



FAST TRACK™ 400

STRUCTURAL SPRAY IMPERMEABLE OR PERMEABLE

A. PRODUCT

FAST TRACK™ 400 is an impermeable* (permeable system also available) synthetic sports surface, designed for track and field activities. The system consists of a base mat made of recycled rubber granules (SBR) bound with a polyurethane binder and an impermeable layer of a thin seal layer consisting of urethane and EPDM powdered rubber and a pigmented spray-applied top finish of polyurethane spray-coating and EPDM rubber granules and is installed on site over asphalt or concrete.

FAST TRACK™ 400 is warranted against defects in workmanship, labor and materials under normal use and service for a period of five years. The warranty excludes any damage or defects caused by improper design or engineering, by an inadequate or defective base, by normal wear and tear, vandalism, abuse, neglect or lack of maintenance.

B. MATERIALS

Primer

Polyurethane-based primers specifically formulated to be compatible with the base and track surfacing materials.

Polyurethane Binder

Binder for the black rubber mat shall be an MDI-based mono-component, polyurethane binding agent. The binding agent shall not have a free TDI monomer level above 0.2%, must be clear or black in color, not milky, and must be solvent free. The binding agent must be specially formulated for compatibility with SBR stranded or rubber crumb.

Black SBR Granules

The rubber granules for the base mat shall be recycled SBR rubber, processed and chopped to 1 to 3mm size, containing 0% dust Black SBR Granules

EPDM Granules

The rubber granules for the structural spray wearing coats shall be EPDM peroxide cured,

man-made rubber containing a minimum 20% EPDM, with a specific gravity of 1.5+/-0.1, cryogenically processed and chopped 0.5-1.5mm. The EPDM rubber will be the same color as chosen by the owner for the track surface.

Impermeable* Layer

The resin for this application shall be a pigmented, thixotropic, two-component, polyol and isocyanate, moisture cured, urethane compound and shall be squeegee applied.

*(*Delete this step for permeable system)*

Structural Spray Coating

The spray coating shall be the FAST TRACK™, single component moisture cured, pigmented polyurethane, specifically formulated for compatibility with EPDM granules. The coating shall be the color red, or as chosen by the owner of the track surface.

Line Marking Paint

The line marking paint shall be polyurethane-based paint specifically manufactured to be compatible with polyurethane synthetic track surfaces.

C. EXECUTION

Subbase

The Synthetic Track Surfacing System shall be laid on an approved sub-base. The General Contractor shall provide compaction test results of 95% or greater for the installed sub-base and asphalt surface.

For NFHS Standards the following criteria must be followed. The track surface i.e., asphalt substrate, shall not vary from planned cross slope by more than + .1 % with a maximum lateral slope outside to inside of 1% and a maximum slope of .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 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.

Priming

The primer shall be spray-applied in accordance with the manufacturer's specifications. Only those areas that can be installed the same day should be primed.

Base Mat

Mix the black SBR granules and the Binder at a ratio of approximately 5:1 by weight. The exact ratio depends on the dust content of the granules, which should be reduced to a minimum. Mixing time is 2 to 4 minutes, depending on the size of the mixing-batches and the type of mixer used.

The blended materials are then spread onto the asphalt or concrete base using a mechanical tandem leveler. The tandem leveler shall have a heated oscillating screed bar to obtain both smoothness and compaction. The heated screed bar normally works at a temperature of 158 to 176 degrees F.

The laying procedure shall be bay-to-bay and limiting the length of the passes so as not to have any cold (cured) joints between the bays. At the beginning of each new day's work, the traverse joint from the previous day's work shall be tack coated to ensure a good bond. Small irregularities remaining in the surface after the tandem leveler has passed may be removed using a light polyethylene or Teflon roller.

The surface hardens through the reaction of the binding agent with humidity. The speed of the reaction depends on temperature and relative humidity. Usually the surface may be walked upon the next day.

Impermeable Layer

The "A" and "B" components are mixed at the prescribed ratio homogeneously with a suitable mixing device. This may be a strong drilling machine with a mixing paddle, a static mixing machine or an automatic mixer. The mixing process may last approximately 2 to 4 minutes per batch, depending on the employed mixing unit. This coating is squeegee-applied to the base mat, making it impermeable. (**Delete this step for permeable system*)

Structural Spray Wear Coats

After the black rubber and sealer coat have cured, the top layer installation consists of the use of FAST TRACK™ spray coat and EPDM granules. The base mat must be dry, clean, and free of dust, oils and greases. The FAST TRACK™ spray coat material is mixed with the EPDM granules in a suitable device. Application of the mixture is to be effected by use of a structure-spray-machine. To avoid cloud formations and to achieve total coverage of the base mat, we recommend two applications of the mixture in alternate directions with approximately 0.7 kg per sq. m. (1.5 lbs. per square yard) per coat. Resistance to abrasion, track spike damage and atmospheric corrosion; and to achieve the longest possible durability, requires installation of the materials in these quantities.

Line Markings

All line and event markings shall be applied by experienced personnel utilizing polyurethane based paint compatible with the synthetic track surfacing. All markings dimensions will be certified in accordance with the specifications issued by the appropriate sanctioning or governing body such as NFSHSA.

D. PERFORMANCE STANDARDS

Physical Properties (ASTM/IAAF)

Colors: As per spec

Thickness: (1/2") 12-13 mm or as specified by architect/engineer or owner

Density: 0.75 – 0.78

ASTM D-412 Elongation at break: Approx 95%

ASTM D-412 Tensile Strength: 0.80 N/mm²@ 70F

ASTM D-395 Compression Set Recovery: 90% to 95% @ 70F over 24-hour period

ASTM D-501 Abrasion Resistance: 0.25 – 0.425 grams loss after 1000 cycles

ASTM D-822 Chalking: No change > 1000 hours

ASTM D-1984 Coefficient of Friction: Dry: 0.70 to 0.75 Wet: 0.80 – 0.95

ASTM D-2632 Resilience: 37 – 44%

ASTM D-624 Tear Resistance: 60 - 75 PSI

ASTM D-2240 Shore A Hardness: 55 +/- 5

E. INSTALLER

FAST TRACK™ 400 shall be installed only by factory certified full-time employees.

F. WARRANTY

FAST TRACK™ 400 is warranted against defects in workmanship, labor and materials under normal use and service. The warranty excludes damage or defects caused by improper design or engineering, by an inadequate or defective base, by normal wear and tear, vandalism, abuse, neglect or lack of maintenance.

G. MANUFACTURER

FAST TRACK™ 400 as manufactured by
CHILD SAFE PRODUCTS, INC.

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End of Section

NOTICE: These specifications are merely guides for use by Landscape Architects, Engineers and Contractors. It is hoped that these specifications will be of particular value to those who do not have detail knowledge of synthetic running tracks and that it will aid in maintaining high construction standards. CHILD SAFE PRODUCTS, its agents and employees do not warrant the specifications as proper under all conditions.

