BVCert. 20403621

TÉKIDÉ

Stabilisation Grids

ÉKI Shet & ÉKI Cob

Our installation advice



PADDOCKS • TRACKS • ACTIVE STABLES • PADDOCK PARADISE • WORK AREAS

ESSENTIALS

Key takeaways

1. Which grid to choose?

ÉKI Shet: ideal for small areas, challenging zones (racks, shelters, entrances, pathways) and high-stress areas. Rigid and lightweight (≃ 8.5kg).

ÉKI Cob: perfect for large areas (active stables, paddocks, sub-base for arenas). Quick installation and versatility (≃ 20.5kg).

2. Installation and sub-base

Stabilised ground: direct laying possible.

Natural ground: possible with suitable preparation.

Hybrid installation: combination of stabilised and natural ground.

Geotextile: *cellular side up: fill cells with sand or gravel. Flat side up: material infill is strictly necessary to fill cells.*

3. Cleaning and maintenance

Manual: rake, shovel or stiff broom for daily muck removal.

Mechanical: front-mounted sweeper on machinery to regenerate the sanded surface without removing sand.

4. Expansion and installation clearance

Perimeter gap: leave an expansion gap at the edge of the area to accommodate material movement.

Thermal variations: grids react to temperature changes (expansion/contraction): do not block against a fixed wall.

Installation tip: adjust interlocking gaps depending on temperature during installation.

⚠️ Shod horses, elderly horses or horses with sensitive feet

Always opt for **cellular side up installation** with mineral infill (sand or gravel). This setup provides the **necessary grip** to secure movement and prevent slipping.

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STABILISATION MATS

ÉKI Shet and ÉKI Cob

Summary

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INTRODUCTION

ÉKI COB / ÉKI SHET: WHICH GRID TO CHOOSE?

Apart from their dimensions, the 2 grids have a few different attributes.

ÉKI Shet • Compact and easy to handle - 740 x 370 x 46mm ≈ 8.5 kg

Rack surrounds, shelter fronts, paddock entrances or access tracks: the **ÉKI Shet** grid is perfect for **stabilising small areas** and **"challenging" zones**.

Its thick walls and compact size make it a highly rigid grid capable of withstanding the most demanding traffic conditions.

Easy to handle single-handedly, its interlocking system redesigned in 2025 makes it a grid that is **very easy to install**.

If you want to move or dismantle your grids: ÉKI Shet is the ideal choice.

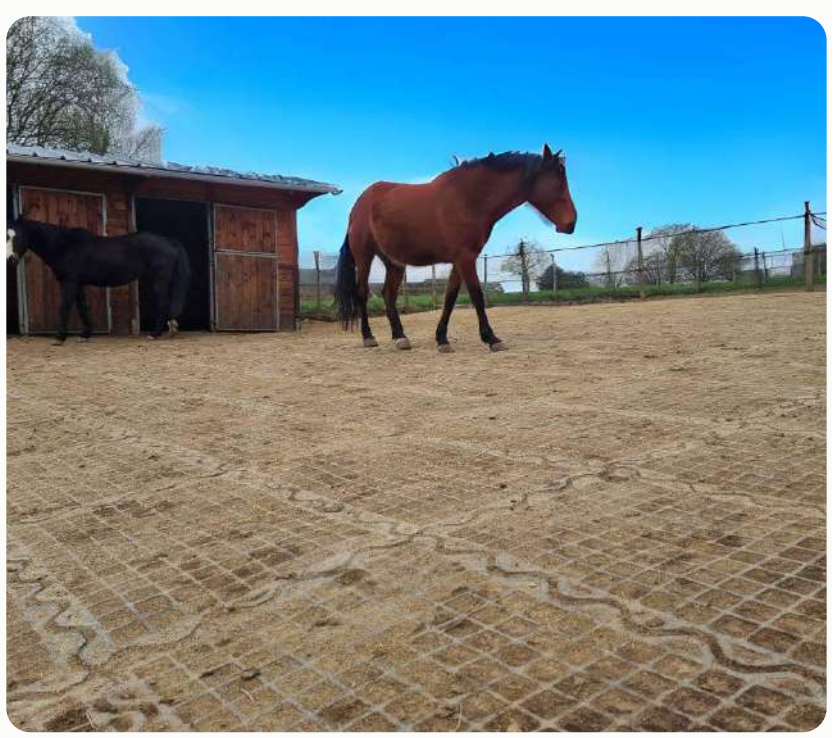


ÉKI Cob • Versatile and quick to install - 1122 x 755 x 44mm ≈ 20.5kg

The **ÉKI Cob** grid is the ultimate choice for stabilising **large areas** when installed cellular side up (tracks, paddocks, parking areas, yard courtyards, sub-bases...).

Thanks to continuous improvements to its composite blend, the ÉKI Cob grid gains strength and rigidity, allowing foundation layer thicknesses and sub-base preparation to be optimised.

