

INSTALLATION MANUAL

ECORASTER® Equestrian and Agriculture

ECORASTER® PERMEABLE GROUND REINFORCEMENT

Why ECORASTER®?

- ✓ No More Mud!
- ✓ Level and elastic riding surface gives the animals reduced risk of injury to tendons and joints.
- ✓ No more mixing of gravel base and footing
- ✓ Minimized maintenance
- ✓ High elasticity
- ✓ Integrated expansion elements
- ✓ Safety locking elements ensure no tripping
- ✓ Excellent free-draining arenas at reduced costs
- ✓ Extreme high load bearing can support the heaviest vehicles
- ✓ Quick and easy installation
- ✓ Environmentally neutral



Preparation

Before calculating materials needed you should first establish the exact height of the surface. For large areas a laser level is highly recommended.

The amount of fill material for Ecoraster may be calculated as follows:
95% of area multiplied by height of the grid

Wide range of uses – the right solution for every application.

The individual requirements need or allow different ways of installation. Depending on the application and general conditions, the following installation types are possible:

- ① Installation without base
- ② Installation with minimal base
- ③ Installation with classic base
- ④ Installation in walkers

Installation in combination with landscape fabrics

If your planned application is not described, please contact our team:

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Please note that the filling material of the ECORASTER® compacts up to 0,5 cm by tamping.

In case of hard borders or posts 5 cm of space must be allowed between the ECORASTER® and the hard surface.

During the hot summer months it is recommended to fill the ECORASTER® immediately after installation.

The ECORASTER® TE30 must be topped with 8 cm of footing/tread layer.

The type of installation needed depends on the sub-base type and the requirements of the application.

ECORASTER® PERMEABLE GROUND REINFORCEMENT

Installation without base



◀ Ecoraster® Separation layer

◀ Landscape fabric

◀ Ground

Fill according to needs of application
For paddocks and free stalls normally
Fill to top of Ecoraster®

— Recommended depending on soil type

— Remove the top layer of ground,
grade and slope to 1.5%

You should note the following.

If Ecoraster is installed directly on the ground, the drainage is only as good as the Ecoraster installation. With permeable soils the drainage remains intact.

Impermeable soils (clay) will remain impermeable. In this case the rain water which cannot drain will eventually make its way to the surface of the grid.

If the base layer is left out then the drainage and stability of the ground cannot always be ensured.

The Ecoraster will however in this case improve the situation, both in point and area loadability.

Ground below

Grade and slope to 1-1.5% depending on requirements

Landscape fabric

Reduces or prevents the Ecoraster from sinking into very soft ground
Works in a similar fashion as a foundation.

Separation layer

ECORASTER® is installed, plate tamping is recommended after filling

Filling the ECORASTER®

Paddock / Round Pen / Turnout/ Walker/ Riding arena:

Rough sand, recycled sand, fine gravel, recycled gravel type 8 or similar.

Footing layer

According to needs

ECORASTER® PERMEABLE GROUND REINFORCEMENT

Minimal Base



- ◀ Footing/Tread
- ◀ ECORASTER®
- ◀ Minimal Base
- ◀ Landscape Fabric
- ◀ Ground

Footing/tread layer depending on riding style and application
Arena/ring: 6-8 cm
Paddock and turnouts: Ecoraster 40 and 50 series may be used without footing/tread after filling
ECORASTER® TE30 requires 8 cm of footing

- 3-5 cm depending on series Gravel
- layer 3-5 cm Recommended
- depending on soil type
- Graded to 1-1.5% slope

Ground below

Grade and slope to 1-1.5% depending on requirements. Very soft soils may require a landscape fabric for stabilization.

Landscape fabric

Reduces or prevents the Ecoraster® from sinking into very soft ground. Works in a similar fashion as a foundation.

