

TOTTURF TRAILS

Poured In Place Pedestrian Traffic Surfacing

Manufacturer's Specifications

This document provides the specifications for a poured in place single-pour recreational surfacing system. There may be 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 TOTTURF TRAILS porous poured in place aggregate and rubber system as outlined in these specifications. The system should consist of but not necessarily be limited to the following:

- A. Section includes: The scope of this section includes Subgrade preparation and installation of TOTTURF TRAILS porous poured in place aggregate and rubber system for walkways, golf cart paths, bike paths, tree-wells and other pedestrian areas requiring a firm and porous surface.
- B. Quality Assurance: Prior to the awarding of contract, the contractor shall furnish owner or owners agent a statement of qualifications, experience, and a project listing of successfully installed porous poured in place projects, including site addresses and references. The installation of the poured in place product should be completed by certified TOTTURF TRAILS installers. 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 recreational surfacing system should be required to comply with the following:

- A. The installer must provide competent workmen skilled in this type of poured in place recreational surfacing. The designated supervisory personnel on the project must be competent in the installation of this

material, including mixing of the materials, spreading, and compacting the materials correctly.

- B. Manufacturer should provide written instructions for recommended maintenance practices.
- C. Manufacturer should submit color samples for customer verification. Color samples shall be per client selection or specification or submitted in 6-8 oz clear plastic jars with specified colored granule(s), Black Granules and pea gravel mix.

1.03 Definitions

- A. SBR: Styrene-butadiene or styrene-butadiene rubber (SBR) describe families of synthetic rubbers derived from styrene and butadiene
- B. TPV: Thermoplastic Vulcanized Elastomer. Developed using resin and synthetic rubber with higher UV stabilization.
- C. EPDM granules: EPDM rubber (ethylene propylene diene monomer(M-class) rubber), a type of synthetic rubber, is an elastomer characterized by a wide range of applications. The M refers to its classification in ASTM standard D-1418; the M class includes rubbers having a saturated chain of the polymethylene type.

1.04 Maintenance and Warranty

- A. The bidder and/or poured in place recreational surfacing manufacturer must provide the following:
 - a. The poured in place recreational surfacing manufacturer should provide a warranty to the owner that covers defects in materials and workmanship of the rubber for a period of **FOUR (4) years** from the date of Substantial Completion. Warranty requires system installation by ROBERTSON RECREATIONAL SURFACES trained employees.
 - b. All warranties, expressed or implied, are contingent upon the following:
 - 1. installation being performed by ROBERTSON RECREATIONAL SURFACES, 2: Owner, at owner's expense, having a Topcoat performed at **TWO (2) year** intervals from date of substantial completion, and 3. Full payment by the owner of all pertinent invoices and adherence to any required maintenance procedures.
 - c. 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.

- d. All poured in place 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 and adherence to any required maintenance procedures.
- e. The manufacturer should instruct the owner's personnel on proper maintenance and repair of the TOTTURF TRAILS recreational surface.

PART 2 – TOTTURF TRAILS MATERIAL

The TOTTURF TRAILS poured in place recreational surfacing system should be in accordance with the following:

- A. A single-pour poured in place system. The finished surface should be porous and capable of being installed at varying thicknesses.
- B. TOTTURF TRAILS primer is a 100% solids urethane primer/sealer. It is designed to be low viscosity for optimal penetrating abilities, making this an ideal priming urethane.
- C. The single pour system shall be comprised of a mixture of 3/8" pea gravel (100 lbs), TPV or EPDM colored rubber granules (55 lbs) and black SBR rubber granules (55 lbs) mixed with a 100% solids moisture cured aromatic or aliphatic polyurethane binder (15% per mix = 31.5 lbs) installed at the appropriate thickness.
- D. The system color should be selected by owner prior to bid.

PART 3 – SITE PREPARATION AND BASE

The TOTTURF TRAILS site preparation and base should be in accordance with the following:

- A. The sub-base will have a slope of 2%.
- B. The base aggregate should consist of a minimum of four inches (4") of 3/4" Class 2 aggregate compacted to 95%. Finish slope of porous aggregate should be 2% from the centerline of the area to the perimeter, and the grade should not vary more than a quarter inch (1/4") in ten feet (10').