Highly versatile, it allows large areas to be covered quickly.



***Compatibility:** ÉKI Shet and ÉKI Cob grids can be assembled up to a **maximum length of 4m**.*

SHOD / UNSHOD HORSES: WHAT SHOULD YOU DO?

⚠️ Important recommendation

If your horses are **shod** (front feet or all 4 feet) or if they are **older horses** with more hesitant footing, always opt for an installation with the cellular side facing upwards, filled with mineral material. This infill enhances grip to secure their movements and daily comfort.

Our **Tékidé** stabilisation mats are designed to improve your comfort and that of your horses. Here are a few installation tips to help you get the best out of them for a long time.

Even though installation is quick and simple, we recommend strictly following the guidelines provided in this document.

This will guarantee a high-quality, robust and durable installation for your comfort and your animals' well-being. 🐴



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FOCUS ON SLAB MAINTENANCE

Depending on where the slabs are installed and the general appearance you wish to maintain, you can opt for different cleaning options:

1. Manual cleaning

For picking up droppings, the tools below are suitable. Depending on the desired finish, you can also use a leaf blower. Depending on the installation side chosen, you will use one tool rather than another.







2. Mechanical cleaning

If mechanisation is desired, the best solution remains push sweeping with a tool **of this type** hitched to the front of a vehicle.

A push sweep with a stiff broom will allow you to regenerate your sanded surface (cellular side) and preserve its permeability without removing the surface sand.



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UNDERSTANDING EXPANSION

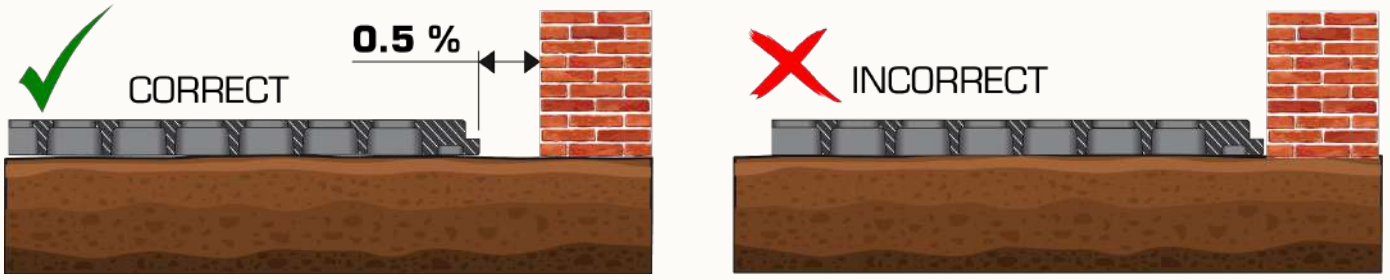
RULE NO. 1: LEAVE A “BREATHING SPACE”

The observation: when the slab heats up, it needs to expand. If you butt it up against a building or a rigid border, it will compress and risks lifting.

The instruction: always leave a gap of at least **0.5% of the total length on each side** (i.e. 1% in total) between the edge of your slabs and any fixed obstacle (wall, partition, post, etc.).

Quick formula:

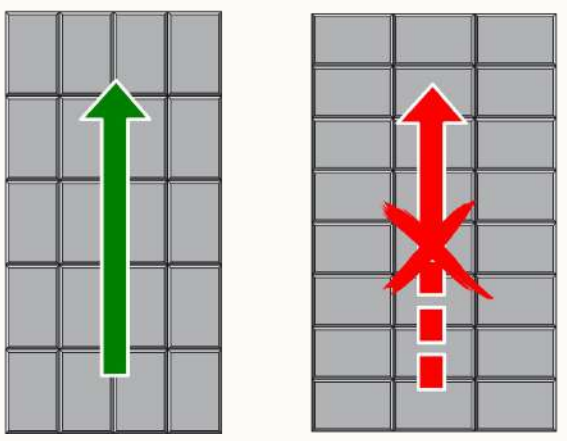
Side length (metres) × 5 = gap to leave on EACH SIDE (millimetres)



RULE NO. 2: ALWAYS MAINTAIN THE SAME LAYING DIRECTION

⚠️ **The observation:** the expansion of a slab is not identical in its length and width. If you rotate slabs by 90° in the middle of your surface, thermal expansion forces clash and create a dome.

💡 **The instruction:** align **100% of the slabs in the same direction** across the entire site. Recommended orientations: always lay **the longer side of the slab parallel to the longest length of your ground**.



