terra-tex®

The riding surface.

Your professional in riding area construction.

All from one source.

a product of
terra bausysteme


Der Reitboden
terra-tex.de
terra-tex




Bobcat



Der Reitboden.
terra-tex



Marbach
Der Reitboden.
terra-tex








1 terra-tex
1 terra-tex



terra-tex
terra-tex


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A small excerpt:

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The terra-bausysteme GmbH

Riding surface experts from the country

Products from the company, terra-bausysteme GmbH, are used throughout Europe. ‚The riding surface is terra-tex' or is ‚terra-tex is the riding surface' better? Anyway, one thing is clear, the company terra-bausysteme GmbH in Neuried, Ortenau, is the perfect partner for professionals, individuals, as well as teams and organizers who are looking for the optimal riding surface. Starting with the terra-tex footing, which is specially modified to meet different requirements by implementing such things as rubber mats all the way through to lawn edgings as ground reinforcement, the company offers a wide and extremely high-quality range of products for constructing the perfect riding surface. The quality and durability of the floor systems, which are largely derived from our own production, is well known, because riders from all over Europe work with their horses on floors from this company which was founded in 1985. In addition, terra-bausysteme GmbH is also a consultant
for equestrian shows and events throughout Europe including Basel, Offenburg or the Stuttgart German Masters.

Born out of necessity

As has so often happened in the land of tinkerers and thinkers, the idea to develop a synthetic riding surface was seemingly born out of necessity in the early 80s. The former riding surface at the facilities of the company founder was, like so many floors, ephemeral and dusty, and the natural rotting of organic materials made constant maintenance of the footing necessary. Experiments with synthetic geo-membranes as a component were performed by crushing them by hand and finally it was possible to determine that these exhibit excellent properties in conjunction with sand as an optimal component for a high quality, load-bearing durable riding surface. This was the birth of terra-tex, which has since been patented, undergone multiple inspections and is an excellent non-woven geotextile with a quartz sand mixture. It is used across the country as footing for outdoor riding arenas, hall floors, or as a mobile riding surface for equestrian events.
The simultaneous launch of terra-tex and another of our developments, the Geoline mounting system for rapid stabilisation of trafficable surfaces, has revolutionized riding arena construction and initiated the rise of terra-bausysteme GmbH.

Everything from a single source

One feature that has distinguished the company since then is the fact that virtually all production steps, including the construction of riding surfaces, are performed by the company. Thus, to meet the high quality standards, internal production of the non-woven geotextiles started in 1995. The material is shredded on site in the course of various processes, is pressed and finally mixed with a specially selected, high-quality quartz sand and other additives. The entire production facility was modernized in 2006 to improve efficiency and to accelerate the implementation of customer requirements while maintaining all means of production under one roof. „The contact with our customers is extremely important to us. Precisely because it is our consulting

and service concept, also in regard to improving existing floors, which are self-evident," says managing director Harald Schlechter on the company's philosophy. The mobile riding floors of terra-bausysteme GmbH, which are used for all sorts of equestrian events, also belong to the service industry since this includes delivery, installation, maintenance and dismantling using our own machinery and all of this performed within a short time.

Quality must be excellent

Over the years, the terra-tex composition has of course been continuously optimized and still today, quality tests are always performed to guarantee perfect equestrian facilities. For example, the elasticity of the mixture is currently being examined in detail. Speaking of quality: This plays a particularly important role for terra-bausysteme GmbH: „There are now, of course, many similar non-woven fabric sand compositions on the market. The problem is that often inferior materials are used for the production and thereby the positive characteristics may not come to fruition," says managing director Harald Dorner, who can look back on many years of experience. It is also exactly this experience that has taught him and all of the company employees that not every fleece chaff sand mixture has the perfect characteristics of terra-tex. Often there are only minor differences in the composition of the synthetic material, or changes in grain structures that shorten the service life or reduce impact stability. Higher, faster, further, the terra-bausysteme GmbH is now one of the market leaders for riding floors, but standing still is a foreign word in the company. For this reason, new products related to riding surface construction are constantly developed, and internal processes are continually improved and adapted to the increased requirements. Thus, the non-woven production was expanded in 2008 to meet the increasing demand for this highly sought-after material in a timely manner. The headquarters were finally moved to Neuried in 2012 along with the opening of a branch in Pleidelsheim with its own production facilities. Internal logistics operations were also expanded in 2013 with new investments in the transportation fleet to ensure on-time deliveries to customers.

Then the word was out: terra-tex is the riding surface, or was it the other way around?

Development didn't stop in 2014 either. Until this time, riding arenas constructed with flood and drain systems had been implemented reticently. Now these were intensified and a completely new computerized control unit for the pump system was developed. Due to the great demand, the decision to expand and upgrade the production and sale of mats and grids was made in 2016. This has now made it possible to offer suitable products for all kinds of ground reinforcements, mats for riding arenas and paddocks, stable mats and trail reinforcement all the way through to event mats for sporting,
cultural and festival events - with options to purchase or rent.

A ***top-class*** *riding surface*

- **terra-tex means satisfied customers**
  a thousand times over and with the most references
- **terra-tex has the best features**
  providing the necessary assurance for all requirements
- **terra-texcan be used anywhere**
  for riding hall floors, all-weather courts & mobile riding surfaces, ebb & flow
- **terra-tex means decades of experience**
  with continuous development of the material and methods
- **terra-tex riding surfaces**
  are made from a mixture of materials of the **highest quality**
- **terra-texis the solution for your riding surface**
  trust this product and its quality
- **terra-tex floors have the greatest durability**
  with installations that are more than 25 years old and still in operation

Features

- non-rotting
- extremely abrasion resistant and easy to maintain
- impact resistant & anti-slip from the beginning
- stores moisture, binds dust and remains permantly elastic
- can be easily refilled and does not decompose
- has a friendly appearance through the bright color of the riding surface
- completely environmentally neutral with a practical disposal system
- tested and registered quality
- 20-year patent, greatest amount of expertise with this line of products by far

Benefits

- protects the joints, ligaments and bones of your horses
- less lameness in the horses and lower veterinarian bills
- increased activation of energy and transmissibility of your horse
- improved concentration your horse's work
- more fun & joy for your horse
- higher receptiveness of your horse in training
- many years consistent quality
- very attractive for satisfied upkeepers
- a proven and successful concept from the beginning

Proven quality

The German Federal Institute for Materials Research and Testing (BAM) has investigated the environmental impact of the terra-tex® footing from the company terra-bausysteme GmbH through leaching tests, measurement of particle size distribution and microscopic and macroscopic evaluations.
Furthermore, there is no danger through exposure to respirable fiber fragments or inorganic pollutants to be expected when only residual production material from non-woven textiles are used and a lower limit of 0.063 mm for the particle distribution size of the production sand is maintained.

