



PLAYGROUND SAFETY SURFACES



Technical Briefing & Buyer Protection Plan

FIBAR SYSTEM 300 SPECIFICATIONS & INSTALLATION • FIBAR SYSTEM 100 SPECIFICATIONS & INSTALLATION
GENERAL INFORMATION • FIBAR SYSTEM COMPONENTS • TESTING RESULTS • WARRANTY



Fibar Wear Mats and FibarGuard Wheelchair Access Ramps help ensure compliance with the ADA law.— See page 9

Part I – General Information

Quality Control, Applicable Testing Certifications and Sustainability

IPEMA Certification (www.ipema.org)

- IPEMA provides a Third-Party Certification Service where an independent laboratory provides written validation of participants' certification of conformance to certain safety standards for their products.
- These certifications include ASTM F1292 and ASTM F2075.
- The Third-Party Certification service has randomly selected and tested the products of the participating company.
- The Third-Party Certification service performs plant and home-office inspections, involving a review of participants' Quality Assurance Program, installation instructions, and compliant follow-up systems.
- The list of IPEMA certified products is maintained exclusively by TÜV SÜD America Inc.

ASTM F1292 *Standard Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment.*

- Required in the *Use Zone* for compliance with the Federal Accessibility Law.
- Test results must be for Engineered Wood Fiber and Mats.
- Test results for Engineered Wood Fiber must show G-max values of less than 55G for an 8" thick system or 120G for a 12" system with a 12' drop height, and HIC values less than 1,000.
- Test results for Engineered Wood Fiber must show G-max values of less than 200G for a 12" system with a 14' drop height, and HIC values less than 1,000.
- Test results for mats must show G-max values of less than 200G and HIC values of less than 1,000 for a 3' drop height.

ASTM F1951 *Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment.*

- Required for compliance with the Federal Accessibility Law.
- Test results for Engineered Wood Fiber must show values that pass the requirements of ASTM F1951.

ASTM F2075 *Standard Specification for Engineered Wood Fiber for Use as Playground Safety Surface Under and Around Playground Equipment.*

- Material must pass sieve analyses as well as other tests for tramp metal particles and hazardous metals as described in Section 9.0. Metal particles in the Engineered Wood Fiber may cause injury if a child falls on them. Unsafe levels of hazardous metals such as lead, arsenic, or cadmium can be harmful to children. Standard wood chips, bark mulch or materials from recycled pallets will not be acceptable.

LEED® Credits

- Products assist in obtaining LEED® (Leadership in Energy and Environmental Design) credits for projects.
- Sustainability Analysis performed by a LEED Green Associate.
- Recycled Content, Regional Materials, and Construction Waste Management, along with others, are available for use in LEED project certification.

Part II – Material Data

Engineered Wood Fiber

- Shredded virgin wood fiber consisting of randomly sized pieces.
 - Must comply with ASTM F2075 sieve size requirements.
 - No recycled pallets.

Finished Depth Including compaction:

DEPTH	QUANTITY	PLAYGROUND
8"	38 cubic yards	per 1,000 sq. ft.
9"	40 cubic yards	per 1,000 sq. ft.
10"	43 cubic yards	per 1,000 sq. ft.
11"	46 cubic yards	per 1,000 sq. ft.
12"	50 cubic yards	per 1,000 sq. ft.

Drainage System – Patented under U.S. Patent numbers 4,679,963; 5,026,207 and 5,076,726, and other patents pending.

- **Drain Strip**
 - Drainage strip that channels water away from playground.
 - Minimum flow rate of 10 gpm/ft.
 - Needle-punched 100% non-woven geotextile sleeve encasing a monofilament nylon mesh.
 - Laid out on 6' centers in the direction of the grade.
 - Helps prevent deterioration of Engineered Wood Fiber.
- **Geotextile Fabric**
 - Needle-punched 100% non-woven geotextile fabric that separates the Engineered Wood Fiber from soil below.
 - Material allows water to flow through, and prevents rock and soil contamination of the Engineered Wood Fiber.
 - Designed to cover the sub-grade and drainage strip to ensure proper drainage.
 - Seams should be overlapped 3".

Components/Accessory Items

- **FibarMat Wear Mats (*help ensure compliance with Federal Accessibility Law*)**
 - Prevent excessive wear under swings and slides.
 - 3' x 3' x 1.5" with beveled edges on all sides.
 - Placed under each swing seat, tire swing, slide exit, and sliding poles.
 - Preferred placement of FibarMat Wear Mats is on top of the Engineered Wood Fiber.
- **Fibar Wheelchair Access Ramp (*ensures compliance with Federal Accessibility Law*)**
 - Crafted from High-Density Polyethylene.
 - Won't fade, splinter or crack.
 - Wide enough for motorized wheelchairs.
 - Ramp must provide access into and out of play area.
- **FibarGuard Borders**
 - Crafted from High-Density Polyethylene.
 - Won't fade, splinter or crack.
 - Rounded corners prevent injury.
 - Four feet long and 12" high.