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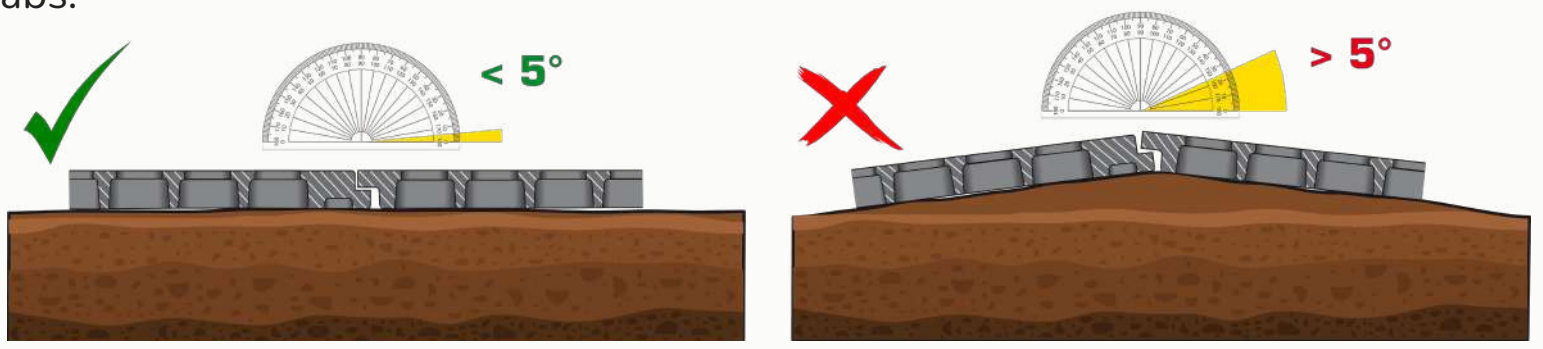
RULE NO. 3: PREPARE A FLAT AND OVERSIZED FOUNDATION

⚠️ **The observation:** uneven ground creates mechanical stress points that jam the slab during expansion. Furthermore, if the platform is too narrow, the slab risks slipping off the support as it expands.

💡 **The instruction:**

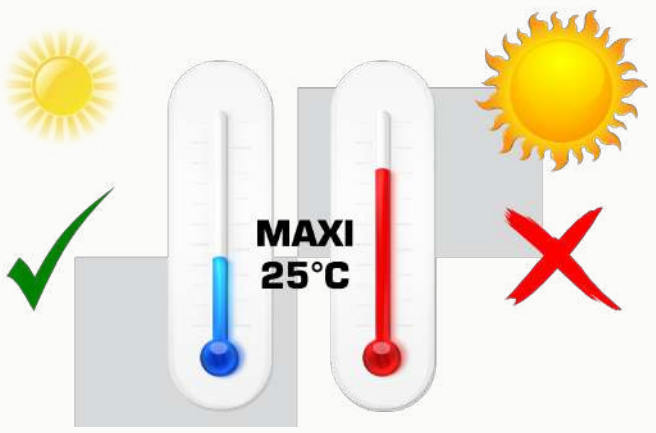
- Prepare a stabilised bedding layer as flat as possible (maximum acceptable slope between slabs: **less than 5°**).
- Provide a foundation surface (sand/gravel) **1% wider** than the area occupied by the slabs.



RULE NO. 4: CHOOSE THE RIGHT TIME OF DAY TO INSTALL

⚠️ **The observation:** if you interlock your slabs in scorching sun (> 30°C), they are installed at their maximum expansion size. They will shrink significantly in the depths of winter.

💡 **The instruction:** carry out installation during time slots or days with moderate temperatures (**below 25°C**).



1. INSTALLATION ON STABILISED GROUND

*A stabilised ground is a **flat and load-bearing ground** (minimum load capacity of 25MPa), perfectly suited to support construction site vehicle traffic and horse trampling.*

Installation recommendations

You can lay your tiles directly, ensuring that they are in full contact with the ground across their entire surface.
For flat-face installation, using a **sand bed** preserves drainage and prevents accidental filling with horse manure. Sand can be swept into the cells afterwards.



Once installed, enjoy them immediately!
As always, allow your horses to get used to their brand-new floor covering calmly and gently.