Disposal & Recycling

If necessary, we will implement a largely cost-neutral and sustainable waste management concept. Disused terra-tex riding surface **is not a waste** - it is a valuable material which continues to be useful to us! Reusing, reclamation and recycling also works in a very sustainable way. Ask us, we have the most experience!

terra-tex riding surface *- The composition*

the footing for riding halls and arenas, and mobile floors for renting. The special mixture of these three components with an internal and special ratio are what distinguish the terra-tex riding surface and make it so special.

terra quartz sands sands are special sands for riding surfaces and have higher quality than ordinary sand. They are washed multiple times and thus free of undesirable substances. Screening this special sand produces a precise grading curve. Tenths of a millimeter in sand grain size determine function and quality. Delivered in bulk on trucks.

terra fine fiber is portioned to form the reinforcement beneath the sand grains and gives the floor its slip resistance and shear strength. The fibers make the riding surface stable, thereby reducing the maintenance requirements of the riding surface.
Packaging in 25 kg bags or by bulk in big bags.

terra volcanic lava has been used for decades as a proven separating layer for outdoor riding arenas. It is the ideal matrix and water storage, which gives the structure a high capillarity and dynamics. Their porous and permeable structure enables bidirectional water transport for both upward and downward flow. The volcanic lava is also suitable as a filler for screen grids of up to 3 cm. Delivered in bulk on trucks.

terra rider chips, a purely natural product, mostly spruce, fir and pine, and free of bark. The micro chips are a maximum size of 30 mm in diameter that do not become lodged between hoof and horseshoe. Gives the riding surface a very high spring force and shear strength from the very beginning. Delivered in bulk on trucks.

terra rubber granulate is a granulate structure with grain sizes of 2-4 millimeters that uses recycled rubber and rubber latex as raw materials. The material has the „Blue Angel“ eco-label and safety certificate. This material is used as a separation layer and for renovating existing grids in outdoor arenas. High elasticity and water permeability make this material valuable as a separating layer. Now all new arena grid constructions use these granules from the beginning and its 3 cm grid thickness already provides sufficient support and strength. Delivered in big bags: 700-1,000 kg depending on the bag.

terra fleece chaff consists of tested basic materials that are used in the fleece and filter industry. These nonwoven fabrics are not thermally bonded making them water-receptive. Our fleece chaff is cut and chopped using our own machinery. This ensures that the mixture of non-woven fabrics and the size of the chaff can be kept constant during the production process by adjusting the machines. Thus assuring a constant, high quality of the fleece chaff. The abrasion-resistant and rot-proof properties of the fleece chaff give the riding surface spring force and stability. The fleece chaff stores and transports water, and makes the riding surface shear resistant and elastic at the same time. Delivered in bales on 600-700 kg pallets.

The ***mineral gravel*** consists of regionally varying rock types such as limestone, chalk, moraine or other sedimentary rock, etc. Here, it depends on the grain size / grading curve of the material. Mineral gravel is used as the load-bearing layer in indoor arenas. Trust in our experience - which starting materials are available in your region does not matter - we know what to do.
Delivered in bulk on trucks.

Drainage gravel consists of regionally varying rock types such as limestone, chalk or other sedimentary rock, etc. Drainage gravel should not have any fine components. It is supposed to be water permeable and used as a load-bearing layer for outdoor riding arenas, which is also used simultaneously for surface drainage of the substructure. Delivered in bulk on trucks.

Magnesium chloride is used for frost protection on riding hall floors and outdoor arenas, it is distributed using spreaders or by hand and the duration of effectiveness is several months in riding halls, but application must be repeated after major rainfall for outdoor arenas.
Delivered in 25 kg bags.

Care, maintenance & replenishment

Ridding surfaces where much riding and work is performed are subject to a great deal of stress and exhibit different signs of wear and aging.

Maintenance of riding surfaces:

- Always collect horse droppings - avoid contamination
- Use the suitable path planner to regularly smooth and level the surface.
- Keep the riding surface slightly moist - do not allow the soil to dry out
- Pick out hooves - especially in school establishments

Replenish riding surface materials that have been lost through wear and tear:

terra-tex riding surfaces are prone to loss of material, the removal of horse droppings and the scraping of hooves after riding leads on average to a daily loss of 15-25 kg, we expect an average of 20 kg, which results in ca. 7-8 tons of material loss per year, which is transported from the hall by wheelbarrow or in the hooves. Adding a minimal wear and abrasion of the material to this amount leads to quite a considerable loss of material. From this experience, we recommend material replenishment for riding hall floors every 2-4 years. The layer thickness of the initial installation and daily frequenting are major factors contributing towards material loss or minimal wear. Replenishment means maintaining the quality and the beneficial properties of the terra-tex riding surface.

Sand-timber riding surfaces have an organic abrasion on wood that grinds and breaks down the wood, which diminishes the spring and elasticity of the surface. Further losses are incurred through removal of horse droppings and by scraping hooves, which amounts to a quality and quantity-related loss for the riding surface of about 18-25 tonnes per year. This amount already corresponds to a truck load of material. Replenishment means preserving the quality and the beneficial properties of the sand-timber riding surface which would otherwise be lost through wear and tear.

Maintenance due to unevenness and compacted riding surfaces:

Causes for uneven riding surfaces:

- Varying lighting conditions caused by strip lighting on the walls and in the roof
- Surface-related intensified drying, usually at the hall entrance
- Uneven, or non-existent irrigation
- Constant lunging in the same locations
- Formation of bounce holes by constantly placing an obstacle in the same place
- Too little care or ill-suited maintenance equipment, incorrect operation of the maintenance equipment

All of these causes can lead to unevenness and non-uniform compaction in the riding surface. To re-flatten shifted surfaces, we recommend regular maintenance of the indoor riding arena floor - use a laser leveler to bring the riding surface back into a flat alignment. For heavily impacted hoof prints which, for example, occur in halls for riding schools, suitable milling and cultivating equipment can help.

Each riding hall and business has its own unique set of properties and habits that lead to reoccurring problems. Therefore, according to experience, each hall and business requires a uniquely tailored care and maintenance program.

terra-tex®
riding halls

In contrast to outdoor arenas, footing for riding halls is subject to greater wear. Due to the intensive use and high level of contamination through horse manure, it must meet high standards, especially during the winter months.
The **terra-tex®** riding surface mixture can be adjusted to specific needs and requirements. Unlike conventional wood or wood-sand mixtures, **terra-tex®** riding surface is made exclusively from non-rotting, synthetic and mineral materials - without any organic matter.
The use of the **terra-tex®** riding surface in riding halls absolutely requires irrigation - preferably by a sprinkler system.

10 points *to follow for the long life of your riding arena floor:*

1. Professional preparation of the appropriate substructure
We advise you in advance of your planning about the appropriate substructure.

2. Proper material selection for the footing
Our many years of experience and serious consultation guarantees you a first-class product.

3. Regular course maintenance with suitable equipment
Course maintenance is special work and, like irrigation, should not be left to just anyone.

4. Operational functional irrigation
The distribution of the amount of water should be adjusted to the light and ventilation conditions in the hall as much as possible and controlled individually.

5. Avoid contamination level from horse manure
If possible, it should be mucked out daily, because horse manure is sticky and thereby damages the quality of the footing to a considerable degree.

6. Refill as needed
If the overall covering height falls below the 10 cm mark, then new material should be added. A too thin layer height is a detriment to the tread stability and elasticity of the covering and therefore also affects your horses negatively.

7. Admixing of special material
If the soil becomes too hard and too dull over time due to the proportion of manure and wear, then this process can be stopped by admixing selected materials.

8. Maintenance or service contract
Contact us to arrange an annual inspection date, associated with the reconditioning and leveling of the ground. It is a service that pays off.

9. Relief through alternative options
Relieve your riding arena floor by building a good all-weather riding arena or a lunging circle. We are happy to give you our suggestions here.

10. Disposal and recycling of spent footing layers
If necessary, we will introduce you to a largely cost-neutral disposal concept.

