

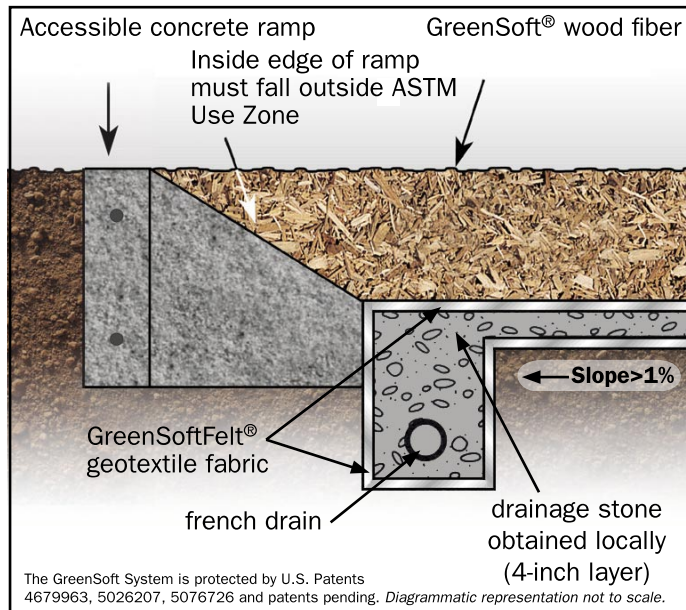
greenSoft® System 200

Specifications, Installation and Maintenance Instructions

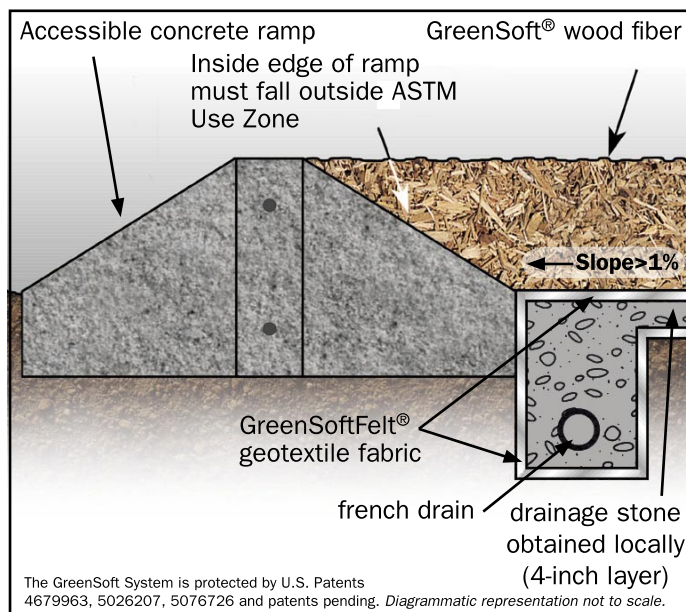
GreenSoft Systems are unique playground surface products, covered by one or more patents owned by TFG Installations, Inc. Award contractors *must obtain a license* from TFG Installations, Inc., prior to construction.

GreenSoft System 200 comes with a **20-year Warranty**.

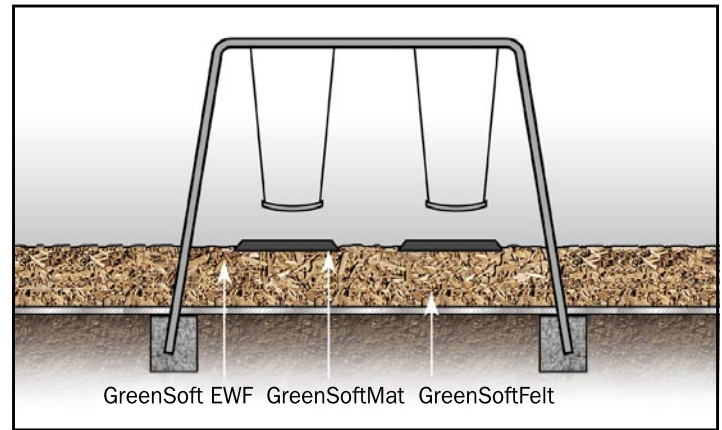
1. GreenSoft System 200: In-ground



2. GreenSoft System 200: Above-ground



3. GreenSoftMat Wear Mat



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.

Note: To prevent displacement of the GreenSoft in high-use areas, to preserve your warranty, and reduce maintenance, GreenSoftMat 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.

