

BSS 2000 Embedded Synthetic Track Surfacing System Specifications

Part 1 – General

1.1 Scope

- A. The synthetic surfacing contractor shall furnish all labor, materials, equipment, supervision and services necessary for the proper completion of the BSS 2000 Dual Durometer synthetic track surfacing and related work indicated on the drawings and specified herein.

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- B. The synthetic surfacing contractor shall refer to the drawings for the required locations of synthetic track surfacing to be installed. All quantities and dimensions shall be field verified by the synthetic surfacing contractor.

1.2 Specific Scope of Work

- A. Install a full depth poured-in-place two-component, UV stabilized elastomeric polyurethane Dual Durometer synthetic surfacing system with embedded textured finish that has been Certified by the IAAF.
- B. Layout and paint all track lines and event markings as required and specified by current IAAF and NCAA rules.

1.3 Coordination

- A. The synthetic surfacing contractor shall coordinate the work specified with an authorized and appointed representative of the owner so as to perform the work during a period and in a manner acceptable to the owner.

Part 2 – Codes and Standards

2.1 Applicable Publications

- A. Codes and standards follow the current guidelines set forth by the International Amateur Athletic Federation (IAAF) and the National Collegiate Athletic Association (NCAA), along with the current material testing guidelines as published by the American Society of Testing and Materials (ASTM).

2.2 Performance Standards

The new synthetic track surfacing system shall exhibit the following minimum performance standards as required by IAAF:

- A. Thickness: (12-13mm) or as specified
- B. Force Reduction 35-50%
- C. Vertical Deformation: 0.6mm-2.5mm
- D. Coefficient of Friction : ≥ 0.5 (47 TRRL Scale)
- E. Tensile Strength: ≥ 0.5 Mpa
- F. Elongation: $\geq 40\%$

2.3 – Product Substitutions

All substitutions must be completely submitted for review a minimum of ten (10) days prior to the opening of the bid.

Part 3 - Quality Assurance

3.1 Contractor and Manufacturer Qualifications

- A. The CONTRACTOR and the MANUFACTURER must be the same or be an approved applicator by the manufacturer.
- B. The CONTRACTOR must have a minimum of 10 years experience in the installation of poured-in-place, two-component elastomeric polyurethane synthetic track surfacing.
- C. The CONTRACTOR shall be able to furnish evidence that they have been in business for a period of not less than 5 years, under the present name, and if required, furnish financial statements for each of the past 3 years.
- D. The CONTRACTOR must have installed a minimum of 10 outdoor track facilities in the last 3 years using the exact, IAAF certified, poured-in-place, two-component elastomeric polyurethane synthetic track surfacing, as specified herein with the contractor bidding this project.
- E. The MANUFACTURER must have a minimum of 10 years of experience with compound two-part polyurethane for athletic surfaces.

- F. The CONTRACTOR is required to provide documentation that shows the selected specified and installed product meets current IAAF Performance Standards for Synthetic Surfaced Athletics Tracks (Outdoor) and is certified in terms of the IAAF certification system as updated to present day.
- G. CONTRACTOR is to provide a list of completed facilities, minimum of 10 which are certified to meet IAAF/NCAA rules & regulations, utilizing the same product as specified.
- H. The installation/surfacing contractor shall also be required to have a full time employee on staff with a "Certified Track Builder (CTB)" designation as awarded by the American Sports Builder's Association. A current CTB certificate shall be included with the bid package for this project.
- I. The MANUFACTURER must offer a minimum of seven (7) IAAF Certified Track Systems.
- J. All polyurethane components must be MANUFACTURED in the United States at the headquarters of the CONTRACTOR.
- K. All Polyurethane components must be MANUFACTURED in an ISO 9001 Certified facility.
- L.

3.2 Submittals

The following submittals must be received with bid submittal:

- A. Standard printed specifications of the synthetic track surfacing system to be installed on this project.
- B. An affidavit attesting that the synthetic track surfacing material to be installed meets the requirements defined by the manufacturers currently published specifications and any modifications outlined in those technical specifications.
- C. A synthetic track surfacing system sample, 12" x 12" in size, of the same synthetic track surfacing system to be installed on this project.

- D. A list of completed facilities, including the installing supervisor, of the exact Dual Durometer synthetic track surfacing system.
- E. A current IAAF Certificate proving the product to be installed meets the current IAAF Performance Standards for Synthetic Surfaced Athletics Tracks (Outdoor).

Part 4 – Materials

4.1 Elastomeric Polyurethane

- A. BEYPUR, the two-component U.V. stabilized elastomeric polyurethane compounded from polyol and isocyanate components, based on one hundred percent Methylene Diphenyl Isocyanate (MDI). No Toluene Diisocyanate Isocyanate (TDI) will be allowed.
- B. The elastomeric polyurethane shall be red in color.