1. ACCESSIBILITY

The Federal Accessibility Law requires all playground surfaces to be ADA accessible. Surfaces must pass ASTM F1292 (impact) and ASTM F1951 (accessibility) to ensure compliance with the Law. It is essential that the surface is installed correctly including FibarMat wear mats and an ADA accessible entryway. The surface must be installed and maintained according to Fibar's Maintenance Instructions.

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

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 Engineered Wood Fiber life expectancy and resilience of the surfacing.

2. VISUAL INSPECTION

Remove debris—especially stones, broken glass, or other foreign objects. In heavily used public parks, inspect frequently.

3. 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 Fibar 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 the Fibar System surface. The surface should be raked clean of debris.

4. FIBARMAT WEAR MATS

To prevent displacement of the Fibar Engineered Wood Fiber in high-use areas, FibarMat 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 the Federal Accessibility Law. *The preferred method* is to place the mats on top of the Fibar Engineered Wood Fiber. FibarMat wear mats reduce maintenance. If FibarMats were not ordered when you ordered the Fibar System, please call your local representative or contact The Fibar Group, LLC ☎ 800-342-2741 or 914-273-8770 or ✉ info@Fibar.com. Fax: 914-273-8659.



5. 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.

6. 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 Fibar 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 longhandled screwdriver marked in inches to determine the actual depth. Top-offs can sometimes be scheduled with other deliveries to minimize the freight cost.



Fibar Engineered Wood Fiber knits together to form a surface that complies with the Federal Accessibility Law.

7. WINTER CONDITIONS

Any retained moisture in your Fibar System surface will freeze when the temperature drops below the freezing mark. Please check your surface in winter weather. **When the surface is frozen, the play area should not be used.**

IF AT ANY TIME YOU ARE CONCERNED ABOUT THE SURFACE AND ITS PERFORMANCE, PLEASE CALL TOLL FREE ☎ 800-342-2721 OR CONTACT 914-273-8770 or ✉ info@Fibar.com. Fax: 914-273-8659.

FibarSystem 300

FIBAR SYSTEM 300 SPECIFICATIONS

FibarSystem 300 is our premier playground surfacing product line for all uses including areas with high-to-average rainfall and/or poor drainage. The patented system is composed of Fibar Engineered Wood Fiber, FibarFelt Geotextile, our exclusive FibarDrain drain strips plus FibarMat wear mats. No other recreational surfacing product provides a better combination of accessibility, safety, 25-year warranty, and superior drainage properties at a comparable cost.

SYSTEM	DESCRIPTION	SPECIFIED FALL HT.	USE
Fibar System 312	12" Fibar EWF, FibarFelt Geotextile, Drain Strip	Up to 12'	Playground
Fibar System 310	10" Fibar EWF, FibarFelt Geotextile, Drain Strip	Up to 10'	Playground
Fibar System 308	8" Fibar EWF, FibarFelt Geotextile, Drain Strip	Up to 8'	Playground
Fibar System 306	6" Fibar EWF, FibarFelt Geotextile, Drain Strip	Up to 6'	Jogging track
ALL	FibarMat Wear Mat Minimum 36" x 36" x 1.5" with beveled edges for accessibility	Not Applicable	Playground

Note: Depth measurements are approximate after compaction.