IPEMA CERTIFIED



To verify product certification, visit www.ipema.org



To verify product certification, visit www.ipema.org

In the interest of public playground safety, IPEMA provides a Third-Party Certification Service whereby an independent laboratory validates a surfacing manufacturer's conformance to ASTM F1292, **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 F2075, **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 GreenSoft® materials signifies that GreenSoft 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. Check the IPEMA website (www.ipema.org) to confirm product certification, its thickness, and critical height.

greenSoft® System 200 Specifications

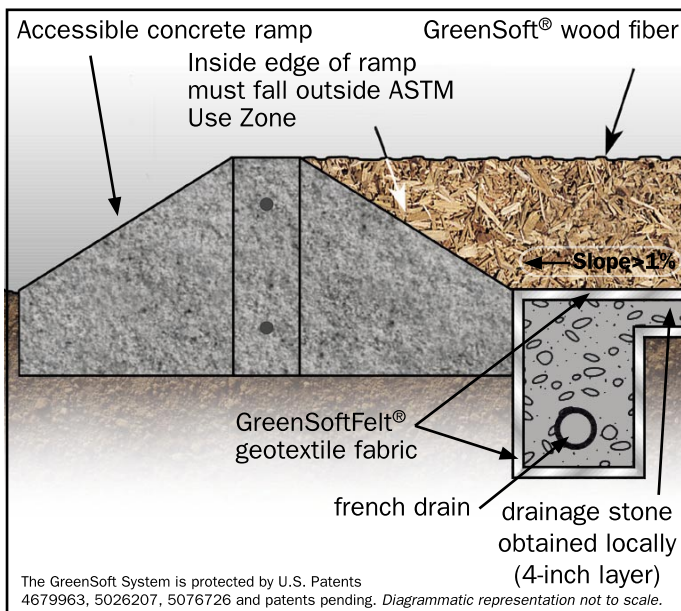
System	Description	Critical Hgt.	Use
212	12" GreenSoft, GreenSoftFelt	12'	Playground
210	10" GreenSoft, GreenSoftFelt	10'	Playground
208	8" GreenSoft, GreenSoftFelt	8'	Playground
206	6" GreenSoft, GreenSoftFelt	6'	Jogging Track
All	36" x 36" x 1.5" GreenSoftMat	Not Applicable	Playground

Depth measurements are approximate after compaction.

Part 1: General

A license to construct a GreenSoft System according to these specifications must first be obtained from TFG Installations, Inc., as licensor of the patent rights reflected in U. S. Patent numbers 4,679,963; 5,026,207; 5,076,726; and other patents pending.

To prevent displacement of the GreenSoft in high-use areas, to preserve your warranty, and reduce maintenance, GreenSoftMat 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 System Playground Safety Surface in areas indicated on plans.
- 1.2 Provide Safety Surface immediately after installing playground equipment.
- 1.3 GreenSoft Systems and GreenSoftMats 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 or ☎ 914-273-8658 or email info@greensoftsurfaces.com.

Part 2: Materials

- 2.1 Provide GreenSoft® Engineered Wood Fiber to a compacted depth, as specified by the system height, over GreenSoftFelt (100% polyester non-woven geotextile).

- 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 4" of free draining stone over bottom layer of GreenSoftFelt geotextile.
- 2.4 Provide one (1) GreenSoftMat (minimum size: 36" x 36" x 1.5" with two-inch beveled edge on all sides) under each swing seat, tire swing, slide exit, and sliding pole. Double and triple slides may require multiple GreenSoftMats.

PART 3: QUALITY CONTROL

Surfacing shall be **IPEMA-CERTIFIED** Engineered Wood Fiber. Standard wood chips or bark mulch will not be acceptable.

- 3.1 Supplier must provide test results for Engineered Wood Fiber and GreenSoftMats for impact attenuation in accordance with ASTM F 1292 *Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment*.
- 3.2 Testing of Engineered Wood Fiber in accordance with **ASTM F 1292** must show G-max values of less than 200G for a 12" system with a 12' drop height and HIC values of less than 1,000.
- 3.3 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*.
- 3.4 Testing of GreenSoftMats 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.
- 3.5 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*.
- 3.6 Supplier must certify that the surface meets the intent of the *Americans with Disabilities Act (ADA)*.
- 3.7 Supplier must provide written manufacturer's **20-Year Warranty** against loss of resiliency, and lifetime warranty on GreenSoftFelt.
- 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 GreenSoftFelt, GreenSoft Engineered Wood Fiber, and GreenSoftMats in accordance with manufacturer's instructions.

PART 5: LONG-TERM MAINTENANCE

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

GreenSoft System 200 Specifications, Installation & Maintenance Instructions. © 2013 TFG Installations, Inc.

TFG Installations, Inc., 80 Business Park Dr., Ste. 300, Armonk, NY 10504-1705.

☎ 800-345-1953 ☎ 914-273-8658 Fax 914-273-8659

Email: info@greensoftsurfaces.com Website: www.greensoftsurfaces.com

greenSoft® System 200

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 System 200 Specifications, Installation and Maintenance Instructions, all available from TFG Installations, Inc. ☎ 800-345-1953 or ☎ 914-273-8658 or email info@greensoftsurfaces.com or contact your local Representative.

