



PREMIER EQUESTRIAN®
The Arena Company



Footings and Arena Surface Guide



The Official Footing Supplier of the United States Equestrian Federation

www.PremierEquestrian.com 800-611-6109

Proper Arena Footing –

The Key to Your Horse's Safety & Optimal Performance

People involved in equestrian sports usually put their main focus on the horse. They often invest large amounts of money, ensuring that their horses are well taken care of and prepared to perform at their very best.

If the performance does not go well, they often fault the horse; however, there are other factors that are sometimes overlooked or under emphasized that could have a huge effect on the horse's ability to perform at its optimum capacity. Poor arena footing can cause a multitude of problems with the horse's performance and confidence.

It's extremely important that horses are comfortable on an arena surface. Poor arena footing can decrease performance, decrease confidence, and increase injury. Soundness, quality of performance, and safety are motivators for creating a proper arena surface.

Premier Equestrian will work with you and your builder, or we can recommend a qualified builder or you may choose to do your own installation. This gives you the best option to choose a superior product. We have formulated all our products to give you the very best in safety, injury prevention and optimum performance. Many competitors and arena builders will only prescribe what they sell and not what you need. We will design what's best for you and your horse.



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Good footing is safer for your horse and boosts its confidence and performance while minimizing injury.

We Are Horse People

We understand how important it is to keep your equine partner safe and sound. For the last 20 years we have been studying how arena surfaces interact with horses' biomechanics. Our products are formulated with biomechanics and injury prevention in mind. This is what separates us from competitors. Do you want horse people designing your arena for peak performance or just an excavator?

Premier Equestrian offers free sand analysis and consultation to help you make an informed and educated decision on what footing is right for you.

Call us to speak with a footing specialist at **800-611-6109**



Premier Equestrian is the Official Footing Supplier of the United States Equestrian Federation



The Horse's Footfall Phases

Breaking down the 3 phases of the footfall will help you to understand the interaction between the horse and the arena footing surface.

The Landing Phase

During the landing phase, the hoof touches the ground and comes to a stop. As the hoof stops, sliding forward and downward into the surface, bones in the leg collide. Concussion can cause shock waves and vibrations to be distributed throughout the ground and leg.

The Loading Phase

During the loading phase, the whole hoof is in contact with the ground, carrying the full weight of the horse and rider. The fetlock, flexor tendons, and suspensory create a shock absorbing effect. Pressure under the frog stimulates blood circulation through the hoof.

The loaded weight increases depending on movements, such as collection, landing from a jump, and galloping.

Rollover/Push-Off Phase

During the rollover-push off phase, the heel rotates off the ground, rolling over the toe for push off into the next stride.



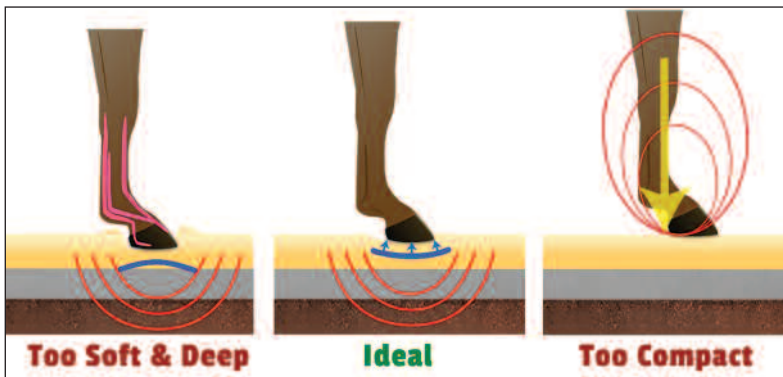
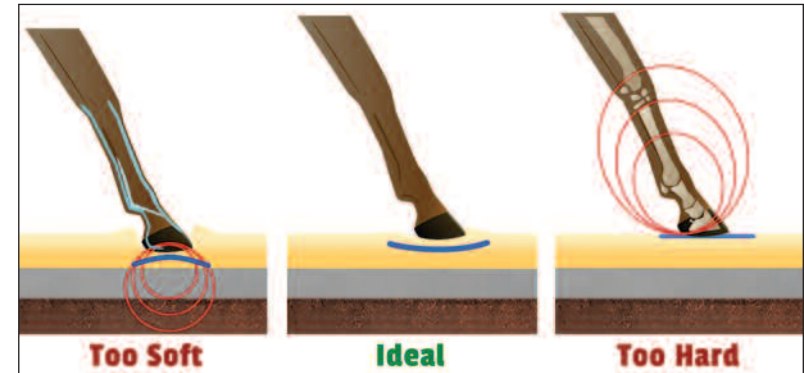
Surface Characteristics: Firmness, Cushioning, Cupping, Rebound, and Grip

An ideal arena surface allows horses to move efficiently through the three phases. The surface should minimize concussion, absorb shock, provide support, and return energy back to the horse. To accomplish this the surface should have a combination of firmness, cushioning, cupping, rebound, and grip.

Firmness

The firmness, or hardness, of the surface affects the amount of support and how shock wave forces are distributed during the landing phase.

- While a hard, compact surface offers a high amount of support, it does not aid in absorbing impact shock. Bones and joints in the hoof and leg are forced to absorb this shock, causing horses to modify their stride or jumping form to avoid the sting. Examples of a hard surface include concrete or packed clay.
- A soft or loose surface, like dry rolling sand, absorbs shock well but lacks support. Over-extending the heel or toe damages supporting tendons and ligaments. Muscles and respiration are also fatigued.
- A surface with ideal firmness offers support with minimal concussion to the bones and joints, and is soft enough to aid in absorbing shock.



Cushioning

Cushioning refers to how the arena layers dampen shock during the loading phase.

- A compacted surface lacks cushion. The arena layers don't aid in relieving stress and shock when the hoof is loaded with the horse's weight.
- A soft, deep surface has too much cushion. The surface will shift under the foot, causing the horse's body to work harder for support and energy. Soft tissues become overloaded, creating inflammation and tears.
- An ideal amount of cushion should distribute shock through the arena layers, and provide enough resistance under the hoof for the horse to balance and move into the rollover-push off phase. The footing should support the sole, allowing the coffin bone to descend to the corium, generating blood flow.

Cupping

During the loading phase the hoof capsule expands. Pressure under the frog and digital cushion aid in supplying blood to the structures in the hoof capsule. As the weight is released the hoof contracts, pumping blood up the leg and through the body. This process is called hoof mechanism. The surface under the foot influences hoof mechanism.

- On a hard, compacted surface the frog has minimal contact, hindering hoof mechanism even further. The amount of weight over the hoof capsule forces blood through only the large veins. The lack of blood flow through the small veins is damaging to the hoof capsule and can lead to problems like navicular disease and laminitis.
- A soft surface will cup under the foot, but may not provide enough resistance and pressure to maximize hoof mechanism.
- To benefit from hoof mechanism, the surface should cup into the sole and collateral grooves of the frog. Resistance in the surface supports the weight and force placed under the foot, while the pressure under the frog and digital cushion encourage blood flow through the hoof capsule.