FibarSystem 300 Above-Ground Installation Detail

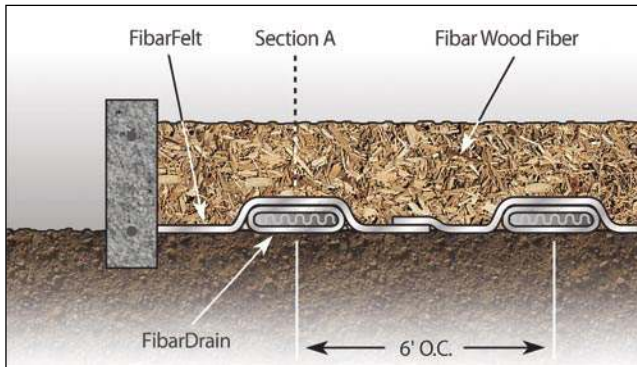


Figure 2

FibarSystem 300 In-Ground Installation Detail

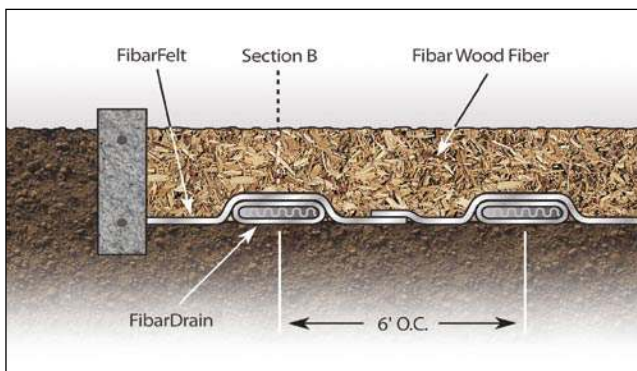


Figure 4

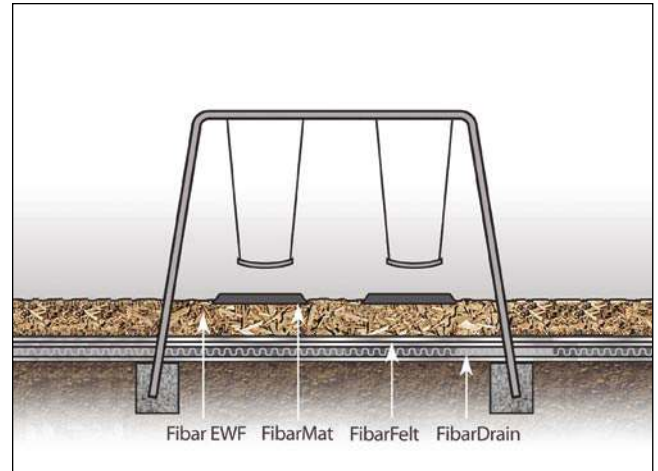


Figure 1

To help comply with the Federal Accessibility Law and to preserve your warranty, FibarMat wear mats must be installed under all swings, tire swings, slide exits, and all other wear areas, including sliding poles.

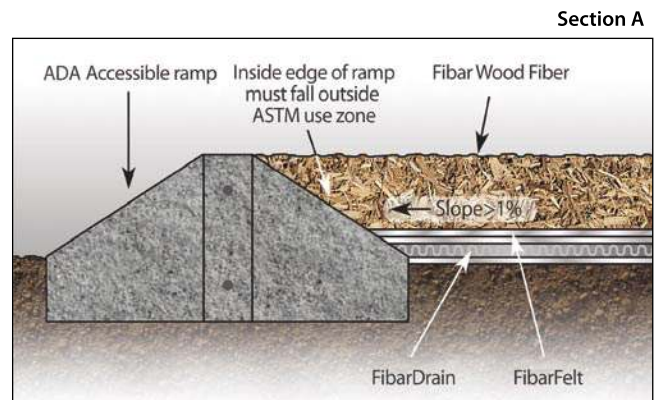


Figure 3

Entrance and exit ramps into the Fibar Engineered Wood Fiber should have a minimum slope of 1 in 12 or must meet current ADA, State or local regulations.

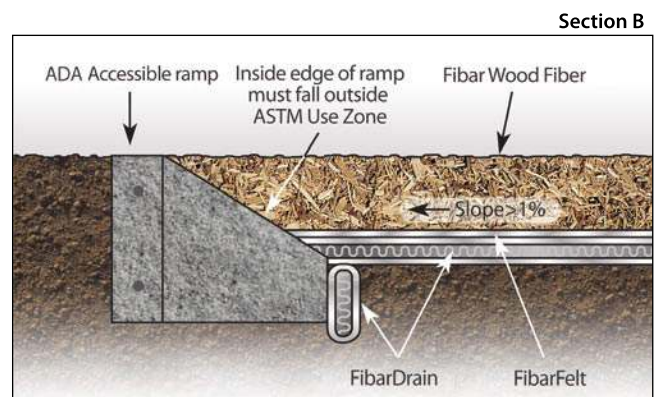


Figure 5

Entrance and exit ramps into the Fibar Engineered Wood Fiber should have a minimum slope of 1 in 12 or must meet current ADA, State or local regulations.

Note: Diagrams are not to scale. For illustration purposes only.

PLEASE NOTE:

In accordance with standard design and construction practices, The Fibar Group, LLC 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.

The Fibar Group, LLC 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 FibarSystem 300 Specifications, Installation, and Maintenance Instructions, all available from The Fibar Group, LLC ☎ 800-342-2721 or 914-273-8770 or ✉ info@Fibar.com. Fax: 914-273-8659. Or your local Representative.

A. IN-GROUND INSTALLATIONS

1. Excavate area 8" (for 8" installation) or 12" deep (for 12" installation) with a 1% downward grade to ensure proper drainage to FibarDrain Drain Strip. It is not recommended that a Fibar 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. Cut a trench 2" wide by 6" deep all along the inside edge perpendicular to the grade and install FibarDrain Drain Strip. Connect low end of FibarDrain Drain Strip to storm drain or similar device to take water collected from playground away from site.

B. IN-GROUND (Continued) AND ABOVE-GROUND INSTALLATIONS

4. Install playground equipment.

5. Install retaining border if required.

6. ADA Wheelchair Access Ramp must be installed to ensure compliance with Federal Accessibility Law.

7. Cut FibarDrain Strips and lay them on 6' centers in direction of grade.

8. Cover sub-grade with FibarFelt 100% non-woven geotextile material. Overlap all seams 3". Make sure to cover the trench and FibarDrain Strip in step #3 (if applicable). It will be necessary to slit the FibarFelt to fit around the footings of the equipment. Where possible, overlap all slits with the next piece of FibarFelt.

9. IMPORTANT: With a permanent marker, mark all the legs of the equipment to the compacted specified system depth.

10. Spread Fibar® Engineered Wood Fiber using a Bobcat or small front-end loader. Operator should be careful not to travel on the FibarFelt Geotextile or turn sharply on the wood fiber. It will also be necessary to use hand labor to spread. To allow for natural compaction, we supply additional wood fiber. Important: **Install all the Fibar Engineered Wood Fiber delivered.** The fiber will be several inches above grade or border until it compacts. Feather the edges to make a smooth transition to existing grade or border.

