



Manufacturer's Specifications

1. General

- 1.1. **Manufacturer:** Flecks Systems, Inc., 885 Bangert Blvd., Toms River, NJ 08757. Toll Free: 1-833-435-3257 • Phone: +1-732-569-6161 • Fax: +1-732-608-7657 • Website: www.fleckssystems.com • Email: info@fleckssystems.com
- 1.2. **Scope:** These are the manufacturer's specifications for the Water Flecks®, porous surfacing system.
- 1.3. **Description:** Water Flecks® is a porous thermoplastic rubber surfacing system designed to be used in water play applications. It will bond to most surfaces and will resist surface movements. It has been designed to be light-stable and will stand up to weather and chlorine.
- 1.4. **Work:** Provide all necessary materials, labor, tools, and equipment to perform the work included in the section for the installation of the poured-in-place surface.
- 1.5. **Trained Installer:** The installation of the new surface shall be completed by Flecks® Trained Contractors who have been trained to install the Water Flecks® System. Manufacturer's detailed installation procedures shall be submitted to the Architect and made part of the Bid Specifications.
- 1.6. **Weather:** Temperature must remain above 50°F (10°C) throughout the installation and curing process. Weather and surface must be dry and there should be no rain in the immediate forecast.
- 1.7. **Security:** Site must be made secure against vandalism during installation and curing period.
- 1.8. **Delivery:** Deliver materials to site in manufacturer's original, unopened containers/packaging, with labels that clearly identify the product name and manufacturer.
- 1.9. **Storage & Handling:** Store materials in accordance with manufacturer's instructions.
 - 1.9.1. Store Flecks® TPR in a dry, secure area.
 - 1.9.2. Store Flecks® Liquids in a dry area at a minimum temperature of 50°F (10°C) for short term storage. Long term storage, liquids should be kept at room temperature, 72°F (22°C). Protect Flecks® Liquids from extreme temperatures.
 - 1.9.3. Where proper Personal Protection Equipment when handling. Protect materials during handling and installation to prevent damage.

2. Submittals

- 2.1. Manufacturer's Product Literature and Specification Data.
- 2.2. ASTM E303 Slip Resistance Test
- 2.3. Submit manufacturer's written instructions for recommended maintenance practices.



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- 2.4. Color samples for customer verification.
- 2.5. Test results from a Weatherometer exposure test from an independent company shall be submitted by the installer to the requiring agency prior to installation of the surface. The surfacing system (granules and binder) shall be tested for a minimum of 3,000 hours and show no less than 15% tensile strength (PSI) degradation.
- 2.6. Written manufacturer's warranty.
- 2.7. Product liability insurance certificate with project owner as certificate holder.
- 2.8. (M)SDS and Product Data Sheets for items in Section 3 "Products."

3. Products

- 3.1. **Flecks® System:** Water Flecks® Surfacing System
- 3.2. **Materials:** Water Flecks® is a Granulated Light Stable Thermoplastic Rubber mixed with an aliphatic, 100% solid, two-component, chlorine resistant urethane binder and applied on top of Flecks® Single Component Polyurethane Primer.
- 3.3. **Equal Materials:** The Flecks® granules are a thermoplastic rubber extruded and ground to specific sizes. The system is 100% color. The Water Flecks® Binder is a two- part aliphatic chlorine resistant polyurethane. Any equal product granule or granular must be a light stable, thermoplastic rubber based, not a vulcanized rubber based such as EPDM or "EPR" (marketed as TPV), must include a 100% solids, two part, aliphatic polyurethane binder proven to be chlorine resistant, not a moisture cured urethane and must be 100% color. Recycled black material is not acceptable. Additionally, any equal product must be non-porous where applicable, approved by the local board of health.
- 3.4. **Finish Texture:** Granulated grain.
- 3.5. **Color:** Selected from Manufacturer's Color Chart by owner prior to bid.

4. Surface Preparation

- 4.1. All substrates must be checked to verify there is proper pitch and drainage to avoid standing water prior to installing Flecks® Systems over a hard substrate. Substrates with standing water may create an environment that will promote bacteria growth.
- 4.2. **New or Existing Concrete:** New concrete must be at least 28 days old with a broom finish

pH Testing: Conduct pH testing of concrete substrate to determine the acidity level of the concrete. Concrete pH level shall be between 8 – 9 pH for proper bonding.