- C. The sub-base should be installed in two inch (2") lifts to appropriate thickness.
- D. The sub-base should be compacted using vibrating tamper, to approximately 95% Proctor density.
- E. The sub-base should no longer have any vegetation.
- F. Sublevel grade is to be compacted prior to the ABC aggregate installation. Particular attention should be paid to areas of disturbed earth such as where footers for recreational, lighting or other equipment enter the ground. Concrete used to fill said areas/footers should be poured to the top of sublevel surface.
- G. The sub-base installer and architect will accept the aggregate base in writing prior to the installation of the poured in place system.
- H. Any alterations must be agreed between all parties.
- I. New concrete substrates to be fully cured prior to install. Full cure of the concrete is achieved 28 days from final pour. It is the client's responsibility to disclose to ROBERTSON RECREATIONAL SURFACES, in advance of install, if concrete has not had 28 days to cure. The use of accelerants or additional curing agents will not substitute for the 28-day-cure requirement unless expressly agreed to in writing by ROBERTSON RECREATIONAL SURFACES prior to install.
- J. New asphalt substrates should be allowed to cure 30 days prior to install (during prime curing conditions of moderate sun to draw out oils and for any rains to rinse oils away). New asphalt should not be coated with a pavement sealer.
- K. Existing concrete or asphalt surfaces should be shot blast, acid etched, pressure washed or power scarified/grinded as required to obtain optimal bond of the of the TOTTURF TRAILS system. Removal of sufficient material to provide a sound surface, free of glaze, efflorescence, or form release agents. Remove grease, oil, and other penetrating contaminants.
- L. For concrete or asphalt surface that is not enclosed (i.e. a curb to curb pour), the concrete shall have keyway cuts 1.5" wide by 1.5" deep so that the system can be bull nosed down into the notch area. For use over existing concrete or asphalt pathway, product may be bull-nosed over edge and terminated no less than 3" down edge. Existing sod, rock, sand, etc. must be excavated away from pathway edge(s) to allow for install and then pushed back to bull-nosed edge once product is cured
- M. Crack repair on existing (or new if present) asphalt or concrete

surfaces is required to assist in preventing mirroring through to the overlaid TOTTURF TRAILS system. Any crack less than or equal to ½" wide shall be bridged or covered with RP Fabric and a liquid applied elastomeric rubber system to allow for normal contraction and expansion. Cracks larger than ½" shall be sealed with a liquid applied waterproofing membrane.

PART 4 – EXECUTION AND INSTALLATION

The poured in place recreational surfacing 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 Primer

- A. A urethane primer should be applied to concrete or asphalt surfaces, as needed, at a rate of 200-250 square feet per gallon. The entire area does not need to be primed at once, instead, prime about 700 square feet, in immediate advance of system installation, at a time. This procedure should be continued until all areas are complete.
- B. The urethane primer should be applied to any equipment that will be surrounded by the poured in place recreational surfacing system

4.02 TOTTURF TRAILS

- A. TOTTURF TRAILS surfacing should consist of 3/8" TOTTURF TRAILS approved aggregate, 1-3mm SBR granule, and a 1-4mm TPV colored granule or 1-3mm EPDM colored granule mixed with aromatic or aliphatic binder as specified in Section 2.C.
- B. TOTTURF TRAILS mix should be spread and troweled to the appropriate depth.
- C. Minimum Depth requirements on various substrates:
 - a. Asphalt: minimum ¾" over top of well-prepped or new asphalt per specs above.
 - b. Concrete: minimum ½" over top of well-prepped or new concrete per specs above.
 - c. Aggregate Sub Base: minimum 2" over top of well prepared aggregate sub-base per specifications above.

- D. Depth of TOTTURF TRAILS layer may vary depending on project specific load bearing requirements.
- E. The finished texture should be slip resistant, smooth and even. Systems placed over existing substrates will follow existing gradations and undulations, though care should be taken to make adjustments as necessary to achieve level final surface.
- F. The TOTTURF TRAILS surface should be allowed to cure for 24 hours before walking on and 72 hours before playing on surface.

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 present on site. General Contractor or owner shall be responsible for the security of the surfacing overnight during installation, as well as during the product's cure period after completion of install.
- C. Crew will leave site clean and shall remove all trash and debris.