The foundation, a mineral base layer

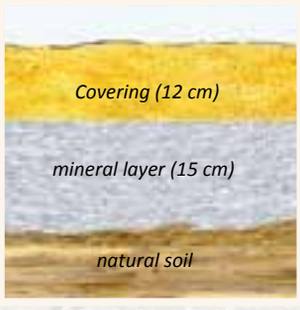
The overall structure of the riding surface is decisive for the best riding conditions. We therefore recommend the installation of a neutral base or separation layer. Especially older buildings, often still have natural or loamy soil.
In no case should the covering be applied directly to the natural soil. This is a common mistake and poses a danger of slipping and also clumping of the covering. The footing should be applied to an approximately 15 cm thick mineral layer. In this way, the footing is cleanly separated from the substrate and ensures optimal grip.

Alternatively, a riding arena mat, such as ProMa®, can be used as a separating layer.
This also ensures a clean separation and also features a flat installation depth.

Not this way!

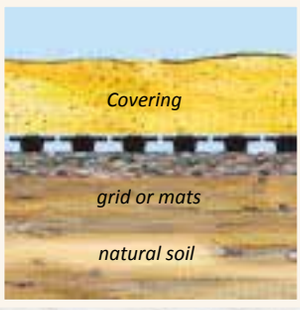
***Problems**: risk of slipping, covering clumps, quality suffers.*

Neutral separating base layer



***reasonably priced** and durable covering of the best quality*

Alternative



terra-tex
all-weather riding arena

A ***terra-tex all-weather riding arena*** is built to have the ideal riding surface conditions at any time of year. The system builds on a harmonious coexistence between the terra-tex footing, the appropriate separating layer and the drainage layer. This is especially true when it rains heavily, where the water does not turn the ground into mud, but rather trickles through the **terra-tex** footing and separating layers into the drainage layer.
The consistent quality of **terra-tex** riding surface, the most varied weather conditions and the use from riding and working with horses are aligned to the longest possible service life. The first terra-tex all-weather riding arenas were built over 30 years ago and still easily retain their quality and requirements.
Irrigation - It is best to use an overhead irrigation system or an underfloor system with ebbs and flows.

Types of design

Building a classic and conventional type of all-weather riding arena requires a **3-layer system**.

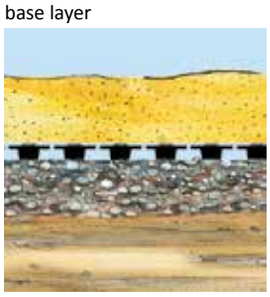
- Foundation: gravel drainage and base layer
- Separating layer: **LavaDur** or **ProMa** riding floor mat
- Footing: **terra-tex** riding surface
- Irrigation: spray- irrigation system or water truck

A more modern design that is on the rise is the ebb and flow system.

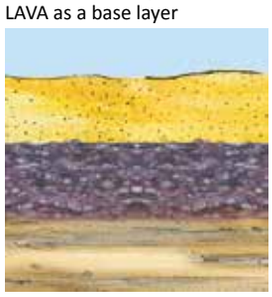
- Substructure: Fortified soil
- System: film, pipe system with drainage/supporting sand
- Footing: **terra-tex** riding surface
- Irrigation: underground and automatically controlled by supplying and then pumping the water out again

The long-term solution in the footing area

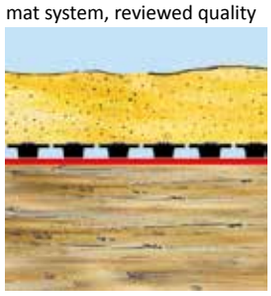
with mats and a gravel base layer



with the natural product LAVA as a base layer



mobile construction - two-mat system, reviewed quality



LavaDUR as a separating layer in the foundation

The system consists of the proven **terra-tex** footing and has a traditional 3-layer system structure:
the drainage layer (gravel) - the separating layer (**LavaDUR**) - the **terra-tex** footing

Advantages:

- Simple and fast construction
- A mineral separating layer of lava rock - stores and filters water at the same time
- A slope is always required, 0.5 to 1.0 percent
- Very large riding areas are often built with this separating layer
- All the water is drained directly in the event of heavy rain
- Riding arenas have been built with this conventional system for decades

Foundation and drainage layer:
A surface is leveled in the ground with a gradient of 0.5 to 1.0 percent. This is the necessary subgrade for all other installed layers. A drainage gravel layer is then applied on this soil subgrade with an installation height of 20-30 cm, depending on the space size and conditions. This gravel is water permeable and does not have any fine components. This gravel layer functions as a surface drainage and base layer at the same time.

LavaDUR separating layer:
The **LavaDUR** separating layer of about 5-6 cm thickness is applied to the drainage gravel layer. The lava rock has ideal water storage capacities and can bring water back into the footing through capillary action. Lava also has the property to only deflect water. The water in the footing is filtered through the lava, that is to say, the water goes through the lava, but the footing remains above. Lava is a mineral building material and has already been used in riding arena construction for many decades.

Footing:
The **terra-tex** riding surface footing in its proven composition and its best quality - immediately rideable, surefooted, elastic and safe against sliding. For the best performance for you and your horse.

Irrigation:
Riding areas with **LavaDUR** separating layers need to be watered during the hot months, either with a spray-irrigation system or with a water drum. In our experience, an evaporation and thus water demand for the summer can reach around 4-6 liters of water per square meter. However, in the transitional months the riding arena manages with the usual rainfall as irrigation and with the capillary effect of **LavaDUR**.

Note:
Permanent lunging on the same surface should be avoided due to the increased shear forces on the separating layer.

with the **ProMa** riding arena mat as a separating layer

The system consists of the proven **terra-tex** footing and has a traditional 3-layer system structure:
the drainage layer (gravel) - the separating layer (**LavaDUR**) - the **terra-tex** footing

Advantages:

- Simple and fast construction
- The separating liner is simply a mat without backfilling
  - Has 100 slots per mat through which the water can drain
  - Lateral drainage slots on the grooves
  - Tongue and groove bonding system - no more slipping is possible
  - Water channels on the underside
- The mat can be completely dismantled again
- A slope is always required, 0.5 to 1.0 percent
- Small and medium riding areas are often built with this separating mat
- The ProMa system is very suitable for lunging areas - very stable and safe against sliding
- Rainwater is drained more slowly, thus the footing permanently requires less irrigation
- For over 15 years, riding arenas have been built with this mobile system
- When dismantling, there is no mixing with the foundation. The components can be used again 100%

Foundation and drainage layer:
A surface is leveled in the ground with a gradient of 0.5 to 1.0 percent. This is the necessary subgrade for all other installed layers. A drainage gravel layer is then applied on this soil subgrade with an installation height of 15-20 cm, depending on the space size and conditions. This gravel is water permeable and does not have any fine components. This gravel layer functions as a surface drainage and base layer at the same time.

ProMa riding arena mat separating layer:
The ProMa riding floor mat is placed on the applied drainage gravel layer. The installation can be performed by unskilled workers. The mat drains vertically. Water goes through the slots and the footing remains above.

Footing:
The footing, terra-tex riding surface in its proven composition and its best quality - immediately rideable, surefooted, elastic and safe against sliding. For the best performance for you and your horse - suitable for any discipline.

Irrigation:
Riding arenas with ProMa riding floor mats as a separating layer must be watered in the warm months, either with a spray-irrigation system or with a water drum. In our experience, an evaporation and thus water demand for the summer can reach around 4-6 liters of water per square meter. However, in the transitional months, the riding area manages with the usual rainfall.

