

# GreenSoft® Bulk Engineered Wood Fiber Specifications, Installation and Maintenance Instructions

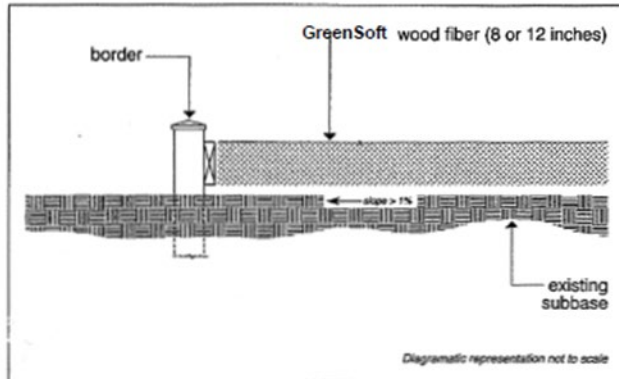
TFG Installations, Inc. is a member of IPEMA, the International Play Equipment Manufacturers Association. IPEMA is a member-driven organization whose mission is to assist in providing creative, fun, and safe play environments for children.



[www.ipema.org](http://www.ipema.org)

## 1. Above-ground Installation

### Playground – GreenSoft Bulk Engineered Wood Fiber



## 2. Wear mats



Designed with a beveled edge on all four sides for accessibility, these black rubber mats provide extra protection in hard use areas such as under swings and at slide exits. To prevent displacement of the GreenSoft in high-use areas and reduce maintenance, wear mats must be installed under all swings, tire swings, slide exits, and all other wear areas including sliding poles. These will help to ensure compliance with federal accessibility standards.

### IPEMA CERTIFIED

“In the interest of public playground safety, the International Play Equipment Manufacturers Association (IPEMA) provides a Third-Party Certification service whereby an independent laboratory validates a surfacing manufacturer’s conformance to ASTM F 1292, **Standard Specification for Impact Attenuation of Surfacing Materials within the Use Zone of Playground Equipment** and for an Engineered Wood Fiber manufacturer, its certification of conformance also to ASTM F 2075, **Standard Specification for Engineered Wood Fiber for Use as a Playground Safety Surface Under and Around Playground Equipment**, Section 4.6, for testing the presence of tramp metal and hazardous metals. The use of the corresponding logo(s) in Fibar® materials signifies that Fibar has received written validation from the independent laboratory that the product(s) associated with the use of the logo(s) conforms to the requirements of the indicated standard. A list of current validated products may be viewed at [www.ipema.org](http://www.ipema.org).”

# GreenSoft® Bulk Engineered Wood Fiber Specifications

System	Description	Critical Hgt.	Use
012	12" GS EWF	up to 12'	Playground
010	10" GS EWF	up to 10'	Playground
008	8" GS EWF	up to 8'	Playground
006	6" GS EWF	up to 6'	Jogging Track
All	36" x 36" x 1.5" wear mat	Not Applicable	Playground

*Depth measurements are approximate after compaction.*

## Part 1: General

To prevent displacement of the GreenSoft in high-use areas and reduce maintenance, wear mats must be installed under all swings, tire swings, slide exits, and all other wear areas including sliding poles. This will help to ensure compliance with federal accessibility standards.

- 1.1 Provide GreenSoft Bulk Engineered Wood Fiber in areas indicated on plans.
- 1.2 Provide this Safety Surface immediately after installing playground equipment.
- 1.3 GreenSoft Engineered Wood Fiber and wear mats are available from your local Representative or directly from TFG Installations, Inc., 80 Business Park Drive, Suite 300, Armonk, NY 10504-1705  
You can call ☎ 800-345-1953 ☎ 914-273-658

## PART 2: Materials

- 2.1 Provide GreenSoft® Engineered Wood Fiber to a compacted depth as specified by the system height.
- 2.2 The amount of GreenSoft Engineered Wood Fiber necessary to provide the approximate depth, after compaction, is as follows:

Depth	Quantity (for 1,000 sq. ft. playground)
8"	38 cubic yards
10"	43 cubic yards
11"	46 cubic yards
12"	50 cubic yards
- 2.3 Provide one (1) Wear Mat (minimum size: 36" x 36" x 1.5") with 2" beveled edge on all sides under each swing seat, tire swing, slide exit, and sliding pole. Double and triple slides may require multiple wear mats.

