

BSS 50

Synthetic Track Surfacing System Specifications

Part 1 - General

1.1 - Scope

*The synthetic surfacing contractor shall furnish all labor, materials, equipment, supervision, and services necessary for the proper completion of all **BSS 50** Synthetic Track Surfacing and related work indicated on the drawings and specified herein.*

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 porous track system comprised of SBR granules bound with BEYPUR 300, a polyurethane track binder.***

1.3 - Coordination

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

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 **BSS 50** surfacing system shall exhibit the following minimum performance standards (ASTM):

- Thickness: (12-13mm) or as specified
- Shore A Hardness: 50 ± 5 (ASTM D-2240)
- Elongation at Break: ~90% (ASTM D-412)
- Tensile Strength: 0.75 N/mm^2 (ASTM D-412)
- Compression Set Recovery: 90%-95% over 24hr period (ASTM D-412)
- Abrasion Resistance: 0.25 grams loss after 1000 cycles (ASTM D-501)
- Coefficient of Friction: Dry: 0.7-0.75, Wet: 0.6-0.65 (ASTM D-1984)
- Resilience: 37%-39% (ASTM D-2632)
- Tear Resistance: 50-65 psi (ASTM D-624)

Part 3 - Quality Assurance

3.1 Contractor Qualifications

- A. The CONTRACTOR shall have 5 years experience of successfully installing basemat running tracks and shall have installed a minimum of 10 complete polyurethane running track surfacing systems including those requiring a structural spray.
- B. The CONTRACTOR shall be able to furnish evidence that they have been in business for a period of not less than five years, under the present name, and if required, furnish financial statements for each of the past five years.
- C. The 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.
- D. The CONTRACTOR is required to provide documentation that shows the selected specified and installed product meets IAAF Performance Specification for Synthetic Surfaced Athletics Tracks (Outdoor) and is certified in terms of the IAAF certification system as updated on April 1, 1999.
- E. The 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.
- F. The MANUFACTURER must have a minimum of 10 years of experience with compound two-part polyurethane for athletic surfaces.

3.2 - Submittals

The following submittals must be received with the bid submittal:

- A. *Standard printed specifications of the BSS 50 surfacing system to be installed on this project.*
- B. *An affidavit attesting that the BSS 50 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, 6"x6" in size, of the same synthetic track surfacing system to be installed on this project.*
- D. *An installation list of outdoor track facilities installed in the last two years using the exact synthetic track surfacing system specified herein.*

Part 4 - Materials

4.1 – Primers

Primers shall be BEYPRIM, a polyurethane-based primer, specifically formulated to be compatible with the paved-in-place SBR track surfacing material.

4.2- SBR Granules

The rubber granules for the base mat shall be SBR, chopped to 1-3mm size, containing less than 1% dust.

4.3 – Polyurethane Binder

Binder for the SBR Granules shall be BEYPUR, an MDI-based single-component, polyurethane track binding agent. The binder shall not have a free TDI monomer level above 0.2% and must be solvent free. The binder must be specially formulated for compatibility with SBR rubber crumb.

4.4 - Line Marking Paint

All line and event markings shall be applied by experienced personnel utilizing a single component, moisture cured, aliphatic polyurethane paint compatible with the BSS 50 Track System.

Part 5 - Installation

5.1 - Subbase

*The **BSS 50** 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.*

For NCAA certification the following criteria must be followed. The track surface, i.e. asphalt substrate, shall not vary from planned cross slope by more than $\pm .2\%$, with a maximum lateral slope outside to inside of 1%, 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".

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.

*Any oil spills (hydraulic, diesel, motor oil, etc.) must be completely removed, either by chipping out or removing and replacing with new, keyed in asphalt. The minimum depth of any asphalt replacement shall be one inch. The 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.*

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

*The thickness of the **BSS 50** Synthetic Track Surfacing System shall be 13mm.*

5.3 – Equipment

*The **BSS 50** Synthetic Track Surfacing System components shall be processed and installed by specially designed machinery and equipment. A mechanically operated paver with variable regulated speed and thermostatically controlled screed shall be used in the installation of the base mat.*

5.4 - Installation

A. Base Course

The SBR granules and BEYPUR shall be mixed together on site to regulate the ratio/quantity of SBR, not to exceed 82% by weight in the base mat portion of the system. The BEYPUR shall be mixed with the SBR rubber so that a minimum of 20%, by weight, exists in the final mixture. This mixture is then mechanically installed using the paver.

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. *If, in the opinion of the installer of the synthetic material, the weather and/or climatic conditions are detrimental to the proper installation of the surfacing materials, work shall be delayed until conditions are acceptable. Preferred installation temperature is fifty degrees Fahrenheit and rising. Installation shall be executed only in dry conditions.*

Part 6 - Line Striping and Event Markings

6.1 - Layout

Line striping and event markings shall be laid out in accordance with current drawings.

Part 7 - Guarantee

Synthetic track surfacing system shall be fully guaranteed against faulty workmanship and material failure for a period of three (3) years from the date of acceptance.

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.