11. Hand-rake for a smooth & level finished surface. Natural compaction will occur over time and is dependent on the amount of playground use and environmental conditions. To accelerate the compaction process, Fibar Engineered Wood Fiber can be

mechanically compacted at an additional cost. The Fibar can be compacted in the accessible route to the equipment or the entire surface area. To mechanically compact the Fibar, 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.

12. Install FibarMat wear mats on top of the Engineered Wood Fiber.

13. After two weeks of active use, surface should be raked level again.

14. Consumer Product Safety Commission (CPSC) and ASTM Recommended Use Zones. A Use Zone of at least 6 feet must surround all equipment with the exception of:

- a. Swings: A Use Zone equal to 4 times the height of the top rail is needed in front of and behind swings (2 times in front and 2 times behind).
- b. Slides: The Use Zone surrounding a slide should be a minimum of 6 feet, except for the slide exit area where the Use Zone shall be a minimum of 6 feet or the distance between the highest point of the slide to the protective surfacing. The Use Zone at the slide exit need not exceed 8 feet.

For more information:

ASTM: 100 Barr Harbor Dr., W. Conshohocken, PA 19428-2959

☎ 610-832-9500 Fax: 610-832-9666 www.astm.org

Consumer Product Safety Commission (CPSC):

Washington, DC 20207

☎ 800-683-2772 www.cpsc.gov

Canadian Standards Association (CSA):

178 Rexdale Blvd, Toronto, Ontario M9W1R3, Canada

☎ 416-747-4000 www.csa.ca

15. See Fibar Systems' Maintenance Instructions for requirements with respect to inspections, raking, top-off, and other maintenance advice.



To prevent displacement of the Fibar in high-use areas, FibarMat 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 the Federal Accessibility Law.



WARNING

Incorrect installation or maintenance, failure to install all the Fibar Engineered Wood Fiber delivered, failure to maintain the depth of the Fibar System installation at the specified system depth, failure to use FibarMat 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 Fibar System Installation and/or materials with others not provided by The Fibar Group, LLC, 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 Fibar System installation, 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 Fibar Engineered Wood Fiber 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 ☎ 800-342-2721 or 914-273-8770 or ✉ info@Fibar.com. Fax: 914-273-8659.



FibarSystem 100

FIBAR SYSTEM 100 SPECIFICATIONS

FibarSystem 100 playground surfacing is designed for use in areas with annual rainfall less than 15 inches per year or sites with excellent drainage. The patented system is composed of Fibar® Engineered Wood Fiber and our exclusive FibarFelt Geotextile. No other recreational surfacing product provides a better combination of safety, accessibility, 15-year warranty, and ease of installation at a comparable cost.

SYSTEM	DESCRIPTION	SPECIFIED FALL HT.	USE
System 112	12" Fibar EWF, FibarFelt	Up to 12'	Playground
System 110	10" Fibar EWF, FibarFelt	Up to 10'	Playground
System 108	8" Fibar EWF, FibarFelt	Up to 8'	Playground
System 106	6" Fibar EWF, FibarFelt	Up to 6'	Jogging track
ALL	FibarMat Wear Mat Minimum 36" x 36" x 1.5" with beveled edges for accessibility	Not Applicable	Playground

Note: Depth measurements are approximate after compaction.



Figure 6

FibarSystem 100 Above-Ground Installation Detail

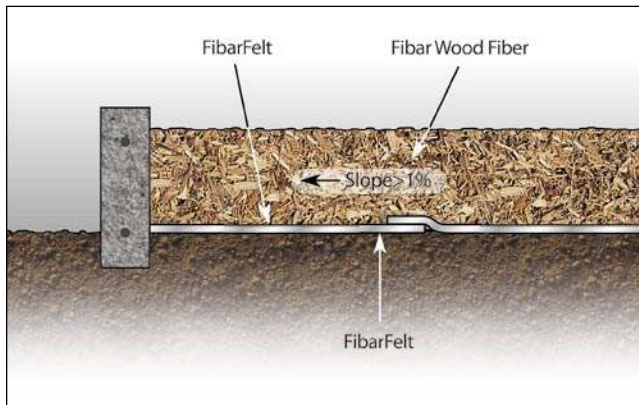


Figure 7



Properly positioned, FibarMat wear mats with beveled edges help ensure that playgrounds comply with Federal Accessibility Law.

FibarMat Wear Mats

To prevent displacement of the Fibar in high-use areas, to preserve your warranty, and reduce maintenance, FibarMat 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 the Federal Accessibility Law.

