

FlexGround FlexGrout

Poured In Place Grouting System

Manufacturer's Specifications

This document provides the specifications for a poured in place grout system composed of a flexible aliphatic thermoplastic composite grout.

There are variations in the final specifications as required by the Client.

PART 1 – GENERAL

1.01 Work Included

Provide all labor, materials, and tools necessary for the complete installation of a poured in place grout system as outlined in these specifications. The system should consist of but not necessarily be limited to the following:

- A. Section includes: Resilient playground surfacing poured in place system.
- B. Related work: Playground and water play equipment.
- C. Quality Assurance: Manufacturer should have manufactured and installed playground grout systems for a minimum of 3 years. The installation of the poured in place product should be completed by FLEXGROUND. Manufacturer's detailed installation procedures should be submitted to the Architect and made part of the Bid Specifications.

1.02 Submittals

Prospective manufacturers and/or installers of the poured in place grout system should be required to comply with the following:

- A. The manufacturer must be experienced in the manufacturing of a poured in place grout system and provide references of five (5) specific installations in the last three (3) years.
- B. The installer must provide competent workmen skilled in this specific type of poured in place grout system installation. The designated supervisory personnel on the project must be competent in the installation of this material, including mixing of the materials, and spreading and compacting the materials correctly.
- C. Manufacturer should provide written instructions for recommended maintenance practices.
- D. Manufacturer should submit color samples for customer verification.

- E. Performance Requirements: Provide products that have been manufactured, fabricated and installed to meet or exceed the criteria and methodology identified in PARTS 2, 3 and 4 below.
- F. Quality Assurance:
 - i. Test reports: upon request, provide test reports from recognized, qualified, independent third party testing laboratories. Self-testing of products is not acceptable.
 - ii. Certificates: Submit manufacturer's certificate that products meet or exceed specified requirements.

1.03 Warranty and Maintenance

The bidder and/or poured in place grout system manufacturer must provide the following:

- A. The poured in place FlexGrout manufacturer should provide a warranty to the owner that covers defects in materials and workmanship of the system for a period of **THREE (3) years** from the date of Substantial Completion provided that a FlexCoat is applied 2 years after initial installation.
- B. The manufacturer's warranty should include general wear and tear. The warranty should specifically exclude vandalism, high heel punctures, acts of war or acts of nature beyond the control of the owner or the manufacturer.
- C. The bidder should provide a warranty to the owner that covers defects in the installation workmanship, and further warrant that the installation was done in accordance with the manufacturer's recommendations.
- D. All FlexGrout warranties should be limited to repair or replacement of the affected areas and should include all necessary materials, labor, transportation costs, etc. to complete said repairs. All warranties are contingent on the full payment by the owner of all pertinent invoices.
- E. The installer should clean the jobsite of excess materials and if necessary backfill any excavation around the perimeter with earth or other appropriate fill material.
- F. The manufacturer should instruct the owner's personnel on proper maintenance and repair of the FLEXGROUT system.

PART 2 – FLEXGROUT MATERIAL

The FLEXGROUT system should be in accordance with the following:

- A. A poured in place grout system with a penetrating membrane that should render the pad non porous.
- B. FlexGrout thermoplastic composite grout should be a thixotropic aliphatic thermoplastic paste applied at 1 gallon per 35 square feet over wear coarse layer rendering it non porous.

- C. FlexGrout thermoplastic composite grout was tested by QAI Laboratories for the following:
- i. *ASTM D 2047-11 Coefficient of Friction: Polish Flooring Surface.* (Test Report #QI1411123-4)
FlexGrout has been tested and certified at a friction of .588 dry standard, and .817 wet standard.
 - ii. *ASTM D4 12-06ae2 ThermoPlastic Elastomers – Tension.* (Test Report #QI1305148-2)
FlexGrout has been tested and certified at a Peak Tensile Strength of 163psi; chlorine soaked at 133psi; and a Tensile Elongation at Break of 132.2%; chlorine soaked at 112.2%.
 - iii. *ASTM D624-00(2012) Tear Strength.* (Test Report #QI1305148-2)
FlexGrout has been tested and certified with a median Maximum Tear Strength of 75.74lbs; chlorine soaked at 70.03lbs.
- D. A water-based aliphatic composite color seal should be applied at 200 sq. ft. per gallon and spread evenly to cover entire surface. Acrylic and latex based coatings are not acceptable. The system color should be selected from Manufacturer's Color Chart by owner prior to bid.
- E. The system color should be selected from Manufacturer's Color Chart by owner prior to bid.

PART 3 – EXISTING RUBBER PAD PREPARATION

The FLEXGROUT site preparation should be in accordance with the following:

- A. Major damage to existing pad should be repaired prior to application of FLEXGROUT.
- B. If needed, excavate existing rubber surface 6"-24" along entire edge. Cuts should be made at a 45 degree angle.
- C. Repair all excavated rubber areas with EPDM or TPV material.
- D. Existing rubber surface should be clear of all dirt and debris.

PART 4 – EXECUTION AND INSTALLATION

The poured in place grout installer should strictly adhere to the installation procedures outlined under these sections. Any variance from these requirements should be accepted in writing by the manufacturer's onsite representative, and submitted to the architect/owner, verifying that the changes do not in any way affect the warranty.

4.01 Perimeter

- A. The entire perimeter surface connecting to existing rubber pad should be taped off to avoid spillage of FlexGrout material onto concrete.

- B. All playground/water play equipment poles should be taped to avoid contact with FlexGrout material.

4.02 FlexGrout Layer

- A. The FlexGrout material is supplied in 5 gallon buckets. It should be opened and mixed with a drill paint mixer for 2 minutes.
- B. The 2nd ingredient, catalyst, should then be poured into the FlexGrout material and mixed with a drill paint mixer for 5 minutes. Let stand for an additional 5 minutes before application.
- C. The FlexGrout material should be poured into thin lines and hand trowelled into the existing surface forcing the FlexGrout into the voids.
- D. Excess FlexGrout should be scraped off the top of the surface to allow the original pad to show through. This allows the system to retain slip resistant properties.
- E. FlexGrout material should be allowed to cure for 24 - 48 hours before proceeding.

4.03 FlexGrout Color Seal

- A. Color Seal- The color seal should consist of a water based aliphatic thermoplastic composite liquid. Acrylic and latex based coatings are not acceptable. Color seal should be roll applied to completely cover entire surface. The color seal should be allowed to cure for 24-72 hours or until dry to touch.

Approved product: Color Seal by FlexGround, LLC

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- B. FlexGrout Color Seal should be applied at 200 sq. ft. per gallon and spread evenly to cover entire surface.
- C. The FlexGrout Color Seal material is supplied in 5 gallon buckets. It should be opened and mixed with a drill paint mixer for 2 minutes.
- D. The 2nd ingredient, catalyst, should then be poured into the FlexGrout Color Seal material and mixed with a drill paint mixer for 5 minutes. Let stand for an additional 5 minutes before application.
- E. System should be allowed to cure for 7-10 days before use.

PART 5 – SITE (GENERAL)

- A. Trailer/ Large truck access will be necessary for the installation. In the case that access for trailer/truck is not available the owner or general contractor will be responsible for transporting material to the job site.

- B. Crew is responsible for protecting the surface only while on site. General Contractor or owner shall be responsible for the security of the surfacing overnight during installation, as well as during the surfacing's curing period upon completion of the install.
- C. Crew will leave site clean and shall remove all trash and debris.
- D. Owner/General contractor shall provide a dumpster for all waste and trash.

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