## PART 3: QUALITY CONTROL

- 3.1 Surfacing shall be **IPEMA-CERTIFIED** Engineered Wood Fiber. Standard wood chips or bark mulch will not be acceptable.
- 3.2 Supplier must provide test results for Engineered Wood Fiber and wear mats for impact attenuation in accordance with ASTM F 1292 *Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment*.
- 3.3 Testing of Engineered Wood Fiber in accordance with **ASTM F 1292** must show G-max values of less than

200G for the 12" system with a 12' drop height, and HIC values of less than 1,000.

- 3.4 Supplier must provide test results for the Engineered Wood Fiber in accordance with **ASTM F 2075** *Specification for Engineered Wood Fiber For Use as a Playground Safety Surface Under and Around Playground Equipment*.
- 3.5 Testing of wear mats in accordance with **ASTM F 1292** must show values of less than 200G and HIC values of less than 1,000 for a 3' drop height.
- 3.6 Supplier must provide test results in accordance with **ASTM F 1951**, *Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment*.
- 3.7 Supplier must certify that the surface meets the intent of the *Americans with Disabilities Act (ADA)*.
- 3.8 Supplier must provide **\$10 Million** product liability insurance certificate with project owner named as certificate holder, prior to delivery.
- 3.9 In Canada, supplier must meet CSA guidelines.

## PART 4: INSTALLATION

- 4.1 Install the GreenSoft Engineered Wood Fiber, and FibarMat wear mats in accordance with manufacturer's instructions.
- 4.2 Avoid contamination of the GreenSoft Engineered Wood Fiber with sand, gravel, mud, or native soil.

## PART 5: MAINTENANCE

- 5.1 Maintain the GreenSoft Engineered Wood Fiber in accordance with manufacturer's instructions.

GREENSOFT® BULK ENGINEERED WOOD FIBER SPECIFICATIONS, INSTALLATION AND MAINTENANCE INSTRUCTIONS.  
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Website: [www.greensoftsurfaces.com](http://www.greensoftsurfaces.com)

# GreenSoft® Bulk Engineered Wood Fiber Installation

## PLEASE NOTE:

In accordance with standard design and construction practices, TFG Installations, Inc. and its Representatives recommend using the services of a certified engineer, architect, or landscape architect who is familiar with local soil and climate conditions to evaluate and interpret any information provided by TFG Installations, Inc., and its Representatives.

TFG Installations, Inc. assumes no responsibility for determining the size of the playground or the Use Zone between the equipment and the border. Installer must thoroughly examine the site and specifications, carefully checking the dimensions before starting work.

All instructions are subject to equipment manufacturers' installation specifications.

Read GreenSoft® Bulk Engineered Wood Fiber Installation and Maintenance Instructions, all available from TFG Installations, Inc. ☎ 800-342-2721 or ☎ 914-273-8770 or your local Representative.

## ABOVE-GROUND INSTALLATION ONLY

1. The area should be well compacted and accurately graded, especially in areas where additional fill has been brought in. It is not recommended that GreenSoft Engineered Wood Fiber be installed on a grade greater than 10%. All roots, stones, and vegetation must be removed.
2. Install playground equipment.
3. **IMPORTANT:** With an indelible marker, **mark off all the legs** of the equipment with the compacted design depth.
4. Spread GreenSoft Engineered Wood Fiber, using a Bobcat or a small front-end loader. Operator should be careful not to turn sharply on the Fiber. It will also be necessary to use hand labor to spread. To allow for natural compaction, we supply additional material. Important: **Install all the material delivered.** The GreenSoft will be several inches above grade or border until it compacts. Feather the edges to make a smooth transition to existing grade or border.

### OPTIONAL:

To accelerate the compaction process, GreenSoft Engineered Wood Fiber can be mechanically compacted at an additional cost. The GreenSoft can be compacted in the accessible route to the equipment or the entire surface area. To mechanically compact the GreenSoft, install in 5" lifts using a plate compactor or other mechanical device. Change direction 90 degrees between each layer. Optional: Wet the surface before compacting. Repeat these steps until the desired level finished thickness is achieved. This accelerated compaction method, without wetting the surface, was used in the laboratory for the ASTM F1951 test procedure.

5. Hand-rake for a perfectly smooth, finished surface.

6. Install wear mats on top of the Engineered Wood Fiber. **To help ensure compliance with Federal Accessibility Standards, wear mats should be installed under all swings, tire swings, and at slide exits.** They should also be installed at other heavy use areas such as sliding poles. Wear mats are available through your local GreenSoft Representative.
7. After two weeks of active use, the surface should be raked again.
8. For complete information on Use Zones, contact the Consumer Product Safety Commission (CPSC) and ASTM.
9. See GreenSoft Bulk Engineered Wood Fiber Maintenance Instructions for requirements with respect to inspections, raking, top-off, and other maintenance advice.



