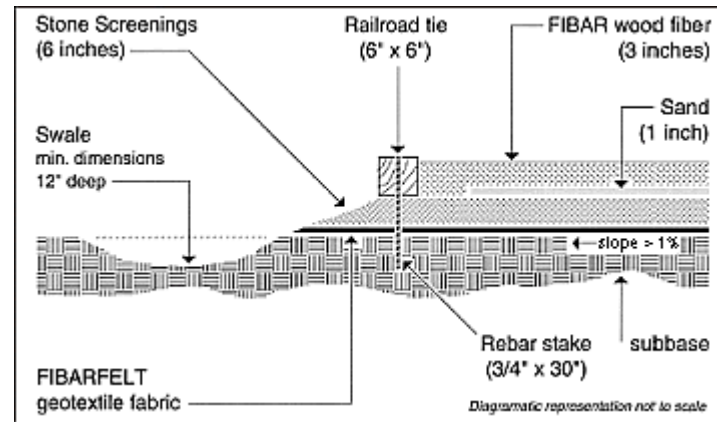


## OUTDOOR INSTALLATION | Road-Base System



1. The site must be surveyed with a transit so that the crown or fall is accurately excavated.
2. Remove vegetation and topsoil from arena and surrounding area. (Allow at least an 8' apron around the entire area for swales). Grade base to 2% crown, or 2% cross-slope across the short side. The shoulder and the lay of the land will determine the best grading decision.
3. Incorporate swales and ditches around the arena to keep migrating surface water away from the arena.
4. Compact to better than 95% modified Proctor. Depending on the size of the arena, at least three (3) density tests should be made.
5. Install arena fence (posts only). To ensure proper finish height, allow an extra 9 inches for base, sand and FIBAR wood fiber.
6. Roll out FibarFelt material 12 to 18 inches, overlapping at all seams. Extend FibarFelt material 18 inches outside fence line. Slit FibarFelt material with scissors or razor knife to fit around posts.
7. Completely cover FibarFelt material and spread 6 inches of 3/8" minus Uniformly Dense-Graded Aggregate Base with a Sand Equivalency between 30 and 50. NOTE: Please see detail entitled Crushed Stone Base.
8. Crushed stone base should be checked for optimum moisture content (AASHTO Test T176). On-site water should be added, if necessary, prior to compacting crushed stone base to 95% modified Proctor using 15-ton vibratory roller. Depending on size of the arena, at least three (3) density tests should be made. Be sure to compact between fence posts and apron outside fence line. Allow crushed stone screenings base to "cure" for 3 to 4 days.
9. Install 2" x 6" pressure-treated baseboard. Set boards 2" above top of aggregate base to allow water to pass under and still contain the Fibar wood fiber.
10. Finish building the fence. (Leave enough rails out of one section to allow the Fibar truck access to dump.)

11. Spread 1" manufactured, medium/coarse angular, washed sand (Not greater than 10% passing #100 screen and not greater than 2% passing a 200 screen) over the entire arena. Install Fibar wood fiber (If necessary, check depth every 10 feet to ensure even distribution.) FIBAR wood fiber is best spread with a small bulldozer or 4-wheel drive with a landscape leveling box on back.

Since Fibar wood fiber is a naturally fibrous material, there will be a variation in the amount the material will compact and settle when spread. This settling and knitting together is what makes Fibar wood fiber work! The amount of Fibar we suggest is the average for most people's needs. Some customers may prefer a slightly deeper surface and additional material can be supplied at the customer's request.

12. After rough grading, the FIBAR surface should be watered thoroughly and smooth harrowed using a 6' x 10' chain-link drag.

#### **IMPORTANT**

In accordance with standard design and construction practices, The Fibar Group, LLC recommends using the services of a qualified engineer or architect, who is familiar with local soil and climate conditions, to evaluate and interpret the above guidelines. Prior to delivery of materials such as crushed stone screenings, sand, etc., request a gradation analysis, which your engineer can interpret for you.

**NOTE:** Site visits are available where economically feasible. A fee plus travel expenses may be requested.

#### **DISCLAIMER**

THE ABOVE TECHNICAL ADVICE IS GIVEN GRATIS AND THE FIBAR GROUP, LLC ASSUMES NO OBLIGATION OR LIABILITY FOR THE ADVICE OR ASSISTANCE GIVEN OR RESULTS OBTAINED, ALL SUCH ADVICE OR ASSISTANCE BEING GIVEN AND ACCEPTED AT BUYER'S RISK.

#### **CRUSHED STONE BASE**

We recommend that customers carefully evaluate locally-available quarry materials such as sand, crushed stone, etc. using the services of a local engineer. There are numerous generic names for materials that mean one thing in one State and something completely different in another.

You will have noticed that under our Road Base Installation Instructions, we recommend using the services of a qualified engineer. Sometimes that experience in building outdoor riding arenas is limited.

We would also suggest other supplementary information that will help you and your engineer specify the correct materials. Call or write the National Stone, Sand & Gravel Association, 1605 King Street, Alexandria, VA 22314 (703-525-8788) or visit their website, <https://www.nssga.org/>

A suggested gradation analysis of the crushed stone base might read as follows: (We recommend a maximum particle size of 3/8".)

<b>Sieve Size</b>	<b>% Passing by Weight</b>
1/2"	100%
3/8"	80 - 100%
#4	35 - 65%
#8	20 - 50%
#40	10 - 30%
#200	5 - 12%

Before proceeding, have a sample taken and checked for maximum density, optimum moisture content, and compliance with gradation specifications.

The combined mixture should provide a cohesive mix. Uniform and thorough compaction is the key to a good base job. Nothing is more important. And compaction immediately following spreading – when the moisture content is just right – being critical.

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