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Acid etching:

- Clean the concrete surface. Remove any dirt, oil, or other contaminants.
- Dampen the surface to be etched with clean water. The concrete should be uniformly wet. Avoid puddles or dry spots. These will affect the etching process. The concrete must remain damp during the etching process. To prevent dry spots, divide a large surface into smaller areas and etch them one at a time.
- Put on protective gear. Muriatic acid can cause severe damage to your eyes, skin, nose, throat and lungs. Do not open the container before putting on your protective safety gear. Care should be taken to prevent splashing on workers. Protective clothes such as, safety glasses, rubber gloves, boots, etc. should be used.
- **Add acid slowly to water** in clean polyethylene buckets at a ratio of five (10) parts water to one (1) part acid. Do not put acid in the bucket and add water. The reverse order is dangerous and can cause the acid to bubble violently. The acid solution should be used on the floor at a rate of 200 square feet per 5 gallons of acid solution. Make sure to first dampen the concrete before applying the solution. Using a stiff broom, scrub acid solution into the surface where the solution was poured and continue the process to other areas. Never let the floor dry with acid on it. After 5 minutes, rinse the floor with adequate amounts of clean water to remove all the acid solutions, and then allow the floor to dry.

Power-wash: Old concrete that is contaminated with grease or oil can be cleaned with a power-washer. Use a degreasing agent before power-washing.

Concrete Grinding: For concrete where a power-washer cannot be used, a diamond grinder can be used to lightly grind the surface to remove contamination.

- 4.3. **Drains, ground pop jets, doorways/entryways:** Cut a ½-inch x ½-inch keyway groove into the concrete surrounding the object. Groove shall be swept clean and be free of all residual residue.
- 4.4. **Metal Preparation:** All metal surfaces must be rigid and structurally sound. Contamination such as grease, oil, dirt, etc. must be removed prior to coating. Rust or scale should be removed through mechanical means such as sanding or sand- blasting. The surface should be abraded until bright metal is showing. If the surface is to be left for an extended period of time, it should be treated with a 10% phosphoric acid solution to prevent new rust formation.
- 4.5. **Wood Preparation:** Water Flecks® should not be applied over plank or strip flooring. Sheets of one-half-inch or thicker plywood may be used to cover this type of floor. Exterior grade "C" plugged, with extended glue line should be used. The plywood sheets should be staggered for strength. Allow 24 hours for wood to dry thoroughly. Wood must be primed twice before applying EnviroFluff™ or Flecks® Systems Granules.



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- 4.6. **Stone or Tile Preparation:** Any unstable or loose tile must be removed. Contamination should be removed with a power-washer or mechanically abraded. Any glazing on tile must be abraded off with a grinder or shot blaster.
- 4.7. **Fiberglass Preparation:** Power-wash any contaminants off the surface. Allow 24 hours for the surface to dry. Glaze coating must be abraded/sanded. Solvent wipe the fiberglass surface before coating with primer.
- 4.8. **Asphalt Preparation:** New asphalt must be 15 days old. Broom scrub using a degreaser to remove any surface oils. Power wash any contaminants off the surface. Allow 24 hours for the surface to dry. WATER FLECKS® CAN NOT BE INSTALLED OVER ASPHALT CURED FOR LESS THAN 15 DAYS.

5. Water Flecks® Colored Wear Course Installation

5.1. **Priming:** Roll or brush Flecks® single component polyurethane primer onto the surface being sure to cover the entire area. (The spread rate over top of a hard substrate is 150 - 200 square feet per gallon). If it is warmer, the primer will cure faster and should be kept out of direct sunlight. Only prime 200 square feet at a time, or an area that will not dry by the time Flecks® TPR wear course is installed.

5.2. Water Flecks® Mixing and Finishing:

5.2.1. Flecks® TPR Dry Blend:

5.2.1.1. Flecks® TPR Granules 1-2mm: 100%

5.2.1.2. Flecks® TPR Multi Particle Size Blend: (1) Part 1-3mm : (1) Part TPR Fines or 1-2mm.

5.2.1.2.1. Minimum TPR Dry Blend Mix Ratio: (2) Parts 1-3mm : (1) Part 1-2mm

5.2.2. Flecks® TPR : Flecks® Binder Mixing Ratios:

5.2.2.1. One (1) Bag/45 lbs. of Flecks® TPR: Pre-Mix 2.5 quarts of Flecks® Binder A with 2.5 quarts of Flecks® Binder B

5.2.2.2. Two (2) Bag/90 lbs. of Flecks® TPR: Pre-Mix 5 quarts of Flecks® Binder A with 5 quarts of Flecks® Binder B.

5.2.3. Pre-mix Flecks® Binder (1 Part A to 1 Part B *by volume*) in an appropriate plastic container with a paddle mixer.