### Compliance with Federal Law

To prevent displacement of the GreenSoft in high-use areas, wear mats should be installed under all swings, tire swings, slide exits and all other wear areas, including sliding poles. This will help to ensure compliance with federal accessibility standards.



**WARNING Incorrect Installation or maintenance,** failure to install all the materials delivered, failure to maintain the depth of the GreenSoft Engineered Wood Fiber at the original design depth, failure to use wear mats at slide exits, under all swings and tire swings (except enclosed or tot swings), other wear areas (a wear area is any area in the playground where the surface depth falls below the original design depth for the playground surface), use of the GreenSoft System and/or materials with others not provided by TFG Installations, Inc., abnormal use, lack of proper maintenance, or vandalism can result in serious injury or death. Be aware that no playground surface can prevent all accidents or injuries.



### WARNING Winter Conditions.

Should there be moisture retention in the GreenSoft Engineered Wood Fiber, it will freeze when the temperature drops below the freezing mark. Please check your surface frequently in winter weather. When the surface is frozen, the impact attenuation properties of GreenSoft are lost and for this reason, the play area should not be used.



### Reread the Installation and Maintenance Instructions periodically.

If at any time you are concerned about the surface and its performance, please contact us at ☎ 800-345-1953 or ☎ 914-273-8658.

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# GreenSoft® Bulk Engineered Wood Fiber Maintenance Instructions

1. **Visual Inspection.** Look for debris-especially stones, broken glass or other foreign objects and remove them. Check to make sure that the level or depth of the GreenSoft® Engineered Wood Fiber surface doesn't fall below the original design depth. The legs of the equipment should have been marked with a bold horizontal mark showing the design depth when originally installed. If they are not, take the time to mark the legs with an indelible marker at the original design depth, measuring from the bottom of the GreenSoft surface. This will allow you to readily see when the GreenSoft needs to be redistributed or topped off to maintain proper original design depth. If the equipment was not marked, or you choose not to mark it, the surface must be checked at a number of points using a long-handled screwdriver marked in inches to determine the actual depth. If the actual depth is below the original design depth, redistribution and/or top-off is needed. See **Raking** below, and top off if the depth of the GreenSoft is below the original design depth. Inspect the surface daily.

2. **Wear Mats.** To prevent displacement of the GreenSoft Engineered Wood Fiber in high-use areas, wear mats must be installed under all swings, tire swings, slide exits, and all other wear areas, including sliding poles. This will help to ensure compliance with federal accessibility standards. Wear mats reduce maintenance. If wear mats were not ordered when you ordered the GreenSoft Engineered Wood Fiber, please call your local Representative or TFG Installations, Inc.

 800-345-1953 or  914-273-8658

3. **Top-Off.** Experience has shown that installations typically require top-offs after three (3) years of use (in heavily used playgrounds, maybe sooner). The legs of the equipment should have been marked according to the specified depth when originally installed. The marks make it easy to determine when your GreenSoft surface falls below this level and requires topping off with fresh material. Top-Offs can sometimes be scheduled with other deliveries to minimize the freight cost. See Paragraph 1, **Visual Inspection**, for guidelines on how to know when your playground needs a surface top-off.

4. **Raking.** Areas of constant wear and impact should be raked level. Pay particular attention to areas under swings, sliding poles, and at slide exits. When a GreenSoft Engineered Wood Fiber installation is close enough to a sand pit that sand gets tracked into the GreenSoft surface, this could adversely change the impact attenuation characteristics of the GreenSoft Engineered Wood Fiber. The surface should be raked clean of debris.

5. **Accessibility.** Depending on weather and usage, a GreenSoft surface will compact to provide access for wheelchairs, crutches, walkers, and wheeled vehicles.

At accessible entrances onto the playground surface, ensure that the GreenSoft material, accessible route or the top of the access ramp is within ¼ inch of the top of the play area border. An ADA-compliant access ramp into the play area will help reduce maintenance in this area.

6. **Drainage.** Check the performance of the drain system by ensuring that water is flowing from a drain system outflow pipe immediately after rain. Also, make sure there is no standing water on the playground surface. It is important to have a functioning drainage system to improve the GreenSoft's life expectancy and the resilience of the surfacing.

7. **Weeds.** On playgrounds that only receive light usage, conditions could occur that might cause sporadic weed growth. In such instances, the situation can be easily remedied by the use of a safe weed killer (call your local Cooperative Extension Office) or remove weeds by hand.



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**WARNING**

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## Reread the Installation and Maintenance Instructions periodically.

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