

# Fibar® Engineered Wood Fiber

## Product Specification

### Part I – General Information

#### Quality Control, Applicable Testing Certifications and Sustainability

- IPEMA Certification – [www.ipema.org](http://www.ipema.org)
  - IPEMA provides a Third-Party Certification Service where an independent laboratory provides written validation of a 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 some of the products of the participating company.
  - The Third-Party Certification Service has performed a plant and/or home office inspection, involving a review of the participants' Quality Assurance Program, installation instructions, and compliant follow up systems.
  - The list of IPEMA-certified products is maintained exclusively by Detroit Testing Laboratory.
- ASTM F1292
  - Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment.
  - Test results must be for Engineered Wood Fiber and Mats.
    - Test performed on new material.
    - Test performed on 12 year old Engineered Wood Fiber.
  - Test results for Engineered Wood Fiber must show G-max values of less than 155G for an 8" thick system or 120G for a 12" system with a 12' drop height, and HIC values less than 1,000 for both new and 12-year-old materials.
  - 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 for both new and 12-year-old materials.
  - 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.
  - Must meet the intent of the Americans with Disabilities Act (ADA).
- ASTM F2075
  - Standard Specification for Engineered Wood Fiber for Use as a Playground Safety Surface Under and Around Playground Equipment.
  - Material must undergo the test method described in Section 9.0 to determine the presence of tramp metal particles. Metal particles embedded or mixed in Engineered Wood Fiber may cause injury if a child were to fall on/or come in contact with them. The limit for tramp metal was set to reduce the potential of injury.
  - 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 wood fiber consisting of randomly sized pieces.
    - Recycled from wood mills and truss plants.
    - Does not exceed 2" in length.
    - Contains no more than 15% fines to aid in compaction.
    - Depth of material – based on Critical Fall Height.
      - < 10' = 6"
      - 10' = 8"
      - 12' = 10"
      - 14' = 12"
- Drainage System – Patented under U.S. Patent numbers 4,679,963; 5,026,207 and 5,076,726, and other patents pending.
  - FibarDrain
    - Drainage matrix 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'-0" centers in the direction of the grade.
    - Prevents deterioration of Fibar Engineered Wood Fiber.
  - FibarFelt
    - 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 matrix to ensure proper drainage.
    - Seams should be overlapped 3".
- Accessory Items
  - FibarMat
    - 3' x 3' x 1.5" with beveled edges (ADA compliant) on all sides.
    - Placed under each swing seat, tire swing, slide exit, and sliding poles.
    - Prevents excessive wear under swings and slides.
    - Can be placed on top, in middle or under Engineered Wood Fiber (but over FibarFelt).
  - ADA Wheelchair Access Ramp
    - Crafted from High-Density Polyethylene.
    - Won't fade, splinter or crack.
    - Wide enough for motorized wheelchairs.
  - FibarGuard Borders
    - Crafted from High-Density Polyethylene.
    - Won't fade, splinter or crack.
    - Rounded corners prevent injury.
    - Four feet long and 12" high.

### Part III – Site Preparation and Installation

**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 by The Fibar Group, LLC and its Representatives. The Fibar Group, LLC assumes no responsibility for determining the size of the playground or the safety 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 and in accordance with the licensing requirements of The Fibar Group, LLC, these specifications, and conformance with the dimensions, notes and details shown on the plans.