A. IN-GROUND INSTALLATIONS

1. Excavate area to proper depth, based on Critical Fall Height, with a minimum 1% downward grade to ensure proper drainage. It is not recommended that a GreenSoft System be installed on a grade greater than 10%. All roots, stones, and vegetation must be removed.
2. The area should be well-compacted and accurately graded, especially in areas where additional fill has been brought in.
3. Install a French drain or excavate trench 1' wide x 2' deep, perpendicular to grade at lowest point of playground area. Line with GreenSoftFelt and fill with free draining stone. Envelope stone with GreenSoftFelt.
4. Connect low end to storm drain or similar device to remove collected water.

B. IN-GROUND (Cont.) & ABOVE-GROUND INSTALLATIONS

5. Install playground equipment. Install retaining border, if required.
6. ADA Wheelchair Access Ramp must be installed to ensure compliance with federal accessibility standards.
7. Cover sub-grade with GreenSoftFelt geotextile. Overlap all seams 3". It will be necessary to slit the GreenSoftFelt to fit around the footings of the equipment. Where possible, overlap all slits with next piece of GreenSoftFelt.
8. Install 4" of clean, free draining stone.
9. Add the second layer of GreenSoftFelt over the stone. Overlap all seams 3". It will be necessary to slit the GreenSoftFelt to fit around the footings of the equipment. Where possible overlap all slits with next piece of GreenSoftFelt.
10. **IMPORTANT:** With an indelible marker, **mark off all the legs** of the equipment with the compacted System design depth.
11. Spread GreenSoft Engineered Wood Fiber, using a Bobcat or a small front-end loader. Operator should be careful not to travel on the GreenSoftFelt or turn sharply on the GreenSoft. 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.
12. Hand-rake for a perfectly smooth, finished surface. 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.

13. Install GreenSoftMat wear mats on top of the Engineered Wood Fiber. To prevent displacement of the GreenSoft in high-use areas, to preserve warranty, and reduce maintenance, GreenSoftMat 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. GreenSoftMat wear mats are available through your local GreenSoft Representative.
14. After two weeks of active use, surface should be raked level again.
15. *For complete information on Use Zones, contact the Consumer Product Safety Commission (CPSC) and ASTM.*
16. See GreenSoft System 200 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, GreenSoftMat 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. GreenSoftMat wear mats reduce maintenance.



Incorrect Installation or maintenance, failure to install all the GreenSoft Engineered Wood Fiber delivered, failure to maintain the depth of the GreenSoft System installation at the specified system depth, failure to use GreenSoftMat 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 specified system depth for the playground surface), use of the GreenSoft System Installation 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.



Winter Conditions. Should there be moisture retention in the GreenSoft System, 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 or email info@greensoftsurfaces.com.

GreenSoft System 200 Specifications, Installation & Maintenance Instructions. © 2013 TFG Installations, Inc.

U.S. Patent Numbers 4 679,963; 5,026,207 & 5,076,726.

GreenSoft Systems, 80 Business Park Dr., Ste. 300, Armonk, NY 10504-1705.

☎ 800-345-1953 ☎ 914-273-8658 Fax 914-273-8659

Email: info@greensoftsurfaces.com Website: www.greensoftsurfaces.com

greenSoft® System 200

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 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 Paragraph 4, Raking, and top off if the depth of the GreenSoft is below the original design depth. Inspect the surface daily.
- 2. GreenSoftMat Wear Mats.** To prevent displacement of the GreenSoft Engineered Wood Fiber in high-use areas, GreenSoftMat 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. GreenSoftMat wear mats reduce maintenance. If GreenSoftMats were not ordered when you ordered the GreenSoft System, please call your local representative or contact TFG Installations, Inc. ☎ 800-345-1953 or 914-273-8658 or ✉ info@greensoftsurfaces.com.
- 3. Top-Off.** Experience has shown us 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. If the equipment was not marked, the surface should be checked at several points by using a longhanded screwdriver marked in inches to determine the actual depth. Top-offs can sometimes be scheduled with other deliveries to minimize the freight cost.
- 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 System installation is close to a sand pit, the sand may get tracked into the Engineered Wood Fiber surface. This can change the impact attenuation of he GreenSoft System surface. 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 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 easily be remedied by the use of a safe weed killer (call your local Cooperative Extension office) or remove weeds by hand.



Compliance with Federal Law. To prevent displacement of the GreenSoft in high-use areas, GreenSoftMat 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.



WARNING

Incorrect Installation or Maintenance. Failure to install all the materials delivered, failure to maintain the original design depth of the GreenSoft Engineered Wood Fiber, failure to use GreenSoftMat wear mats at slide exits, under all swings and tire swings (except enclosed or tot swings), or 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 GreenSoft Engineered Wood Fiber 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 or email info@greensoftsurfaces.com.

GreenSoft System 200 Specifications, Installation & Maintenance Instructions. © 2013 TFG Installations, Inc.

U.S. Patent Numbers 4,679,963; 5,026,207 & 5,076,726.

TFG Installations, Inc., 80 Business Park Dr., Ste. 300, Armonk, NY 10504-1705.

☎ 800-345-1953 ☎ 914-273-8658 Fax 914-273-8659

Email: info@greensoftsurfaces.com

Website: www.greensoftsurfaces.com