



Manufacturer's Specifications

1. General

- 1.1. **Manufacturer:** Flecks Systems, Inc., Mailing Address: 870 Route 530, Suite 5, Whiting, NJ 08759. Physical Address: 885 Bangert Blvd., Toms River, NJ 08757. Toll Free: 1-833-435-3257 • Phone: +1-732-569-6161 • Fax: +1-732-408-6180 • 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, weatherable and resistant to chlorinated water.
- 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. Wear 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



Manufacturer's Specifications

- 2.3. Submit manufacturer's written instructions for recommended maintenance practices.
- 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 installed over a primed hard substrate using Flecks® Single Component Polyurethane Primer.
- 3.3. **Optional Non-Porous Materials:** Flecks® Grout, Flecks® Sealcoat, two-component aliphatic urethanes used to create an impervious, non-porous finish.
- 3.4. **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.
- 3.5. **Finish Texture:** Granulated grain.
- 3.6. **Optional Finish:** Impervious, Non-Porous Finish
- 3.7. **Color:** Selected from Manufacturer's Color Chart by owner prior to bid.



Manufacturer's Specifications

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

4.2.1. **pH Testing:** Conduct pH testing of concrete substrates to determine the acidity level of the concrete. The concrete pH level shall be between 6 – 9 pH for proper bonding.

4.2.2. **Acid etching:**

- 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.
- 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.

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 400-500 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.

4.3. **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.

4.4. **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.



Manufacturer's Specifications

- 4.5. **Coated Concrete and Cementitious Overlays:** Check for any hollow spots not properly bonded. Sand, diamond grind or power-scarify as required to obtain optimum bond of the Deck 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.
- 4.6. **Termination Points (drains, water jets, skimmers, doorways/entryways):** Cut a ½-inch x ½-inch keyway groove into the concrete surrounding the object. Groove shall be swept clean and free of all residual residue. *See also "Special Considerations" sections 7.3 – 7.5.
- 4.7. **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 shown. 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. *Do not use Muriatic Acid on metal.
- 4.8. **Wood Preparation:** Deck 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.
- 4.9. **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.
- 4.10. **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.
- 4.11. **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. DECK FLECKS® CAN NOT BE INSTALLED OVER ASPHALT CURED FOR LESS THAN 15 DAYS.
- 4.12. **Paver or Brick Preparation:** Existing pavers must be clean, free of dirt, debris, and contaminants. Joints must be filled with a joint filler made for pavers or Flecks® Vertical Gel and Crack Filler, a 100% solids, two-component, flexible epoxy gel, to seal the joints and create a stable substrate. Sealing the joints will assist in the reduction of water getting under the substrate.



Manufacturer's Specifications

5. Water Flecks® Colored Wear Course Installation

5.1. **Design Forms:** Using Flecks® Polyvoid Foam Forms, layout designs using the foam forms to create a sharp, clean edge. Adhere foam forms temporarily using spray glue. (See Section 7.1 for more information)

5.2. **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 - 250 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.

5.3. Water Flecks® Mixing and Finishing:

5.3.1. Flecks® TPR Dry Blend:

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

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

5.3.2.1. **One (1) Bag/45 lbs. of Flecks® TPR:** Pre-Mix 2.75 quarts of Flecks® Binder A with 2.75 quarts of Flecks® Binder B

5.3.2.2. **Two (2) Bag/90 lbs. of Flecks® TPR:** Pre-Mix 5.5 quarts of Flecks® Binder A with 5.5 quarts of Flecks® Binder B.

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

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

5.3.5. Once mixed, empty into a wheelbarrow to wheel the mixture near the designated primed area being resurfaced. Dump the mix onto the primed area or into a screed box and spread it at an average thickness of 0.625 (5/8") inch and trowel it to an average finish of 3/8" thickness keeping the surface as level as possible.