- In-Ground Installation (Exiting at Grade Level)
  - Excavate area to proper depth, based on Critical Fall Height.
  - Minimum 1% downward grade to ensure proper drainage to FibarDrain Strip.
  - On grades of greater than 10% - use of FibarSystems is not recommended.
  - Remove all roots, stones, and vegetation.
  - Accurately grade and firmly compact entire area, especially where fill materials have been utilized.
  - Excavate trench 2" wide x 6" deep, perpendicular to grade at lowest point of playground area.
  - Install FibarDrain and connect low end of strip to storm drain or similar device to remove collected water.
  - Install playground equipment.
  - Install retaining border or curb.
  - Install FibarDrain strips at 6' centers in direction of grade.
  - Cover sub-grade and drainage trench with FibarFelt.
    - Allowing 3" overlap at all seams.
    - Slit to fit around footings of equipment.
    - Overlap all slits with either next piece of FibarFelt or scrap piece, to ensure complete coverage.
  - Install FibarMat wear mats either on FibarFelt, in middle of Fibar Wood Fiber or on top of system.
  - Permanently mark, with paint or other type of permanent marker, all the legs of the playground equipment with the compacted system design depth.
  - Spread Fibar® Wood Fiber using a Bobcat, small front-end loader or our Express Blower Trucks.
    - Care should be taken when driving over FibarDrain.
    - Do not make sharp turns on FibarFelt or FibarDrain.
  - Install all materials delivered.
    - Additional materials are supplied to account for natural compaction.
    - Material may be several inches high, until it compacts.
    - Feather edges to make smooth transition to grade or border.
  - Hand spread and rake for smooth, finished surface.
  - After two weeks of active use, surface should be raked again.

- Consumer Product Safety Commission (CPSC) and ASTM recommend Use Zones of at least 6 feet around all equipment, except:
  - Swings – Use Zone equal to 2 times the height of top rail is needed in front and behind swings.
  - Slides – Use Zone equal to height of slide plus 4 feet, extending a minimum of 6 feet, in front of slide exits.
- Complete information on use zones can be found at [CPSC](#) and [ASTM](#).
- Above-Ground Installation (Exiting at Border or Curb Level)
  - Minimum 1% downward grade to ensure proper drainage to FibarDrain Strip. FibarDrain Strip should be installed so that it discharges outside of playground borders.
  - On grades of greater than 10% - use of FibarSystems is not recommended.
  - Remove all roots, stones, and vegetation.
  - Accurately grade and firmly compact entire area, especially where fill materials have been utilized.
  - Install playground equipment.
  - Install retaining border or curb.
  - Install FibarDrain strips at 6' centers in direction of grade.
  - Cover sub-grade and drainage trench with FibarFelt.
    - Allowing 3" overlap at all seams.
    - Slit to fit around footings of equipment.
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## Part IV – Warranty & Insurance

- Manufacturer's Limited Warranty
  - The Fibar Group, LLC provides a written 25-year warranty against loss of resiliency for the Fibar System 300.
  - The Fibar Group, LLC provides a written 20-year warranty against loss of resiliency for the Fibar System 200.
  - The Fibar Group, LLC provides a written 15-year warranty against loss of resiliency for the Fibar System 100.
  - The Fibar Group, LLC provides a written lifetime warranty on the FibarFelt geotextile fabric material.
  - The Fibar Group, LLC provides a written lifetime warranty on the FibarDrain drainage matrix.
  - The Fibar Group, LLC provides a written 3-year warranty on the FibarMat wear pads.
- Product Liability Insurance Certificate with project owner named as certificate holder.

## Part V – Memberships & Certifications

- Memberships
  - 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 assist in providing creative, fun, and safe play environments for children.



- Certificate of Compliance



ADA/ASTM F1951



[ASTM F1292](#)



[ASTM F2075](#)

## Part VI – Details & Drawings

SYSTEM	DESCRIPTION	CRITICAL HT.	USE
312	12" Fibar, Fibar Felt, Fibar Drain	14'	Playground
310	10" Fibar, Fibar Felt, FibarDrai	12'	Playground
308	8" Fibar, Fibar Felt, FibarDrain	10'	Playground
306	6" Fibar, Fibar Felt, FibarDrain	N/A	Jogging Track
ALL	Minimum 36" x 36" x 1.5" Fibar Mat		Playground