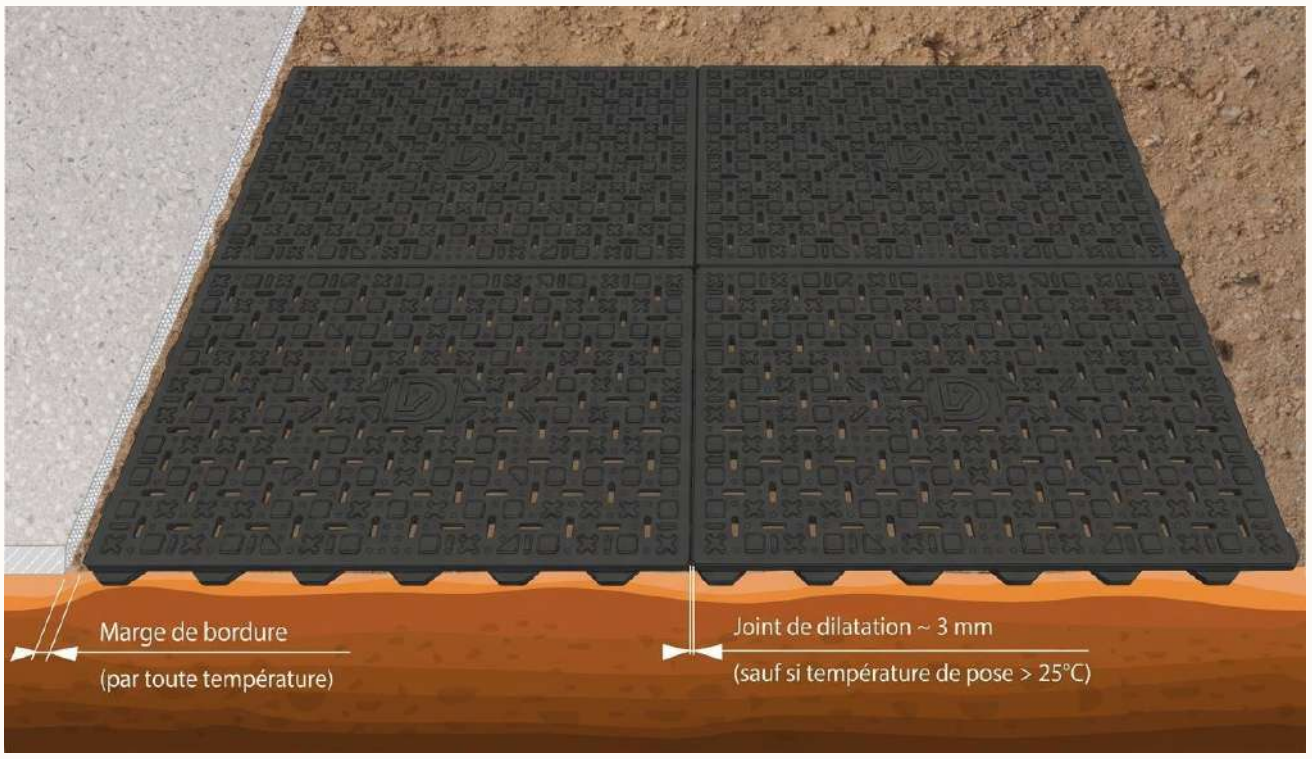
EKI SHET



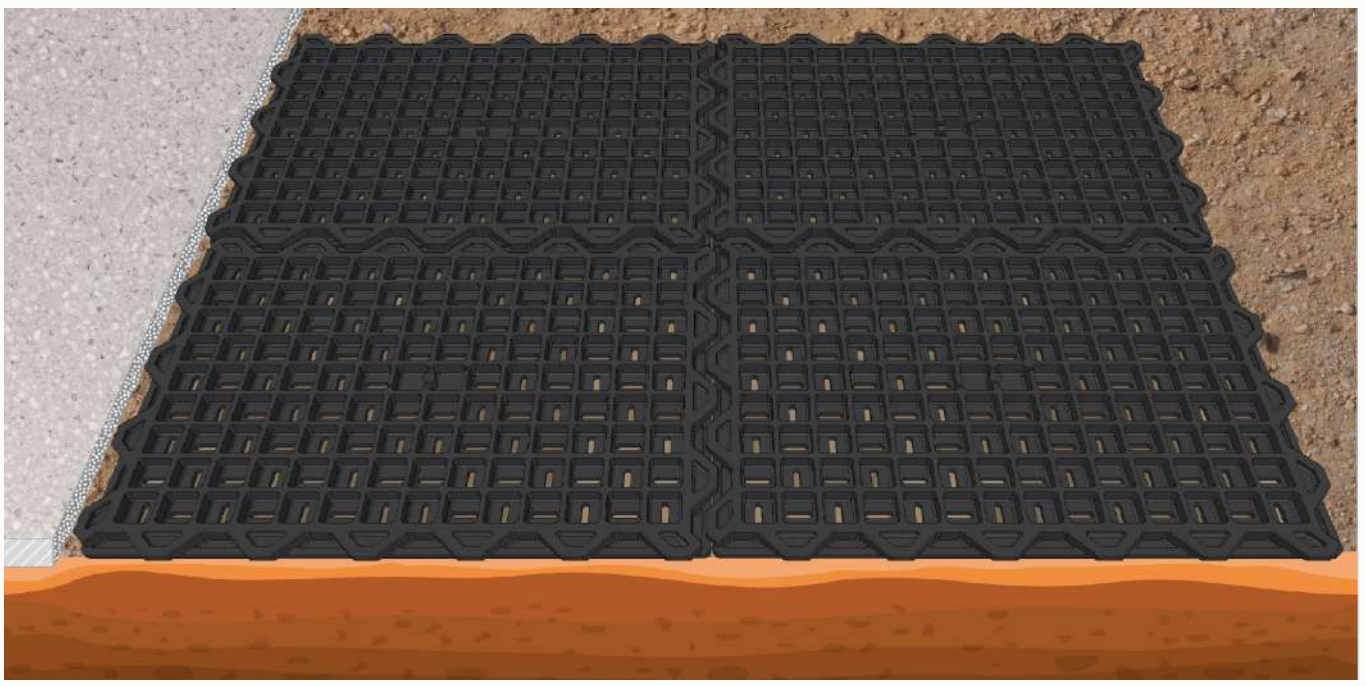
EKI COB

Ensure you maintain a joint space, regardless of the slab installation direction:

OPTION A • FLAT SIDE FACING UPWARDS



OPTION B • HONEYCOMB SIDE FACING UPWARDS



💡 **Installation tip:** slab to be filled with sand, gravel or soil if free-draining.

2. INSTALLATION ON NATURAL GROUND

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Tiles can be put to severe strain; however, laying directly on "heavy" ground risks causing subgrade deformation and material upwelling. Drainage can be improved by the tiles by limiting compaction and erosion, but an impermeable base remains impermeable.

Key recommendations

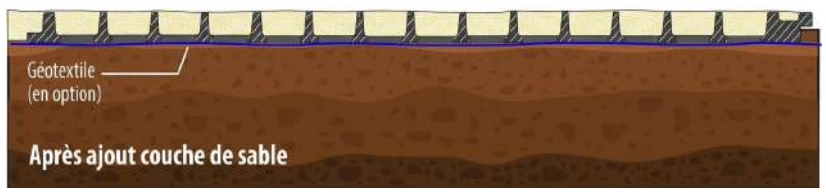
- **Ecological approach:** laying on natural ground preserves permeability, limits water impact and maintains the soil's natural exchanges while combating erosion.

- **Mechanical maintenance:** possible, but sweeping is preferred. Using a snowplough/scraping blade is not recommended if the ground deforms under heavy machinery.

- **Optimal contact:** ensure you prepare as smooth and level a surface as possible to guarantee the overall stability of the tiles.

Technical cross-section of the installation





ℹ️
Tip: installing a geotextile membrane can limit material upwelling through the tiles.

MEMO • ADVICE AND PRECAUTIONS

Installation will be optimal if carried out on a previously levelled surface.

🟢 More ecological solution

🟢 Reduced preparation work

🟢 More economical solution