5.3.6. 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.***

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



Manufacturer's Specifications

5.4. Non-Porous Finish:

5.4.1. **Flecks® Grout:** Pre-Mix Flecks® Grout Part A and Flecks® Grout Part B (3 Part A to 2 Part B by volume). **Flecks® Grout has a spread rate of approximately 40 square feet per gallon.** Apply Pre-Mixed solution of Flecks® Grout by pouring a small amount of material onto the surface and using a rubber float to tightly spread the material, forcing Flecks® Grout into the surface. Apply in small areas to ensure an even coat throughout the entire surface. Be careful not to pour excess Flecks® Grout onto the surface, otherwise it will soak in before it can be evenly spread with rubber float. Back roll using a 3/8" Naph roller to even out any puddled areas. **Be sure not to apply too much material in the same area causing the surface to become a glazed uneven finish.** Let cure for 12-24 hours until dry to touch (tack free). Recoat window < 24 hours.

5.4.2. **Flecks Sealcoat:** Using Flecks® Sealcoat, determine the square feet of the area to be coated. **(Flecks® Sealcoat has a spread rate of approximately 200-250 square feet per gallon).** Pre-Mix (1) Part Sealcoat A to (1) Part Sealcoat B *by volume*, mix for 30 seconds and then add (0.5) Parts of Trowel-EZ. Mix Sealcoat solution using a drill and mixing paddle on a medium speed being careful not to incorporate too much air. Add Trowel E-Z and re-mix for an additional 30 seconds. Once all components are mixed, Apply Flecks® Sealcoat using a 3/8" – 1/2" Naph roller. A paint screen/grid is to be used to remove any excess material. Apply an even coat onto the entire surface. Work in small areas to ensure the entire surface is coated. Let fully cure for 72 hours prior to heavy use or furniture is used. (12-24 hours for light foot traffic, temperature dependent)

5.5. **CAD Drawings:** Visit Flecks® Systems CADdetails Link: [Flecks® Systems | CAD Drawings, BIM Files, Specifications & More - CADdetails](#) or contact Flecks Systems, Inc., 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. It is recommended that a small quantity (1/2 – 1 full bag per color blend) of the Flecks® TPR dry blend be left to store at the project in case there are any repairs necessary in the future.

7. Special Considerations



Manufacturer's Specifications

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. Be sure to prime existing seams using aliphatic binder thinned out with 25% of Trowel EZ (by volume) before installing next color to ensure seams are bonded properly. Seams should overlap to provide extra support when installed over a cushion base. Ensure forms are laid out creating a sharp, clean, crisp edge.

7.2. 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.

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

7.4. 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. Drill weep holes into side of the drain for added drainage.

7.5. New Drains & Ground Features: When installing a new concrete substrate, set drains, skimmers, loop locks or other ground features raised 1/4" to allow for Deck Flecks® to be troweled flush with those termination points. Drill weep holes into side of the drain for added drainage.

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/18 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 installing Water Flecks® colored wear course.



Manufacturer's Specifications

Disclaimers and System Protection Notice:

Specifications, installation methods, product descriptions, system components, and technical documentation provided by Flecks Systems, Inc. constitute proprietary system information.

Architects, engineers, contractors, and project owners may reference Flecks Systems specifications only for the purpose of specifying Flecks Systems products and systems.

No party is authorized to:

- Copy or adapt Flecks Systems specifications for use with competing products
- Substitute alternative materials while retaining Flecks Systems system descriptions
- Use Flecks Systems installation procedures with non-Flecks Systems materials
- Represent another product as "equivalent" without written approval from Flecks Systems, Inc.

Any attempt to replicate or substitute Flecks Systems system specifications without authorization may result in improper installation and system failure.

Flecks Systems, Inc. shall not be responsible for performance, safety, or durability of any installation in which its specifications are used with non-authorized materials or products. Unauthorized installation methods, material substitutions, field modifications, or improper maintenance may result in product failure and may void applicable warranties.