

CONSTRUCTION SPECIFICATION FOR THE FULL POLYURETHANE TRACK SURFACE**1.0 DESCRIPTION**

A polyurethane based impermeable running track system from ELASTECH PRODUCTS INC. utilizing Polystac SF441. Polystac SF441 is a solvent free, two component polyurethane that is very insensitive to moisture. The 1/2" (12mm) international track surface the installation consists of 2 layers of Polystac SF441 with black rubber granules, followed by a layer of Polystac SF441 only, followed by a layer of Polystac SF441 with coloured EPDM rubber granules. This specification deals with the 1/2" (12mm) running track surface. (The sport activity will determine the thickness of the system and size of the EPDM rubber granules.)

2.0 MATERIALS

- 2.1 Polystac SF441 as supplied by ELASTECH PRODUCTS INC.
- 2.2 Selected SBR or Butyl black rubber granules 2-5mm
- 2.3 Selected EPDM coloured rubber granule 1-3mm
- 2.4 "Polane" polyurethane line paint as supplied by Sherman Williams

3.0 SUBMITTALS

- 3.1 A sample of the proposed Polystac SF441 surface showing the thickness and finish are to be submitted to the owner or his representative
- 3.2 Size of the sample is to be a minimum of 12" x 12" (30.5cm x 30.5cm)
- 3.3 Copy of test results indicating that the Polystac SF441 running track surface has passed the requirements of DIN 18035 part 6.
- 3.4 Copies of any other tests for the Polystac SF441 surface or components.

4.0 SAFE PRACTICES

Construction should be done with due regard to use of equipment and procedures designed to minimize danger to personnel and materials. Due to nature of the chemicals, the site should be restricted to personnel involved in the installation of the Full Polyurethane track surface only.

5.0 CONFORMANCE OF THE POLYSTAC SF441 SURFACE TO THE BASE

- 5.1 The Polystac SF441 Full Polyurethane running track surface is known as an impermeable surface.
- 5.2 The base selection and the selection of the running track surface must conform to DIN 18035 part 6, which states in paragraph 4.4 Bound base course: "The bound base course may be produced in the open (see Section 4.4.3) or dense (See Section 4.4.4) form. Water permeable synthetic surfacings and generally, also, multi-layer synthetic surfacings with a bottom layer having a large void content and a surface layer impermeable to water require the open type of construction. With solid synthetic surfacings, the bound base course must generally be in the dense type of construction. In special cases, other types of construction may be used if it is possible to ensure serviceability."

6.0 SURFACE PREPARATION

See Construction Specification for Base Construction for Full Polyurethane Running Track.

7.0 CONSTRUCTION

- 7.1 Chemical Mixing of Polystac SF441
 - 7.1.1 Establish two measuring pails for the two components
 - 7.1.2 Weigh out the two components according to the mixing ratio A/B by weight 5.5/1
 - 7.1.3 The components are poured into a mixing bucket, always the B component first.
 - 7.1.4 Depending upon ambient temperature and humidity the two components are mixed for 1.5 to 3 minutes with a double helix mixing drill.
 - 7.1.4 The mixed polyurethane is transported to the work site and poured out immediately after completion of the mixing.
 - 7.1.5 Mixing is done on a continuous basis so that the leading edge of the installed Polystac SF441 is not allowed to polymerize. To keep the spreading continuous, two mixers should be running, with one starting the mix when the other stops.
- 7.2 Spreading of the Polystac SF441
 - 7.2.1 The Polystac SF441 is poured out in an even bead across the full width of the track surface.
 - 7.2.2 The first layer of Polystac is spread with a 1/8" (3mm) notched squeegee by two to three persons that have experience and skill in the use of a squeegee.
 - 7.2.3 Black SBR or Butyl rubber 2-5mm is cast into the spread Polystac SF441 before polymerization.
 - 7.2.4 The second layer of Polystac SF441 is spread with a 3/16" (5mm) notched squeegee.
 - 7.2.5 Black SBR or Butyl rubber 2-5mm is cast into the spread Polystac SF441 before polymerization.
 - 7.2.6 The third layer of Polystac SF441 is spread with a 3/16" (5mm) notched squeegee.
 - 7.2.7 The surface is flooded with water to check the surface for deviations from the plane. All low areas are dried and marked with chalk.
 - 7.2.8 Any deviations are filled to the appropriate level with Polystac SF441.
 - 7.2.9 The fourth layer of Polystac SF441 is spread with a 1/8" (3mm) notched squeegee.
 - 7.2.10 Red EPDM rubber 1-3mm granule is cast into the spread Polystac SF441 before polymerization.

7.2.11 Twelve (12) hours after the casting of the rubber granules, the loose rubber granule is gathered up with shovels, brooms and vacuum between each layer.

7.3 Work Stoppage and Joints

7.3.1 The work process should be uninterrupted. Generally breaks and meals are taken in shifts. This ensures a minimum of seams.

7.3.2 At the end of the day, duct tape is placed across the width of the track (where the seam will be) and the work is stopped. The tape is removed within one hour of the work stoppage.

7.3.3 When the work is resumed, duct tape is placed on the leading edge of the previous surface.

7.3.4 The Polystac SF441 is applied with a 3/16 (3mm) notched trowel to ensure a good match.

7.4 Line Painting

7.4.1 The line marking colours and system to be followed (IAAF, NCAA etc.) are to be selected by the owner.

7.4.2 The track dimensions and the laying out of the individual lines are to be confirmed and placed by a certified land surveyor.

7.4.3 Line marking is to be done using Sherman Williams Polane two component line marking paint.

7.4.4 Following completion of the line marking, the track is to be double checked by a land surveyor and a certificate as to the accuracy of the placement of the lines and the dimensions shall be presented to the owner.

8.0 TOLERANCES

8.1 The surface is to be checked for tolerances once the flood coat of Polystac SF441 has been completed in the third layer of the installation of the Polystac SF441. Checking and correcting for tolerances at this point is crucial to the aesthetics of the track in that corrections in the final layer will be noticeable.

8.2 The running track surface shall be checked for accuracy in the line of the track with a tolerance of 1/8" (3mm) plus and minus over 10' (3M) in any direction.

8.3 The track surface will conform to the tolerances and requirements of the IAAF or local requirements whichever allows for the least deviation.

8.4 Thickness of the running track surface will be 1/2" (12mm) plus .04" (1mm).