⚠️ Mind the ground's drainage capacity

⚠️ Heavy machinery: load-bearing ground required

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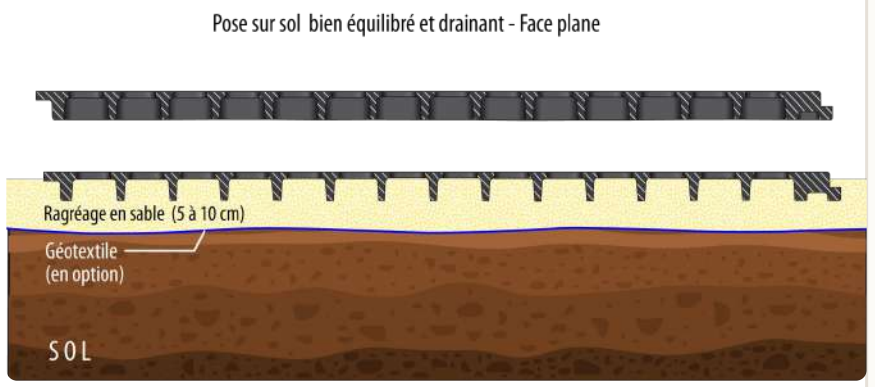
1. PERMEABLE GROUND (DRAINING)

Our experience enables us to identify several conditions for a successful and lasting installation on natural ground, and here is why:

Diagnosis & advice

- **Soil assessment:** you can evaluate its draining capacity using simple and practical tests (many online tutorials).
- **Sandy vs clay soils:** sandy-textured soils are naturally draining. Clay soil becomes waterlogged, loses its load-bearing capacity and deforms.
- **Role of geotextile:** in the absence of added materials, we recommend using a geotextile membrane to prevent soil upwelling underneath the tiles.
- **Benefit of sanding:** prior sanding improves drainage and prevents organic matter (manure) from clogging the voids.

Technical cross-section of the installation



Installation on well-balanced, draining soil

Installing a sand levelling layer (5 to 10 cm) on natural ground levels the surface and ensures optimal contact with flat-sided tiles.

SUMMARY • PERMEABLE GROUND (DRAINING)

🟢 **Sandy** or well-balanced texture

🟢 **Aerated** soil structure

⚠️ **Clay** or highly organic soil

⚠️ **Waterlogged soil,** "plastic" soils

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2. UNTOUCHED NATURAL GROUND (non-disrupted)

Unlike disrupted ground, untouched ground is far more favourable for achieving a satisfying result with simple installation.