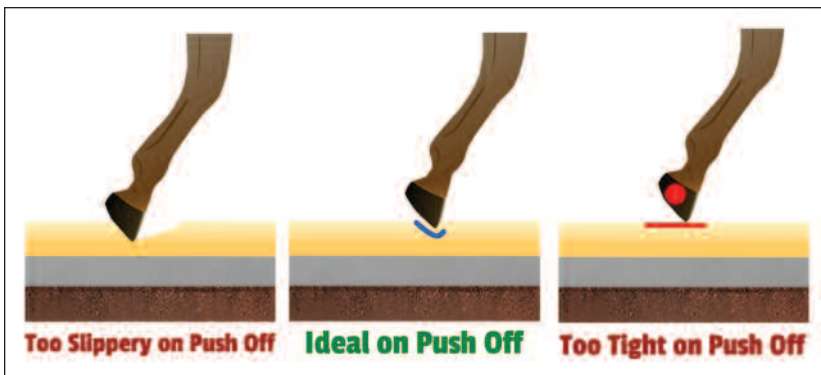
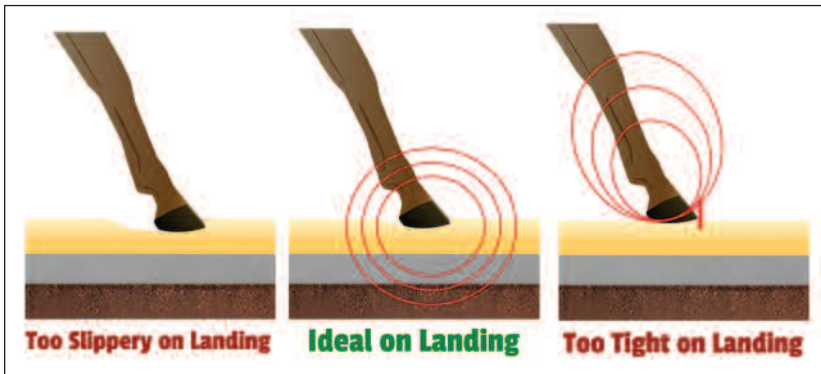
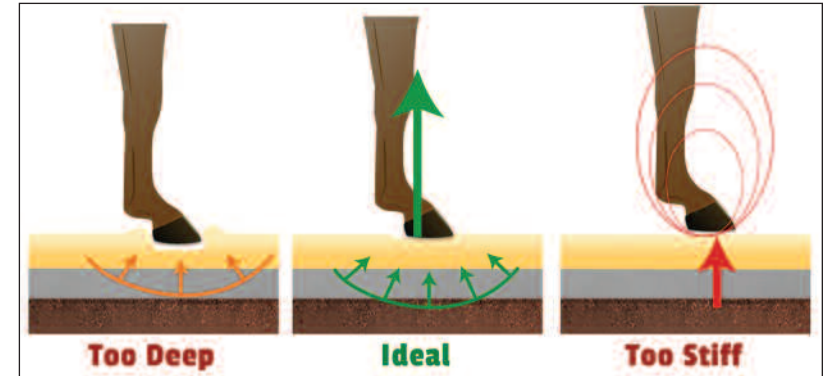




Rebound

Closely related to cushioning is responsiveness and rebound. This refers to the resiliency of the surface to return to its original form, returning energy after the weight of the horse is applied.

- A stiff and compacted surface rebounds energy back to the surface too quickly, causing additional shock and vibrations to be absorbed by the horse.
- A deep, dead surface rebounds energy too slowly. The horse must use its own energy in tendons, ligaments, and muscles to push out of the surface. This is also a strain on the respiratory system.
- An active and springy surface with ideal rebound returns energy to the horse at the same rate it was applied. This reduces the horse's need to use its own additional energy for momentum. Rebound time is dependent on how the surface is used, for example, dressage vs. jumping.



Grip

The tightness of the surface affects grip. Grip aids in absorbing shock during the landing phase, and provides support and traction during push off and on turns.

- Too much grip stops the foot too quickly. The full use of the horse's stride is restricted and risk of injury to bones and joints is increased. The extreme tightness also prevents the toe from rotating into the surface for push off, straining the leg and navicular region.
- A slippery surface allows for too much hoof slide. The lack of grip causes the hoof to push through the surface, decreasing propulsion. All of this lowers confidence and performance, and safety is at risk.
- The hoof must be allowed to slide during landing and stopping enough for the ground to absorb impact forces. The tightness of the surface must provide stability for the horse during push-off and on turns without causing concussion or sliding. The amount of grip is dependent on how the surface will be used.

Summary

Damage to joints, soft tissue, muscles, hooves, and the respiratory and vascular system is greatly increased in poor footing. Creating the proper riding surface is necessary to maintain your horse's safety, longevity, and performance.

Achieving the ideal characteristics from your arena surface can be done through proper construction, choice of materials, proper watering, and maintenance.

Most existing arenas can be cost-effectively rehabbed to develop an optimum riding surface.

All About Sand

Sand is the general term for the broken down granules of rocks. Sand is smaller than gravel, but larger than silt or clay. Over 10,000 different sand names are used in the U.S. alone. It is very important to understand the qualities of the sand and not go with just a name.

Why is the right sand so important?

Sand is the key ingredient in all good arena footing and additives; however, not every kind of sand is suitable for all riding arenas. Sand that is well suited for a highly-maintained indoor riding arena might be completely unsuitable for an all-weather, low-maintenance outdoor riding arena. Choosing the wrong sand can create problems and be very expensive over time. The following are some factors to help you choose the right sand.



Particle Size

Sand is classified by its size rather than what type of mineral it is. Particle size, or grain size, refers to the diameter of a grain of granular material. Particles that fall between 0.42 mm and 2 mm in diameter are referred to as 'sand' (see chart). Most sand has a variety of particle sizes from large to small, known as a gradation. Sand gradation is measured by vibrating a sample through a set of known mesh sizes (large to small). The percentage of sand that passes each numbered sieve is measured to create a sand gradation report. Higher sieve numbers equal smaller grain size, lower sieve numbers equal larger grain size. Most sand producers will have prepared gradation reports for the different sands they sell. This information will help you determine exactly what type of sand you are buying. It will also determine how the sand will perform alone or with a footing amendment.

Important: The sieve size range to look for will depend on what type of additive you are adding, or if you want a sand-only arena.

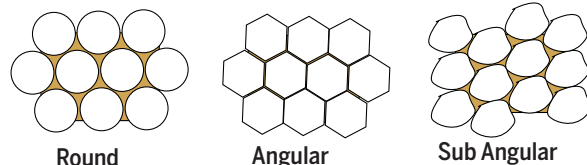


Particle Size Classification		
Classification	Particle Size	Sieve Size
BOULDERS	304.8 to 914.4 mm	(12 in. to 36 in.)
COBBLE	76.2 to 304.8 mm	(3 in. to 12 in.)
GRAVEL		
Coarse	19.1 to 76.2 mm	(3/4 in. to 3 in.)
Fine	4.76 to 19.1 mm	(#4 to 3/4 in.)
SAND		
Coarse	2.0 to 4.76 mm	(#10 to #4)
Medium	0.42 to 2.0 mm	(#40 to #10)
Fine	0.074 to 0.42 mm	(#200 to #40)
SILT/CLAY	<0.074mm	(smaller than #200)

Particle Shape

The sand's particle shape affects how the grains nest together. This affects stability underfoot.

Round particles create voids, which offers cushioning. However, they are typically unstable and can roll like ball bearings. This decreases stability and traction.

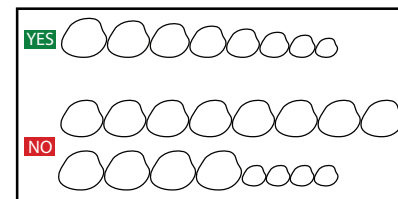


Angular particles have sharp edges and fit together tightly. This provides stability and traction, but angular particles can compact and become hard.

Sub-angular particles have the sharp edges worn off. They will nest while still allowing some movement. This lessens compaction and provides traction.

Particle Grading

Grading is a representation of different sized particles. This affects how much the sand compacts or remains loose. Sand with all the same size particles will remain loose, may become shifty, or feel deep. Sand with equal amounts of differing sizes will nest and compact. A happy medium range of large to small particles will help keep your footing firm, but not compacted.





Where does sand come from?