4.2 EPDM Granulate

- A. The EPDM granulates shall be approximately 1 to 3mm in.
- B. The EPDM granulates and the U.V. stabilized elastomeric polyurethane shall be color matched.

4.3 Rubber Granulate

- A. Red butyl rubber processed ground to a graded size not to exceed .5 – 1.0mm.
- B. A maximum of twenty percent, by weight, of the butyl rubber will be allowed in the force reduction layer.

4.6 Line Marking Paint

- A. Manufacturers recommended pigmented line paint.

Part 5 – Installation

5.1 Subbase

- A. The synthetic track surfacing system shall be laid on an approved subbase. The General Contractor shall provide compaction test results of 95% or greater for the installed subbase and asphalt surface.

- B. The asphalt substrate track surface shall not vary from planned cross slope by more than + .2%, with a maximum lateral slope outside to inside of 1% for NCAA or IAAF facilities (1% to 2% for NFHS), and a maximum slope of 0.1% in any running direction. The finished asphalt shall not vary under a 10' straight edge more than 1/8".
- C. It should be the responsibility of the asphalt paving contractor to flood the surface immediately after the asphalt is capable of handling traffic, but within 24 hours. If, after 20 minutes of drying time, there are birdbaths evident, it shall be the responsibility of the architect, in conjunction with the surfacing contractor, to determine the method of correction. No cold tar patching, skin patching or sand mix patching will be acceptable.
- D. Any oil spills (hydraulic, diesel, motor oil, etc.) must be completely removed and replaced with either polyurethane or new, keyed in asphalt. The minimum curing time for the asphalt base is 28 days. It shall be the responsibility of the surfacing contractor to determine if the asphalt substrate has cured sufficiently prior to the application of the polyurethane surfacing system.
- E. It shall be the responsibility of the general contractor to determine if the asphalt substrate meets all design specifications, i.e. cross slopes, planarity and specific project criteria. After all the above conditions are met, the synthetic surfacing contractor must, in writing, accept the planarity of the asphalt receiving base, before work can commence.

5.2 Thickness

- A. Total thickness of the BSS 2000 Dual Durometer Embedded synthetic track surfacing system shall average 13mm.

5.3 Equipment

- A. The BSS 2000 Dual Durometer Embedded synthetic track surfacing system components shall be processed and installed by specially designed machinery with automatic electronic portioning, which provides continuous mixing, feeding and finishing for accurate quality controlled installation.
- B. No hand mixing is allowed.

5.4 Materials

A. Force Reduction Layer

The red butyl granules and UV stabilized elastomeric polyurethane shall be metered and mixed together on site to regulate the ratio/quantity of butyl, not to exceed fourteen percent in the system and to insure an even distribution of the granules throughout the 8mm force reduction layer. No multi-layered system will be allowed or approved as an equal.

B. Resilient Wearing Layer

The 1 to 3 millimeter EPDM granules shall be mechanically integrated with a UV stabilized elastomeric polyurethane to the full depth of the 5mm wearing layer. The resilient textured finish shall be a dense matrix of embedded EPDM granules.

5.5 Site Conditions

- A. Installation shall not take place if adjacent or concurrent construction generates excessive dust, abrasives or any other by-product that, in the opinion of the installer, would be harmful to the track material, until completion of such works.
- B. Apply Synthetic Track Surfacing in dry weather when pavement and atmospheric temperatures are fifty (50) degrees Fahrenheit or above, and are anticipated to remain above fifty (50) degrees Fahrenheit for twenty-four (24) hours after completing application.
- C. The maximum temperature cannot exceed 105 degrees at any point during a 24 - hour period.
- D. Rain cannot be falling. If there is a threat of rain, work shall cease until dry conditions can be re-established on the track pavement. Work is to proceed only when adequate curing can be guaranteed by the manufacturer.

Part 6 – Line Striping and Event Markings

6.1 Layout

- A. Line striping and event markings shall be laid out in accordance with current IAAF and NCAA rules.

6.2 Certification

- A. Upon completion of the installation, the owner shall be supplied with all necessary computations and drawings as well as a letter of certification attesting to the accuracy of the markings.

Part 7 – Guarantee

- A. Synthetic track surfacing system shall be fully guaranteed against faulty workmanship and material failure for a period of five (5) years from the date of acceptance.
- B. Synthetic surfacing material found to be defective as a result of faulty workmanship and/or material failure shall be replaced or repaired at no charge, upon written notification within the guarantee period.

END OF SECTION