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3834 Carrick Bend Dr. • Kissimmee • FL • 34746

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## **ALL SPORT 500**

BLACK BASE MAT System

### **A. PRODUCT**

ALL SPORT 500 is a porous cast-in-place synthetic sport surface comprised of polyurethane bound rubber strands and rubber granules.

### **B. MATERIALS**

#### *Primer*

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

#### *Black SBR Granules*

The rubber granules for the base mat shall be recycled SBR rubber, processed and chopped to 1-3 mm size, containing less than 4% dust.

#### *Black SBR Strands*

Stranded rubber shall be ground and graded from a minimum of 8-mesh to a plus 16-mesh gradation schedule.

#### *Polyurethane Binder*

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

#### *Line Paint*

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

### **C. EXECUTION**

#### *Sub-base*

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 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 + .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.



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#### *Curing*

Before application of the synthetic surface can begin, the asphalt should be cured for at least 14 days; and a concrete base a minimum of 28 days.

#### *Cleaning*

The area to be surfaced shall be clean and free of any loose or foreign particles (dirt, oil, etc.) prior to commencement of the work. The surface is usually cleaned by use of a power blower and/or high-pressure washer.

#### *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.

Composition of Mix shall be as follows:

- SBR Rubber Granules 90 %
- SBR Rubber Strands 10 %
- Black MDI Binder 20% of total rubber weight

#### *Surface Installation*

The black rubber and polyurethane binding agent are blended together in a suitable mixer for a period of 2-3 minutes. The blended materials are then spread onto the asphalt/concrete base by means of a mechanical tandem leveler at a rate of 16 to 16.5 pounds per square yard. 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 - 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. Any small irregularities remaining in the surface after the tandem leveler has passed may be removed using a light polyethylene or Teflon roller or hand trowel.

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.

#### *Line Markings*

Experienced personnel utilizing polyurethane-based paint compatible with the synthetic track surfacing shall apply all line and event markings. All marking dimensions will be in accordance with the specifications issued by the appropriate sanctioning or governing body such as IAAF, NCAA, NFSHSA, etc.

#### **D. PERFORMANCE STANDARDS**

Physical Properties (ASTM/IAAF)

Colors:	Black
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. 90%
ASTM D-412 Tensile Strength:	0.70 N/mm <sup>2</sup> @ 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



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**E. CONTRACTOR QUALIFICATIONS**

Contractors wishing to substitute an “or equal” must provide documentation for their product 10 days prior to the bid opening.

**F. WARRANTY**

ALL SPORT 500 is warranted against defects in workmanship, labor and materials under normal use and service for a period of sixty months. 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.

**G. MANUFACTURER**

ALL SPORT 500 as manufactured by  
ALL SPORT LLC. Surfacing & Construction Sport Facilities