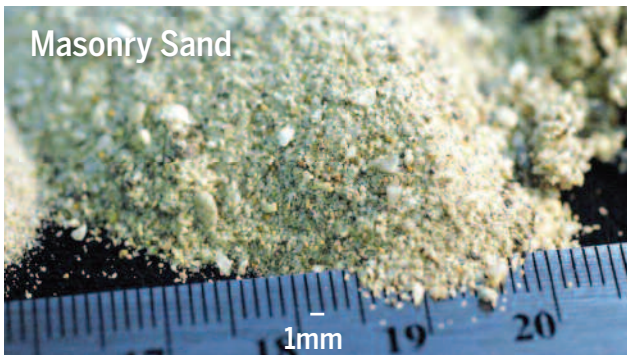
Natural Sand: Natural sand has eroded from mountain rock and is mined from where it was deposited. The host rock determines the exact mineral composition, but most sand is composed of silica from broken down quartz crystals. This type of sand is extremely resistant to weathering and breakdown due to its chemical hardness and will last longer as arena footing. These hard sand particles have been transported and tumbled by water, making them round or sub-angular in shape.



Manufactured Sand: Rock quarries crush rock into various sizes. The smallest particles are called fines and are sold as 'manufactured sand,' 'man-made sand,' 'crusher fines,' or 'stone dust.' These particles range from 5 mm to fine dust, are sharp, and will tightly compact if used alone. The mineral composition can range widely. These particles are not the hard quartz grains of tumbling river action, so they may be softer and break down to dust sooner. These sands have very sharp tendencies. A small amount of manufactured sand can be useful to add stabilization to rolling footing with very round sand grains.

Sand Types

Quarries across the country will have different names for their types of sand. Mineral, particle size, and gradation will vary. Be sure to use the specifications and sizes to determine what sand you will need and not the name of the sand, as "Arena Sand" could mean anything. These are sands you'll commonly find:



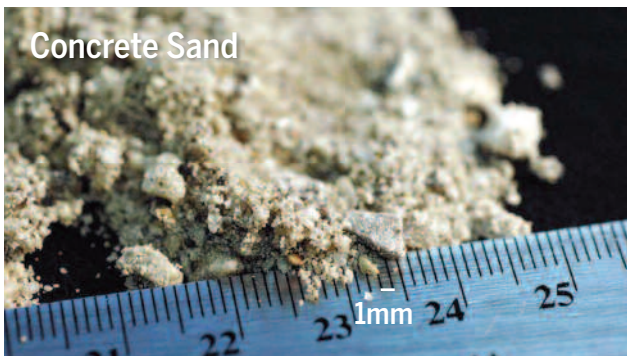
Pit Run: Sand excavated and sold "as is" without grading or washing is called Pit Run. It will have a wide variation from large grains to dust fines and the sand deposit, which may vary within the quarry, determines the properties.

Washed Sands: Getting a sand that is washed of all fines (dust) will not be as stable of a surface as a sand that contains some fines (below #200 mesh or sieve size). Washed sand will have less dust, but it will also have less traction, less compaction, and less shear strength (the horse's hoof going through the surface). Be careful when choosing washed sands. If you have water available, unwashed sand may be a better option. Be sure that the particles that fall below a #200 sieve do not exceed 10% or dust and compaction may be an issue.

Fine Sand: This sand's particles range between 0.42 mm - #40 sieve and 0.074 - #200 sieve (40/200). Fine sand mixes well with textiles and binds loose sand, but should not be used alone. Fines, clay, and silt can create dust and compact.

Masonry Sand: This particle shape can vary from round to sub-angular. Particle size for Masonry sand ranges between 0.60mm (#30 sieve) and 0.15mm (#100 sieve). Masonry Sand is a standardized size specification and is washed but contains some fines. Masonry Sand is widely available and mixes well with crumb rubber products such as Prostride Arena Footing.

Concrete Sand: Particles are usually sub-angular to angular in shape and tend to be larger in size. The particle size ranges between 2.0mm (#10 sieve) 0.3mm (#50 sieve). Concrete Sand is a standardized size specification and is washed but contains some fines. Like Masonry Sand, Concrete Sand is also widely available and will mix with crumb rubber.



Note: All of these sand types will have benefits as well as potential pitfalls. To verify the integrity of the sand you currently have or want to use for a new project, be sure to contact one of our footing specialist prior to choosing a footing amendment.

Unfortunately, you are somewhat limited to using a material that is located in your area, as trucking sand in from long distances can be extremely costly. Premier Equestrian can help you and your contractor determine what sand in your area will be right for you. This is where footing additives can help solve many of the dilemmas associated with local sand.

Where Do I Start?

Everyone has footing questions and obtaining a proper riding surface will consist of a variety of components. When you understand these components, it is relatively simple to improve your arena surface. We make the process as easy as it can be and Premier Equestrian is here to help you make an informed decision about your arena footing. We have the products and knowledge that can improve various arena conditions as well as numerous sands.



Understanding Your Sand

There is a vast amount of information to know pertaining to sand and aggregates. That's why geologists and soil engineers are employed for doing large projects like dams, highways and buildings. For that same reason, we also employ a soil engineer to help determine the quality and compatibility of our customers' sand. We offer one free sand report to our customers in order for our sales staff to properly guide you through the process of getting qualified sand for your additive.

New Arena

Building an equestrian arena is a complex process and there are many options to choose from. For a very reasonable cost, Premier Equestrian offers a detailed consultation service which can include: an on-site visit and survey, material specification, arena design, drainage, and implementation. We can also work and communicate with your existing contractor or we can recommend one of the contractors around the country who specialize in arena building. We also offer phone consultations to help you get started in the right direction. Understanding your needs and how to best achieve them is our specialty.

Existing Arena

Premier Equestrian offers a complimentary sand analysis report and phone consultation to help improve your existing surface. Our free sand report and consultation can help you to narrow down the issues that you may be having with your arena surface. Many of our products can be added to existing sand so call one of our footing specialists to begin the conversation.

All of our footing additives are designed to be mixed with sand. Combining the proper sand with the proper footing additive is a key factor to your arena's success. Premier Equestrian will test your sand free of charge to ensure the composition of the sand is well suited for the product you ultimately choose. Please contact our sales team for any questions you might have concerning your arena footing surface.



Premier Equestrian is dedicated to promoting a safe and enjoyable riding experience for you and your horse. Call 800-611-6109 for a free consultation.

When comparing other textiles and fiber footing amendments, be aware that many competing products contain post-consumer waste, i.e. used carpet fiber, used upholstery, and even urban waste. These waste products may contain mold, bacteria, and residue and may be harmful to you and your horse. Premier Equestrian distributes only new and pre-consumer materials that are recycled from the textile industry.

Note: *All of our footing amendments are designed to be mixed with sand. There are, however, significant varieties in sand types and qualities available on the market. Not all sands are appropriate to use as footing for your equestrian arena.*

Combining additives with the correct type of sand is required in order to build a safe arena surface. Mixing and installation is the responsibility of the customer. Premier Equestrian is not liable for your installation. However, we can make recommendations and have your sand analyzed to qualify its integrity. If you have concerns about mixing and installation, we can also recommend a qualified contractor or arena builder.



Free Phone Consultation

We are committed to helping you achieve your goals of having a proper riding surface. This is why we offer a free consultation and sand report.

To help us determine the best footing additive for you, it would be helpful for you to think about the following questions prior to your free phone consultation.

