



Manufacturer's Specifications

1. General

1.1 Scope: These are the manufacturer's specifications for the Water Flecks®, porous water play surfacing system.

1.2 Description: Water Flecks® is a porous thermoplastic rubber designed to be used in the surfacing of Waterplay applications that come in contact with chlorine. 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.

1.3 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.

1.4 The installation of the new surface shall be completed by a **Water Flecks® Preferred Contractor**. Manufacturer's detailed installation procedures shall be submitted to the Architect and made part of the Bid Specifications.

1.5 Temperature must remain above 50 degrees Fahrenheit throughout the installation and curing process. Weather and surface must be dry and there should be no rain in the immediate forecast.

1.6 Site must be made secure against vandalism during installation and curing period.

2. Submittals

2.1. Manufacturer's Product Literature and Specification Data.

2.2. ASTM C 1028-07 Skid Resistance Test.

2.3. Submit manufacturer's written instructions for recommended maintenance practices.

2.4. Color samples for customer verification.

2.5. Written statement on Manufacturer's letterhead certifying that the top surface will not discolor via fading from U.V. or Chlorine attack for a period of three (3) years from date of installation.

2.6. 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



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minimum of 10,000 hours and show no less than 15% tensile strength (PSI) degradation.

- 2.7. Written manufacturer's warranty for Waterplay.
- 2.8. Product liability insurance certificate with project owner as certificate holder.
- 2.9. MSDS and Product Data Sheets for items in Section 3 "Products."

3. Products

- 3.1. Water Flecks® Surfacing System
- 3.2. Materials: Water Flecks® is a Granulated Light Stable Thermoplastic Rubber mixed with an aliphatic, 100% solid, two components, chlorine resistant urethane binder.
- 3.3. Equal Materials: The Water Flecks® Granules are a thermoplastic rubber. The system is 100% color. The Water Flecks® Binder/Primer is a two- part aliphatic chlorine resistant polyurethane. Any equal product granule or Granular must be a light stable, thermoplastic rubber based, not rubber based such as EPDM or "EPR" (marketed as TPV), must include an aliphatic polyurethane binder proven to be chlorine resistant, 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. New or Existing Concrete: New concrete must be at least 28 days old, and can be prepared simply by acid etching. **Add acid slowly to water** in clean polyethylene buckets at a ratio of three (3) parts water to one (1) part acid. Care should be taken to prevent splashing on workers. Protective clothes such as, safety glasses, rubber gloves, boots, etc. should be used. 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 large amounts of clean water to remove all the acid solutions, and then allow the floor to dry. Old concrete that is contaminated with grease or oil can be cleaned with a power-washer. Use a degreasing agent before power-



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

- 4.2. **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.
- 4.3. **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. Lightly sand the wood surface to clean off any contaminants or power-wash. Allow 24 hours for wood to dry thoroughly. Wood must be primed twice before applying EnviroFluff™ or Flecks® Systems Granules.
- 4.4. **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.
- 4.5. **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.
- 4.6. **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.**
- 4.7. **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.

5. Installation

- 5.1. **Forming:** Following the shape of the area to be surfaced, form out the area with 1-inch x 4-inch wood strips or for radius/curved concrete use plywood cut into 4-inch strips. Stabilize the wood with spikes or stakes and thoroughly wax the wood surfaces with carnauba wax.



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5.2. Priming: Roll or brush Water Flecks® aliphatic, two-component polyurethane Binder/Primer (1 Part A to 1 Parts B cut with 30% Xylene or other keytone based solvents) onto the surface being sure to cover the entire area. Mix an amount of primer that will be used in less than 30 minutes. Normally this would be approximately one gallon when the temperature is 85 degrees Fahrenheit. If it is warmer, the primer will cure faster and less material should be mixed. Only prime 200 square feet at a time, and as the installers approach an unprimed area, prime 200 additional square feet.

5.3. Water Flecks® Mixing and Finishing: Mix One (1) bag of Flecks™ Granules in a mortar mixer. Pre-mix 1 gal of Water Flecks® aliphatic, two-component (1 Part A to 1 Part B by volume), chlorine-resistant polyurethane Binder/Primer in an appropriate plastic container with a paddle mixer. Add the premixed binder to the Granules in the mortar mixer. Mix thoroughly so that each Granular is covered evenly. Dump the mix onto the primed area and spread it with a cam rake (1/2" setting) or screed box to an average thickness of 0.375 inches, keeping the surface as level as possible. Flecks® Systems "Trowel EZ" must be used when applying. Hand or power-trowel using "Trowel EZ" to spray the surface of the trowel, will allow easier manipulation of the troweled surface. Let the surface set for 72 hours or until dry to the touch before using.

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 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.



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- 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 - Prepare the ground features submerged into the existing pad by cutting a 45-degree angled, ½-inch deep keyway. Remove all concrete adhered to the existing sides of the ground feature. Solvent-wipe the ground features to remove any contaminants.
- 7.5.** 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.