Section 02571

SYNTHETIC TRACK SURFACING – SPURTAN BSS SPECIFICATION

PART 1 – GENERAL

1.01 SUMMARY

A. The contract work to be performed under this section consists of furnishing all required labor, materials, equipment, implements, parts and supplies necessary for, the surfacing in accordance with these specifications and indicated on the drawings.

1. Spurtan BSS – Polyurethane bound layered impermeable running track surface with structural spray finish.

1.02 CODES AND STANDARDS

A. Codes and standards follow the current guidelines set forth by the International Associations of Athletics Federation (IAAF), the National Collegiate Athletic Association (NCAA) or the National Federation of State High School Associations (NFHS).

1.03 SUBMITTALS AND SUBSTITUTIONS

A. Request for deviations or substitutions from the specifications must be made in writing seven days prior to the bid date. Complete product data including specifications, application rates, mixing instructions and a sample shall be sent with the request to the district and/or its agent for an evaluation. Alternatives will be allowed only by addendum.

1. Submit three (3) sets of manufacturer's product data sheets including installation guidelines and maintenance instructions.

2. Submit three (3) representative track samples in the color of surfacing to be installed.

3. Submit Material Safety Data Sheets (MSDS) for all individual components of the surfacing to be installed.

4. Submit evidence that the synthetic surfacing contractor is a member of the American Sports Builders Association (ASBA).

1.04 QUALITY ASSURANCE

A. The track surface will be applied by an installer authorized by APT. The contractor shall have a current contractor's license, as well as a current sales tax and use tax number if applicable.

B. Successful contractor will provide proof of insurance as well as performance and payment bonds if required.

C. All polyurethanes used must be manufactured by an ISO 9001 Certified company.

1.05 SITE CONDITIONS

A. Weather: Surfacing shall not be done when the threat of freezing exists for the following 24 hours, rain is imminent or gusting winds are occurring.

B. Site: While surfacing and striping are being done, sprinkler systems must be curtailed, shut off, or controlled so that no water falls on the track or event area surfaces. Other trades and school district personnel must stay off the wet or curing surface.

C. Do not apply rubberized topping when base surface temperature is less than 40^{o} F.

D. Provide temporary barriers as required to prevent public entry to construction area and to protect adjacent properties from damage during construction operation.

1.06 WARRANTY

A. Provide manufacturer's standard 5 year warranty.

PART 2 – PRODUCTS

2.01 MANUFACTURER

A. Advanced Polymer Technology
109 Conica Lane: PO Box 160
Harmony, PA 16037
724-452-1330

2.02 MATERIALS

A. Spurtan BSS Running Track Surface: Polyurethane Bound impermeable basemat with structural spray finish. The basemat is paved at a minimum depth of 10mm. The paved mat is then sealed with a two component Qualipur polyurethane mixed with EPDM powdered rubber. Then two coats of one component Qualipur structural spray mixed at a rate of 60% liquid to 40% EPDM spray rubber are required. The final depth for the SPurtan BSS track system is 13 mm.

Materials include:

1. Qualipur Polyurethane Primer
2. SBR or EPDM Rubber: 1 – 3 mm or as specified
3. Qualipur Polyurethane Binder
4. EPDM Powdered Rubber
5. Two-component Qualipur Full Pour Polyurethane
6. 0.5 – 1.5 mm EPDM Spray Rubber
7. One component Qualipur Structural Spray

PART 3 – EXECUTION

3.01 EXAMINATION

A. Verify asphalt concrete paving for dimensional accuracy, strength, and surface preparation. Notify owner of any deficiencies. Recommended compaction of asphalt and sub base is 95%.

B. It is the responsibility of the paving contractor to water flood the surface with the use of a water truck. If after 30 minutes of a 70 degree day, “bird bathes” are evident in a depth more than 1/8” the paving contractor, track surfacing contractor and the owner’s representative will determine the best method of correction.

C. Entire surface shall be clean and free of all dirt, oil, grease or any other foreign matter. It is the responsibility of the general contractor to thoroughly clean and/or pressure wash all areas of the new and/or existing asphalt or concrete base as necessary to ensure adhesion of the track surface.

D. Minimum curing time for base prior to beginning of surfacing is 14 days for new asphalt paving and 28 days for new concrete. No concrete curing compounds are allowed.