Arena Status

- New
- Existing
- Under Construction
- Indoor
- Outdoor

Arena Size

- 20m x 40m
- 20m x 60m
- Other _____
- Total Square Feet
Length x Width = _____

Type of Base

- Professional Base
- Natural Base
- Other _____

Arena Traffic

- 1-5 Riders Per Day
- Over 5 Riders Per Day
- Clinics, Horse Shows

Discipline

- Dressage
- Hunter/Jumper
- Dressage & Jumping
- All purpose
- Pleasure
- Driving
- Western
- Other _____

Watering

- Automated Sprinklers
- Water Truck or Tank
- Underground Irrigation
- Spigot and Hose
- Pumping System
- None

Grooming Equipment

- Yes
- No
- Type of Equipment

Surface Characteristics

Firmness

- Soft
- Hard
- Feels OK
- Other _____

Cushion

- Soft/Deep
- Compacted
- Not Sure

Cupping

- No
- Yes
- Not sure

Rebound

- Dead/Dull
- Springy
- Not Sure

Grip/Traction

- Slippery
- Tight or Grippy
- Unstable
- Feels OK

Drainage

- No
- Yes

Other Characteristics

- Surface Migrates
- Rocks/Clumps
- Dust
- Excessive Divots
- Settles Too Quickly After Grooming



Free Sand Report

Adding the correct footing additive to your new or existing arena sand provides your equine athlete an ideal surface to train and perform on while helping to prevent injuries. Premier Equestrian will provide one free sand report. Additional sand analysis reports are \$45 each.

Collect and Mail a Sand Sample

Existing Arena: We will analyze your sand and give you a detailed report of the sand particle sizes and shapes. This will help us to determine how to improve your riding surface. We need a good representation of all the particle sizes in your existing arena sand. When collecting the sample, be sure to dig all the way down to the base as small sand particles tend to settle while larger particles tend to be on the top. Put 2 cups of the mixed sand sample in a durable plastic bag with your name and phone number. Mail your sand sample to: **Premier Equestrian, 8385 South Allen St. #101, Sandy, UT 84070.**

New Arena: Most sand quarries will have a sieve or mesh report on the sands they sell. If you intend to use new sand with a footing additive, we suggest sending us a sample. We will analyze the sand to verify compatibility with the chosen additive. You want to make an informed and educated decision about your arena footing and Premier Equestrian is here to help guide you through the entire process of doing so.

Most horse owners know what they want; they just need information and guidance to get their desired results. Premier Equestrian is here to help you understand your arena surface as well as suggest what products will be best for you and your arena.

Choosing the Right Arena Footing for You

There are many factors that go in to making a quality arena surface. Correct sand and footing additive, time, maintenance, watering capacity, and usage will all affect how your arena performs. Our additives are listed in three categories: Hi-Performance, Performance and Enhance. Ideally we want to design a footing solution to meet your budget, discipline, maintenance program and optimize biomechanics. Several methods can achieve an optimal arena surface. We have been successful in rehabilitating old arenas as well as building new state-of-the-art arena systems. Working with a Premier Footing Specialist will help you to reach your goals.

Saving You Time and Money

Things to consider:

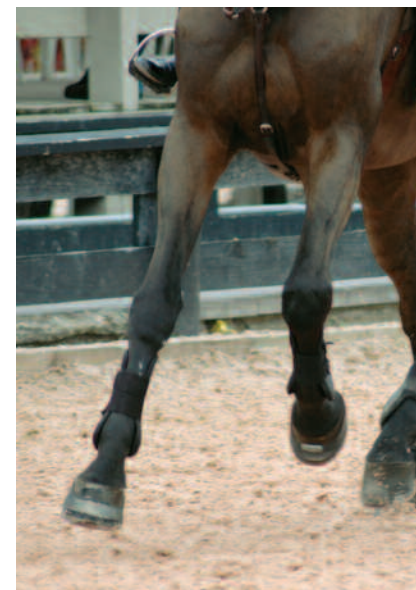
Budget	Availability of water
Discipline	Type of arena base
New/existing sand	Low maintenance
Climate	High maintenance
Traffic & usage	Horse shows
Drainage	Daily training

Footing Qualities:

Firmness
Cushion
Cupping
Rebound
Grip
Lifespan
Moisture Retention

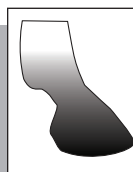
Determining the appropriate footing surface:

- Your budget – renovate your arena or build new
- Your riding style – dressage, jumping, eventing or all purpose
- Watering capability for the ring
- The status of any current footing materials
- Seasonal weather conditions
- Whether you ride on an indoor or outdoor horse arena
- Grooming and maintenance equipment
- Time available for maintenance



Hi-Performance

These premium footing additives are designed for optimum performance, high traffic and superior function for biomechanics. They require specific grooming equipment, moisture, and a specific blend of sand. A professionally constructed base and drainage system will optimize these products. This is the category to choose from if you're looking for a superior footing surface with ideal biomechanics.



Performance

These footing additives are designed to increase performance and biomechanics in a wider range of circumstances. They're ideal for new or existing arena surfaces with moderate to high traffic. They can be installed on a variety of different base surfaces and will blend with an assortment of sands. Some moisture and maintenance is required. A wider range of grooming equipment can be utilized.



Enhance

These footing additives can enhance a specific quality in your existing arena surface and aid the performance of your sand. For new arenas they will work best when mixed with the additive's designated sand type. They require lower maintenance and will work with most types of grooming equipment.



PREMIER | HT

Hydration Technology Footing



The "HT" stands for hydration technology. Premier Equestrian introduced Premier HT to serve our riders who are water conscious. Using a patented process, Premier HT footing textiles are infused with a super absorbent polymer that catches and holds water. This modern technology greatly reduces the amount of water needed to keep your arena properly hydrated, contributing to an ideal riding surface and saving you time and money.

Test results show a dynamic difference in the ability of Premier HT to hold moisture compared to competing textiles. After three days of drying, Premier HT held 53% more water than the competing textile blend. After six days the difference was over 150%.

Premier HT addresses all the characteristics of an ideal arena surface. The textiles in Premier HT stabilize sand particles to provide firmness, traction, and grip. Water, a key factor for optimum performance, is suspended in the fabric adding a cushioning layer. This slows down the impact energy thus resulting in a superior rebound reaction. Premier HT allows the surface to cup inside the sole of the hoof, aiding in support and promoting blood circulation.

Along with conserving water, lowering maintenance, and biomechanical advantages, Premier HT passes the most stringent toxicology testing making it completely safe for horses and humans.

PRICES ARE SUBJECT TO CHANGE

HI-PERFORMANCE



	HIGH	MED	LOW
Firmness	X		
Cushion	X		
Cupping	X		
Rebound	X		
Grip	X		
Lifespan	X		
Moisture Retention	X		

- Textile infused with a super absorbent polymer
- Hydration technology absorbs and holds onto water, releasing it as needed
- Excellent biomechanics, possess all the qualities of a premium footing
- Highest quality materials
- Spend less time on maintenance and more time riding
- Great for indoor arenas and outdoor arenas
- Completely safe for human and horse

Sand Specifications

A fine silica sand with sub-angular particles is best. However, any type of sand that posses a sub-angular particle will work. Particle size will be the most important factor in sand requirement.

Required Sand Particle Size

Fine - 0.074 to 0.30 mm (#200 to #50)

Pricing

3" - 4" sand depth (.5 lbs s.f.)

.99¢ per square foot (Freight additional)



©Mary Phelps

"Premier's footing is the best we have ever ridden on. It's the perfect combination of materials, provides superior traction as well as cushioning, retains moisture well, reduces dust, and is very easy to maintain. We couldn't be happier. Premier Equestrian is simply the best!"

*Olympian –Steffen Peters
& Shannon Peters*

This is a remarkable product. We were suffering from extreme drought and water shortages. HT cut our watering and water bill by 70%. The best part is my trainer and boarders love the new footing and are overwhelmingly pleased with how great it feels.