Note:
The ProMa system is ideal for small to medium-sized riding areas and for lunging areas. It is a very robust and stable system that resists shear forces. It can withstand very high frequencies and loads.

terra - LoMa

The **inexpensive** separating layer for paddock and riding area construction

The mat has a rough surface structure, which gives footings resistance during heavy use and ensures the necessary grip. At the same time, this mat retains moisture.

- **The mat is laid on 2/5 grit and edge to edge.**

The main difference from all other systems on the market is the drainage effect of the mats. The special structure of the underside can drain the water flow in all directions and the water does not have to seep into the foundation. That is to say, even if the ground can no longer absorb any more water, the riding surface still remains rideable. This makes an installation possible on any surface, e.g. sand, clay, concrete, asphalt, etc.

Technical specifications:

- Length: 1,200 mm
- Width: 830 mm
- Height: 38 mm
- Weight: about 19 kg
- Color: gray / black
- Material: 100% recycled elastic PVC material
- Covered area: 1 m2 per mat

Advantages at a glance

- Water-retaining cups
- Highly effective, water-permeable holes on the top
- Surface drainage on the underside
- Quick installation
- High elasticity and shock-absorption

terra LoMa is stable and sure-footed, provides the horses optimal conditions in conjunction with the **terra-tex** footing, is non-slip and water-permeable.

The high number of holes in the **LoMa** or the slots in our **ProMa** ensures that rainwater quickly drains under the mat. The water cups serve as a water reservoir and the excess water can flow through the holes under the mat towards the drainage channel in an outdoor area with a 0.5 - 1.0% incline. Thus the soil remains rideable, even in the event of heavy rainfall.

The recycled plastic mats **LoMa** and **ProMa** absorb impact better due to their material characteristics.
This spares horses‘ joints and tendons.

riding arena mat

terra - ProMa

No more water or mud problems on outdoor arenas and paddocks

ProMa uses our principle of short distances for the full-coverage, uniform and rapid draining of rainwater in an ideal way.

A mat that has it all!

ProMa is a separating layer and surface drainage in one. The emerging rainwater is taken on shortest route over the 100-fold slotting, distributed within the cavities of the mats and is drained.
A drainage system could not be easier, more long-term or safer. **ProMa** can be built on hard and waterproof sub-surfaces.

ProMa is used wherever surfaces are to be stabilized in the long or short term.

ProMa 125 A slot

Product details:
Material: 100% recycled
Size: 1,200 x 800 x 30 mm
Effective size: 117 x 77 = approximately 0.90 m²
Weight: 19 kg - 50 pieces per pallet
Color: gray / anthracite

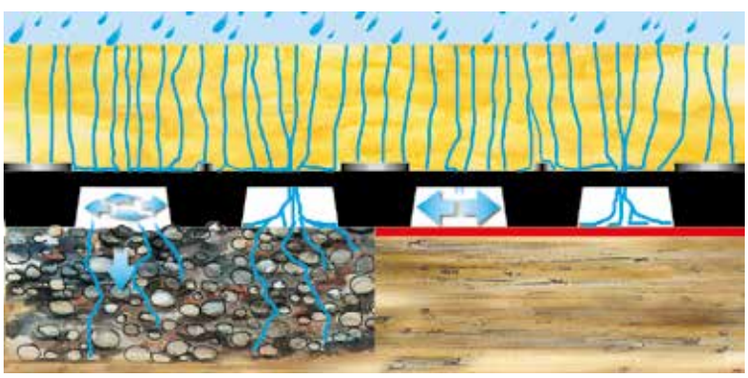
Environmental compatibility:
Official investigation report by TÜV:
No environmental impact
Fire protection class: B1

Characteristics: non-slip
UV, acid and alkali resistant
shock-absorbing, preserves joints, insulating, abrasion resistant, durable
Connection: All-round fold groove

Separation with –
conventional methods

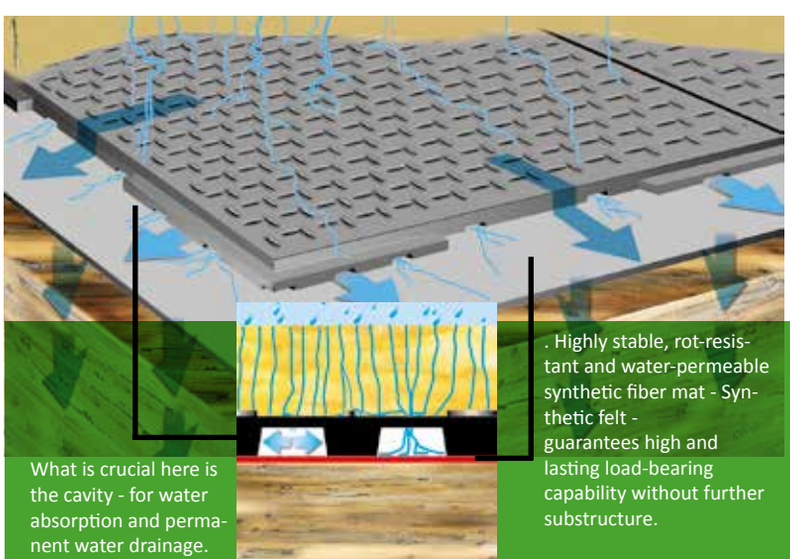
- Risk of excessive contamination and compaction of the backfill
- Cylindrical shape of the flow option may clog
- Rehabilitation not possible or only with high effort

Separation with ProMa –
the slightly different riding arena mat



- ProMa with integrated cavity for water intake and distribution
- Water is freely taken up by the 100 slots in the mat and can drain off within the cavity in the mat
- cavity can never compress, even if some sand trickles through
- base layer does not have to be water-permeable
- ProMa can be quickly assembled and disassembled

ProMa – as long-term or rental surface with integrated surface drainage



What is crucial here is the cavity - for water absorption and permanent water drainage.

. Highly stable, rot-resistant and water-permeable synthetic fiber mat - Synthetic felt - guarantees high and lasting load-bearing capability without further substructure.

In conjunction with our high quality riding surface **terra-tex®**, ProMa is an ideal and highly interesting rental floor system. Both for rentals in tournaments or in reinforced design with an underlay mat for continuous operation over many years. ProMa is highly resilient and is guaranteed to be water permeable at all times.

ProMa and our high-quality wear layer **terra-tex®** - the ideal combination for long-lasting functional outdoor spaces.

