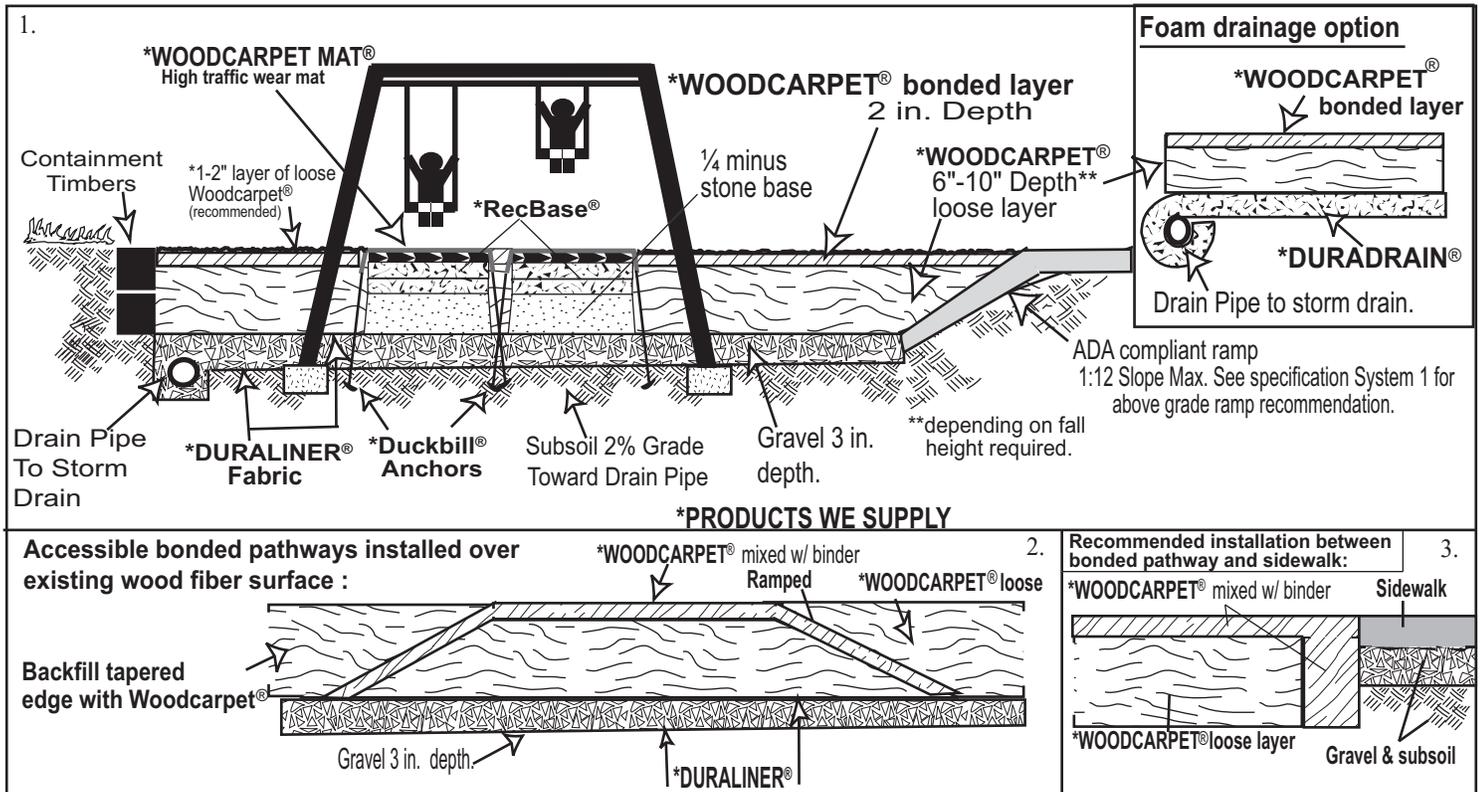


- A. Product Data:** Submit manufacturer's product data, including warranty, maintenance and installation instructions, ASTM F1292, F2075 test results, accessibility test results per Rotational Penetrometer method and samples.
- B. Manufacturer Qualifications:**
 - 1. Member of International Play Equipment Manufacturer's Association (IPEMA).
 - 2. Total Liability Insurance Coverage: \$11,000,000.
 - 3. Sales Representatives attend National Playground Safety Institute (NPSI) training.
- C. Warranty Covers Playground Surfacing for Following Periods:**
 - 1. Bonded Engineered Wood Fiber Playground Surfacing: 3 years
 - 2. Playground Surfacing Wear Mat: 5 years
- D. Manufacturer:**
 - 1. Zeager Bros., Inc., 4000 East Harrisburg Pike, Middletown, Pennsylvania 17057. Toll Free (800) 346-8524.
 - 2. Zeager Hardwood Co., 340 Steele Road, Franklin, KY 42134. Toll Free (800) 296-9227.



E. Application: Outdoor playground surface design for maximum accessibility.

F. Critical Heights: 2" bonded layer plus 10 inches =10 ft. of fall protection, 2 in. bonded layer plus 6 in. = 8 ft. fall protection. Check with play equipment manufacturer for recommended fall height needed for equipment. Note: **Because the layer of loose fill will eventually decay causing the impact resiliency of the surface to be less resilient, we recommend installing the 10 foot system for equipment over 4 feet and the 8 foot system for equipment under 4 feet. This will reduce the number of times the system will need to be resurfaced over the lifetime of the playground.

G. Installation Procedure:

- 1. Ask your Zeager representative for a certified installer near you.
- 2. Do not install in temperatures below 40F or undesirable results may result.
- 3. Until the bonded surface wears in, we recommend installing a 1-2" inches of loose-fill Woodcarpet in high traffic areas. The product may have a rough texture to it for the first few months of use. Installing wear mats below swings and slides is recommended. Contact a Zeager representative for an authorized installer near you.