*–Malcolm MacNaughton,
Woodside, CA*



MASTER'S BLEND FOOTING



Master's Blend is a mixture of our best textile and cushioning additives. This multi-purpose blend contains all of the surface qualities to achieve ideal biomechanics, performance, and supports overall health. It combines great stability, grip, and shear strength factors of Premier Textiles, along with materials to provide cushion, cupping and rebound.

Master's Blend is an all-around surface that can be adjusted for jumping, dressage or any other type of performance arena. Premier Equestrian can help you design a quality surface that meets your needs.

HI-PERFORMANCE



	HIGH	MED	LOW
Firmness	X		
Cushion	X		
Cupping	X		
Rebound	X		
Grip	X		
Lifespan	X		
Moisture Retention		X	

- Mixture of textile and cushioning additives
- Stabilizes sand particles
- Excellent resistance to compacting
- Excellent shock absorption for less concussion and more energy rebound
- Shear resistance providing additional traction & grip
- Improves & balances moisture retention
- Significant dust reduction for indoor riding arenas
- Durable (up to 10 years, depending on usage & maintenance)

Sand Specifications

A fine silica sand with sub-angular particles is best. However, any type of sand that posses a sub-angular particle will work. Particle size will be the most important factor in sand requirement.

Required Sand Particle Size

Fine - 0.074 to 0.30 mm (#200 to #50)

Pricing

3" - 4" sand depth (1 lb s.f.)

.79¢ per square foot (Freight additional)



Rebecca Farm in Kalispell Montana hosts The Event at Rebecca Farm and is proud to offer their competitors a top-quality arena experience. Master's Blend arena footing, supplied by Premier Equestrian, LLC, gives competitors a slip-free ride as it is designed for traction but also provides movement and cushion. Competitors were thrilled with the quality of the arena surfaces.



Olympian Adrienne Lyle riding Wizard

ProTex™ is a textile footing additive that protects your horse from added stress by providing all the qualities of an ideal arena surface. Our proprietary formula is designed with injury prevention at the forefront.

ProTex fibers deliver a rooting system similar to turf. It has optimum impact absorption, higher slide strength and greater stability to support and protect the hoof and legs. ProTex offers the full spectrum of qualities for new arenas, or can bring life back to an old arena surface. It can be mixed with a wider range of sand particles.

ProTex is specially formulated by Premier Equestrian for all types of arena surfaces such as jumping, dressage, and all-purpose riding. This affordable footing additive is safe, non-toxic, non-allergenic, and will not affect humans or animals.

HI-PERFORMANCE



	HIGH	MED	LOW
Firmness	X		
Cushion	X		
Cupping	X		
Rebound	X		
Grip	X		
Lifespan		X	
Moisture Retention		X	

- Textile
- Provides good shear support
- Retains moisture
- Reduces dust
- Durability for long life
- Safe for you and your horse
- Good for dressage, jumping, and all-purpose arenas

Sand Specifications

A fine to medium sand with sub-angular particles is best. Particle size will be the most important factor in sand requirement.

Required Sand Particle Size

Fine - Medium 0.075 to 0.60 mm (#200 to #30)

Pricing

3" - 4" sand depth (.75 lb s.f.)
.75¢ per square foot (Freight additional)



"I can't believe how much life Premier Equestrian was able to put back into our footing. The ProTex stabilized our surface, minimized the dust, it now retains more moisture thus reducing the need to water, and kept the surface from compacting. What a huge improvement. The cost was a fraction of a complete redo." You guys are simply the best!! Thank you from all of us at River Grove!"

Adrienne Lyle - Olympian and International Dressage Competitor



German Geo Textile, or GGT, is a combination of synthetic felt and polyester fibers and is now made in America. Mixed with sand, GGT helps to bind the surface, providing superior firmness, traction and grip, and shear support. It also provides moderate cushion, cupping, and rebound. GGT Footing is a favorite choice for high-traffic horse shows, events, and facilities. GGT footing is superior for jumping, dressage, and multipurpose arenas.

PERFORMANCE



	HIGH	MED	LOW
Firmness	X		
Cushion		X	
Cupping		X	
Rebound		X	
Grip	X		
Lifespan	X		
Moisture Retention		X	

- Combination of synthetic felt and polyester fibers
- Stabilizes sand particles
- Good resistance to compacting
- Gentle on the bare hoof with great energy absorption for less concussion
- Superior grip and traction
- Easy maintenance
- Durable (up to 10 years depending on usage & maintenance)

Sand Specifications

A fine silica sand with sub-angular particles is best. However, any type of sand that possesses a sub-angular particle will work. Particle size will be the most important factor in sand requirement.

Required Sand Particle Size

Fine - 0.074 to 0.42 mm (#200 to #40)

Pricing

Jumping Blend 30% Fiber
 3" - 4" sand depth (.6 lb s.f.)
 .65¢ per square foot (Freight additional)

Dressage Blend 15% Fiber
 3" - 4" sand depth (.6 lb s.f.)
 .55¢ per square foot (Freight additional)

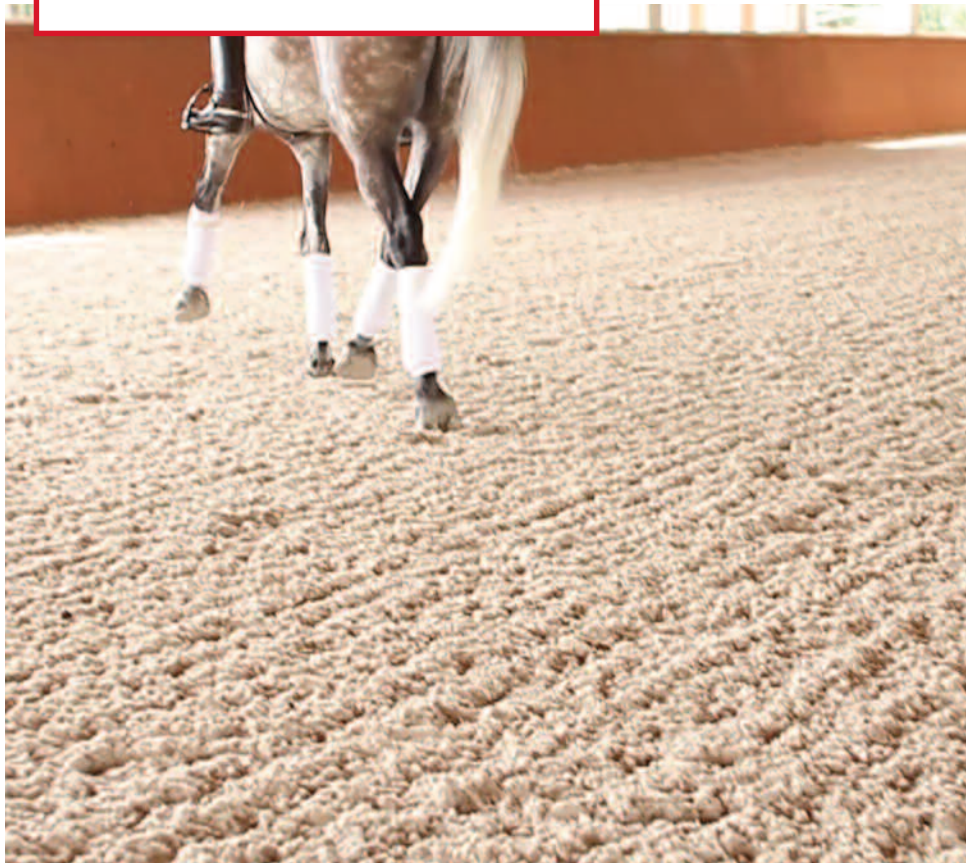


"We love coming to the Del Mar National. We've been competing here for years and with the new GGT footing this makes Del Mar a top notch, world-class facility."

