



## Manufacturer's Specifications

This document provides the specifications for a Synthetic Grass Safety Surfacing System composed of round silica sand at 3 pounds per square foot infill placed into a tufted polyethylene fiber component installed over a poured-in-place SBR Rubber cushion or a closed cell foam pad with a compacted rock / stone or concrete sub base.

Possible variations in the final specifications as required by the Client, Approved by DuraPlay.

### Part 1 – GENERAL

#### 1.01 PRODUCT

DuraPlay Artificial Turf

#### 1.02 DESCRIPTION

Provide all labor, materials, equipment, and tools necessary for the complete installation of a Synthetic Grass Safety Surfacing System as outlined in these specifications. The system should consist of but not necessarily be limited to the following:

- A. A vertical draining field base consisting of a four-inch layer of ABC Type II aggregate compacted to 95%.
- B. A complete synthetic grass system, consisting of:
  - i. Tacoma - A 1.75 inch pile, polyethylene monofilament with thatch construction. Designed specifically for landscape application to enhance recovery. Recommended Use: Moderate to Heavy Traffic, Main Application: Landscape Colors: Field Green/Olive Green
  - ii. Yarn Characteristics - Type: Monofilament PE with Thatch, Composition/Structure: Polyethylene, Denier: 12,000/4,400
  - iii. The carpet shall be delivered in 15' wide rolls by lengths best suited for the project.
  - iv. Turf Characteristics - The fiber shall be field green in color to simulate grass as closely as possible and treated with UV inhibitor, guaranteed for 5 years.
  - v. Width: 15 feet Length:
  - vi. Polyester/polypropylene backing with a minimum weight of 7 ounces per square yard. The secondary backing shall consist of an application of polyurethane (minimum of 20 ounces per square yard); heat activated to permanently lock fiber tufts in place. The synthetic grass systems shall be perforated with 3/16" holes every four (4") inches in both directions to provide for maximum drainage. Backing

- Characteristics - Primary Backing 1, Composition/Structure: 13 Pic, Weight: 3.5 ounces per square yard\*, Finish Coating: Polyurethane 20 ounces per square yard\*
- vii. Drainage Rate: 0.4 gal/yd<sup>2</sup>/second.
  - viii. Pile/Face Weight: Approx. 92 ounces, Pile Height: Approx. 1.75 inches Machine Gauge: 3/8 inch, Thatch Color: Brown
  - ix. Particulate Infill - Type: Quality Infill, Weight: 3 pounds per square foot\*, Height: Approximately .5 inch to .75 inch, Color: Natural

C. Quality Assurance: Manufacturer should have manufactured and installed synthetic grass surfaces for a minimum of 5 years. The installation of the synthetic grass product should be completed by DuraPlay. Manufacturer's detailed installation procedures should be submitted to the Architect and made part of the Bid Specifications

### 1.03 REFERENCES

- A. American Society for Testing and Materials (ASTM)
  - 1. ASTM D412 Standard Test methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers-Tension.
  - 2. ASTM D624 Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
  - 3. ASTM D2047 Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine.
  - 4. ASTM D2859 Standard Test Method for Flammability of Finished Textile Floor Covering Materials.
  - 5. ASTM E303 Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester.
  - 6. ASTM F1292 Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment.

### 1.04 SYSTEM DESCRIPTION

- A. Performance Requirements: Provide a 2-layer (bottom layer rubber-polyurethane/top layer synthetic grass Playground surfacing system that has been designed, manufactured and installed to meet the following criteria.
  - 1. Shock Attenuation (ASTM F1292)
    - a. Gmax: Less than 200
    - b. Head Injury Criteria: Less than 1000
  - 2. Flammability (ASTM D2859): Pass
  - 3. Tensile Strength (ASTM D412):60 psi (413kPa).
  - 4.Tear Resistance (ASTM D624): 140%
  - 5. Water Permeability: 0.4 gal/yd<sup>2</sup>/second.
  - 6. Accessibility: Comply with requirements of ASTM F1951

### 1.06 QUALITY ASSURANCE

- A. Qualifications: Utilize an installer approved and trained by the manufacturer of the playground surfacing system, having experience with other projects of the scope and scale of the work described in this section.

- B. Certifications: Certification by manufacturer that the installer is an approved applicator of the playground surfacing system.

### **1.07 DELIVERY & MATERIALS**

- A. General: Comply with Division 1 Product Requirement Section.
- B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at a minimum temperature of 40 degrees F (4 degrees C) and a maximum temperature of 90 degrees F (32 degrees C)

### **1.06 PROJECT/SITE CONDITIONS**

- A. Environmental Requirements: Install surfacing system when minimum ambient temperature is 40 degrees F (1 degrees C) and a maximum ambient temperature is 90 degrees F (32 degrees C). Do not install in steady or heavy rain.

### **1.07 WARRENTY**

- A. Warranty Period: Eight (8) year from date of completion of work.

### **2.00 EXAMINATION**

- A. Site Verification of Conditions: Verify that substrate conditions are suitable for installation of the playground surfacing system. New asphalt must be fully cured-up to 30 days. New concrete must be fully cured-up to 10 days.
- B. Do not proceed with installation until unsuitable conditions are corrected.

### **2.01 INSTALLATION**

- A. Do not proceed with playground surfacing installation until all applicable site work, including substrate preparation, fencing, playground equipment installation and other relevant work, has been completed.
- B. Basemat Installation for PIP SBR Rubber Cushion:
  - 1. Using screeds and hand trowels, install the basemat at a consistent density of 29 pounds, 10 ounces per cubic foot (466 kg/m<sup>3</sup>) to the specified thickness.
  - 2. Allow basemat to cure for a sufficient time so that indentations are not left in the basemat from applicator foot traffic or equipment.
  - 3. Do not allow foot traffic or use of the basemat surface until it is sufficiently cured.
- C. Play Turf installation:
  - 1. Rough cut synthetic grass rolls for installation.
  - 2. Using 15" wide cordura seam tape and 1-part urethane adhesive, seam synthetic grass rolls to form monolithic surface. Adhere synthetic grass to basemat around playground perimeter.
  - 3. If infill is included in system, using manual or machine-operated spreading equipment distribute sand infill throughout synthetic grass installation to within ¼" to ½" of fiber tip. (3 pounds per square foot).

## **2.01 PROTECTION**

- A. Protect the installed playground surface from damage resulting from subsequent construction activity on the site.
- B. LEAD FREE PRODUCTS – all of our products undergo rigorous stringent testing to ensure safety and non-toxicity. Our products contain no detectable traces of lead or other RCRA hazardous waste heavy metals.

END OF SECTION

If any questions arise, please do not hesitate to contact DuraPlay, Inc. for technical assistance.  
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