- 4. If installing an accessible bonded pathway over an existing wood fiber surface we recommend tapering the edge of the pathway all the way down to the drainage base. (drawing 2) A soft tapered edge rather than a straight drop off will allow for easier access on to the pathway as the loose wood fiber decays or gets kicked away. This will also prevent the edge of the pathway from being exposed and possibly vandalized. As with any loose fill and unitary surface combinations it is important to maintain surfacing depths between the loose fill layer and the unitary layer. The depth of the loose fill wood fiber layer will determine the width of the tapered edge needed. A typical 12" system will need a 24" tapered edge to reach the drainage layer. An 8" system will require an 18" edge to reach the bottom drainage layer. Add this to the width of the pathway when ordering material.
- 5. When installing wear mats do not install over loose fill Woodcarpet. Install 1/4 minus compacted gravel to within 5-7" of top surface grade to allow for 2-3 layers of 2" Recbase (2 layers for 8ft fall height, 3 layers for 10ft fall height) and the 1" foam wear mat. Install bonded layer up to edge of wear mat to within 1/4" of top of wear mat. This method will not allow the wear mat to sink below the bonded layer. (Drawing 1)
- 6. When installing a bonded pathway up to a sidewalk edge, dig away the loose layer of Woodcarpet approximately 12" from the concrete sidewalk and install the bonded layer all the way down to the drainage base. This will keep a smooth transition between pathway and sidewalk edge. (see drawing 3).

H. Notes

1. Using drainage & wear mats as specified by Zeager is required for warranty coverage. Inadequate drainage may hasten decomposition.
2. Periodic maintenance should include removing debris, checking for cracks and weaknesses in bonded layer. See also WOODCARPET® maintenance recommendations.