Olympian, Debbie McDonald and Adrienne Lyle (shown)

ARENA AID™

PREMIER SAND STABILIZER



ArenaAid has become one of our most popular footing additives. The combination of nylon and polyester fibers stabilize a wide variety of sands; new or existing. The unique formula of fibers gives sand structure by trapping loose, rolling particles. This results in increased stability and grip, cushion, cupping, rebound, and reduced shear. As an added benefit, the nylon fibers hold moisture in your arena surface.

ArenaAid is a perfect solution if you want the performance of a fiber-textile arena surface without the cost of replacing all the sand. ArenaAid is easy to install and very affordable. It is a neutral, non-toxic, non-allergenic material that will not affect humans or animals. ArenaAid is environmentally safe and made in America.

PERFORMANCE



	HIGH	MED	LOW
Firmness		X	
Cushion	X		
Cupping	X		
Rebound	X		
Grip	X		
Lifespan		X	
Moisture Retention	X		

- Nylon and polyester fibers
- Increases stability and firmness
- Provides cushion, cupping and rebound
- Increases shear support
- Retains moisture
- Suitable for indoor and outdoor arenas
- Stabilizes a wider range of sand particles
- Great for mixing with existing sands
- Reduces dust
- Safe for horse and rider

Sand Specifications

A fine to medium sand with sub-angular particles is best. Particle size will be the most important factor in sand requirement.

Required Sand Particle Size

Fine - Medium 0.105 to 0.6 mm (#140 to #30)

Pricing

3" - 4" sand depth (.5 lb s.f.)

.45¢ per square foot (Freight additional)



"We installed ArenaAid into our arena and could not be more thrilled,"
"It has the attributes of the footing we had at our last farm without the negatives. That prior footing, while fantastic for competition, could be a bit firm for every day riding. ArenaAid has given us high performance footing suitable for daily training at an unbelievably competitive price."

Gina Miles

US Olympic Eventing Silver Medalist



Athletex is a mixture of rubber and textile made from recycled cushioning products. Recycled rubber products have been used for decades and have been proven to be an all-around enhancement to footing surfaces. Athletex will help with hard, compacted, and dead surfaces by introducing voids to increase cushion, cupping and rebound. Rubber enhances cushioning, while textiles enhance stability, retain some moisture, and add moderate stability.

Athletex works well with a wide range of sand sizes. It will perform in coarse and fine sand or sand that falls in-between. Little maintenance is required and most types of grooming equipment will work. The qualities offered by Athletex make this an excellent multi-purpose type footing additive suited for dressage, jumping, western pleasure, vaulting, and all other types of disciplines.

ENHANCE



	HIGH	MED	LOW
Firmness		X	
Cushion	X		
Cupping	X		
Rebound	X		
Grip		X	
Lifespan			X
Moisture Retention			X

- Mixture of recycled rubber and textile
- Excellent resistance to compacting
- Excellent shock absorption
- Enhanced energy rebound
- Increased stability
- Improves & balances moisture retention
- Suitable for most types of sand
- Suitable for indoor and outdoor arenas
- Low maintenance

Sand Specifications *Prices are subject to change*
A medium to coarse sand with angular to sub-angular particles.

Required Sand Particle Size
Fine - Coarse 0.105 to 4.76 mm (#140 to #4)

Pricing

3" - 4" sand depth (.75 lb s.f.)
.45¢ per square foot (*Freight additional*)



"I was thrilled to work with Premier Equestrian on our new jumping arena. The Athletex provided stability cushioning and required minimal maintenance."

*Kim Severson,
Four Star International Competitor
and Olympic Silver Medalist*



ENHANCE



	HIGH	MED	LOW
Firmness			X
Cushion	X		
Cupping		X	
Rebound	X		
Grip			X
Lifespan	X		
Moisture Retention			X

- Excellent resistance to compacting
- Excellent shock absorption
- Enhanced energy rebound
- Improves moisture absorption
- Suitable for most types of sand
- Low maintenance
- Suitable for indoor and outdoor arenas
- Metal free
- Clean and dust free
- Low maintenance

Sand Specifications

A medium to coarse sand with angular to sub-angular particles.

Required Sand Particle Size

Fine - Coarse 0.105 to 4.76 mm (#140 to #4)

Pricing

3" - 4" sand depth (1.25 lbs s.f.)

.25¢ per square foot (Freight additional)



"I called Heidi and Mark at Premier Equestrian and found them both knowledgeable and very pleasant to deal with. I had them ship me a sample of their rubber and was very impressed. Another dressage enthusiast in my town had gone with the rubber with the filaments still in it. On seeing her ring with all the filaments raised to the surface, and the quality of Premier's footing I knew which one to pick. Thank you."

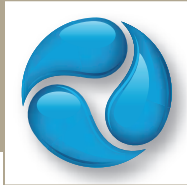
Peggy Halpin



ProStride is made from recycled tires and is sized specifically for horse arenas. Designed to mix with sand, ProStride helps to create cushion and rebound in the surface. This widely used and well thought of crumb rubber is an affordable answer for an arena that is hard packed; contains large, sharp or angulated particles; and is in need of some extra cushion and rebound. Adding cushion and rebound to your arena keeps your horse healthy by minimizing bone and joint concussion and tendon strain.

ProStride rubber undergoes several more recycling processes than competing rubber products. This results in a cleaner, more consistent and uniform material with no dust and no metal or residue. Fibers may be available with ProStride depending upon your preference and supplies.

ProStride requires minimal maintenance and works with most types of grooming equipment. ProStride will last for many years. We ship from many points around the country to minimize freight costs.



Hydro-Keep

Arena Hydrator



Water Retention Additive

Premier Hydro-Keep is a safe, non-toxic chemical crystal that can reduce your arena watering by 50%! The crystal expands when wet, absorbing and retaining water. Over time as the soil dries, the crystal contracts, gradually releasing water and hydrating the surrounding area. As an added benefit, this continuous expansion and contraction reduces soil compaction.

Research shows that Hydro-Keep super absorbent polymers can release up to 95% of the water absorbed, making it available for your surface. One pound of Hydro-Keep can absorb 40 gallons of tap water and 31 gallons of rain water.

With an essentially neutral pH, Hydro-Keep will break down into nitrogen, carbon dioxide and water with no residual toxicity.

Hydro-Keep can be added to any of our other additives for enhanced moisture retention.



ENHANCE



	HIGH	MED	LOW
Firmness			X
Cushion		X	
Cupping			X
Rebound		X	
Grip			X
Lifespan			X
Moisture Retention	X		

- Retains water in your arena
- Reduce watering intervals
- Helps reduce dust
- Used indoors and outdoors
- Lasts up to three years
- Non-toxic and safe for horses
- FREE Freight in contiguous USA

Sand Specifications

A medium to coarse sand with angular to sub-angular particles.

Required Sand Particle Size

Fine - Coarse 0.105 to 4.76 mm (#140 to #4)

Pricing

Sold in 55 lbs bags only.

\$399

Each bag covers 6900 s.f.

.06¢ per sq. ft.

(FREE freight in contiguous USA)

Prices are subject to change



"My dressage arena gets used constantly - and for everything, not just dressage. We jump, play and ride in there with several horses every day. I used to have to water it twice a day and even then it was dusty after a couple of hours with the dry Colorado air. Since mixing in Hydro-Keep, I water it every 3 - 4 days. That is just amazing to me. It is economical to use and it's saving me a lot in tractor/equipment use and valuable water supplies."

*– Linda Parelli,
Parelli Natural Horsemanship*

Grooming

Grooming and maintenance are key factors in achieving quality arena footing. Grooming enables you to maintain a consistent riding surface for your equine athlete, avoid footing irregularities, and condition your sand and footing additives.