Professional floor structures

Our 12 best systems for all circumstances. **Can also be rented immediately.**

terra-LoMa 126

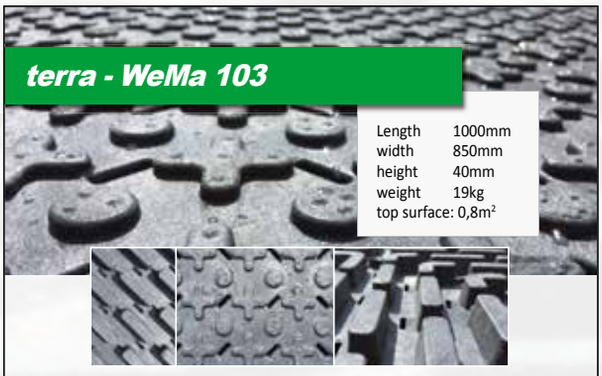
also available without holes

Length	1200mm
width	830mm
height	38mm
weight	20kg
top surface:	1m²

Features: stable and surefooted mat, with the terra-tex® footing offers optimal conditions for a riding area, non-slip, integrated water storage and drainage system. Rideable, even in heavy rainfall. Material: PVC recycling

• Special riding surfaces • Paddock

terra - WeMa 103



Length	1000mm
width	850mm
height	40mm
weight	19kg
top surface:	0,8m²

Features: tongue and groove system, simple, self-contained installation. Like the LoMa, provides all the advantages of an extensive drainage. Material: PVC - recycled material

• Special reining ground • Washing places • Walker • Paddock • Events

ProMa 125 A slot

also available without slots

Length	1000mm
width	8000mm
height	30mm
weight	19kg
top surface:	0,89m²

fire protection class B1 according to DIN 4102 or C - s2 according to DIN EN 13501

Features: tongue and groove system, simultaneously a separating layer and surface drainage. Incurred water is discharged through the 100-fold slotting, suitable for hard and impermeable surfaces. Easy to clean due to the relatively smooth surface. Water or other fluids are quickly drained downward through the slotting. Material: PVC - recycled material

• Events • Motorsport • Circus • Riding arenas • Paddock

stable stalls - event mat 105

Length	1000mm
width	850mm
height	27mm
weight	20kg
top surface:	0,8m²

Features: tongue and groove system, easy installation with a closed surface. Very easy and quick cleaning. Non-skid.
Material: recycled PVC

• Stable walkways • Stables • Stalls • Events • Camping • Tents

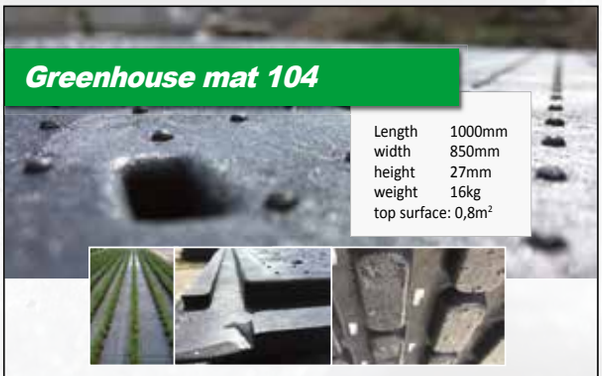
terra event mat 128

Length	1000mm
width	850mm
height	27mm
weight	16kg
top surface:	0,8m²

Features: tongue and groove system, simple and fast installation, protects existing floor from damage. Material: PVC - recycled material,

Sporting and cultural events in halls • Outdoor areas and tents • Circus

Greenhouse mat 104



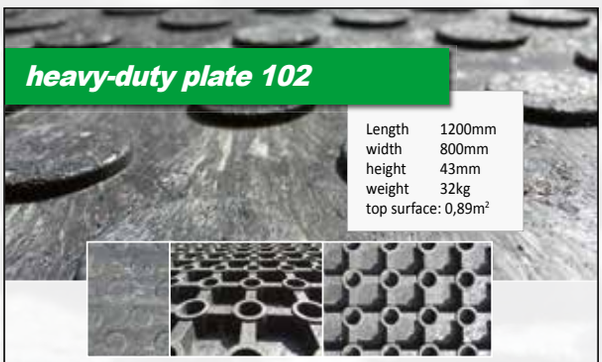
Length	1000mm
width	850mm
height	27mm
weight	16kg
top surface:	0,8m²

Features: tongue and groove system, insulating, slight irrigation in ebband flow system through drainage holes. Up to a certain range, a plant is prevented from freezing in a container. No compensation of earth or lava necessary. Can be driven on with small equipment. Material: PVC - recycled material

• Special greenhouses

We would be happy to advise you. **Call us at: Phone +49 7824/98434-0**

heavy-duty plate 102



Length	1200mm
width	800mm
height	43mm
weight	32kg
top surface:	0,89m²

Features: tongue and groove system, excellent thermal insulation, high slip protection, chemically resistant, flame retardant, easy and fast assembly and disassembly. Highly resistant up to 3.3 to/dm².
Material: PVC - recycled material

• Sporting and cultural events
• Soccer stadiums • Festive events

universal mat 127

Length	740mm
width	540mm
height	55mm
weight	15kg
top surface:	0,4m²

Features: tongue and groove system, high stability without changing the subsurface, can be used on both sides - depending on the application, can be driven on conditionally. Material: PVC - recycled material

• Paddock • Feeding grounds
• Making courses sturdier • Agriculture

terra-area 109 rubber

Length	1200mm
width	800mm
height	25mm
weight	20kg
load capacity:	2,5 to/m²

Features: tongue and groove system, simple and reliable installation, support rings on the bottom save weight, high thermal insulation and elasticity. Extremely wear-resistant, slip-resistant, ball head pattern for extra surefootedness.
Material: solid rubber, also made of plastic

• Open stable • Stalls • Paddock • Campsites • Events

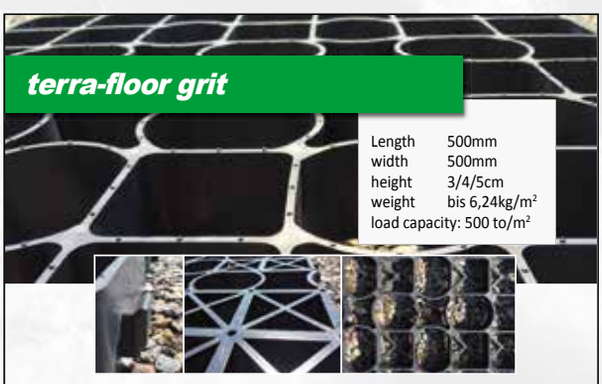
terra-carrera 110 rubber

Length	1000mm
width	1000mm
height	19mm
weight	20kg
top surface:	1m²

Features: Heat-insulating, stable, resilient, abrasion-resistant, slip-resistant, easy handling, easy to clean. Material: solid rubber

• Stall • Stable • Paddock • Industrial floor • Events

terra-floor grit



Length	500mm
width	500mm
height	3/4/5cm
weight	bis 6,24kg/m²
load capacity:	500 to/m²

Features: quick water drainage due to high permeability, stabilizes slippery and loose ground, clear separation between substructure and covering, anti-slip effect, UV-resistant, chemically resistant, easy and quick installation with click-lock and pre-connected elements - available in 3 different heights.
Material: recycled PE LD

• Paddock • Riding area • Parking spaces
• Strengthening the yard • Open stables

terra-geoline 208

Length	540mm
width	540mm
height	95mm
weight	1,8kg
load capacity:	140 to/m²

Features: avoids unnecessary sealing, saves costs and protects the environment by saving energy and building materials, can be moved quickly and easily, highly resilient, can be filled with concrete and gravel. Suitable for lawns.
Material: HD PE

• Paths • Parking spaces • Driveways
• Stabilization of banks and embankments

terra-tex

terra ebb-flow riding area

The system consists of the proven terra-tex footing and an integrated underground irrigation system. You now have both advantages together: the terra-tex footing and the ebb and flow system combined.

