

# PERFORMANCE SPECIFICATIONS

# SECTION 1 INFIELD SKIN SURFACE RECREATIONAL SPECIFICATION DURAEDGE® CLASSIC INFIELD MIX

# PART 1 - GENERAL

## 1.1 SUMMARY

- A. This section includes the material and labor requirements for construction of a complete infield skin surface using the following material:
  - 1. Dura Edge Classic Infield Mix
- B. Related Sections:
  - 1. Site Preparation
  - 2. Earthwork

#### 1.2 SUBMITTALS

- A. Product Data: For the product specified, submit a 5-pound sample along with a private lab test result indicating the particle size analysis of the material specified. All tests shall be performed in accordance with ASTM F-1632.
- B. Approved Testing Lab: Turf & Soil Diagnostics

35 King street

Trumansburg, NY 14886

(607) 387-5694

## 1.3 PROJECT/SITE CONDITIONS

- A. All site work and earthwork shall be performed in accordance with the preceding sections. Sub- base material shall compact to 90 percent. If conditions do not warrant such compaction then an imported select granular fill shall be installed. Furthermore, the compacted sub-grade shall be installed in accordance with the final slope and shall mirror finish grade in order to ensure an even depth of material once placement has occurred.
- B. Under no circumstances are perforated pipe under drains necessary or recommended for use under any infield skin material. Geotextile fabric is not recommended between the compacted sub-base and the infield skin material.

C. In certain instances, and where warranted, a survey of the sub-grade elevations shall occur prior to placement of the infield skin material.

# 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Installers of materials specified shall have, at minimum, five successful installations of similar projects and materials. Installers shall be in possession of and demonstrate knowledge of the use of laser guided finishing equipment.
- B. Material: If quality control samples are specified, they shall be completed at a rate of one per 250 tons of material delivered to the jobsite. All tests shall be conducted by the lab specified in Section 1.2 (B). All testing will be compared to and be in accordance with the material specifications provided in Section 2.2.

# PART 2 - MATERIALS

## 2.1 MANUFACTURER

- A. DuraEdge Classic Infield Mix is produced in various locations throughout the United States of America by and at the direction of the following manufacturer:
  - 1. DuraEdge Products, Inc.

149 South Broad Street, Grove City, PA 16127

Phone: (866) 867-0052 Fax: (724) 264-4174

Email: info@duraedge.com Website: www.duraedge.com

# 2.2 MATERIALS

A. Dura Edge Classic Infield Mix is an engineered soil product which is mechanically mixed offsite in a controlled environment using a pugmill-type mixer. This process ensures thorough mixing of the sand and clay components to exact specifications.

# B. Performance Specification

- 1. Infield mix shall be clean, dry clay mixed with washed mason-type sand resulting in a weed-free mixture that is reddish brown in color having a yield of 1.35 tons per cubic yard when placed loose or 1.5 tons per cubic yard when compacted 85% 90% on a Standard Proctor Test (ASTM D 698-21). The material possesses the following particle size analysis:
  - a. Total sand content shall be 70-75 percent.
  - b. The combined amount of sand retained on the medium, coarse and very coarse sieves shall be greater than or equal to 50 percent.
  - c. The combined amount of silt and clay shall be 25-30 percent.
  - d. The ratio of silt divided by clay, otherwise known as the SCR, shall be 0.5 1.0.
  - e. No particles greater than 3 millimeters.
  - f. Equal to or less than 5 percent of particles shall be retained on the 2 millimeter.
  - g. A minimum of 80% of the total silt content shall fall in the fine region (between 20 and 2 microns).
    - i. Test ASTM D422 will be used to assure that the course silt is not greater than 20% of the total silt present in the infield mix.

ii. This testing will be submitted to and conducted by the same facility listed in Section 1.2-B.

Materials meeting this specification would be DuraEdge Classic Infield Mix as manufactured by DuraEdge Products, Inc., Grove City, PA, (866) 867-0052, or an approved equal.

#### C. Amendments

1. Certain amendments are approved for use with DuraEdge Classic Infield Mix and shall be installed in accordance with the manufacturer's recommendations. Contact the manufacturer for further instructions.

#### 2.3 EXCESS MATERIALS

A. Provide the owners' authorized representative with a 10-ton stockpile of material for future use.

## **PART 3 – EXECUTION**

## 3.1 PLACEMENT

- A. Place the material in lifts of 2 to 3 inches and lightly compact until an optimum compaction between 85 and 90 percent is achieved on a standard proctor test (ASTM D 698-21). To facilitate bonding between lifts, scarify the surface, apply a light application of water, and repeat until finish grade elevation is achieved. Completing this process as described will minimize settling and improve the performance of the product. See diagram in 3.1.C.
- B. Depth of the material shall be 4 inches for new construction when finished and compacted. See diagram in 3.1.C.
- C. Typical cross-section of infield skin:

Infield Skin Surface:
DuraEdge Infield Mix

# Infield Skin Surface: 4" final compacted depth Place product in 2" to 3" lifts \* 1/8" - 1/4" Topdressing Scarify the surface between lifts to facilitate bonding of the next lift and repeat until finish grade elevation is achieved Achieve 85% to 90% compaction based on a standard proctor test (ASTM D 698-21) 4" compacted ½ to 1% Slope on final grade infield mix 1/2 to 1% Slope Compacted Sub-Base: 90% compaction or greater. If that compaction cannot be achieved then a select granular fill must be imported and placed that will fulfill the compaction requirement. The compacted sub-grade should mirror finish grade to ensure that an even depth of material has been placed. \* See Section 3.5

#### 3.2 WATERING

A. If material does not have optimum moisture, then achieving 85-90% compaction is not possible. If the material is dry, then the appropriate amount of water will have to be added to provide sufficient moisture throughout, for proper compaction. This may require a day or two for moisture to wick properly, prior to finish grading.

#### 3.3 FINISH GRADING

A. For best results the material shall be finish graded with a laser device that allows accuracy to +/- 1/8 inch. A slope of 1/2 percent to 1 percent shall be placed on the infield surface in order to facilitate surface drainage.

#### 3.4 INSPECTION

A. The finished surface of the infield shall be smooth and free from any visible dips, humps, bumps or other blemishes which would hinder the removal of water through positive surface drainage. Where warranted, a finished elevation survey shall be conducted to assure proper installation.

# 3.5 TOPDRESSING

- A. Following successful inspection, topdressing shall be applied to the surface for optimum product performance. This topdressing is either expanded shale or calcined clay product and shall be added at a rate of 0.5-1 lb per square foot.
  - If play will not be taking place on the infield for several weeks, wait until the season is going to start to apply topdressing (this is practically important in the Fall or the end of the season when putting the infield "to bed" for the winter/season). If play is taking place within a few weeks, add topdressing and drag.
- B. Product is either ProSlide Expanded Shale or FairBall/PlayBall/Platinum Calcined Clay Topdressing. A combination of Expanded Shale and a previous listed Calcined Clay may be used for the topdressing process. All are available through DuraEdge Products, Inc., Grove City, PA, (866) 867-0052.

End of Section 1