Regularly mixing and leveling footing prevents problems. A professional-type groomer can overturn and redistribute the varying sand particle sizes and keep additives mixed thoroughly. Footing which has migrated out to the edges of the arena will need to be pulled back in.

Premier Groomer by Premier Equestrian

Different arena surfaces require different maintenance. The Premier Groomer is a convenient and easy solution for all types of surfaces. Our groomer has been updated with some forward thinking grooming features that are not found on competing products. The Premier Groomer is specifically designed to churn and blend textiles. It also mixes and levels crumb rubber and can break up even the most hard and compact surfaces. The Premier Groomer can be used for tilling pastures and road maintenance.

Compare the Premier Groomer with other arena maintenance equipment and you will find it to be an exceptional value and have more features than competitive models.

Item #	Description	Width	S- Tine Bars	Sugg HP	Wheel Width	Unit Width	Overall Length	Unit Weight	Price	
5-500	Premier 5' Groomer	5 ft.	2	18 to 25	50"	60"	52"	280 lbs.	\$2,075	
15-501	Premier 6' Groomer	6 ft.	2	20 to 30	62"	72"	52"	330 lbs.	\$2,180	
5-502	Premier 7' Groomer	7 ft.	2	25 to 30	74"	84"	52"	360 lbs.	\$2,380	
5-504	Tongue with Ratchet Jack Attachment	45 lbs.								\$295
5-506	Arena Edger™ Upgrade									\$149



The Adjustable Levelling Bar™

An advancement in grooming technology! Set the Adjustable Levelling Bar™ up or down, forward or backward, or diagonally from right and left to move your footing where you desire. For example, if footing is built up on the rail, set the Adjustable Levelling Bar™ on a diagonal to pull the footing back into the track. When mixing textile move the Adjustable Levelling Bar™ backward to avoid getting the textile stuck in the tines.

Adaptable Hitch System

Use the 3-point hitch or add the Tongue & Ratchet Jack to tow with an ATV or other lightweight utility vehicle.



S-Tines, Roller Break, Mix, Fluff, Finish. Outfitted with S-tines, the Adjustable Levelling Bar™, and a roller, the Premier Groomer will break, mix, fluff, level and finish in one pass.



The Arena Edger™ cleans up the rail and breaks down side mounds and flattens your arena to the very outside edge.

WATERING

Having the ability to water your arena surface will make a huge difference in performance and dust control. The intermolecular attraction formed between water molecules holds wet sand together, stabilizing particles that would roll if dry. Water also plays a roll in absorbing and slowing down the concussive energy of pounding hooves. Water maintains its consistency from 32 degrees to 165 degrees Fahrenheit.

We recommend water over polymers and wax coatings, as these types of coatings don't have the same molecular bond that water has. Polymer and wax molecules actually have a repelling type action. They can become wedged in your horse's feet creating a snowball effect. This offsets the balance of the hoof. These types of coatings are very inconsistent in temperature variation. They are stiff and clumpy in cold temperatures and have a lower melting point in high temperatures causing them to leave residue on clothes, shoes, and your horse.



Why Is the OTTO Sport Perforated Mat System, hands down, the best arena surface in the world?



Longevity of Surface — Separation of substructure and sand layer

The OTTO Perforated Mat ensures a proper and durable separation of footing and substructure that will last for years. Stones will not migrate up from the substructure into the sand footing, and sand will not migrate down into the gravel layer.

Drainage — No other drainage system can match the amount of water an OTTO Sport System can remove

The OTTO Perforated Mat is equipped with holes providing immediate drainage of excess water. The arena can be used immediately even after heavy rain. Since the mats prevent rocks from migrating up, a drainage layer under the mats create a highway for water to rapidly flow off. Traditional arena bases are heavily compacted to high densities to keep the base intact. This hi-density compaction will lose hydraulic conductivity, slowing down the drainage of your arena base. OTTO Perforated Mats solve all these disadvantages.

Moisture Retention — All areas of the surface will maintain even hydration for a more consistent surface

The mats are equipped with a water retention system which saves up to four litres of water. This provides a correct, even, and consistent moisture level across the whole surface. Reduce the risks emerging from dusty footings and uneven drain puddles, while enhancing the stability of the footing surface.

Firmness, Grip & Stability

Skid resistance comes from a specially designed system of traction-knobs of differing heights on the upper side of the mat. This guarantees a secure surface, preventing horses from slipping – a priceless advantage during sharp bends and turns. The varied heights provide stability while also minimizing excessive movement of the sand particles over the mats. The surface provides grip while allowing some movement of the hoof, minimizing concussion and hyper-flexion of tendons and ligaments during each phase of movement.

Cushion, Cupping & Rebound

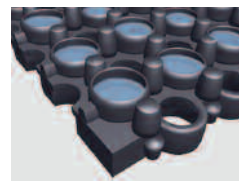
The OTTO Perforated Mat absorbs up to 40% of the energy caused by the striking hoof. The German Association for Technical Inspection (TÜV) confirmed that the OTTO Sport mat will minimize shock and concussion on impact. Cushion and rebound protects horses' musculoskeletal system and soft tissues. The top surface layer requires less additives for stabilization. This allows for healthy hoof mechanism, enhancing the overall health of the horse.

OTTO Perforated Mats will save time and money

A sand layer of just 8 to 10 cm is required. Most traditional compacted arena bases require 13 to 15 cm.

The advantages of this includes:

- Saving one-third of sand cost
- Requires less footing additives
- Saving watering costs because less material has to be kept moist
- Saving anti-freezing agent because less material has to be kept frost-free
- Quicker drainage because rain water passes quickly through a shallower layer
- Injury prevention and extending your equine partner's career

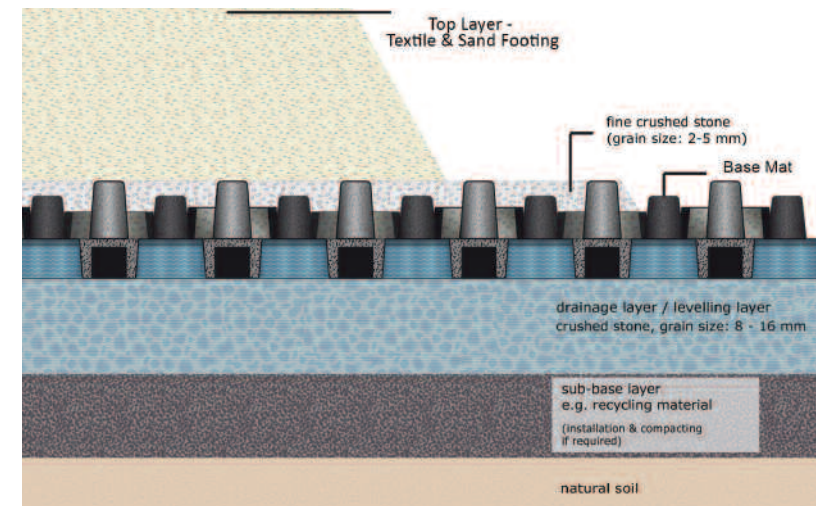


HI-PERFORMANCE



The OTTO Sport mat system possess all five surface characteristics

The original OTTO Perforated Mat is a product made of resilient material that is specially designed for equestrian sports. It is used in equestrian arenas and paddocks, set underneath the footing to provide maximum drainage, water conservation, concussion mitigation and stability for horse and rider.





Product Information:

Measures:

approx. 46.06 x 33.46 x 1.97 "
(117 x 85 x 5 cm)

Covered Area:

approx. 10.76 sq ft. (1 m²)

Weight: approx. 21 kg

Material: Resilient Synthetics

- Drainage and water retention
- Increases stability & non-slip properties
- Concussion absorption
- Proven environmental protection
- System with well-performing expansion joint
- Suitable for indoor and outdoor arenas
- Locking-rings
- Durability and warranty

Pricing

\$2.70 per square foot
*Installation, aggregates
& freight additional*

PRICES ARE SUBJECT TO CHANGE



"It's important that the soil is neither too hard nor too smooth. For horses, the soil has to be a little skidding, so it shouldn't be too blunt. Additionally, the soil has to be water-permeable and ought to have a good degree of moisture. It should neither be muddy nor too dry."

