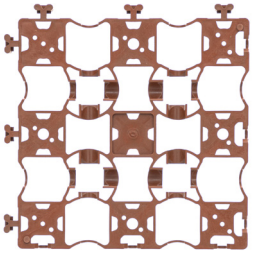
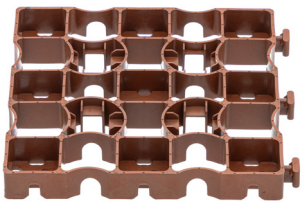
ECORASTER®

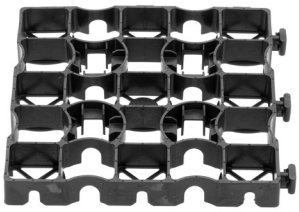
Aqua system

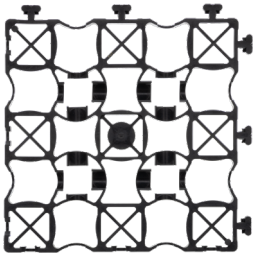
TE40 aqua



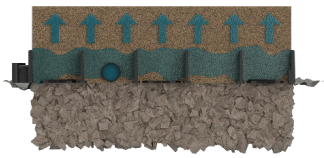


E40 aqua





Riding area / roundpen



Due to its capillary effect, the sand draws the water upwards into the footing.

One drip tube per ECORASTER® is usually sufficient.

Filling TE40 aqua:
"coarse sand", i.e. ≥0.01 to 1 mm (without 0 portions)

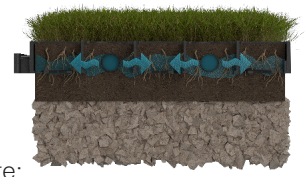
Tread layer:
Natural quartz sand grading curve ≈ 0.06 to 0.5 mm;
Alternatively, riding sand with aggregates.

Green parking

Example:

Filling:
(Mineral) substrate with seed (e.g. grass or white clover)

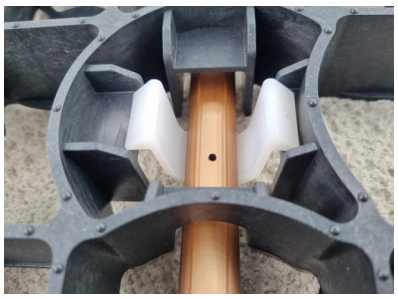
Equalizing layer:
(Mineral) substrate (3/15); approx. 3 cm after compaction
Substructure according to layinginstructions, please note:



This superstructure should not be used by trucks/heavy goods vehicles.

Especially for riding facility owners (TE40) and campsite operators / local authorities (E40).

Drip tube and control unit



Technical data

- Flow rate per dripper: 1.6 l/h
- Dripper spacing: 30 cm
- Pressure compensation range: 0.5 to 4.0 bar
- Recommended filtration: 120 mesh
- Line diameter in mm: OD: 16.6, ID: 14.2
- Wall thickness: 1.2 mm
- CNL - pressure maintenance mechanism, prevents the system from leaking if the pressure falls below 0.14 bar (optionally selectable)

Netafim UNITECHLINE™ AS - Pressure-compensating drip tube with root growth barrier: The drip pipe from market leader Netafim offers stability, high resistance to clogging, easy installation and excellent durability. With its root ingrowth barrier, it is ideal for underground installation. Pressure-compensating drippers (within the prescribed pressure range) ensure excellent uniformity of irrigation over the entire length of the drip pipe, even with long strands and on slopes. Can be controlled via app and sensors or manually.

If the substructure is firm and level, no clips are required. If the floor gives way, you should plan for 5 to 9 clips per m² to prevent the drip tubes from sliding downwards out of the ECORASTER® due to their own weight. In the event of movement, the drip tube could be clamped under one of the edges of the (T)E40.

Why should you irrigate from below, what are the advantages of subsurface irrigation?

In recent years, the European Union has stepped up measures to promote water efficiency and tackle water scarcity. Many EU member states, particularly in southern Europe, have adopted additional national and regional regulations and support programs to save water in agriculture, private households and industry. These can include, for example, restrictions on irrigation during certain periods or incentives for water-saving technologies. A particular focus is on promoting efficient irrigation techniques (e.g. drip irrigation).

Water-saving effect of subsurface irrigation compared to surface irrigation.

Sub-surface irrigation is generally more water-efficient (≈ 60%) than conventional surface irrigation:

- **Reduced evaporation:** With above-ground irrigation using sprinklers, a considerable amount of water is lost through evaporation, especially on hot and windy days. Sub-surface irrigation delivers the water directly to the root zone/riding soil substructure, which minimizes evaporation losses.
- **Less drift:** Wind can blow the spray water from lawn sprinklers over a wide area so that some of the water does not reach the target area. Not a problem with underfloor irrigation.
- **More precise application:** The drip tube system enables targeted irrigation of the root zone or the substructure of the riding arena. This means that less water is wasted in places where it is not where it is not needed (e.g. paths, paved areas).
- **Less surface runoff:** Intensive surface irrigation can lead to surface runoff, where water drains away unused. The slow and targeted water release of subsurface irrigation reduces this risk. The formation of puddles is also greatly reduced.

Further advantages of underfloor irrigation:

- Improved plant health:
  More constant soil moisture: The even and needs-based water supply from below leads to more stable soil moisture in the root area, which optimizes plant growth and nutrient uptake.
- Dry leaves:
  As the leaves of the plants remain dry, the risk of fungal diseases and other leaf diseases, which are promoted by damp leaves, is reduced.
- Less weed growth:
  The surface soil layer tends to remain drier, which can inhibit the germination and growth of many weeds, as these are often dependent on surface moisture.
- No impairment of surface use:
  Irrigation takes place underground so that the surface can be used at any time (e.g. playing, walking, mowing). There are no wet areas or sprinklers in the way.
- Aesthetic advantages:
  The irrigation system is invisible, which contributes to a neat and undisturbed appearance of the green space. appearance of the green space.
- Protection against vandalism and damage:
  Because the components are installed underground, they are less susceptible to damage from animals children playing or vandalism.
- Saving working time:
  Automated subsurface irrigation systems can significantly reduce the time and effort required for manual watering.

ECORASTER® cables/pipes are well protected.

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