E. Beginning installation stipulates track installer “accepts” existing conditions. Adhesion to the existing asphalt is the surfacing contractor’s responsibility.

3.02 PRODUCT AND MATERIAL DESCRIPTION

A. The Spurtan BSS is a 13 mm, impermeable paved mat with structural spray finish. Its base layer consists of a black mat EPDM or SBR rubber granules bond in a Qualipur polyurethane. The middle layer is a seal-coat using a two component Qualipur polyurethane and EPDM powdered rubber. The surface layer is a mixture of colored Qualipur polyurethane and Melos EPDM 0.5 1.5 mm rubber (or approved equivalent), that is structurally sprayed on to the base to form a textured finish.

B. Rubber (SBR Broadcast): The basemat rubber shall be specifically graded Styrene Butadiene Rubber (SBR). Final gradation is to be 1.0 3.0 mm granulated SBR. SBR is to be dried no less than 2.5% moisture sealed in bags or supersacs. EPDM rubber with a gradation of 1.0 – 3.0 mm is also acceptable for the basemat.

C. Basemat Binder: The basemat shall be bound by a moisture-cured liquid Qualipur polyurethane, compatible with the basemat rubber. No asphaltic emulsions or epoxies are allowed in the basemat. Install the basemat with a specifically designed track-paving machine to a minimum depth of 10mm. No machine sprayed basemat systems will be allowed.

D. EPDM Powdered Rubber: The basemat will be choked off using Melos powdered rubber (or approved equivalent) mixed with two component Qualipur full pour polyurethane.

E. Two Component Polyurethane: The seal layer shall be made from a two component Qualipur full pour polyurethane with no solvents or fillers added. The specified products are Qualipur 5050 (A & B). No product shall be considered an equal if the Polyol to Isocyanate mix ratio exceeds three to one. Proposed alternative systems containing mercury are not allowed as an equal to Qualipur 5050.

F. One Component Structural Spray: the sealed basemat shall be coated by a one component, solvent based, Qualipur polyurethane resin based, structural spray mixed with Melos 0.5 – 1.5 mm rubber (or approved equivalent).

3.03 APPLICATIONS PROCEDURES

A. The entire asphalt or concrete surface shall be clean and free of dirt, oil, grease or any other matter upon arrival of the installation team. Any dirt, construction debris etc. shall be pressure washed off the base by the general contractor prior to the track installation crew.

B. Prime entire surface area with a compatible Qualipur polyurethane primer. Qualipur 1020 for asphalt and Qualipur 1220 for concrete or over an existing surface at an approximate rate of (0.16 kg/m2(0.30 lbs/yd2).

C. The basemat is to be applied at an approximate rate of 10.17 kg/m2 (18.75 lbs/yd^2). 8.13 kg/m^2 (15.00 lbs/yd ^{2}) of SBR rubber combined with 2.03kg/m^2 (3.75 lbs/yd^2) of a Qualipur polyurethane binder is needed to achieve an average finished depth of 10 mm. The installation of the basemat is to take place using a paving machine that is specifically designed for this type of application.

D. The seal coat is a layer of two component Qualipur full pour polyurethane mixed with EPDM powdered rubber that is applied to the basemat by means of spreading the material over the mat to "choke" it off at a rate of 0.54 kg/m ^{2} (100 lbs/yd ^{2}) of EPDM dust to 1.19 kg/m^2 (2.20 lbs/yd^2) of Qualipur 5050.

E. The one component Qualipur structural spray should be mixed with Melos EPDM 0.5 – 1.5 mm rubber (or approved equivalent) at a rate of 60% structural spray to 40% rubber. The mixture should be sprayed in two layers at 0.86 kg/m^2 (1.60 lbs/yd^2) each coat, for a total of approximate consumption of 1.73 kg/m^2 (3.20 lbs/yd^2).

3.04 STRIPING AND MONUMENTATION

A. The contractor shall consult with the owner prior to the start of their calculations for determination of the finish line location, events to be run, location of lane numbers and additional paint markings.

B. All line marking paint is to be approved by the synthetic surfacing manufacturer. Only an experienced track striping specialist shall perform the line striping.

END OF SPECIFICATION – SPURTAN BSS SYSTEM