



SPECIFICATIONS - Perfect Turf® Landscape

Supplier name	Perfect Turf, LLC
a. Product name	Perfect Turf® HomeTurf 53™
b.	

This document provides the specifications for a Synthetic Grass Landscape installation composed of a tufted polyethylene grass fiber component with a polyethylene thatch zone and green acrylic covered infill installed over a porous aggregate stone base including drainage system.

There may be variations in the final specifications as required by the Client or dictated by the site.

PART 1 – GENERAL

1.1) Work Included

Provide all labor, materials, equipment, and tools necessary for the complete installation of a synthetic grass system as outlined in these specifications and with a green acrylic coated infill. The vertical draining base shall be provided separately by an approved contractor per engineering specifications. The synthetic turf system shall consist of but not necessarily be limited to the following:

- a) A complete synthetic grass system, consisting of a synthetic grass with 1.4” long 100% monofilament polyethylene fibers (min. 10,000 denier, 150 microns), tufted on a 3/8" tufting machine with a minimum of 53 ounces of yarn per square yard. The system shall include a single, dimensionally stable, two-component primary backing and have a minimum of 22 ounces of polyurethane secondary backing per square yard. The finished product shall also include perforations to ensure maximum drainage.
- b) A resilient infill system, consisting of rounded, uniformly sized green acrylic coated infill (Known as Envirofill).

1.2) Qualifications and Submittals

Prospective bidders and/or installers of the turf shall be required to comply with the following:

- a) The turf manufacturer must be experienced in the manufacture of an infill synthetic grass system and provide references of specific installations in the last three (3) years with five (5) landscape grass installations within 100 miles and in similar climate that requires the use of road salt.
- b) Manufacturer must hold ISO 9001 (Quality) and ISO 14001 (Environmental) certifications
- c) The turf installer must provide competent workmen skilled in this specific type of synthetic grass installation. The designated supervisory personnel on the project must be competent in the installation of this material, including gluing seams and proper installation of the infill material.

PART 2 - SYNTHETIC GRASS MATERIALS

2.1) Manufacturers Approved synthetic turf products are:

- a. HomeTurf 53™
 - i. Face Weight: 53 oz.
 - ii. Pile Height: 1.4"
 - iii. Roll Width: 12' (144")
 - iv. Yarn Color: Two-tone grass blades and a two-tone green/tan thatch blades.
 - v. Yarn Type: 10,800 denier 8-ended Monofilament Polyethylene grass blades with a 4,000 denier two-tone Polypropylene thatch layer.
 - vi. Construction Details: Type- tufted | Gauge: 3/8"
 - vii. Primary Backing: 2 layers 6 oz. polybac.
 - viii. Secondary Backing: 22 oz polyurethane.
 - ix. Perforations: Yes, 2x4 on center with large 6mm drainage holes
 - x. Infill Requirements: Optional, 2 lbs/SqFt of infill based on application and customer preference.
 - xi. Warranty: 16 years manufacturer's warranty

2.2) The synthetic turf material and resilient infill shall be in accordance with the following:

- a) The fiber shall be a minimum 10,800 denier, 100% true monofilament polyethylene fiber, measuring not less than 1.4" high with a polyethylene fiber thatch zone.
 - a. ASTM D1577 Standard Test Method for Linear Density of Yarn by the Short Method (Denier)
 - b. ASTM D3218 Standard Specification of Polyolefin Monofilaments (Ribbon Thickness & Width)
 - c. ASTM D5823 Standard Test Method for Tuft Height of Pile Yarn Floorcoverings
- b) The tufted fiber weight shall not be less than 53 ounces per square yard. The fiber shall be tufted on a 3/8" tufting machine.
 - a. ASTM D5848-10e1 Standard Test Method for Mass Per Unit Area of Pile Yarn Floorcoverings
- c) The primary backing shall consist of a one part, two component 6 oz. polybac. The secondary backing shall consist of an application of a minimum 22 ounces of urethane coating per square yard. Heat activated to permanently lock fiber tufts in place. The synthetic grass system shall be perforated to provide for maximum drainage. Non-perforated systems shall not be acceptable alternates for purposes of this specification.
 - a. ASTM F1551 Standard Test Methods for Comprehensive Characterization of Synthetic Turf Playing Surfaces and Materials
- d) The grass fiber shall be two-tone green in color to simulate natural grass as closely as possible with a tan thatch zone and treated with UV inhibitor, guaranteed against fade and fiber degradation for a minimum of eight years.
- e) The infill system shall consist of 1-2 pounds of a 20-40 sieve rate specifically graded, rounded, green acrylic coated infill.