Benefits of preserved soil

- **Biological activity:** areas free from trampling are biologically more active (earthworms, natural aeration) and therefore more permeable.
- **Natural drainage:** intact plant structure promotes excellent rainwater infiltration and durably limits stagnation risks.
- **Direct laying:** on an untouched, draining surface, Tékidé tiles can be laid directly on the ground with mineral infill for better grip.

Risks and precautions

- **Consequences of overgrazing:** land damaged by excessive trampling loses permeability and reacts unevenly, creating water retention.
- **Risk of laying on mud:** laying tiles on mud is strongly discouraged as it risks load-bearing failures and excessive material upwelling.
- **Rotation advice:** wherever possible, move feeding or shelter areas to untouched zones to relieve saturated soil.

SUMMARY • UNTOUCHED NATURAL GROUND (vegetated)

🟢 **Preserved soil:** direct laying possible on sound, draining ground

🟢 **Space management:** recommended rotation of shelters and feeders

⚠️ **Overgrazing:** loss of permeability and overall load capacity

⚠️ **Laying on mud excluded:** avoids black material upwelling

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3. EXISTING VEGETATIVE COVER

Experience has shown us that laying on grassland gives very good results as long as the soil is permeable and has sufficient load-bearing capacity.

Advantages of vegetative cover

- **Natural load-bearing capacity:** the root system and a well-established plant structure provide excellent natural load-bearing capacity to your subsoil.
- **Drainage & erosion:** it greatly promotes natural drainage through soil aeration, while limiting the risk of erosion.
- **Grassland integrity:** preserving the grass layer beneath the tiles ensures maximum durability for your entire installation.

Points to consider & installation

- **Evenness issues:** the natural surface may present irregularities. This is not a deal-breaker and can be adapted according to desired maintenance.
- **Light sanding advice:** apply a light sand layer (3 to 5 cm) to smooth and position the platform slightly raised, facilitating water run-off.
- **Hay feeder areas:** strongly recommended at the centre as heavy, localized trampling by horses can cause the load-bearing structure itself to sag.

SUMMARY • EXISTING VEGETATIVE COVER

Tékidé tiles can be laid directly on the ground, but watch out for material upwelling.

🟢 **Draining soil:** excellent results observed
🟢 **Anti-erosion:** preserves natural soil structure
🟢 **Regular use:** allows heavy equestrian traffic

⚠️ **Levelling:** soil surface can be uneven
⚠️ **Sand topping layer:** plan ahead to smooth the surface

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4. SLOPE AND GROUND LEVEL

A slight slope and high-point positioning are major assets for your stabilisation area: they promote natural run-off and permanently prevent water stagnation.

Slope management

- **Avoid stagnation:** the slope prevents water from stagnating, avoiding a temporary loss of load-bearing capacity in the supporting soil.
- **Choice of laying method:** lay your tiles honeycomb-side up and fill them with sand to ensure optimal grip and traction.
- **Shod or elderly horses:** flat-side laying (logo side) is not compatible with shod or elderly horses, especially on a slope.

Ground level

- **Strategic high point:** it is more effective to create your stabilisation zones on a high point to facilitate natural water drainage.
- **Elevation:** a slight overhang compared to the natural ground allows ideal and rapid drainage of excess water.
- **Creating relief:** this elevation can be natural (existing topography) or artificial by supplying targeted materials.

SUMMARY • SLOPE / GROUND LEVEL

A slight slope / high-point stabilisation promotes water run-off.

🟢 **Anti-stagnation:** prevents stagnant water and preserves soil load-bearing capacity.
🟢 **Flexible creation:** the slope can be natural or created by adding materials.

⚠️ **Edging required:** a steep slope requires blocking with an edging or shoulder.
⚠️ **Steep slope (3%):** prefer honeycomb-side laying to secure footing.

3. HYBRID INSTALLATION

"HALF-WAY" BETWEEN STABILISED AND NATURAL INSTALLATION

This is the preferred method for active stable, winter paddock, track system projects... For optimal durability and easier mechanical maintenance.

Initial requirement

- **Traditional alternative:** you do not wish to perform heavy stabilisation (significant excavation, material supply, creation of outlets). The financial and environmental impact is significant.
- **Natural ground limits:** your land does not guarantee durable stabilisation when laying directly on natural ground.

Benefits of elevation

- **Preserve the ecosystem:** preserves the natural soil and its permeability by avoiding excavation, as well as the management of excavated soil.
- **Correcting weaknesses:** a 0/31.5 crushed aggregate (12cm) compensates for a lack of load-bearing capacity. A 0/6 gravel (5cm) ensures good levelling while maintaining permeability.
- **Optimal drainage:** installation above ground level promotes rapid and efficient water drainage.