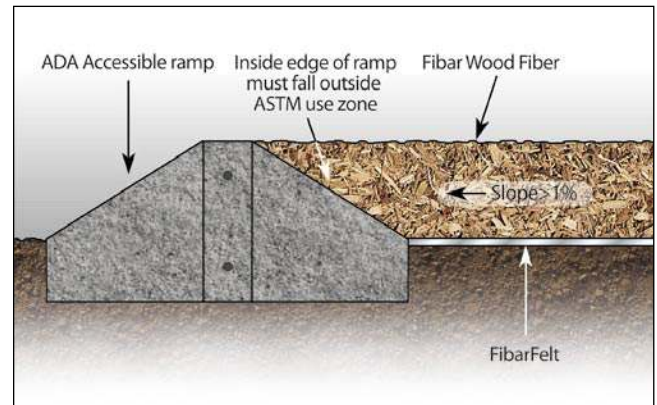


Figure 8

Entrance and exit ramps into the Fibar System surface should have a minimum slope of 1 in 12 or must meet current ADA, State or local regulations.

Note: Diagrams are not to scale. For illustration purposes only.

PLEASE NOTE:

In accordance with standard design and construction practices, The Fibar Group, LLC 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.

The Fibar Group, LLC 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 FibarSystem 100 Specifications, Installation, and Maintenance Instructions, all available from The Fibar Group, LLC ☎ 800-342-2721 or 914-273-8770 or ✉ info@Fibar.com. Fax: 914-273-8659. Or your local Representative.

A. ABOVE-GROUND INSTALLATION ONLY

1. The area should be accurately graded with a 1% downward grade and well-compacted.
2. Layout should allow for water to flow to a storm drain or similar device to take water collected from playground away from site.
3. Install playground equipment.
4. Cover sub-grade with 100% non-woven geotextile FibarFelt material. Overlap all seams 3". It will be necessary to slit the FibarFelt to fit around the footings of the equipment. Where possible, overlap all slits with the next piece of FibarFelt.
5. ADA Wheelchair Access Ramp must be installed to ensure compliance with Federal Accessibility Law.
6. Install retaining border.
7. IMPORTANT: With a permanent marker, **mark all the legs** of the equipment to the compacted specified system depth.
8. Spread Fibar® Engineered Wood Fiber using a Bobcat or small front-end loader. Operator should be careful not to travel on the FibarFelt Geotextile or turn sharply on the wood fiber. It will also be necessary to use hand labor to spread. To allow for natural compaction, we supply additional wood fiber. Important: **Install all the wood fiber delivered.** The fiber will be several inches above grade or border until it compacts. Feather the edges to make a smooth transition to existing grade or border.
9. Hand-rake for a smooth & level finished surface. Natural compaction will occur over time and is dependent on the amount of playground use and environmental conditions. To accelerate the compaction process, Fibar Engineered Wood Fiber can be mechanically compacted at an additional cost. The Fibar can be compacted in the accessible route to the equipment or the entire surface area. To mechanically compact the Fibar, 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.

10. Install FibarMat wear mats on top of the Fibar Engineered Wood Fiber.

11. After two weeks of active use, surface should be raked level again.

12. CPSC and ASTM Recommended Use Zones. A Use Zone of at least 6 feet must surround all equipment with the exception of:

a. Swings: Use Zone equal to 4 times the height of the top rail is needed in front of and behind swings (2 times in front and 2 times behind).

b. Slides: The Use Zone surrounding a slide should be a minimum of 6 feet, except for the slide exit area where the Use Zone shall be a minimum of 6 feet or the distance between the highest point of the slide to the protective surfacing. The Use Zone at the slide exit need not exceed 8 feet.

For more information:

ASTM International: 100 Barr Harbor Dr.,
W. Conshohocken, PA 19428-2959
☎ 610-832-9500 Fax: 610-832-9666 www.astm.org

Consumer Product Safety Commission (CPSC):
Washington, DC 20207
☎ 800-683-2772 www.cpsc.gov

Canadian Standards Association (CSA):
178 Rexdale Blvd, Toronto, Ontario M9W1R3, Canada
☎ 416-747-4000 www.csa.ca

13. See Fibar Systems' Maintenance Instructions for requirements with respect to inspections, raking, top-off, and other maintenance advice.



To prevent displacement of the Fibar in high-use areas, FibarMat 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 the Federal Accessibility Law.



WARNING

Incorrect installation or maintenance, failure to install all the Fibar Engineered Wood Fiber delivered, failure to maintain the depth of the Fibar System installation at the specified system depth, failure to use FibarMat 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 Fibar System Installation and/or materials with others not provided by The Fibar Group, LLC, 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 Fibar System installation, 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 Fibar Engineered Wood Fiber 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 ☎ 800-342-2721 or 914-273-8770 or ✉ info@Fibar.com. Fax: 914-273-8659.



General Information

GENERAL INFORMATION

Accessibility

The Federal Accessibility Law requires all playground surfaces to be accessible. Surfaces must pass ASTM F1951 (accessibility) and F1292 (impact) to ensure compliance with the Law. It is essential that the surface is installed correctly **including FibarMat wear mats** and an accessible entryway. The surface must be installed and maintained according to Fibar's maintenance instructions.

Installation Instructions

If you did not receive installation instructions for your system prior to installation date, please contact us at info@fibar.com or call 800-342-2721, Ext. 0. Please provide the email address of the person who should receive these installation instructions.

FibarMat Wear Mats

These rubber wear mats provide extra protection and accessibility. To prevent displacement of the Fibar in high-use areas, FibarMat 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 the Federal Accessibility Law.