*Note: Depth measurements are approximate after compaction*

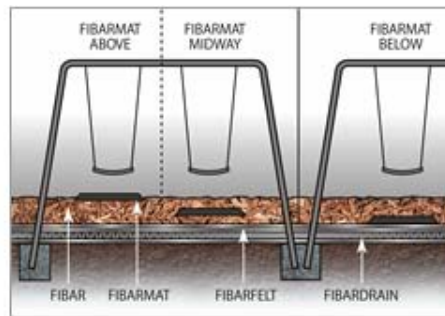


Figure 1

### ABOVE GROUND INSTALLATION DETAIL

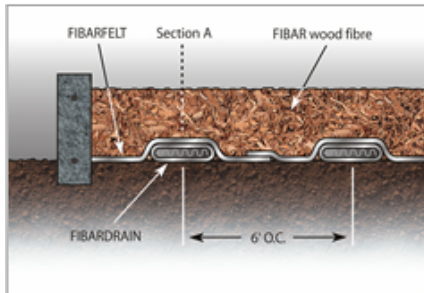


Figure 2

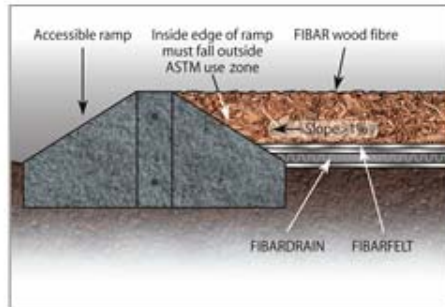


Figure 3. Entrance and exit ramps into the Fibar surface should have a minimum slope of 1 in 12 or must meet current ADA, state or local regulations.

### IN-GROUND INSTALLATION DETAIL

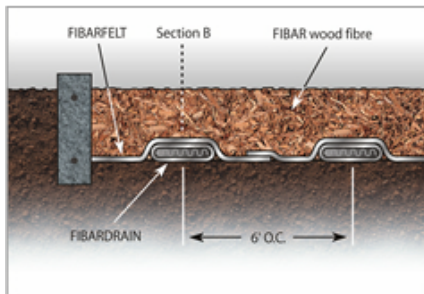


Figure 4



Figure 5. Entrance and exit ramps into the Fibar 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.*



# CERTIFICATE

ISSUE DATE: 2/12/2010

In the interest of public playground safety, IPEMA provides a third-party certification service whereby Detroit Testing Laboratory, Inc. validates a manufacturer's conformance to the ASTM F 2075 Standard Specification for Engineered Wood Fiber for Use as a Playground Safety Surface Under and Around Playground Equipment.

The manufacturer listed below has received written validation from Detroit Testing Laboratory, Inc. that the products listed below conform with the requirements of ASTM F 2075

**Manufacturer**

Fibar Group, LLC  
80 Business Park Drive, Suite 300  
Armonk, NY 10504-1705 United States

**BRAND NAME**

Fibar





# CERTIFICATE

ISSUE DATE: 2/12/2010

In the interest of public playground safety, IPEMA provides a third-party certification service whereby Detroit Testing Laboratory, Inc. validates a manufacturer's certification of conformance to the ASTM F1292-04, Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment Standard. The manufacturer listed below has received written validation from Detroit Testing Laboratory, Inc. that the products listed below conform with the requirements of ASTM F1292-04.

**Manufacturer**

Fibar Group, LLC  
80 Business Park Drive, Suite 300  
Armonk, NY 10504-1705 United States

<u>PRODUCT #</u>	<u>PRODUCT LINE</u>	<u>DESCRIPTION</u>	<u>THK/HT RATIO</u>
EWF	Fibar Engineered Wood Fiber	Engineered Wood Fiber	12"/12'



# FIBAR SYSTEMS

# PERFORMANCE WARRANTY

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

Effective January 1, 2009

## **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.

## **THREE YEAR FibarMat, FibarGuard Borders, and ADA Ramp Limited Warranty:**

This Limited Warranty applies to FibarMat Wear Mats, FibarGuard Borders, and Fibar's ADA Ramp ("Materials"). These Materials are warranted by The Fibar Group, LLC to the original purchaser of the Materials to be free from defects in material and workmanship for a period of three (3) years from the certified date of installation, 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 warranty supersedes and replaces any previous warranties.

**Customer Service:** For emergency service: Contact your authorized Representative or The Fibar Group, LLC, 80 Business Park Drive, Suite 300, Armonk, NY 10504-1705. Call toll-free 800-342-2721 or 914-273-8770 / Fax: 914-273-8659. E-mail: info@Fibar.com.