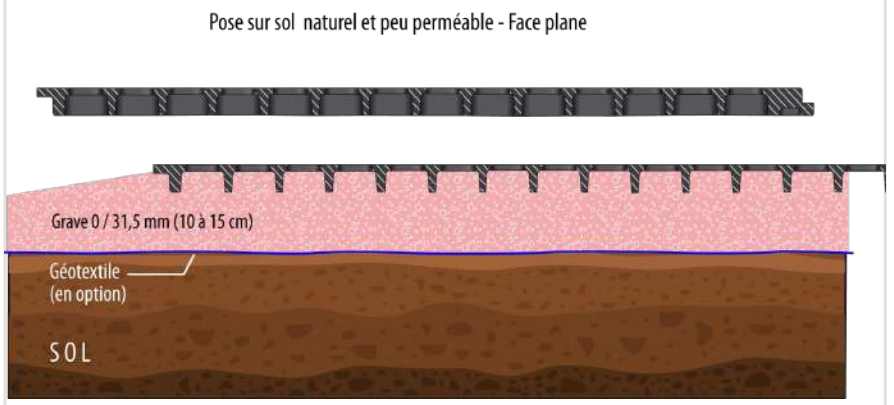
SUMMARY • HYBRID INSTALLATION

Take extra care with the transition to ground level at the edge of the platform.

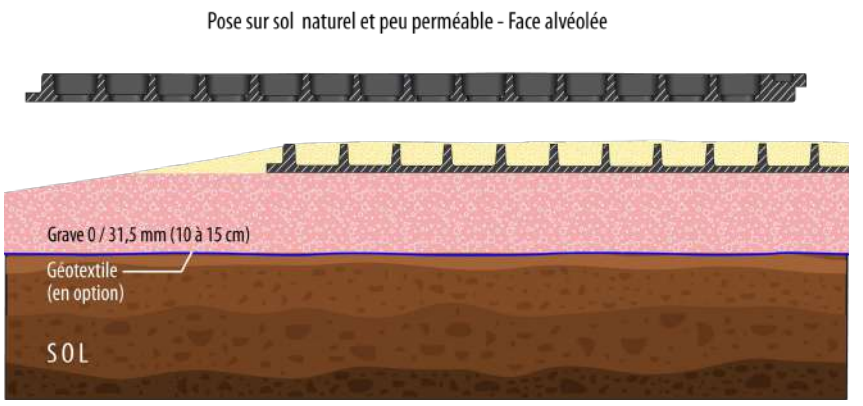
🟢 **Ecosystem:** preserves natural soil and its permeability
🟢 **Correction:** specifically compensates for subgrade weaknesses
🟢 **Drainage:** promotes rapid water evacuation
🟢 **Cost-effective:** less ground preparation for a quality result

Lay your tiles flat-side or honeycomb-side up according to your choice – with or without sand filling. Geotextile is highly recommended for clay soils in order to limit the rise of intermediate materials.

Laying on natural ground — Flat side



Laying on natural ground — Honeycomb side



Transition with natural ground

In the case of elevated laying, pay particular attention to the transition to avoid movement of edge tiles.

Recommended solutions:

- Creation of a **solid retaining border**.
- “Boat” **ramped profile** on the edge of the platform.
- Creation of a **sand shoulder**.

💡 **TECHNICAL TIP**

If you opt to install geotextile, we advise filling the cells with sand or aggregate to prevent dung and soil from doing so, which would reduce permeability. Flat-side laying: adding materials between the geotextile and the tiles is absolutely necessary to fill the cells.

4. USE IN A STATIC AREA

For areas where horses are not expected to arrive at speed or move at a trot or canter (hay racks, shelters, terrace boxes...), the tiles can be laid **flat side facing upwards**.



⚠️ **Warning: for shod horses or certain older horses lacking balance, this laying method is not compatible.**









5. USE IN AN EXERCISE AREA



If your tiles are intended for an **exercise area** where horses will trot, canter, play, kick – live, in short! we advise laying your tiles **honeycomb side up**, then **filling them with sand**.

This applies to tracks, active stables, paddocks... The aesthetic finish is more natural and maintenance is no more demanding. For reference, approximately **0.5 m³** of sand is required to fill the cells of a pallet of Tékidé ÉKI Cob or ÉKI Shet tiles.

💡 **Technical tip**
Choose the ÉKI Cob tile for large areas, as it is quicker to install.







6. USE AS A SUB-BASE FOR A WORK AREA



Robust and rigid, our stabilisation tiles are designed to provide high trafficability. In the vast majority of situations, you can use our tiles to construct your work surfaces while significantly limiting foundation layers and earthworks (lunge rings, outdoor arenas, indoor arenas, tracks...)

Why are Tékidé tiles particularly advantageous as a sub-base?

