the LumiSwirl flooring system.**

#### MIXING

Protect 1000HC, Protect 1000HB, or Protect 1000FS (fast set) may be used as the coating to receive the LumiSwirl pigment. Protect 1000 HC is the premium system which provides the lowest yellowing and highest clarity. Protect 1000HB is the standard general purpose epoxy and Protect 1000FS is the fastest curing. Protect 1000FS has the least amount of UV resistance.

1. Mix two (2) gallons of PART A and 1 gallon of PART B of one of the above Protect 1000 products. Mix for one (1) minute.
2. Add 16-32 dry fl. oz. of chosen DecoSpec LumiSwirl Pigment. (*One or more colors of LumiSwirl pigment may be used or blended together depending on the desired color.*)
3. Mix for an additional one (1) minute once the color is added.

#### APPLICATION

1. Apply LumiSwirl coating with an application squeegee at a 20-30 mil thickness. (At 20 mils, the basecoat color will reflect more as a contributing color than it will at 30 mils).
2. Even and level coating with a paint roller. After the coating has leveled, let sit for a minimum of 15 minutes and a maximum of 30 minutes at 70-75F. (See additional option-Accent Color.)
3. Then randomly rework the coating with a paint roller or other application tool in a consistent manner which disrupts the homogenous look of the leveled coating. (Circular motions approximately 10-20inches with a 9 inch paint roller is commonly used). The entire surface of the coating must be re-worked in this same manner to get the correct random/mottled look.

#### (Additional Option- Accent Color)

1. After the LumiSwirl Coating has been leveled and has set for 15-30 minutes, an accent color can be added for an additional color effect. This is done by mixing a separate batch of Protect 1000 containing a different single (accent) color of LumiSwirl pigment. This mix is then poured in puddles or lines randomly throughout the first leveled LumiSwirl basecoat). This is spread and worked into the process as in step #4 above.

**Other Options-**Additional effects can be added (after step #4 above) by:

- 1) Spritzing or spraying Denatured Alcohol throughout the finish produces a dotted star appearance of colors and slight hammer-tone dimpled finish.
- 2) Blowing the surface with an air hose or leaf blower creates a large wavy appearance in the pigmentation.
- 3) Splashing a separate accent color with a paintbrush throughout the finished floor.

**PROTECTIVE URETHANE TOPCOAT:** Apply **Protect 2100UV** at corresponding coverage rate applicable for gloss and texture desired. Refer to individual technical bulletin for coverage rates and application method.

**CURING (DRYING):** Allow the system to cure (dry) for a minimum 24 hours after final application at 75°F (24°C) and 50% RH before opening the floor to light traffic, allow more time for low temperatures and higher humidity or for heavier traffic. Full coating properties may take up to 7 days to develop.

**TECHNICAL SUPPORT:** For application questions, please contact your salesman or PIP technical service at 440-327-0015.

**DISPOSAL:** Dispose in accordance with federal, state, and local regulations.

**READ SDS (SAFETY DATA SHEET) FOR SAFETY AND PRECAUTIONS. USE PRODUCT AS DIRECTED FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN.**

#### MAINTENANCE GUIDELINES:

**Allow floor coating to cure at least one week before cleaning by mechanical means (IE: sweeper, scrubber, disc buffer).**

**CARE:** Increased life of the floor will be seen with proper maintenance and will help maintain a fresh appearance of your new Protective Industrial Polymers floor. Regularly sweep to avoid ground in dirt and grit which can quickly dull the finish, decreasing the life of the coating. Spills should be removed quickly as certain chemicals may stain and can permanently damage the finish. Only soft nylon brushes or white pads should be used on your new floor coating. Premature loss of gloss can be caused by hard abrasive bristle Polypropylene (Tynex®) brushes.

**CAUTION:** Heavy objects dragged across the surface will scratch all floor coatings. Avoid gouging or scratching the surface. Pointed items or heavy items dropped on the floor may cause chipping or concrete pop out damage. Plasticizer migration from rubber tires can permanently stain the floor coating. If a rubber tire is planned to set on the floor for a long period of time, place a piece of acrylic sheet between the tire and the floor to prevent tire staining. Rubber burns from quick stops and starts from lift trucks can heat the coating to its softening point causing permanent damage and marking.