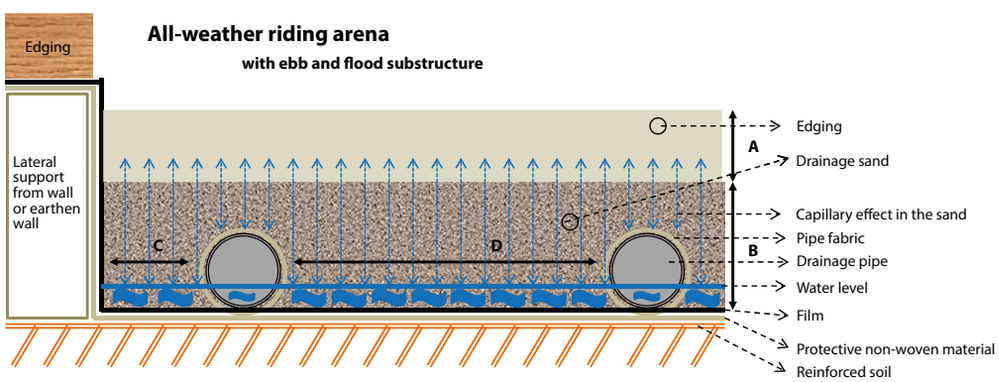
Advantages:

- Irrigation and drainage through built-in underground system
- The ideal water level can be adjusted manually and is then done automatically by water level sensors
- Uniform and constant humidity on the entire surface
- Level space without gradient
- terra-tex footing is ideal for jumping, dressage, driving, lunging, outdoor arenas and riding arenas

Substructure:

A flat surface is leveled into the ground without a gradient as the substructure. Then the riding area is formed as a shallow basin, edged with either a concrete discount stone wall or with a cut-off natural wall. On this surface, a waterproof, tear-resistant and very stable film is placed so that the accumulated water cannot drain. The lateral height of this basin is between 40 and 50 cm, depending on the installed height.

All-weather riding arena
with ebb and flood substructure



A: layer height of terra-tex covering approximately 13-15 cm
B: layer height of drainage sand
A+B: Overall structure
C: Pipe distance from the edge
D: Pipe spacing between the pipes

System:

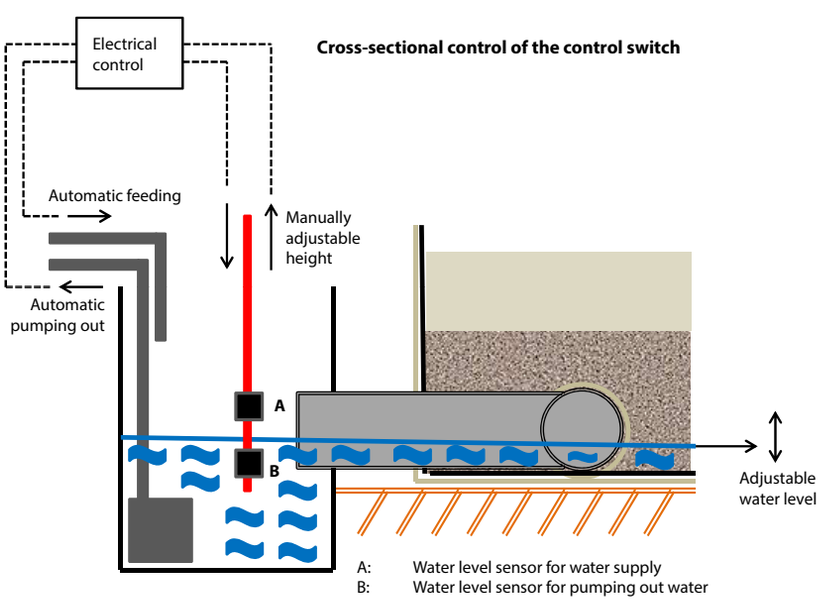
A drainage pipe system is placed on this waterproof surface. The drainage pipes have slots through which the water can flow in and out of the pipe. The pipe lines extend at a distance of 1.5 meters across the entire surface. The pipes are all branched together and run together in a pump shaft outside the area. The water flow of the system is done in the drainage pipe. The entire pipe system is flat, i.e. it is constructed without a gradient. This means that the water level can be controlled evenly in this pipe system over larger areas via the inlet (flooding) and the drain (ebb) in the pump shaft.

Structure:
The pipe system is overbuilt with a special drainage sand of about 10 cm. The terra-tex riding surface is built up on this special drainage sand. The layer height of the terra-tex riding surface is about 12-13 cm. The total construction height of the drainage sand and terra-tex riding surface is about 35 cm. Using this special sand, in which the water from the drainage pipe quickly and reliably seeps and trickles in a capillary action, the moisture in the riding surface can be controlled from below. The correct moisture for the riding surface can now be adjusted via the water level.

Control system:
Sensors are connected in the pump shaft, which can be operated manually. The water level can be set via a simple manual turning. A switch adds the additional pumps in the event of heavy rain. A 220 volt connection must be provided for the control and pump system.

Special feature:
Heavy rain means a state of emergency for the system. More water is fed into the system than it can accommodate in humid conditions or in the event of medium rainfall. There is a special function for this purpose: to pump out water temporarily. All of the water is pumped out of the pipe system in the short term. This means that the water can move faster from the riding ground surface down into the pipe system. Water standing on the surface trickles down faster and the surface remains rideable despite heavy rain. In this case, more pumps are installed in the system depending on space size.

Footing:
The footing, terra-tex riding surface in its proven composition and its best quality - immediately rideable, surefooted, elastic and safe against sliding. Suitable for all disciplines - for the best performance for you and your horse.



Ebb and flow riding area

Security and control:
Small inspection chambers are built into the corners of the system. You can reach the drainage pipes from the inside via these shafts. This means that a manhole camera and flushing hoses can be used to easily maintain the pipes or accurately locate their position in case of damage. This feature is called „underground control“. This control function detects particular problems in the system, such as for the smaller spaces on the track. On the track and in the entrance area, the surfaces tend to be compacted more heavily and can therefore hamper the water flow of the system. So that their maintenance can be carried out more easily, we have developed the „underground control“ in the system.
The drainage pipes are additionally coated with a filter tube drainage mat to ensure a durable and reliable operation of the drainage pipes. The slots in the drainage pipe therefore remain permanently clear and cannot clog. The frost-sensitive parts, such as pumps, sensors and probes, are attached deep down in the pump shaft and thus are installed deep enough to be safe from freezing.