Minimal Base

Gravel base type 57 gravel or similar

Separation Layer

ECORASTER® is installed, plate tamping is recommended after filling

Filling the Ecoraster®

Paddock / Round Pen / Turnout/ Walker/ Riding arena:
Rough Sand, recycled sand, gravel, recycled gravel,

Footing/Tread

Top according to needs and application

Paddock / Turnout

Without or with minimal footing for 40 and 50 series Ecoraster®
TE30 requires min. 8 cm of footing

Arenas and rings: Approx. 6 - 8 cm

Footing/tread mix depends on riding style and sand quality
(Dressage, Jumping, Western - Cutting / Reining, Driving etc.)

ECORASTER® PERMEABLE GROUND REINFORCEMENT

Classic base



◀ Footing/Tread

◀ Ecoraster®

◀ Levelling layer

◀ Base layer

◀ Ground below

Footing/tread mix depending on application and style

Arena and ring 6-8 cm

Paddock / Turnout without footing is possible with Ecoraster® TE40 and TE50. Ecoraster® TE30 requires 8 cm of footing

Fill with 3-5 cm depending on Ecoraster®.

Ensures excellent drainage and support

Fine gravel type 8 or similar

Gravel 10-30 cm deep depending on soil type and drainage requirements

Graded and sloped to 1-1.5%

Ground Below

Grade and slope 1-1.5% depending on requirements

Base

Type 57 or similar compacted gravel
(roll or plate tamper)

Levelling Layer

Install fine gravel layer and screed to level. (Better base layer preparation means less work in levelling and screeding)

Separation Layer

ECORASTER® is installed and filled. Plate tamping after filling is recommended.

Filling the Ecoraster®

Paddock / Round Pen / Turnout / Walker/ Riding arena:
Sand, recycled sand, fine gravel

