



Manufacturer's Specifications

1. General

- 1.1. **Manufacturer:** Flecks Systems, Inc., 885 Bangert Blvd., Toms River, NJ 08757. Toll Free: 833-435-3257 • Phone: +1-732-569-6161 • Website: www.fleckssystems.com • Email: info@fleckssystems.com
- 1.2. **Scope:** These are the manufacturer's specifications for the Deck Flecks®, porous resurfacing system.
- 1.3. **Description:** Deck Flecks® is a porous thermoplastic rubber designed to be used in the surfacing of Dry 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 splash and spill 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 resurface.
- 1.5. **Trained Installer:** The installation of the new surface shall be completed by Independent Contractors who have been trained to install the Deck 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, shaded area at a minimum temperature of 50°F (10°C) for short term storage. Keep out of direct sunlight when stored outside on construction projects. 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.



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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.
- 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 4,000 hours
- 2.6. Written manufacturer's warranty for Dry Play.
- 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:** Deck Flecks® Surfacing System
- 3.2. **Materials:** Deck Flecks® is a Granulated Light Stable Thermoplastic Rubber mixed with an aliphatic, 100% solid, single component, aliphatic urethane binder.
- 3.3. **Equal Materials:** Deck Flecks® Granules are thermoplastic rubber granules 1-2mm in size. The system is 100% color. Deck Flecks® Binder is an aliphatic 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 be 100% color and must include 100% solids, aliphatic polyurethane binder. Recycled black material is not acceptable.
- 3.4. **Finish Texture:** Granulated grain.
- 3.5. **Color:** Selected from Manufacturer's Color Chart by owner prior to bid.

4. Surface Preparation & New Substrates



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- 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. A minimum of a 2% slope, equal to 1/4" per foot is needed for proper water drainage.
- 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. The concrete pH level shall be between 7 – 9 pH for proper bonding.

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.



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- 4.2.1. **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. *See also "Special Considerations" sections 7.5 – 7.7.
- 4.3. **Lightweight Porous Substrate:** An ultra-lightweight granulated aggregate with a bulk density of 15 – 17 lbs. per cubic foot is mixed with a 100% solids, two-component epoxy with a minimum of 30% epoxy by weight to create a stable lightweight substrate that is porous and used to build up low areas and areas requiring a new hard substrate. Apply Flecks® primer to adhere the lightweight substrate to an existing hard substrate. If installed over earth, a minimum of 4 inches of the Lightweight Porous Substrate is required to be installed on top of a minimum of a 4-inch compacted stone base.
- 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:** 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.
- 4.6. **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. **DECK FLECKS® CAN NOT BE INSTALLED OVER ASPHALT CURED FOR LESS THAN 15 DAYS.**
- 4.9. **Paver or Brick Preparation:** Existing pavers must be clean, free of dirt, debris, and contaminants. Joints must be filled with Flecks® Vertical Gel, a 100% solids, two-component, flexible epoxy gel, to seal the joints and create a stable substrate. Sealing



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the joints will assist in the reduction of water getting under the substrate. *See also "Special Considerations" section 7.4.

5. Installation

5.1. **Forming:** Following the shape of the area to be surfaced, form out the area with 1 x 4-inch wood strips or for radius/curved concrete use masonite cut into 4-inch strips. Stabilize the wood with spikes or stakes and thoroughly wax the wood forms with carnauba wax prior to installing the temporary forms. Forms are only used if the substrate has no other termination points and are temporary. Forms are to be removed after the project is complete. Permanent forms, borders or edging can also be installed.

5.1.1. **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 - 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.

5.3. Mixing and Finishing:

5.3.1. Flecks® TPR Dry Blend:

5.3.1.1. Flecks® TPR 1-2mm: 100%

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

5.3.2.1. **One (1) Bag/45 lbs. of Flecks® TPR:** Mix 45 lbs. of Flecks® TPR with 4 quarts (20% by weight) of Flecks® UltraBond, 100% solids, single component aliphatic urethane binder.

5.3.2.2. **Two (2) Bag/90 lbs. of Flecks® TPR:** Mix 90 lbs. of Flecks® TPR with 8 quarts (20% by weight) of Flecks® UltraBond, 100% solids, single component aliphatic urethane binder.

5.3.3. Add Flecks® TPR Dry Blend to mixer.

5.3.4. Add Flecks® UltraBond, 100% solids, single component aliphatic urethane binder in the mortar mixer. Mix thoroughly so that Flecks® Thermoplastic Rubber is coated evenly, 2-3 minutes.



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5.3.5. Dump the mix onto the primed area and spread it at an average thickness of 0.5 (1/2") inch using a Screed Box or Gauge/Cam Rake and trowel 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 when applying or a mixture of water and dish detergent. Trowel E-Z will allow for easier manipulation when hand troweling and when a roller is being used. ***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 or until dry to the touch before using.

5.4. **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 Deck 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

7.1. Large Areas/Patterns & Designs

All areas more than 2000 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 Deck Flecks® material to the concrete. Remove sufficient coated material to provide a sound surface, free of glaze, efflorescence, or



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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 all silicone or caulking where the pad and the surrounding concrete meet.
- 7.4. **Pavers:** Pavers not set in concrete shall be cleaned, removing dirt from the joint lines. Once joint lines are clean and free from dirt and debris, fill joints with a flexible epoxy sealant to bond pavers and create a stable substrate.
- 7.5. **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.
- 7.6. **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.
- 7.7. **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.