5.2.4. Add the premixed Flecks® Binder to Flecks® TPR dry blend in a Flecks® Approved Paddle Mixer. Mix thoroughly so that each granule is covered evenly (approximately 3 minutes).

5.2.5. Dump the mix onto the primed area and spread it at an average thickness of 0.50 (1/2") inch and troweling it to an average finish of 3/8" thickness keeping the surface as level as possible.



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5.2.6. A light mist of Flecks® "Trowel E-Z" is used to lubricate trowel when applying Flecks® thermoplastic rubber colored wear course and EnviroFluff® thermoplastic foam. Trowel E-Z will allow for easier manipulation when hand troweling and when a roller is used to remove any imperfections.. ***Be sure not to use an excess amount of "Trowel E-Z" to lubricate trowels. A light mist on the trowel is all that is needed.***

5.2.7. Let the surface set for 72 hours before use.

5.3. **CAD Drawings:** Visit Flecks® Systems CADdetails Link:

<https://www.caddetails.com/Main/Company/ViewCompanyContent?companyID=5195> for detailed CAD drawings or contact Flecks Systems, Inc. directly for a copy of our CAD drawings for your specific application.

6. Cleaning and Demonstration

6.1. The contractor should clean the jobsite of excess materials, and if necessary, backfill any excavation around the perimeter with earth or other appropriate material.

6.2. The contractor shall instruct the owner's personnel on proper maintenance and repair of the Water Flecks® Surface

7. Special Considerations

7.1. Large Areas/Patterns & Designs

All areas in excess of 1500 square feet or areas that require adjacent color pours due to designs shall have this work done in strict accordance with the manufacturer's installation requirements with adjacent poured cap layer surfaces being flush throughout. Large areas or adjacent color patterns can require the poured layer cap to be installed on different days. Using Flecks® Systems polyvoid 3/8" forms layout your' designs, patterns, or borders. Use spray glue to hold the forms down. The installer shall employ proper techniques to ensure that no gaps or separation will occur during the warranty period.

7.2. **Coated Concrete:** For a coated concrete surface, diamond grind or power-scarify as required to obtain optimum bond of the Water Flecks® material to the concrete. Remove sufficient coated material to provide a sound surface, free of glaze, efflorescence, or from release agents. Remove grease, oil, and other penetrating contaminants. Remove and/or replace any loose or unstable concrete. Concrete will have a pitch of 0.25 inches per foot and should not have low areas that will hold water under the system.

7.3. **Existing Caulk-filled Edges:** Prepare edges of existing pad to meet surrounding concrete. Remove any and all silicone or caulking where the pad and the surrounding concrete meet.

7.4. **Existing Ground Features & Termination Edges:** Prepare the ground features submerged into the existing pad by cutting a 45-degree angled, 1/2-inch deep keyway. Remove all concrete



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adhered to the existing sides of the ground feature. Solvent-wipe the ground features to remove any contaminants.

- 7.5. **Existing Drains:** Prepare the drains submerged into the existing pad by cutting a 45-degree angled, 1/4 -inch deep keyway. Remove all concrete adhered to the existing sides of the drains. Solvent-wipe the drains to remove any contaminants.
- 7.6. **EnviroFluff® Cushioned Layer:** When applying EnviroFluff® cushioned layer in a water play environment, Flecks® two-part aliphatic binder must be used. EnviroFluff® cushioned layer is to be applied over a primed substrate.
 - 7.6.1. **EnviroFluff® : Flecks® Binder Mixing Ratios:**
 - 7.6.1.1. One (1) Bag/22 lbs. of EnviroFluff® : Pre-Mix 2.0 quarts of Flecks® Binder A with 2.0 quarts of Flecks® Binder B.
 - 7.6.2. Apply mixed EnviroFluff® at a spread rate of 1 lb., per square foot, per inch.
 - 7.6.3. Apply Flecks® Primer at a spread rate of 100 square feet per gallon over top of EnviroFluff® cushioned layer prior to installed Water Flecks® colored wear course.