Footing / TCE AD

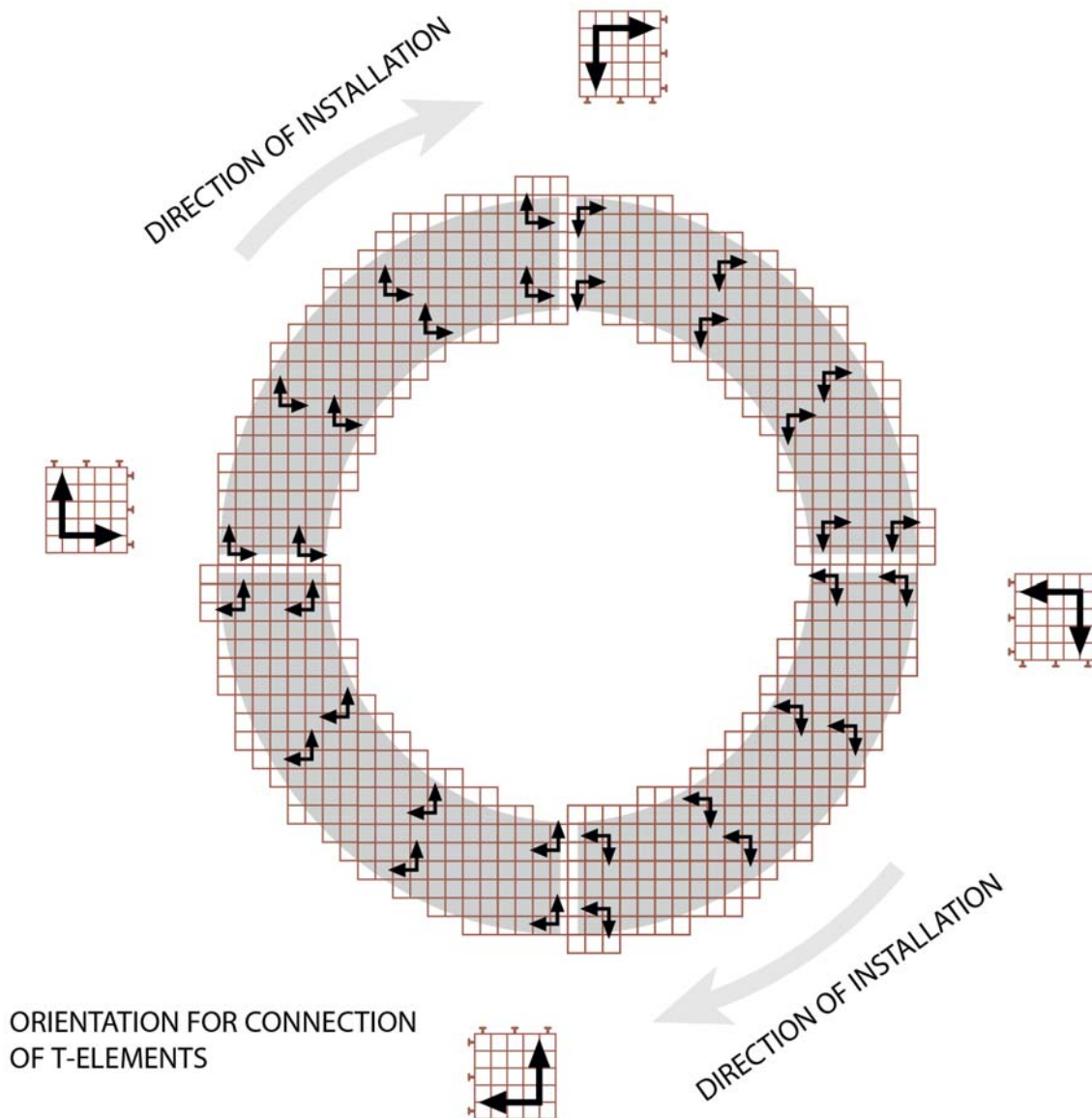
Specific to application use

Riding arenas and rings: 6 - 8 cm

Footing/tread mix depending on sand quality and riding style
(Dressage, jumping, western, cutting / reining, driving, etc.)

ECORASTER® PERMEABLE GROUND REINFORCEMENT

Installation of walkers

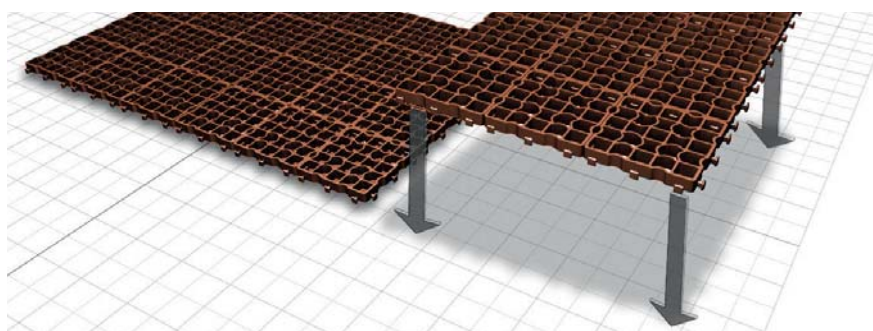


Please pay special attention to the T-elements:

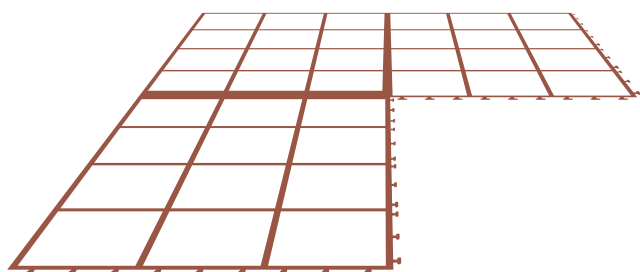
After the first quarter of the circle has been installed the ECORASTER® needs to be rotated clockwise 90° (see diagram) and then attach the second part. Continue in this way until all four quarters have been installed. Always pay attention to the position of the T-elements! The arrows in the diagram show in which directions the T-Elements need to be oriented.

