

## GT Impax Shredded Rubber Product Specification

### **PART 1 - GENERAL**

#### Work Details:

The work specified in this section consists of the installation of GT Impax Shredded Rubber in accordance with these specifications, and in conformity with the dimensions and notes shown in the plans.

#### Quality Assurance & Compliance Details:

*Impact Attenuation - ASTM F1292-04:* When installed to a compacted depth of 6 in. GT Impax recycled shredded rubber will, when tested according to ASTM F1292-04, have a critical height (i.e. G-max less than 200, HIC less than 1000) of 12 ft. minimum.

*Flammability of Finished Floor cover - ASTM D2859:* GT Impax recycled shredded rubber must pass the ASTM D2859 flammability test.

*IPEMA Certified:* Manufacturer must provide proof of certification. “In the interest of public playground safety, IPEMA provides an independent laboratory which validates a manufacturer’s certification of conformance to ASTM F 1292-04. A list of current validated products, their thickness and critical heights may be viewed at [www.ipema.com](http://www.ipema.com).”

#### Submittal Details:

Submittal packages shall include but not be limited to (1) product samples, (2) supplier's written warranty, and (3) independent laboratory results.

### **PART 2 - MATERIAL DATA**

#### GT Impax Recycled Shredded Rubber:

GT Impax recycled shredded rubber is a rubber product manufactured from ground recycled tire rubber with loose fiber removed and free of foreign materials. It is comprised of a mixture of crumb rubber and rubber buffings to aid in compaction.

## **PART 2 - MATERIAL DATA (continued)**

### Composition:

- 100% ground recycled tire rubber from whole passenger and/or truck tires with loose fiber removed and free of foreign materials. Rubber is considered a non-hazardous filled hydrocarbon polymer that is non-toxic, non-metallic and principally a carbon-based organic material.
- Free Metal Content: < .01% (Wire Free) ASTM 5603
- Maximum Loose Fiber Content: < .01% by weight.
- Colorant: < .75% by weight.

### Dimensions:

- Mixture: 50% 3/8+” crumb rubber and 50% +4 buffings.
- 98% of Crumb rubber dimensions: 3/8+” by 3/8+” cubed rubber nugget.
- 98% of +4 buffing dimensions: 7.62 cm long, 1.59 cm wide, .32 cm deep.
- Gradation of % weight retained of Crumb Rubber: 10% maximum @ 80 mesh sieve, 15% maximum @ 40 mesh sieve. ASTM D5644

### Properties:

- Moisture Absorption: 0% maximum by weight.
- Moisture Content: < 1% by weight. ASTM 1509
- Density: 26-28 pounds per cubic foot.
- Flammability: (.001 inches per second) Meets criteria. ASTM 16 CFR 1500.44
- Acute Toxicity of Colorant: (>5000mg/kg (rat)) Meets criteria. Oral LD50 Test

### Toxicity:

Product must prove to be non-toxic and may not produce toxic leachate. Bidder to provide toxicity data.

### Packaging:

- Super Sacks -Palletized container bags with 2,000 pounds per bag. Forklift may be needed to unload.  
Maximum of 22 pallets per truck.
- Bulk delivery in dump trailers is available in some, but not all areas.

## **PART 3 - SUB-BASE TYPES & DETAILS**

GT Recycled Shredded Rubber may be installed over compacted earth. If it is deemed that additional drainage is necessary, a layer of gravel can also be a suitable substrate.

## PART 4 - SITE PREPARATION AND REQUIREMENTS

For in-ground (i.e. on grade) installations, excavate area to proper depth (6 inches for a 12 foot critical fall height).

Both in-ground and above-ground systems must be properly graded. A (1) percent grade is recommended for proper drainage. GT Impax recycled shredded rubber systems should not be installed on grades exceeding 10 percent. Substrate (for both in-ground and above-ground systems) must be firmly compacted, especially when additional fill material has been provided. The substrate should be free of stones, roots and other vegetation.

## PART 5 - INSTALLATION

GameTime recommends that all materials provided by GameTime, including product data, specifications, installation instructions and maintenance procedures, as well as all site specific plans, instructions and specifications, be reviewed by a certified engineer, architect or landscape architect familiar with local soil and climatic conditions.

Further, purchaser should determine and specify fall heights and equipment use zones as required by the Consumer Product Safety Commission's *Handbook for Playground Public Safety*, applicable ASTM standards, and state and local codes and regulations.

### Installation Instructions

- 1) Install playground equipment
- 2) For above-ground systems, install retaining wall.
- 3) Install applicable drainage system.
- 4) If manufactured drainage is being used, the Terraflow should be laid out in parallel strips on six-foot centers. The strips must run from the high side of the playground to the low side. Terraflow drains should be placed directly on the sub-grade and should be covered with geotextile cloth after layout is complete. As an option for playgrounds with poor drainage, a Terraflow header strip may be cut and placed perpendicularly to the parallel strips already in place. This header strip should be placed on the low end of the playground. Any joints can be taped with a waterproof tape to maximize drainage.