I. Products

1. Engineered Wood Fiber Playground Surfacing: WOODCARPET®
 - a. Composition: Woodcarpet contains 100% preconsumer recovered wood.
 - b. Dimensions: Randomly sized wood fibers.
 - c. Sieve Analysis, ASTM F2075: Meets criteria.
 - d. Hazardous metal, ASTM F2075: Meets criteria.
 - e. Tramp metal, ASTM F2075: Meets criteria.
 - f. Impact, ASTM F1292: 10" -10 ft., 8" - 8ft. of fall protection including 2" bonded layer. See recommendations on 1st page.
 - g. Resistance to Flammability, 16 FR Part 1630 Standard for Surface. Flammability of Carpets and Rugs (FFI-70), Modified Procedures. Not Oven Dried: Meets Criteria.
 - h. Flammability, 16 CFR 1500.44, Federal Hazardous Substances Act Title 16, Chapter II, Subchapter C for Rigid and Pliable Solids: Did not ignite.
 - i. Permeability: EM 1110-2-1906-VII-13 Falling head test - Bonded WOODCARPET® 2" layer- 191.19 gal/min/sq ft.
2. Fabric: DURALINER®
 - a. Composition: Non-woven, needle-punched, UV-treated polypropylene or spunbonded polyester fabric.
 - b. Recycled content: 10% post-consumer and 10% or more of pre consumer (post manufacturing).
 - c. Size: 5 to 6 feet wide x 250 feet long.
 - d. Weight, ASTM D3776: Min. 3.24 ounces per square yard
 - e. Grab Tensile Strength: ASTM D4632: min. 81/79 pounds.
 - f. Elongation: 59/63%
 - g. Mullen Burst Strength, ASTM D3786: min. 130 pounds.
 - h. Puncture Resistance, ASTM D4833: min. 45.1 pounds.
 - i. Trapezoid Tearing Strength, ASTM D4533: min. 42/71 pounds.
 - j. Permittivity, ASTM D4491: min. 2.09 sec-1.
 - k. Flow Rate, ASTM D4491: min. 300 gal/ft/min
3. Resilient Foam Drain: DURADRAIN®
 - a. Composition: Closed-cell, cross-linked, polyethylene foam.
 - b. Recycled content: 100% pre-consumer recovered foam.
 - c. Top surface: Covered with polyester spun bound fabric.
 - d. Size: 48" x 72" in.
 - e. Weight: 89 ounces per square yard.
 - f. Thickness: 1" w/ channels.
 - g. Density: 86 ounces per cubic foot.
 - h. Transmissivity, ASTM D4716: 3.65E-003 m² / sec.
 - i. Flow Rate, ASTM D2434: + 38 gallons/ minute per sq. ft. .
 - k. Impact, ASTM F1292: Meets criteria up to 2.5 feet alone.

I. Products- cont.

4. Playground Surfacing Wear Mat: Foam WOODCARPET MAT®
 - a. Composition: Closed-cell, cross-linked, polyethylene foam.
 - b. Recycled content: 100% pre-consumer recovered foam.
 - c. Top surface: Covered with layer of heavy duty vinyl.
 - d. Drain holes: 3/8 diameter holes, one per square foot.
 - e. Size: 44 in. x 44 in. [slide exit], 44 in. x 74 in. [swing]
 - f. Finished size: 32in.x32in. [slide exit], 32inx62in. [swing]
 - g. Weight: 1" thick= 1.1 pounds per square foot.
 - h. Thickness: 1.13"
 - i. Impact, ASTM F1292: meets criteria up to 3 feet.
5. WOODCARPET® Binder:
 - a. Composition:
 - Chemical family: Aromatic Isocyanate Prepolymer
 - Chemical name: Diphenylmethane Diisocyanate (MDI) Prepolymer
 - Formula: Proprietary chemical blend
 - b. Sizes available: 5-gallon pails, 260 gallon totes.
Note: MSDS sheets available upon request.

J. Materials:

1. Drainage-Foam drain
 - A. DURADRAIN® foam panels
 - B. Construction adhesive if gluing panels at sides.
 - C. Pipe: 3 to 4 inch diameter, perforated.
2. Drainage- Gravel drain system
 - A. Duraliner geotextile fabric
 - B. Gravel: 1-2 in. pieces without fines.
 - C. Pipe: 3 to 4 inch diameter, perforated.
3. Surface
 - A. Woodcarpet
 - B. Binder
 - C. Mats- for slides, swings, etc.
 - D. Cleaning fluids for binder tools.

K. Tools:

1. Drainage:
 - A. Skid loader
 - B. Knife
 - C. Stone Rake
2. Surface:

A. Skid Loader	G. Cooking oil & pump sprayer
B. Wheel barrow	H. Tamping device, board or lawn roller
C. Rake	I. Empty containers
D. Shovel	J. Quart measuring cup & empty 5gal. pail
E. Mortar Mixer	K. Hand trowel for final finishing
F. Latex gloves	L. Mechanical Compactor