**REPAIR:** Repair gouges, chip outs, and scratches as soon as possible to prevent moisture and chemical under cutting and permanent damage to the floor coating.

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### WARRANTY AND CONDITIONS OF USAGE

**WARRANTY AND LIMITATION OF LIABILITY:** Protective Industrial Polymers Inc. ("PIP") warrants that its products shall conform to the manufacturer's written specifications and shall be free from defects for one (1) year from the date of purchase. PIP MAKES NO WARRANTIES, IMPLIED OR OTHERWISE, AS TO THE MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSES OF ITS PRODUCTS AND EXCLUDES AND DISCLAIMS THE SAME, INCLUDING, WITHOUT LIMITATION, FAILURE OF THE PRODUCT DUE TO ACTS OF GOD, FLOODING, EXTREME OR ABNORMAL TEMPERATURES, HUMIDITY AND MOISTURE, STRUCTURAL CONDITIONS, SITE PREPARATION AND CONDITIONS, ACCIDENTS, DAMAGE CAUSED BY INSTALLATION OF MACHINERY, EQUIPMENT OR FIXTURES WITHOUT ADEQUATE FLOOR PROTECTION OR WITHOUT ADEQUATE TIME FOR CURING, FAILURE TO COMPLY WITH CONDITIONS OF USAGE (SPECIFIED BELOW), VANDALISM, NEGLIGENT OR INTENTIONAL ACTS OF THIRD PARTIES OR OTHER CASUALTIES. If any PIP product fails to conform to this warranty, PIP shall either replace the product at no cost to Buyer or refund the cost of the product, in PIP's sole discretion. Replacement of any product or a refund of the cost of any product shall be the sole and exclusive remedy available to buyer, and buyer shall have no claim for incidental, special or consequential damages, including, without limitation, business interruption damages. Any warranty claim must be made within one (1) year from the date of delivery of products. PIP does not authorize anyone on its behalf to make any written or oral statements which in any way alter PIP's warranty or installation and storage information or instructions in its product literature or on its packaging labels. Any installation of PIP products which fails to conform to such installation information or instructions or the "Conditions of Usage" (specified below) shall void this warranty. Product demonstrations, if any, are done for illustrative purposes only and do not constitute a warranty or warranty alteration of any kind. Buyer shall be solely responsible for determining the suitability of PIP's products for the Buyer's intended purposes.

**CONDITIONS OF USAGE:** Installation of all products purchased must be by professional installers periodically published by PIP or otherwise approved by PIP in writing. Modification to any of PIP's products voids the warranty. The installer shall maintain a written contemporaneous record of field conditions (including, without limitation, surface and atmospheric conditions, usage rates, and lot numbers of products installed). PIP reserves the right of inspection of any installed product, installation and maintenance records and records of field conditions and may conduct additional testing as is reasonably required to investigate any warranty claims. Warranty shall only apply for products or materials that have been paid for in full. Moisture Vapor Transmission (MVT) and ASR (Alkali Silica Reaction) Disclaimer and Exclusion: Although rare, some floors at or below grade level are sometimes subjected to saturation by moisture from beneath the concrete floor slab. This moisture can travel through the concrete and collect between floor toppings creating the potential for delaminating from hydrostatic pressure and or ASR. Conditions contributing to this include heavy rainfall, broken pipes, excess hydration within fresh concrete, and other factors or defective and old concrete. These factors are difficult, if not impossible to predict. PIP recommends testing for MVT and/or the presence of ASR in the concrete substrate prior to applying any polymer floor topping. The recommended test method for MVT is ASTM F 2170-11. ASR can be predicted by a higher than normal pH within the concrete. If high pH should be detected, it is recommended a lab test for ASR. If and when delamination of the floor occurs because of a moisture condition that exists beneath or in the concrete slab beyond the capacity of the individual product installed or failure of the concrete due to ASR, this Limited Warranty does not extend to such delaminating or topping failure. This writing constitutes the sole and only agreement of warranty relating to PIP products.