CPSC and ASTM F1292 Use Zones

A Use Zone of at least 6 feet must surround all equipment with the exception of:

- 1. Swings:** A Use Zone equal to 4 times the height of the top rail is needed in front of and behind swings (2 times in front and 2 times behind).
- 2. Slides:** The Use Zone surrounding a slide should be a minimum of 6 feet, except for the slide exit area where the Use Zone shall be a minimum of 6 feet or the distance between the highest point of the slide to the protective surfacing. The Use Zone at the slide exit need not exceed 8 feet.

For more information:

ASTM: 100 Barr Harbor Dr., W. Conshohocken, PA 19428-2959
☎ 610-832-9500 Fax: 610-832-9666 www.astm.org

Consumer Product Safety Commission (CPSC):
Washington, DC 20207
☎ 800-683-2772 www.cpsc.gov

Canadian Standards Association (CSA):
178 Rexdale Blvd, Toronto, Ontario M9W1R3, Canada
☎ 416-747-4000 www.csa.ca

Maintenance

Comprehensive instructions on maintenance are included with your FibarSystem 300 or FibarSystem 100 installation instructions. Your local Representative is available to answer any questions you might have.

Flammability Testing

Fibar® Engineered Wood Fiber was tested by Testing Services, Inc. Detailed test results are available from The Fibar Group, LLC.

Patent Protection

Fibar Systems are unique playground surface products, the creation and origination of which are protected by U.S. Patent Numbers 4,679,963; 5,026,207; and 5,076,726. Prior to construction, the installer must obtain a license from The Fibar Group, LLC. There is no charge for this license. Following the designs according to the patents ensures that a Fibar System will be installed correctly, with the correct material, which, in turn, guarantees coverage under all applicable warranties and product liability insurance.

Customer Satisfaction

We pledge Total Customer Satisfaction for every product we provide. If you require service, and it has not been provided, please contact us at ☎ 800-342-2721 or 914-273-8770 or ✉ info@fibar.com. Fax: 914-273-8659. Or write to our main office: The Fibar Group, LLC, Suite 300, 80 Business Park Drive, Armonk, NY 10504-1705.

IPEMA Membership

The Fibar Group, LLC is a member of IPEMA, the International Play Equipment Manufacturers Association. IPEMA is a member-driven organization whose mission is to promote play, encourage safety, and provide certification programs for playground environments.



IPEMA Certificates of Compliance



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 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. Check the IPEMA website (www.ipema.org) to confirm product certification, its thickness, and critical height.

CALL US
800.342.2721

Making Playgrounds Accessible . . .

These Fibar System components help to provide the access required by the Federal Accessibility Law.



FibarMat Wear Mats must be installed under all swings, tire swings, slide exits, and all other wear areas, including sliding poles to prevent displacement of the Fibar® in high-use areas. This will help to ensure compliance with the Federal Accessibility Law. FibarMat wear mats are 3' x 3' x 1.5" all-weather, flexible rubber mats that come with beveled (handicapped-friendly) edges and are easily installed. Fibar System warranties require the use of FibarMat wear mats.



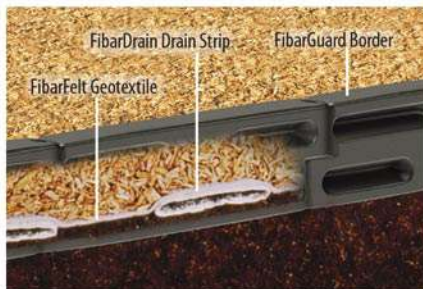
FibarGuard Black Playground Borders are made of rugged High-Density Polyethylene. These UV-stable, injection-molded borders are the standard of the industry. Won't fade, splinter, or crack. Rounded corners to prevent injury. Each 4-foot long border section is 12" high and comes with one 30" galvanized steel installation spike.



Wheelchair Access Ramps *must* be installed in above-ground playgrounds to ensure compliance with Federal Accessibility Law. Our Wheelchair Access Ramp (for use with FibarGuard Black Borders only) is crafted from tough, High-Density Polyethylene. Won't fade, splinter, or crack. Wide enough even for motorized wheelchairs. The easiest way for kids in wheelchairs to access an above-ground playground.

Keeping Playgrounds Dry . . .

Fibar Systems' drainage components keep playgrounds dry—extending usability at half the cost of conventional drainage systems.



Fibar® Engineered Wood Fiber is a blend of pliable, all-natural wood fibers—not wood chips! Engineered to knit together, they form a firm, stable, slip-resistant surface accessible to physically challenged children. Meets International Play Equipment Manufacturers Association's (IPEMA) impact and quality standards.



FibarDrain Drain Strip channels water away from the playground, maintaining a playable surface even after heavy rain. Drain Strip prevents deterioration of the Fibar® Engineered Wood Fiber. It is composed of a non-woven geotextile sleeve surrounding a high-flow drainage core.



FibarFelt Geotextile is a needle-punched 100% polyester non-woven geotextile fabric that separates the Fibar® Engineered Wood Fiber from the soil below. This critical material allows water to flow through it while ensuring that rocks and soil do not contaminate the Engineered Wood Fiber. FibarFelt is used in every Fibar System playground design to ensure proper drainage and play safety.