- **Robust and durable base** : guarantees excellent stability and longevity for your ground.
- **Anti-pollution barrier** : prevents stones and soil from rising into the working layer.
- **Superior shock absorption** : reduces shock waves on impact compared to a traditional sub-base.
- **Easy installation** : tiles can be installed without calling in a professional.

Two main scenarios can be easily identified:

Scenario 1

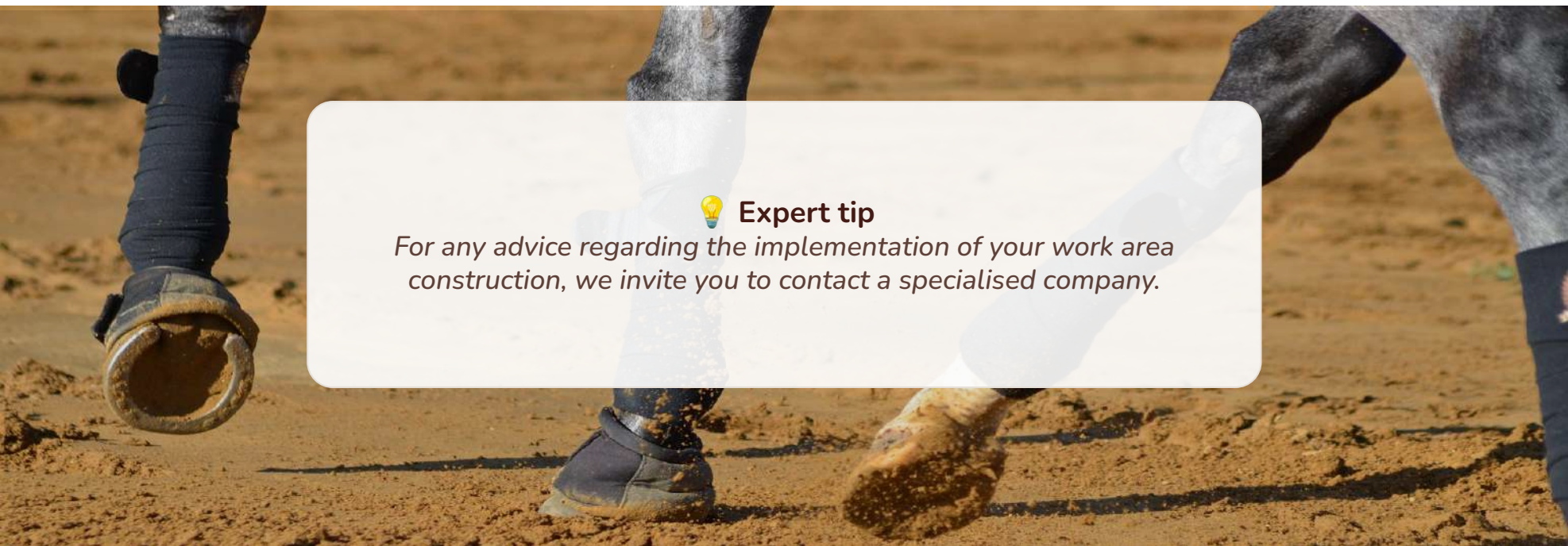
Your ground is sufficiently load-bearing and free-draining

You do not need heavy foundations. Below, we detail the necessary steps for directly laying our tiles for your equestrian surface.

Scenario 2

Your ground is not sufficiently load-bearing and/or free-draining

It is advisable to contact an equestrian surface specialist or a construction company to obtain a load-bearing and permeable laying surface.



💡 **Expert tip**

For any advice regarding the implementation of your work area construction, we invite you to contact a specialised company.

Scenario 1

Your ground is sufficiently load-bearing and free-draining



Your ground is sufficiently load-bearing to allow construction machinery traffic (trafficability greater than 25MPa) and sufficiently permeable to drain rainwater within a timeframe suited to your use. Note that Tékidé tiles can be driven on directly by heavy machinery for sand application.

Step 1

Lay a geotextile membrane on excavated ground. Ideally, respect sports pitch construction standards regarding levelling, specifically a deformation tolerance of 1cm under a 3m straight edge. Thanks to the geotextile, you improve the load-bearing capacity of your surface and protect against fine particles rising into the working layer.

Step 2

Lay your Tékidé stabilisation tiles honeycomb side facing up, adhering to expansion rules. They can immediately withstand construction machinery traffic as long as the sub-base is trafficable and dry enough. If the tiles deform under wheel traffic, your sub-base is too wet or too soft.

Step 3

We recommend filling our tiles with fine drainage aggregate such as 2/4mm or 2/6mm washed crushed stone. This will allow you to improve the drainage of your working area compared to filling directly with equestrian soil, which has lower permeability.

Step 4

Lay your equestrian surface to a depth of 10 to 15cm. In line with the described system, your equestrian surface must allow vertical water drainage.

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