OTTO Sport mats fulfill these requirements. We also use OTTO mats in our indoor arena as we need a soil which is level but not slippery. The knobs on the mats provide a good consistency so horses will find a strong foothold."

*Klaus Balkenhol
Rosendahl, Germany*

Proven environmental protection — OTTO Perforated Mats are manufactured from recycled synthetic material which actively contribute to environmental protection and sustainable development. Quality management also includes regular screenings conducted by the German Association for Technical Inspection (TÜV) that approve compliance with statutory regulations for soil and groundwater protection. According to this, the OTTO Perforated Mats comply with all standards set by the German "Bundesbodenschutz-Verordnung" (Federal Soil and Groundwater Protection Order).

Locking-rings — The bottom side of OTTO Perforated Mats have locking-rings which perform specific functions. The tapered rings prevent all lateral shiftings of mats. Rocks cannot migrate up to the substructure, nor will sand and footing travel down under the mats. This ensures a proper and durable separation of footing and substructure.

System with well-performing expansion joint — Any material, especially synthetics, tend to expand when warming and contract when cooling. For large areas like paddocks or equestrian arenas, even a slight expansion has a great impact. Systems without expansion joints will bulge out when warming. Sand can trickle down in the emerging cavities, forcing the mat up and dislodging it from its initial position.

OTTO Perforated Mats are set with a gap of approximately 3 cm between each mat. The structure of the bottom side and weight will lock the mats into place. Sand cannot get under the mats, eliminating bulging and shifting of the surface.

Durability and warranty— OTTO Perforated Mats have been installed on more than 5,000 equestrian facilities throughout the world and have impressively proven maximum performance and durability. OTTO Sport gives a warranty of 20 years on functionality of the OTTO Mats when installed according to our specifications.



*Klaus Balkenhol
Rosendahl, Germany*



You'll see OTTO Sport used by the finest venues and athletes in the world

WORLD EQUESTRIAN GAMES

Alltech FEI WEG 2010, Kentucky (USA)
 FEI WEG 2006, Aachen (DE)
 FEI WEG 1998, Rome (ITA)

OLYMPIC GAMES

2016 - Rio de Janeiro (Brazil)

ASIAN GAMES 2006

Doha (Qatar)

FEI World Cup Finals

2011, Leipzig (DE)
 2006, Kuala Lumpur (MY)

EUROPEAN CHAMPIONSHIPS

EC Dressage 2007, Turin (Italy)
 EC Dressage 1999, Arnheim (Netherlands)
 EC Jumping 2011, Madrid (Spain)

MEDITERRANEAN GAMES 2009, Pescara (Italy)

TOURNAMENTS

International Dressage & Jumping Festival
 Verden (Germany)
 Festhallen-Reitturnier, Frankfurt
 Großer Preis von Sachsen, Zwickau
 Atlantic Equestrian Tour, Comporta (Portugal)

JUMPING

Franke Sloothaak (GER), World Champion 1994
 Olympic Champion Team 1988 & 1996

Meredith Michaels-Beerbaum (GER)
 World Cup Final

Markus Beerbaum (GER)
 World Champion Team 1998

Lars Nieberg (GER), Olympic Champion

John Whitaker (GBR), Vice World Champion 1990
 European Champion 1987

DRESSAGE

Klaus Balkenhol (GER)
 Olympic Champion Team 1992 & 1996

Steffen Peters (USA)
 Olympic Games 1996 Bronze Medalist
 Gold 2011 Pan Am Games
 2006 & 2010 WEG, Bronze Medalist

Lisa Wilcox (USA)
 Bronze Medallist Olympic Games 2004

Debbie McDonald (USA)
 Gold Medallist Pan American Games 1999





Press Release

When it Rains, it Pours –

Premier Equestrians Have Dry Haven in Midst of Powerful El Niño Storms

San Diego, California (January 8, 2016) – As a series of storms pummel California this week with one of the strongest El Niño weather systems on record, many equestrians find themselves extremely limited with the excess of flooding in paddocks and riding rings. However, with early preparations to the warnings of the upcoming El Niño year, some wise equestrians have installed an elite arena system that allows them to “walk on water” during this massive storm.

U.S. Olympian Steffen Peters knew that selecting an arena footing system for his California training facility was of utmost importance, especially with the threat of harsh storms and heavy rain. That’s why he chose to train on riding surfaces provided by Premier Equestrian, a leading industry innovator in arena footing. Steffen selected the advanced OTTO Sport arena. Premier Equestrian is the exclusive North American distributor for German based OTTO Sport-und Reiplatz GmbH. Now, even through the record-tying flooding, potential flash floods, and mudslides, Peters’ facility continues to function smoothly with riders and horses out and about training on the Premier Equestrian and OTTO Sport arena system.

“OTTO Sport offers a system of drainage, concussion relief, biomechanics benefits, and longevity,” said Heidi Zorn, President of Premier Equestrian. “The OTTO Sport system is a proven product that has been around for over thirty years. Many arenas are still standing and performing as well as they did the first day the system was installed thirty years ago.” This is why several “Premier Equestrians,” riders like Peters who are people dedicated to the development and preservation of horse sport, have chosen to put the OTTO Sport system under their winning horses’ hooves.

Peters and his wife, ----- Gold Medalist Shannon Peters, believe that this advanced arena system and footing are essential, and their arena has truly proven its worth throughout the series of intense El Niño storms. Peters continues to train, while the majority of the Californian equestrian population without the arena system is virtually stall bound. Steffen and Shannon Peters planned ahead and installed the OTTO Sport arena system before the storms hit. Peters was originally introduced to the OTTO Sport arena system at the 2006 World Equestrian Games in Aachen, Germany, where the system held up against two weeks of heavy rain.

Keri Homer, the barn manager for Steffen and Shannon Peters at Arroyo Del Mar, remarked that before the Premier Equestrian and OTTO Sport arena system, they would have had to close the outdoor ring with no telling when it could be reopened in the massive amount of flooding. Homer states, “Today, we are playing in the rain on stable, safe, and consistent footing. Let El Niño in— we are ready!”

The two photos were taken on the same day at Steffen and Shannon Peters’ Arroyo Del Mar after the El Niño storms.

Photo 1: Practice Makes Perfect — Riders at Steffen and Shannon Peters’ Arroyo Del Mar lost no riding time after one of the strongest El Niño storms on record. The OTTO Sport arena system provided by Premier Equestrian kept the arena in stable and safe condition

Photo 2: Even while riders enjoyed schooling in the OTTO Sport arena at Arroyo Del Mar, the facility’s round pen — without the OTTO Sport arena system provided by Premier Equestrian— was rendered unusable after the intense El Niño storms.



Paddock Mats

The OTTO Sport perforated mat can be used for turn outs and paddocks. These mats will help with drainage, erosion and excessive wear. Paddock mats enhance hoof health by keeping areas dry and supportive. This is an ideal system for horses that weave, paw or tend to dig up their turnout area.

Paddock mats are sold in sets of 50, each mat is 46.06 x 33.46 x 1.97 " and covers 10.7 s.f.

OTTO Sport Paddock Mats -

Set of 50 (covers 535 square feet) - **\$1750**
Installation, aggregates and freight additional





PREMIER EQUESTRIAN[®]

The Arena Company



The Official Footing Supplier of the United States Equestrian Federation

www.PremierEquestrian.com 800-611-6109