Each of the components in a FibarSystem 300 playground design play an essential role in contributing to an accessible, safe, dry, and long-lasting playground surface. When used in combination as specified, these components enable us to offer the playground surface industry's only 25-year warranty.

Playground Surface Test Reports Summary

INDEPENDENT TESTING LABORATORY

TÜV SÜD America Inc., Auburn Hills, MI (IPEMA Validator) Report No. 721170881-9a

Client: The Fibar Group, LLC Commercial Name of Product: Fibar® Engineered Wood Fiber Test Equipment: Alpha Automation, Triax, TUV System 5 Environmental Chamber Nos. PLYP00069, PLYP00101 Accelerometer ID PLYP00215

Sample Description: Engineered Wood Fiber
 Compacted Depth: 12 inches
 Test Dates: 4/8/22 & 4/11/22
 Ambient Air Temperature: 23.3° C
 Humidity: 23%

ASTM F1292-18E1 Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment

Drop	Critical Fall* Height (Feet)	Reference Temperature -4° C (25°F)				Reference Temperature - Ambient 23° C (73.4°F)				Reference Temperature 49° C (120.2°F)			
		G-Max	HIC	Velocity Feet/second	Theoretical Drop Height (Feet)	G-Max	HIC	Velocity Feet/second	Theoretical Drop Height (Feet)	G-Max	HIC	Velocity Feet/second	Theoretical Drop Height (Feet)
1	17	74	452	32.8	16.72	70	340	32.8	16.72	70	350	32.8	16.72
2	17	103	751	32.9	16.83	103	639	33.0	16.93	104	665	32.9	16.83
3	17	123	972	32.9	16.83	117	770	33.0	16.93	118	829	33.0	16.93
Average		113.0	861.5			110.0	704.5			111.0	747.0		

Conclusion: Sample Passed ASTM F1292-18E1 at the temperature and rating specified.

*Critical fall height for 12" compacted is 17". The Fibar Group LLC recommends 12" compacted for a 12' fall height.

ASTM F2075-20 Standard Specification for Engineered Wood Fiber for Use as a Playground Safety Surface Under and Around Playground Equipment

Test Date: 7/7/22, Project No. 72179859-2

1. Sieve Analysis Section 4.4 and Section 7

Sieve Size	Minimum / Maximum Requirements	Percent Passing
3/4" (19.05 mm)	99-100%	99.8
3/8" (9.53 mm)	78-100%	90.6
No. 16 (0.0469 in.)	0-15%	5.2

Conclusion: Sample passed ASTM F2075-20 for Sieve Analysis Section 4.4 per 7.

2. Tramp Metals Test - Section 4.6 and Section 9 Tramp Metals

Test conducted on 6/30/22, Project No. 72179859-1, and required 112 probes (7 probes at 15 different locations around the sample)

3. Hazardous Metals Test - Project No. 72179859-4, test Date: 7/27/22 per Section 4.5.2 per 8.0. Fibar® Engineered Wood Fiber product in compliance with the requirements of the Standard specified. Test results signed by Tim Fouchia, Project Coordinator.

Conclusion: Sample passed ASTM F2075-20, Section 7 and Section 9 Tramp Metals, and Section 4.5.2 per 8.0 Hazardous Metals. Fibar® Engineered Wood Fiber product in compliance with the requirements of the Standard specified.

INDEPENDENT TESTING LABORATORY

Testing Services, Inc., Dalton, GA (Report No. 82820, Test Date: 4/15/21)

ASTM F1951-14 Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment

Test Material

Type: Engineered Wood Fiber
 Material Condition: Excellent
 Tested Depth and Conditions: 12" compacted
 Test Equipment: Wheelchair used - *Invcare*, Model Action Xtra, Serial No. 98J84142
 Torque Measuring System: Certified Mecmesin Advanced Force Gauge, Model 500N

TEST REPORT

CLIENT

Company:	The Fibar Group	Report Number:	82820
Address:	80 Business Park Drive, Suite 300	Lab Test Number:	3261-6453
	Armonk, New York 10504	Test Completion Date:	4/14/21
		Report Date:	4/15/21
Requested By:	Joy Dunn		

Conclusion: Fibar® Engineered Wood Fiber meets/exceeds both the straight line and turning propulsion requirements of the above accessibility standard. Test Report Approval signed by Erle Miles, Lab Director, Testing Services, Inc.

ADA Compliance

Please visit our website, www.Fibar.com to view Fibar Systems' Accessibility Video. For more about the IPEMA Certification Program and to verify a product's certifications, to www.ipema.org.

ADA COMPLIANCE

Fibar® Engineered Wood Fiber playground surfacing meets the ASTM F1951 *Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment*. The Fibar Group, LLC certifies and warrants that its playground surface systems are in compliance with the Federal Access Law in accordance with the Americans with Disabilities Act, provided the surface is installed and maintained according to manufacturer's specifications. (www.access-board.gov)

The law requires correct installation, regular maintenance, and an accessible entryway. FibarMat wear mats should be installed under all swings, tire swings, slide exits, and all excessive wear areas, including sliding poles. Wear Mats help with accessibility and maintenance of your playground.

