

# ST-55 Synthetic Track Surfacing System

## 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 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 latex and rubber synthetic track system comprising of a base layer of black latex bound SBR rubber granules topped with a colored EPDM and latex, UV resistant latex top coat.
- B. Layout and paint all track lines and event markings as required and specified by appropriate governing body, IAAF, NCAA or NFHS.

#### 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 [International Amateur Athletic Federation (IAAF), National Collegiate Athletic Association (NCAA), or the National Federation of State High School Association (NFHS)], 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 (ASTM).

Thickness: (12-13mm) or as specified  
Shore A Hardness: 45-60 (ASTM D- 2240)  
Elongation at Break: -75% (ASTM D-412)  
Compression Set Recovery: 85%-90% over 24hr period (ASTM 395-89)  
Abrasion Resistance: 0.25 grams loss after 1000 cycles (ASTM D-501)  
Coefficient of Friction: Dry: 0.75-0.85, Wet: 0.70-0.75 (ASTM D-1984)  
Resiliency: 35%-41% (ASTM D-2632)  
Tear Resistance: 45 psi (ASTM D-624)

### PART 3 - QUALITY ASSURANCE

#### 3.1 Contractor Qualifications

- A. The synthetic surfacing contractor must be in business for five years in the installation of elastomeric latex and rubber synthetic track surfacing.
- B. The synthetic surfacing contractor must have installed a minimum of five outdoor track facilities using the specified system, within the last two years.
- C. The synthetic surfacing contractor shall be a builder member of the American Sports Builders Association.
- D. The synthetic surfacing contractor shall employ a Certified Track Builder (CTB) to oversee this project.

#### 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, 4" x 4" in size, of the same synthetic 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 shall be water-based, specifically formulated to be compatible with the paved asphalt/concrete base and track surfacing material.

#### 4.2 Black SBR Granules

The rubber granules for the base course shall be recycled SBR rubber, processed and chopped to 1-5 mm size midcourse 1-4mm in size, containing less than 4% dust.

#### 4.3 Colored EPDM Granules

The rubber granules for the structural wearing coats shall be EPDM peroxide cured, synthetic rubber containing a minimum 20% EPDM resin(1-3 mm), with a specific gravity of 1.5±0.1 g/cubic centimeters. The EPDM rubber shall be the same color as chosen by the owner for the track surface.

#### 4.4 Latex Binder

A minimum 50% solids SBR latex resin used for latex track construction.

#### 4.5 Pigments

Shall be ultra violet stabilized water based pigments.

#### 4.6 Line Marking Paint

All line and event markings shall be applied by experienced personnel utilizing an acrylic paint compatible with the synthetic track surfacing.

### PART 5 - INSTALLATION

#### 5.1 Subbase

The Synthetic Track Surfacing System shall be laid on and approved subbase. The general contractor shall provide compaction test results of 95% or greater for the installed subbase and asphalt surface.

For NCAA and IAAF certification the following criteria must be followed. The track surface, i.e. asphalt substrate, shall have a maximum lateral slope outside to inside of 1.0% and a maximum slope of 0.1% in the running direction. The finished asphalt shall not vary under a 10' straight edge more than 1/8".

It shall 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 1 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 latex and rubber 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 Synthetic Track Surfacing System shall be 13mm. Or as specified.

#### 5.3 Equipment

The Synthetic Track Surfacing System components shall be processed and installed in specially designed machinery and equipment. An approved mixer tank with mechanical agitation and the capability to maintain the required pressure for spraying.

5.4 Installation (92 gallons of undiluted latex, 8.5lbs SBR rubber and 6lbs EPDM colored rubber)

- A. Prime coat of diluted latex applied at .07 gallons per square yard.
- B. Base rubber applied and oversprayed with 15 gallons of latex per square yard.
- C. Mid course rubber applied and oversprayed with 15 gallons of latex per square yard.
- D. Mid Course rubber applied and oversprayed with 15 gallons of latex per square yard.
- E. EPDM rubber applied and oversprayed with 15 gallons of latex per square yard.
- F. EPDM rubber applied and oversprayed with 15 gallons of latex per square yard.
- G. Spray applied U V stabilized coat with 1 gallons of latex per square yard.

#### 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 IAAF, NCAA or NFHS rules.

#### 6.2 Certification

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

Synthetic track surfacing system shall be fully guaranteed against faulty workmanship and material failure for a period of 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.

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