PART 3 – BASE AND DRAINAGE

An approved contractor shall provide a vertical draining base consisting of a four-inch layer of CA-7 Open Graded Stone (OGS) and a two-inch layer of CA-6 finish aggregate system installed upon a geo-textile or weed barrier membrane.

- a) The sub-base should be compacted using a vibratory plate compactor or vibrating roller, to approximately 95% Proctor density.
- b) The sub-grade should no longer have any vegetation. The sub-grade shall then be treated with a weedkiller.
- c) The bidder shall supply and install a geo-textile fabric barrier over the entire surface before the installation of the stone depending on geographic location. Seams shall be overlapped a minimum of 12”.
- d) As needed, a properly sized perimeter drain shall be installed in a properly excavated ditch, lined with geo-textile. The CPPP (corrugated perforated plastic pipe) shall be sloped .05” per linear foot toward the exit point to the existing storm drain.
- e) One or more catch basins may be installed at directional changes in the line, at the depth necessary to meet the elevation of the existing storm water evacuation line.
- f) The bidder shall supply waterproof tape and all necessary connectors, per subsurface drainage system manufacturer’s recommendation, and is responsible for a proper and secure connection between all new and existing drainage lines.
- g) A perimeter composite 2”x2” nailer board, or pressure-treated lumber 2”x4” nailer board as approved, shall be installed to the perimeter concrete or brick edge. The top of the nailer board will be set at 3/4” below the top of the concrete or brick.
- h) Install the two-inch (2”) layer of CA-6 porous stone over the base, maintaining slope and grade, depending on the geographic location. Finish grade flush with the perimeter nailer board and compact to approximately 90% Proctor.
- i) The Synthetic Turf System supplier and architect will accept the aggregate base prior to the installation of the Perfect Turf[®] Synthetic Turf System.
- j) Any alterations must be agreed between all parties.

PART 4 – EXECUTION AND INSTALLATION

The turf installer shall strictly adhere to the installation's procedures outlined under these sections. Any variance from these requirements shall 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.

- a) The turf installer will accept the aggregate base prior to the installation of the synthetic turf system. The compaction of the aggregate base shall be minimum 90% and the surface tolerance shall not exceed 3/16" in ten feet.
- b) The rolls of synthetic grass shall be seamed utilizing standard state-of-the-art gluing procedures.
- c) This is a 100% glued installation. Sewing of seams will not be permitted. The seaming tape and glue shall be intended for installation of outdoor synthetic turf surfaces.
- d) The infill material shall be spread evenly over the turf with a fertilizer type spreader and brushed into the turf.

PART 5 – MAINTENANCE AND WARRANTY

The bidder and/or the turf manufacturer must provide the following:

- a) The turf manufacturer shall provide a warranty to the owner that covers defects in materials and workmanship of the turf for a period of eight years from the date of Substantial Completion. An eight (8) year "UV stabilization" warranty shall be included in the warranty.
- b) The manufacturer's warranty shall include general wear and damage caused from UV degradation. The warranty shall specifically exclude vandalism, acts of War and acts of God beyond the control of the owner or the manufacturer.
- c) The bidder shall provide a warranty to the owner that covers defects in the installation workmanship, and further warrant the installation was done in accordance with the manufacturer's recommendations for a period of one (1) year.
- d) All turf warranties shall be limited to repair or replacement of the affected areas and shall 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 bidder shall provide a maintenance program to the owner. The warranty shall be subject to compliance with said maintenance program.