



Architectural/Bid Specification

Rubber Mulch is a unique, environment-friendly safety surface, manufactured from recycled automotive tires at a state-of-the-art facility. Properly installed, Rubber Mulch provides an enjoyable play area that meets the guidelines set forth by the Consumer Product Safety Commission (CPSC), the American Standard for Testing Materials (ASTM), ADA and the International Playground Equipment Manufacturers Association (IPEMA).

1. Description

1. Composition Rubber Mulch is composed of 100% recycled shredded rubber made from whole passenger tires. Loose fiber and foreign materials have been systematically removed. Rubber Mulch is 99.9% free of steel content.
2. Toxicity Rubber Mulch is organic, non-hazardous and non-toxic.
3. Appearance Rubber Mulch is a loose-fill mixture of 3/8"-3/4" rubber granules and chunks, available in standard black or in a variety of colors.

2. Certifications

1. IPEMA Certified: Almost twice as effective as other surfacing products, Rubber Mulch exceeds ASTM Standard F1292-04 for impact attenuation. IPEMA has awarded the manufacturer with an independent certification for conformance to this standard. IPEMA works to promote an open market for its members and to increase the quality of children's play equipment and surfacing.
2. Flammability Based on testing conducted by the "Scrap Tire Management Council", rubber mulch is non-flammable, in accordance with the Federal Hazardous Substance Act, 16 CFR 1500.44. A flammable substance ignites and burns with a self sustained flame at a rate that exceeds 0.1 inches per second along its major axis. Recycled rubber burns at a rate of <0.01 inches per second.
3. ADA compliant Rubber Mulch, installed at a non-compacted depth of 6" / 14 pounds per sq. ft., is handicap accessible, according to ASTM F1951-08, Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playgrounds. Rubber Mulch must be compacted at 3" and again at 6" using a pneumatic tamper, Bobcat, or similar.

3. Site Preparation

1. Site Analysis: Prior to design of the playground, a certified engineer or landscape architect knowledgeable of area climate and topography should be consulted. The consultant must be familiar with updated versions of applicable ASTM standards, CPSC's Handbook for Public Playground Safety, and state and local codes.
2. Base Preparation: Intended installation area must be cleared of rocks, stumps and other debris, including wood mulch or other surface material. Pre-existing surface material impedes the safety performance of Rubber Mulch. It is not recommended to install Rubber Mulch over asphalt or concrete, as these surfaces severely compromise rubber mulch's safety performance. Chemicals in asphalt also break down the coloring agent on Rubber Mulch colors.

Recycled Rubber Mulch for playgrounds available at **AAA State of Play**.

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3. **Grade:** Area must be properly graded according to intended playground level, and firmly compacted. For in-ground installation, area must be excavated to a minimum depth of 6". A proper drainage system should be in place as water tends to move towards the lowest point. We do not recommend a recessed installation unless proper drainage is installed.
4. **Retaining Wall:** Above-ground installation of Rubber Mulch material requires a retaining wall. Rubber Curbs, available in 6" and 8" heights, are strongly recommended. Specifications may be obtained. Rubber Curbs effectively contain Rubber Mulch, preventing excessive kick-out of material, thereby minimizing the need for replacement material in the future.
5. **Filter Fabric:** A quality geo-textile fabric, secured with landscaping staples, may be installed beneath Rubber Mulch to prevent weed growth and percolation of foreign materials. Filter fabric will "Initially" prevent growth of weeds and grasses. Although the fabrics are permeable, they will collect debris and dirt and may actually promote growth over time. Fabric must be cut to fit tightly around all playground structures. All seams should be taped in order to prevent separation during installation and to prevent dirt or debris from mixing with the mulch. Filter fabrics are available in a variety of types, sizes and thicknesses. Individual specifications may be obtained from the manufacturer.
6. **Drainage System:** Excessive pooling of water can impair Rubber Mulch safety performance. To prevent this situation, a drainage system may be necessary. For manufactured drainage system, refer to manufacturer's installation instructions. If drainage stone is used beneath rubber mulch, we suggest using a fabric. If it is placed over sand and compacted earth, the owner may opt to not use a filter fabric. For gravel drainage, gravel must be installed below the filter fabric directly beneath Rubber Mulch.

4. Quantity

1. **Area Coverage:** When calculating required amount of mulch, calculation should be based on poundage. Although other manufacturers recommend less, fourteen pounds of Rubber Mulch per square foot is the necessary amount to achieve 6" prior to compaction and a safe 12' critical fall height.
2. **Depth:** Rubber Mulch must be installed at a minimum depth of 6" / 14 pounds per square foot prior to compaction, in order to maintain safety standards. The critical fall height may allow for variation in the depth of the surface. Some areas may require greater depth, depending upon the height or risk level of playground equipment.
3. **Surface Area:** Rubber Mulch must surround play equipment by a minimum use zone of six feet, with the exception of swings, slides and mobile equipment. Current safety guidelines from CPSC /ASTM must be reviewed for these playground fixtures and for periodic updates and / or changes.

5. Installation

1. **Delivery:** Rubber Mulch can be delivered in bulk or in supersacks. If space is adequate, a dump truck/trailer may unload the material directly into the play area. Supersacks may be transferred to the play area by bobcat or wheelbarrow.
2. **Colored Mulch:** Depending on weather conditions, Rubber Mulch colored mulch may require two to three days after delivery to sufficiently dry and cure before installation.
3. **Tools:** Rubber Mulch may be spread on play area manually, with rake or shovel, or by machine for larger playgrounds. Installer must exercise care not to disturb the geo-textile

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- filter fabric while spreading. A final hand-raking provides a smooth finished playground surface.
4. Rubber Wear Mats: Rubber mats or equal are strongly recommended to be installed in high traffic areas, such as beneath swings and sliding poles, and at slide exits. The rubber mats are to be laid midway through the rubber mulch, as they minimize displacement of Rubber Mulch. These mats may be used with any loose fill surfacing product. Rubber wear mats should not be used alone. The maximum critical fall height for each mat is 3 feet. They should only be used in conjunction with Rubber Mulch.

6. Maintenance

1. Benchmark: Immediately following installation and inspection, the level of Rubber Mulch should be marked off on the playground equipment, using a permanent marker or the like. Especially in high traffic areas, Rubber Mulch requires periodic raking to restore the material to its safe and proper depth.
2. Aesthetic Care: Rubber Mulch may be cleared of foreign objects and debris using rake or leaf blower.
3. Warranty: The manufacturer guarantees the impact performance of Rubber Mulch for fifty years and provides an eight-year warranty against total color loss. Note: Failure to maintain appropriate depth, as determined according to the highest potential fall height, may void manufacturer warranty and cause permanent injury or harm.