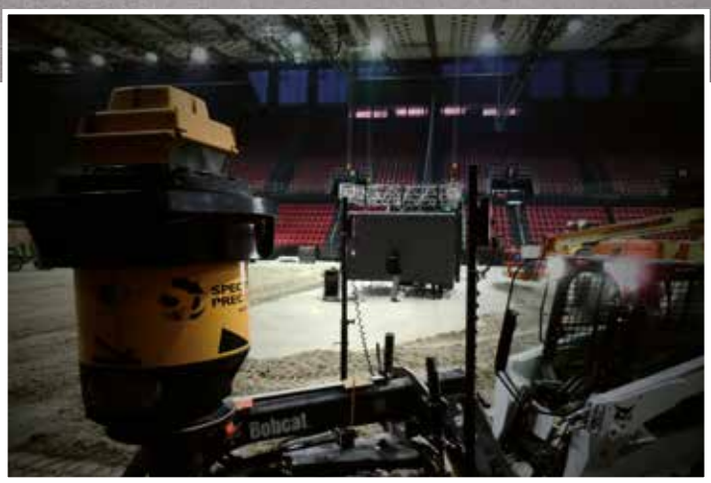
Maintenance, restoration and wear:
The system should be checked regularly for its layer heights. Weathering, track clumping in the event of a system that is too dry or poor maintenance with the track leveler can cause the footing to have a too high difference in its layer height. This can lead to places that hold water. In order to counteract this, the space should be regularly leveled with a laser grader in order to keep the footing at the same layer height. Restoration is rather low compared to conventional riding arena systems. However, material can be lost during mucking out and when removing the material in horses‘ hooves. This should be compensated for if necessary.
Too much organic build-up, caused by leaves from adjacent trees or horse manure for example, can sometimes lead to organic deposits. Over the years, these deposits form a kind of condensation horizon, which can interrupt the capillary effect of the sand. This compaction horizon must then be located and removed. Avoiding these impurities keeps your riding area permanently functional.
To take away the possibility of the water in the system from accumulating bacteria, mold, nucleation and other contaminants, we recommend regularly replacing the water in the entire system. 1-2 times a year, preferably in the summer, the whole system should be pumped empty by using the heavy rain function and filled again with fresh water. In the summer months, this also reduces the formation of odor emissions. Water is a regional element. It can contain different and regionally accumulated minerals.
Lime, iron and other mineral-like substances can cause staining of the sand and deposits in the system. In particular, the systems‘ pumps and sensors are susceptible to these deposits. Cleaning should be done as scheduled here. A failure of equipment or a wear-related replacement of these devices may occur in the long run.

Water consumption and cistern
Measurements have shown that an ebb & flow system consumes 4-6 liters a day per square meter, depending on the sunlight and temperature. Calculated over the entire year, this results in a loss of 800-1,000 liters per square meter. The rainfall of an average year amounts to about 500-700 liters of precipitation* per square meter, depending on the region. Thus there is a single shortfall of about 300 liters of water a year per square meter. (* Figures refer to Southern Germany)
The time difference of the precipitation, that of the water demand in the system as well as the evaporation thus result in the associated shortfall. This results in the additional water demand which depends on the provision of a reserve amount - the reservoir. A water reservoir, such as a cistern to which the roof water from surrounding buildings can possibly be connected, can help to effectively and economically use any existing water. The size of the reservoir should be determined individually. Generally speaking, the larger the reservoir, the more effectively the natural water cycle can be utilized.
Small to medium filter systems should be installed between the storage medium and the consumer. If no reservoir is available, water can of course also be supplied via a water pipe or a well.

terra-tex riding floor rental

terra-tex mobil

terra Bausysteme GmbH has set itself the task of developing and producing very special event riding surface as another product. The overall service for the delivery of a terra-tex event riding surface, rental riding floor mats, installation and removal as well as daily care during the event has also been developed as a large field of activity for terra Bausysteme.
The International Indoor Cup Horse Show, the Stuttgart German Masters, CSI Basel and Baden Classics are fixed events in the year. The highest requirements of the riding surface are demanded from terra Bausysteme GmbH.
Jumping, dressage and driving, all at the world cup level, and all of this in this order sequentially in one day. In all disciplines with the highest praise - that's what a riding surface and riding arena building team must overcome first.



This special quality of the riding surface system has also been proven in the field of horse trade fairs and live horse shows.

LONGINES CSI ★★★★★ BASEL

No matter the project for which you need a riding surface - ask us and we'll make it possible.

badenclassics

STUTTGART GERMAN MASTERS ★★★★★

ZDF interview:
Christian Ahlmann:
Ahlmann: "In recent years, the ground was getting a bit smoother. One had to ride with cleats even though this is unusual. Now there is a totally new surface, completely replaced. A very good decision was made here. The horses jump superbly and do not slip. Everyone is happy.

Lawn

- **Regular mowing**
  - Promotes the growth of grass
  - Displaces weeds
  - The lawn and the root system become denser, more resistant

Reseeding and fertilizing grass
- Promotes the growth of grass
- Displaces weeds
- The lawn and the root system become denser, more resistant
- Unification of the types of grass

Harrows with the meadow
- Aerates the soil and promotes the growth of grass
- Leveling of small holes and slight unevenness

Rolling with the lawn roller
- Compacts the soil
- Helps give grass seeds better grip in seeding and reseeding
- Closes smaller holes
- Promotes the flatness of the area

- **Sands lawns**
  - Helps make loamy and strongly hardened soils elastic again and to make them retain water better
  - Helps to give more air to the grass roots and promote growth
  - Leveling of small holes and slight unevenness
  - Improves the quality of the lawn significantly

- **Aerating and perforating lawns**
  - Aerates the soil through the holes
  - The ground is more flexible again and receptive to water
  - In combination with sand, the holes are filled with sand and it creates a sense of depth
  - Promotes the growth of deep-rooted grasses, because more nutrients and fertilizers can get into deeper layers

- **Mulching**
  - Mowing with simultaneous crushing of mulched product
  - Young, fresh grass can grow better again
  - Hard and withered grass is mowed
  - Gives the nutrients of the mulch material back to the ground

Track leveler

terra-raptor
Application area: terra-tex riding surfaces for events

Working widths in 2.20 m and 2.50 m
Height-adjustable tread clump cleaner,
Sprung forward rake, automatic tracking,
2 rows of vertically adjustable spring tines
Three point linkage for cat 1 + 2 or drawbar trailing device for quad, sprung FarmFlex rubber roller

terra-allrounder
Application area: terra-tex riding surface in the daily care, sand-wood flooring

Working widths in 2.20 m and 2.50 m
Height-adjustable tread clump cleaner,
Sprung forward rake, automatic tracking,
2 rows of vertically adjustable spring tines
Three point linkage for Cat 1 + 2 or drawbar trailing device for quad, sprunt grid roller

terra-easy
Application area: terra-tex riding surface in daily care, sand-wood flooring, sandy soil

Working widths in 2.00 m and 2.50 m
Hoofbeat cleaner integrated into the design of the leveler
sprung center rail, automatic tracking can be equipped
1 row of height-adjustable spring prongs
1 row folding spring tines for roughening
Heavy smoothing rail for compacting and finishing
Three point linkage for Cat 1 + 2 or drawbar trailing device for quad

Equipment demonstration
We come to you and present our devices on your tractor. Just ask us.

Equipment for rent
Rent a track leveler for your event.
Please make appointment requests early.

Used track leveler
There are occasionally used track levelers available for purchase.
It is possible to re-commission old devices.

Repair & Service
Broken leveler - we repair it.
New prongs and accessories available at short notice.

Paddock & horse walkers

How the paddock is built in a grid pattern:

- **Step 1:**
  Strip off the sod
  Create slope 2-3%
  Create subgrade / uniform surface
- **Step 2:**
  Substructure with gravel or non-woven separating material depending on load and stability of the substrate
  Separation between soil and grid pattern
  Create a slight slope of 2-3%
- **Step 3:**
  Installation of the terra floor screen grid
  Backfilling with crushed sand or mineral mixture and then build a 1-2 cm layer of sand on the backfilled mesh fencing - **Done!**

Our grid or rubber stones can also be easily laid in the horse walkers without any problems.