"Critical Height for each surface material is defined as the maximum height from which the headform, upon impact, yielded both a peak deceleration of less than 200 G's and an HIC of less than 1,000. Critical Height, therefore, may be considered as an approximation of the maximum fall height from which life-threatening injury may not be expected to occur."

— U.S. Consumer Product Safety Commission (www.cpsc.gov)

FIBAR SYSTEMS PERFORMANCE WARRANTY

L I M I T E D W A R R A N T Y | SAMPLE |

TWENTY-FIVE YEAR

Fibar System 300®

Performance Limited Warranty

This 25-year Limited Warranty applies **only** to Fibar System 300 ("System") playground surfaces.

Fibar System 300 is warranted by The Fibar Group, LLC to the original purchaser, to meet or exceed Playground Surfacing Guidelines of the U.S. Consumer Product Safety Commission using ASTM Standard F 1292 for a period of twenty-five (25) years from the certified date of installation, subject to the conditions and exclusions listed below.

TWENTY YEAR Fibar System 200 and FIFTEEN YEAR Fibar System 100

Performance Limited Warranty:

This Limited Warranty applies to Fibar Systems 200 and 100. Fibar Systems 200 and 100 are warranted by The Fibar Group, LLC to the original purchaser, to meet or exceed Playground Surfacing Guidelines of U.S. Consumer Product Safety Commission using ASTM Standard F 1292 for a period of twenty (20) years for System 200 and fifteen (15) years for System 100 from the certified date of installation, subject to the conditions and exclusions listed below.

LIFETIME FibarDrain® and FibarFelt® Materials Limited Warranty:

This Limited Warranty applies to FibarDrain Material and FibarFelt Material ("Materials"). These Materials are warranted by The Fibar Group, LLC to the original purchaser of the materials to be free from defects, including decay and biological degradation, for life from the certified date of installation, subject to the conditions and exclusions listed below.

FibarMat & FibarGuard

Limited Warranty:

This Limited Warranty applies to FibarMat Wear Mats & FibarGuard borders & ramps. FibarMats are warranted by The Fibar Group, LLC to the original purchaser of the FibarMats to be free from defects in material and workmanship for a period of three (3) years from the certified date of installation and FibarGuard for (1) year, subject to the conditions and exclusions listed below.

Warranty Performance:

The entire liability of The Fibar Group, LLC and the purchaser's sole remedy in the event the Materials and/or System do not conform, the Limited Warranty shall be limited to replacement of

the defective Materials and/or System and shall not include installation or consequential damages or refund. This Limited Warranty does not cover normal wear.

Conditions:

This Limited Warranty is conditioned upon the System being properly installed and maintained by the purchaser in accordance with the written instructions provided by The Fibar Group, LLC.

Acts Invalidating Warranty:

Incorrect installation, failure to install all material delivered, failure to maintain the surface depth thereof, failure to use FibarMat wear mats at slide exits, under all swings and tire swings [except enclosed or bucket tot swings], use of the System and/or Materials with others not provided by The Fibar Group, LLC, abnormal use, lack of or improper maintenance, or vandalism shall void this Limited Warranty and The Fibar Group, LLC shall have no responsibility with respect to damage resulting therefrom. In addition, changed impact attenuation characteristics created by sand or other materials tracked into the System are not covered by this Warranty.

Disclaimers:

No other Warranties. The Fibar Group, LLC disclaims all other Warranties expressed or implied, including but not limited to implied Warranties of fitness or merchantability and fitness for a particular purpose. In no event shall The Fibar Group, LLC or its suppliers be liable for any damages whatsoever (including, without limitation, indirect, special, incidental, or consequential damages arising out of the use of or inability to use the System, even if The Fibar Group, LLC has been advised of the possibility of such loss). Because some states do not allow the exclusion of limitation of liability for consequential or incidental damages, the above limitation may not apply to you.

Legal Remedies:

This Limited Warranty gives you specific legal rights, and you may have other rights that vary from state to state.

Prior Statements of Warranty:

This supersedes and replaces any previous warranties.

Customer Service:

For emergency service: Contact your authorized representative immediately. Or contact The Fibar Group, LLC, 80 Business Park Drive, Suite 300, Armonk, New York 10504-1705. Or call toll-free 800-342-2721 or 914-273-8770 / Fax: 914-273-8659. E-mail: info@Fibar.com

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FIBAR[®]

ENGINEERED WOOD FIBER SYSTEMS
Playground Safety Surfaces

FOR MORE INFORMATION CALL TOLL FREE

800.342.2721

EMAIL US AT

info@Fibar.com

OR VISIT US AT

fibar.com



Fibar is certified to meet or exceed ASTM Standard F1292.



Fibar is certified to meet or exceed ASTM Standard F2075.



Fibar Engineered Wood Fiber meets the requirements of the Americans with Disabilities Act.



Fibar products meet or exceed playground surfacing guidelines set by the U.S. Consumer Product Safety Commission.



The Fibar Group, LLC is a member of ASTM International.



Projects using Fibar products qualify for LEED points.



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