ECORASTER® PERMEABLE GROUND REINFORCEMENT

Working with the pre-assembled grids



ECORASTER® is simple and quick to install without special tools or equipment. The system is pre-assembled in 3 x 4 pieces (approx 33 x 33 cm) can be efficiently installed in large sections. 14,31 sq ft are installed with a single movement.



Installation

Installation begins in one corner with the T-elements facing outward. Each layer of 12 pieces must have the same orientation, with the T-elements facing outward. The next sections are simply put in place and "stepped down on" to connect the adjacent sections.

Disassembly

The individual ECORASTER® elements can be disassembled if needed. Place the section to be separated on top of another section and step on the grids to unsnap them.

Fitting and cutting

ECORASTER® can be cut quickly and cleanly with any wood-cutting tool or equipment.

For small sections where precision is required a small hand saw or branch cutter is recommended

Pre-cutting is not necessary. If possible lay the section to be trimmed over the edge of the curb or border and cut it in place.

Recommended tools are hand saws, circular saws, edge cutters, jigsaws, or branch cutters.

Helpful hints and tips

Tamping the ECORASTER® may compress and lower the final level approx ¼". Please take this into consideration when planning the final level.

After the ECORASTER® is filled there can be minor settling of the level. Grass filled ECORASTER® must have the roots below the level of the grid, thus protecting them from damage.

Accessories

Paddock Markers

Markers are available in white on special request. and can simply be snapped into the existing grids.

Hinged Angle Adaptor

Universal adaptor for angles up to 90°

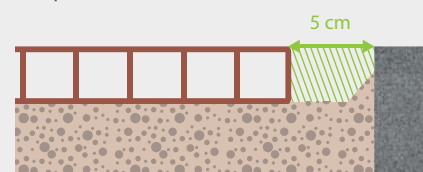
Trickrast Adaptors

For temporary riding event installations

Curve element

the flexible, practical curve accessory

Tip



If there are hard borders, posts or other immovable objects in the installation, 5 cm of space must be left between the ECORASTER® and the immovable objects.

LANDSCAPE FABRIC SYSTEMS

General notes on installation



SOFTGROUND

Installation only with ECORASTER® TE30 (Special). On request, the product can be supplied pre-mounted. The same installation types and recommendations apply as for ECORASTER® grids. The individual, pure rubber elements are 10,7639 sq ft | 1 m² in size and can be connected precisely with 9 ECORASTER® grids.

economy landscape fabric

In contrast to the higher quality ground systems with ECORASTER®, with the economy landscape fabric you do not use a special base layer. Ensure before installation that the ground is adequately consolidated (concrete or similar) and without large differences in height. The landscape fabrics can be cut with standard hand tools (jigsaw etc.).

Disclaimer

The information given here, in particular about the handling and application recommendations for our products, are based on our experience and knowledge in normal situations. They assume that the products are stored and used properly. Due to variations in ground conditions and in working conditions, no liability or warranty can be provided for the results obtained, whatever the legal relationship, and neither based on this information nor on a personal consultation. The user must check the products for their suitability with respect to the purpose of the application. We reserve the right to make changes to product-specific data. Our general conditions of sale, supply and guarantee apply, as well as the latest product datasheet, which should be requested.

Contact



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Did you know ...?

We are your qualified contact for high-quality surfaces for equestrian facilities and can supply you with the appropriate installation and maintenance service at the same time - everything from a single source:

- ✓ Consultation on-site
- ✓ Footings check
- ✓ Installation and disposal
- ✓ Surface care
- ✓ Refurbish

- ✓ Riding surfaces
- ✓ Footings
- ✓ Riding sand
- ✓ Aggregates
- ✓ Grids
- ✓ Landscape fabrics
- ✓ Impact protection
- ✓ Horse exercisers

 **ECORASTER®**

www.ecoraster.de
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