



SECTION 32 18 16

RESILIENT PLAY AREA SURFACING

1. PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Poured-in-place resilient play area surfacing.

1.2 REFERENCES

- A. 2010 Americans with Disabilities Act (ADA) Standards for Accessible Design.
- B. ASTM D412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers - Tension.
- C. ASTM D2047 - Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine.
- D. ASTM F1292 - Standard Specifications for Impact Attenuation of Surface Systems Under and Around Playground Equipment.
- E. ASTM F1951 - Standard Specifications for Determination of Accessibility of Surface Systems Under and Around Playground Equipment.
- F. CBC - California Building Code, (CCR) California Code of Regulations, Title 24, Part 2, California State Accessibility Standards.
- G. CPSC Guidelines - A Handbook for Public Playground Safety.
- H. CPSI - Certified Playground Safety Inspector.

1.3 SYSTEM DESCRIPTION

- A. Poured-in-place surfacing designed for installation around playground equipment.
- B. The system shall be comprised of a dual-layer mixture of strand and granule rubber compounds bonded by polyurethane.

1.4 PERFORMANCE REQUIREMENTS

- A. System shall meet impact attenuation per ASTM designation F1292.
- B. Playground surface must meet accessibility requirements of ASTM F1951.
- C. Coefficient of friction of 1.0 dry and 0.9 wet in accordance with ASTM D2407.
- D. The minimum area of surfacing and fall zones shall be in accordance with CPSC guidelines.

1.5 REGULATORY REQUIREMENTS

- A. Conform to CBC, California Building Code, (CCR) California Code of Regulations, Title 24, Part 2 and the 2010 ADA Standards for Accessible Design for access.

1.6 SUBMITTALS

- A. Submit product data, samples and manufacturer's literature under provisions of Section 01 33 00.
- B. Submit product data for play area surfacing.
- C. Submit two samples 6 x 6 inches of play area surfacing assembly.

- D. Submit manufacturer's color chart.
- E. Submit test reports indicating impact attenuation in accordance with ASTM F1292.
- F. Submit manufacturer's installation instructions.
- G. Submit manufacturer's certificate under provisions of Section 01 33 00 that products are in compliance with ASTM F1951.
- H. Submit final inspection certificate from a Certified Playground Safety Inspector that installation of materials meets the requirements of the CPSC Guidelines.

1.7 OPERATION AND MAINTENANCE DATA

- A. Submit maintenance data under provisions of Section 01 77 00.
- B. Include cleaning and stain removal methods and recommended repair procedures.

1.8 QUALIFICATIONS

- A. Manufacturer specializing in the manufacture of products specified in this Section with a minimum five years documented experience.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store and protect products under provisions of Section 01 61 00.
- B. Materials not immediately used at site shall be protected in a weather resistant container or shelter.
- C. Protect play area surfacing materials from damages by environment and any related construction operations.

1.10 ENVIRONMENTAL REQUIREMENTS

- A. Do not install play area surfacing when raining or when inclement weather is eminent.
- B. Do not install play area surfacing when temperature is under 40 degrees or over 95 degrees Fahrenheit.
- C. Maintain temperature restrictions during and after installation of play area safety surfacing for a period of 24 hours.

1.11 SEQUENCING AND SCHEDULING

- A. Coordinate work under the provisions of Section 01 31 00.
- B. Sequence work after installation of play area equipment and play area sub base.

1.12 WARRANTY

- A. Provide five year warranty under provisions of Section 01 77 00.
- B. Warranty: Include coverage for wear, cracking, peeling and losses due to UV degradation.

1.13 EXTRA MATERIALS

- A. Provide 100 square feet of wear course play area surfacing materials.

2. PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Flex Ground LLC, Standard Pour-In Place, www.flexground.com.
- B. Robertson Industries, Product: Totturf, www.totturf.com.
- C. Spectraturf, Inc. , Product: Spectra Pour, www.spectraturf.com.
- D. Surface America, Product: Playbound Surfacing, www.surfam.com.
- E. Substitutions: Under provisions of Section 01 25 13.

2.2 RESILIENT PLAY AREA SURFACING

- A. Poured-in-place resilient surfacing of two layers. Cushion course and weather resistant wearing course.
- B. Cushion Course: 100 percent recycled shredded and styrene butadiene (SBR) rubber bonded by polyurethane 2-1/2 inch thick.
- C. Wearing Course: Blend of recycled ethylene propylene diene monomer (EPDM) particles meeting requirements of ASTM D412 bonded by polyurethane 1/2 inch thick.
- D. Color: Wearing course to be standard black/color combination of colors as selected by Architect.
- E. Binder: Single component polyurethane prepolymer.

2.3 SUB-BASE

- A. Bituminous concrete sub-base in accordance with the provisions of Section 32 12 16, 3 inch thick.

2.4 EQUIPMENT

- A. Provide necessary equipment, tools, manpower, etc. to accomplish work in a timely manner.
- B. Mixer used for work of this section shall be in good working order and of a size necessary to accommodate component parts.

2.5 COMPONENTS

- A. The component parts of the play area safety surfacing shall be premeasured by the manufacturer before delivery to site, except for the polyurethane binder delivered in unopened 55 gallon drums.

2.6 ACCESSORIES

- A. Primer: Manufacturer's recommended primer.

2.7 MIXES

- A. All component mixtures shall be done in a manner so that work, once started, will proceed unhindered.
- B. Component parts shall be mixed for no less than 2 minutes.

3. PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that play equipment installation and sub-base work is complete and ready to receive play area surfacing.
- B. Verify field measurements are as shown on drawings.

- C. Beginning of installation means installer accepts existing conditions.

3.2 PREPARATION

- A. Apply primer to cushion course perimeter curbs and any adjacent vertical playground equipment support posts.
- B. Protect elements surrounding work of this Section from damage.

3.3 INSTALLATION

- A. Apply play area safety surfacing in accordance with manufacturer's instructions.
- B. Play area surfacing shall be troweled tightly to play equipment support posts with no gaps.

3.4 FINISHING

- A. Wearing course shall be hand trowled to a smooth, uniform pebble grain finish.

3.5 TOLERANCES

- A. Finished work shall vary no more than 3/16 inch in 10 feet when measured with a straight edge.

3.6 INSTALLATION CERTIFICATION

- A. At completion of the work of this section provide final inspection certification by a Certified Playground Safety Inspector that installation of materials meets the requirements of the CPSC Guidelines.

3.7 CLEANING

- A. Clean work area daily. Remove all debris from site at end of each day.

3.8 PROTECTION

- A. Protect finished installation under provisions of Section 01 61 00.
- B. Do not permit traffic over finished play area safety surfacing for no less than 48 hours.

END OF SECTION