Information, tips and hints:

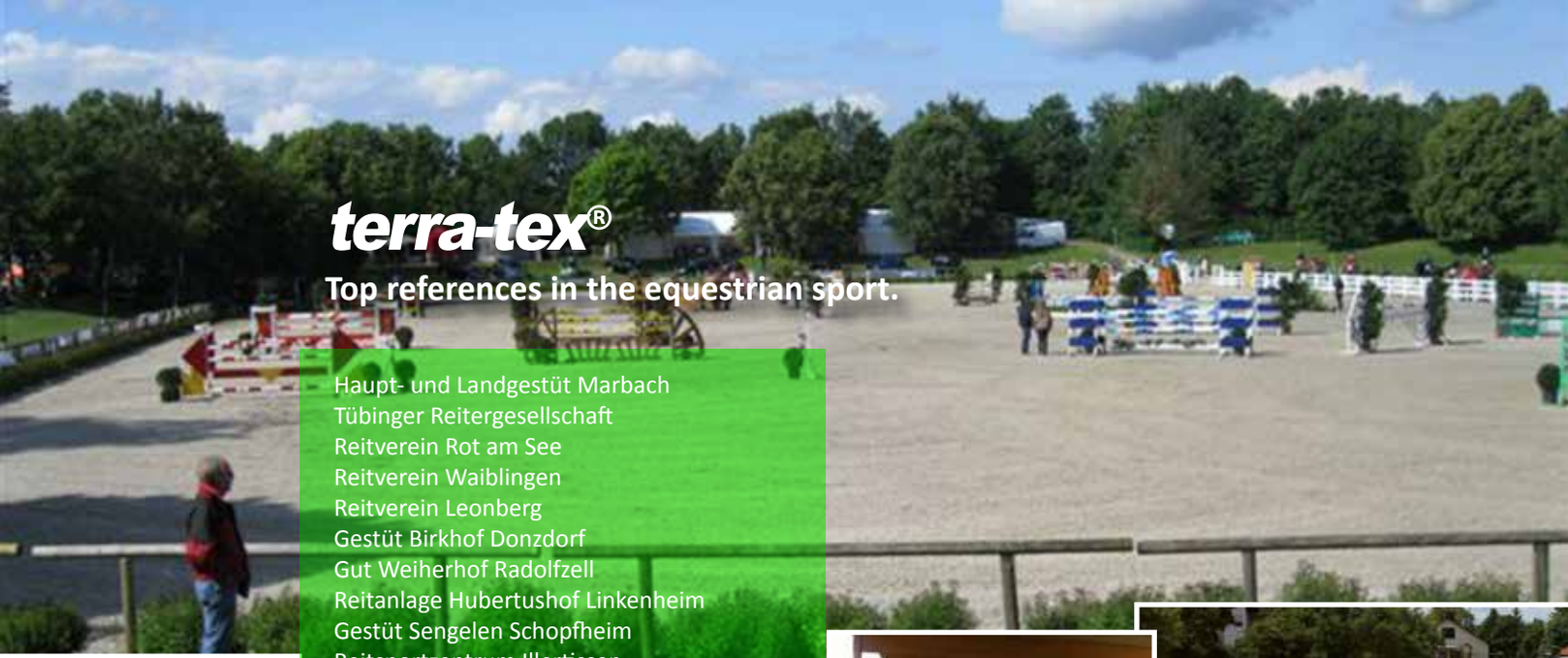
Small areas (up to 100 square meters) and average area (400 square meters) can be built most on your own without much effort.
From a size of about 400 square meters, it is advisable to create a substructure with a laser grader, because otherwise the slope is usually uneven.
Depending on the requirements for drivability with machinery or tractors, the substructure must be selected to be appropriately stable.

The grid can be filled with different materials such as crushed stone, screen grit or a fine mineral mixture.
In the long run no water permeability of the grid is expected.
The water runoff on the surface occurs due to the slope.
If the grid pattern is placed directly on lawn or grass, then soil, dirt and mud push upwards through the grid over time until the mud is back.

terra-tex - Comparison table

terra-tex® all-weather-riding area	***LavaDur*** layer	***ProMa*** mat-layer	***ebb & flow*** Substructure
Disciplines	Dressage, jumping, driving	Dressage, jumping, driving, lunging	Dressage, jumping, driving, lunging
Area of application	medium to very large riding areas	small to medium riding areas	small to very large riding areas
Irrigation	additionally necessary system or water trucks	additionally necessary system or water trucks	integrated irrigation
Substructure	Gravel	Gravel, felt mat	reinforced ground
Gradient	0.5 to 1.0 percent	0.5 to 1.0 percent	0,0 percent
Maintenance equipment	->	Track leveler with spring tines and roller	<-
Maintenance and repair	**Laser leveling as required annually / every 2 years**	Laser leveling as required annually / every 2 years	Laser leveling as required annually / every 2 years Technical devices annually
Revitalization	as needed & basic amount	as needed & basic amount	as needed & basic amount
Basic amount	Layer thickness 11-13 cm	Layer thickness 11-13 cm	Layer thickness 13-14 cm
Costs for the system	A	AA	AA

terra-tex® Indoor - riding floors	***terra-tex®*** covering with wet mix aggregate	***terra-tex®*** covering and ebb-flow-system	quartz sand-wood flooring
substructure/ base layer	12-20 cm mineral mixture	reinforced earth	reinforced earth, mineral mixture
Disciplines	Dressage, jumping, driving	Dressage, jumping, driving, lunging	Dressage, jumping, driving, lunging
Area of application	Sport stables, riding clubs private facilities	Sport stables, riding clubs private facilities	Sport stables, riding clubs private facilities
Irrigation	additionally necessary integrated sys. or water truck	integrated irrigation	additionally necessary integrated system or water truck
Maintenance equipment	Track leveler with spring tines and roller	Track leveler with spring tines and roller	Track leveler with ripper tines and shield
Maintenance and repair	**Laser leveling as required annually / every 2 years**	Laser leveling as required annually / every 2 years Technical devices annually	Laser leveling as required annually / every 2 years
Revitalization	as needed & basic amount every 2-3 years	as needed & basic amount every 4-5 years	as needed & basic amount annually
Basic amount	Layer thickness 11-13 cm	Layer thickness 13-14 cm	Layer thickness 11-13 cm
Service life	about 15-18 years depending on usage	without specification	about 5-7 years depending on usage
quality	consistent	consistent	spring action decreases with time
Freeze protection	Sprinkle magnesium chloride	lower water level Sprinkle magnesium chloride	Sprinkle magnesium chloride
Costs for the system	AA	AAA	A



terra-tex®

Top references in the equestrian sport.

Haupt- und Landgestüt Marbach
Tübinger Reitergesellschaft
Reitverein Rot am See
Reitverein Waiblingen
Reitverein Leonberg
Gestüt Birkhof Donzdorf
Gut Weiherhof Radolfzell
Reitanlage Hubertushof Linkenheim
Gestüt Sengelen Schopfheim
Reitsportzentrum Illertissen

Stuttgart German Masters *****
CSI Basel *****
CSI Offenburg Baden Classics **
CDI Donaueschingen Eskon Marketing

Ben Hur Live - legendäre Wagenrennen-Show
Magnifico - Andre Heller Show mit Pferden
Royal Horse Gala
Europa-Park - Spanische Arena

Hans-Dieter Dreher Dreiländereck
Alexander Schill Altenheim
Markus Kölz Winnenden
Andreas und Niklas Krieg Villingen
Timo Beck Kehl
Mario Walter Ellwangen-Killingen
Adrian Schmid Sauldorf-Boll
Dave Molin Maichingen
Stefan Hirsch Horb-Nordstetten
Familie Friedrich, Epfendorf
Ralf Weischedel, Sulz am Neckar

Hans-Peter Bauer Schönaich
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Der Reitboden terra-tex®

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