## PART 5 - INSTALLATION (Continued)

5) If gravel drainage is used, place 3 in. of drainage gravel on a layer of geotextile fabric. The lower end of the site should be connected to drainage to channel collected water away from the site. Overlap all seams a minimum of 3 in. Slit fabric to fit around equipment uprights. Where possible, overlap all slits with next piece of fabric.

6) Cover drainage system (either manufactured drainage or gravel) or earth substrate with geotextile fabric. Overlap all seams a minimum of 3 in. Slit fabric to fit around equipment uprights. Where possible, overlap at slits with next piece of fabric.

7) With permanent marker or warning label, mark uprights of equipment with compacted system depth (i.e. 8 in. or 12 in.).

8) Install the GT Impax recycled shredded rubber to the proper depth, mounding in the center of the play areas of the playground. Use a small front-end loader to spread surfacing. Operator should be careful not to travel on the fabric or turn sharply on the GT Impax recycled shredded rubber. It will also be necessary to spread manually. Install all the material delivered.

9) Install GameTime wear mats in excessive wear areas, such as slide exits, under swings, and sliding poles.

10) For a smooth finished surface, hand rake. After two weeks of active use, surface should be raked again.

- Periodical adjustments of GT Impax recycled shredded rubber are required under slides, swings and other concentrated use zones. Installing GameTime mats in these areas will help control displacement in these high use zones. **WARNING: Failure to maintain GT Impax recycled shredded rubber at the initial installation depth may result in an injury and void your warranty.**

## PART 6 - WARRANTY:

GT Impax warrants recycled shredded rubber against total color loss for eight (8) years from the purchase date and in turn warrants the impact attenuation performance of this product for the lifetime of ownership (not to exceed fifty (50) years). Ask your GameTime representative for a copy of our full GT Impax Recycled Shredded Rubber warranty.

## PART 7 - MAINTENANCE:

Ask your GameTime representative for a copy of our full GT Recycled Shredded Rubber maintenance details.



## GT Impax Shredded Rubber Warranty

GT Impax Loose Shredded Rubber Surfacing is manufactured from recycled automobile and truck tires and is guaranteed to meet or exceed the ASTM Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment Playground Surfacing Guidelines used by U.S. Consumer Products Safety Commission.

GameTime warrants GT Impax Loose Shredded Rubber Surfacing against total color loss for eight years from the purchase date and in turn warrants the impact attenuation performance of this product for the lifetime of ownership (not to exceed fifty years), subject to the conditions and exclusions listed below.

All product warranties are conditioned upon GT Impax Loose Shredded Rubber Surfacing being properly installed and maintained by the end-user in accordance with the installation and maintenance guidelines available from GameTime.

GameTime's entire liability and the purchaser's sole remedy, in the unlikely event that GT Impax Loose Shredded Rubber Surfacing does not conform to this guarantee, shall be limited to the replacement of defective material and shall not include the removal costs or installation costs or consequential damages or refund.

No other guarantee or warranty is expressed, written or implied except stated herein. Vandalism, physical loss or any abnormal use shall void this warranty, and GameTime shall have no responsibility with respect to damage resulting there from. Additionally, this warranty shall be void if foreign materials that affect impact attenuation are deposited onto or into these products. Under no conditions shall GameTime be liable for any damages whatsoever arising from the use of or inability to use the aforementioned products, even if GameTime has been advised of the possibility of such loss.

Warrantor: GameTime  
P.O. Box 680121, Fort Payne, AL 35968  
800-235-2440

Order number:

Name of project:

Customer:

Location:

Date of installation:

Representative:

Date:

## MAINTENANCE GUIDELINES RECYCLED SHREDDED RUBBER

### Heavy Use Areas

1. During routine inspections, heavily used areas such as under swings and at slide exits should be raked to maintain proper depth.
2. If heavy use areas are not raked for long periods of time, the depth of GT Impax recycled shredded rubber may be reduced, lessening its impact attenuation properties. Just raking may not insure the area for compliance so top-off materials may be necessary in order to retain the proper critical fall depths.
3. Placement of GameTime wear mats in heavy use areas will help reduce displacement of GT Impax recycled shredded rubber.

### Foreign Objects

1. Rake the play area level.
2. During routine inspection, remove any foreign objects such as glass, rocks, and litter.

### Winter Weather

If sufficient moisture is retained in GT Impax recycled shredded rubber, it will freeze at temperatures below 32F (0C). The recycled shredded rubber surface should be checked when the temperature falls below freezing.

### Top-Offs

1. To maintain the GT Impax recycled shredded rubber at the recommended (6 in.) depth, you will need to top-off the area as necessary to maintain proper depth and warranty.
2. When the GT Impax recycled shredded rubber depth falls below the original depth (marked on the playground uprights at the time of installation), contact your GameTime representative to order new material.

Periodical adjustments of GT Impax recycled shredded rubber are required under slides, swings and other concentrated use zones. Installing GameTime mats in these areas will help control displacement in these high use zones. **WARNING: Failure to maintain GT Impax recycled shredded rubber at the initial installation depth may result in an injury and void your warranty.**