

Child's Play EPDM Surface Specifications

PART 1 General

This specification covers the performance requirements, submittals, materials, base preparation, layering, installation and guarantee of poured-in-place safety surfacing.

Performance Requirements

- 1.1 Child's Play safety surfaces installed within equipment use zones shall exceed the performance requirements for impact attenuation and Head Injury Criteria as per the requirements of U.S. Consumer Product Safety Commission (CPSC) (confirming a maximum deceleration of no more than 200 g's and a HIC value of no more than 1000 as per ASTM F-1292 method of testing).
- 1.2 The impact attenuation performance shall be documented by a certificate of compliance and shall be performed using Triax 2000 non-destructive testing apparatus within 30 days of installation.
- 1.3 Child's Play safety surface shall meet all requirements for accessibility including the American Disabilities Act Accessibility Guidelines (9ADAAG) 28 DFR Part 36 as well as compliance with the Uniform Federal Accessibility Standards (UFS) FED-STD-795 and the Architectural and Engineer Instructions (9AEI) Design Criteria.

Submittals

- 1.4 The following shall be submitted:
 - 1.4.1 Manufacturers description of product, installation methods, base preparation and maintenance instructions.
 - 1.4.2 Detailed shop drawings of safety surfacing edging details, material thickness and base construction.
 - 1.4.3 Color chart of available colors.
 - 1.4.4 MSDS sheets for materials used to construct the same.
 - 1.4.5 Test results confirming product has been tested and is in compliance with ASTM F-1292.
 - 1.4.6 Statement from the Manufacturer that the system to be installed shall only be performed by authorized and trained personnel.

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- 1.4.7 Statement from Manufacturer that the binders used in the system have been specifically designed for playground surfacing.
- 1.4.8 A Certificate of Insurance for general and liability of no less than \$1,000,000.
- 1.4.9 Sample of the surface system minimum size being 3" x 3".

PART 2 Materials

- 2.1 Base Construction: ensure that any and all contaminated material and wood fiber systems are removed and properly disposed of. Construct new base or recycle existing materials as per Child's Play specifications to provide a stable firm base on which to install safety surface system.
- 2.2 EPDM shall meet the following gradations granulated rubber: 1 - 3.5 mm. Or 1-4 mm depending on desired surface texture.
- 2.3 EPDM rubber shall meet ASTM D 412 for tensile strength and elongation with a shore hardness of 50 - 70, shall be peroxide cured with an EPDM content of 26%.
- 2.4 Polyurethane binders shall be specially formulated for playground surfacing, shall contain no TDI, filler minerals such as plasticizers, catalysts, extenders or heavy metals. Weight of polyurethane shall be no less than 8.5 lbs./gal (1.02 Kg/l).
- 2.5 Typically, MDI binders are aromatic however a higher Ultraviolet resistant aliphatic binder is available at additional cost.

PART 3 Playground Surfacing

Base Preparation

- 3.1 In order to ensure the consistent performance of the safety surfacing, bases must be constructed to ensure a firm, stable and draining foundation for the surface. Any and all contaminated materials or materials that are subject to decomposition or expansion shall be removed and disposed of.
- 3.2 Ensure drainage of the base material is existing or install drainage system under the safety surfacing system.
- 3.3 Construct bases as per Child's Play specifications for various site conditions as listed below. Child's Play cannot guarantee a safety surface over bases that do not meet the base requirements.
 - 3.3.1 Asphalt, concrete or compacted stone bases.

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3.3.2 Conversion of existing sand or pea gravel.

Surface Installation

- 3.4 After the stone base has been constructed to Child's Play specifications, graded and compacted to proper slope and elevations, install R-100 geotextile filter fabric over base, overlapping all joints by 6". Provide protection to curbs, sidewalks and play equipment to eliminate polyurethane residue on the same.
- 3.5 Polyurethane and strand SBR rubber for base mat shall be thoroughly mixed on site to ensure 100% coverage of all particles and poured in place to required thickness to meet critical height criteria of play equipment. Allow 24 hrs. to cure.
- 3.6 Prior to installing wearing course, the base mat shall be primed with diluted polyurethane binder.
- 3.7 Surface layer of EPDM rubber shall be thoroughly mixed on site to ensure 100% coverage of all particles. Binder content shall be minimum 20% by weight and mixture shall be poured in place by means of rakes and screed bars to a thickness of 1/2" and compacted to required density by use of hand trowels and rollers.

Cleanup

- 3.8 Remove any spills or residue that may make contact with structure or surrounding curbs or sidewalks. On completion of work and the 24 hr. cure time, remove all protection provided for the same.

PART 4 Installer Services

- 4.1 100% EPDM, 50/50 blends of EPDM surfaces of various colors are available to meet budgets. Clear binders are available for resurfacing existing areas providing additional protection from ultraviolet light and revitalization of existing sites. These binders can be installed by owners or Child's Play trained personnel.