Geosynthetics

Installation Guide

TOTAL TRAFFIC EXOPAVE™ HEAVY DUTY PAVERS

IMPORTANT

Please read the whole guide before installation, and pay particular attention to the following points:

- The sub-base must suit the application and load bearing capacity of the ground (CBR)
- Drainage is a key element. Check subsoil permeability and water table. Install suitable drainage system if infiltration is not possible.
- Ensure expansion gaps are created throughout the surface - see point number 8
- Use the correct aggregates and fill material - site materials are usually unsuitable
- Ensure the pavers are laid in the recommended Stretcher Bond or Herringbone Bond (See Point 10)
- Further advice is contained in the guide and available from Geosynthetics Ltd **Tel 01455 617 139.**

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Installation Method - Prepare Ground

1. Excavate existing ground to suit the application and surface requirements.
2. Install edging in concrete, timber or steel as per architect/engineers specification.
3. Lay Turftex Geotextile, overlapping joints by 300mm.
4. Lay reinforcing Geogrid if required.
5. Install the required depth of sub-base Type 3 (open graded granular sub-base) as described in **Specification for Highways Works Clause 805**

6. Bedding Layer

For Gravel/Block surface: Lay second layer of Turftex geotextile and then a 30-50mm layer of 2-6mm SuDS compliant permeable grit. Just rolled, not compacted**.**

For Grass surface: Lay second layer of Turftex geotextile and then a 50mm layer of 50/50 mixture of graded topsoil/2-6mm grit. Just rolled, not compacted.

In both cases: Cover the bedding with the installation mesh before laying the TTE units as per photo.

7. General tips for ALL installations

- Before laying of the units, choose a bond to suit the application. See page 3. Advice on bonds is available from Geosynthetics Limited.
- Check regularly that lines are straight and gaps between units are minimised.
- If installing when outside temperature is high (above 20°C) tamp units tightly together.
- Use a saw with a wood (not masonry) blade for cutting TTE™ units.
- Avoid driving and turning on the units until they have been filled and vibrated with a plate compactor.
- **Maximum Recommended Gradients**

Product	Gradient Ratio	Degrees	Percentage
TTE™	1 in 10	5°	10%

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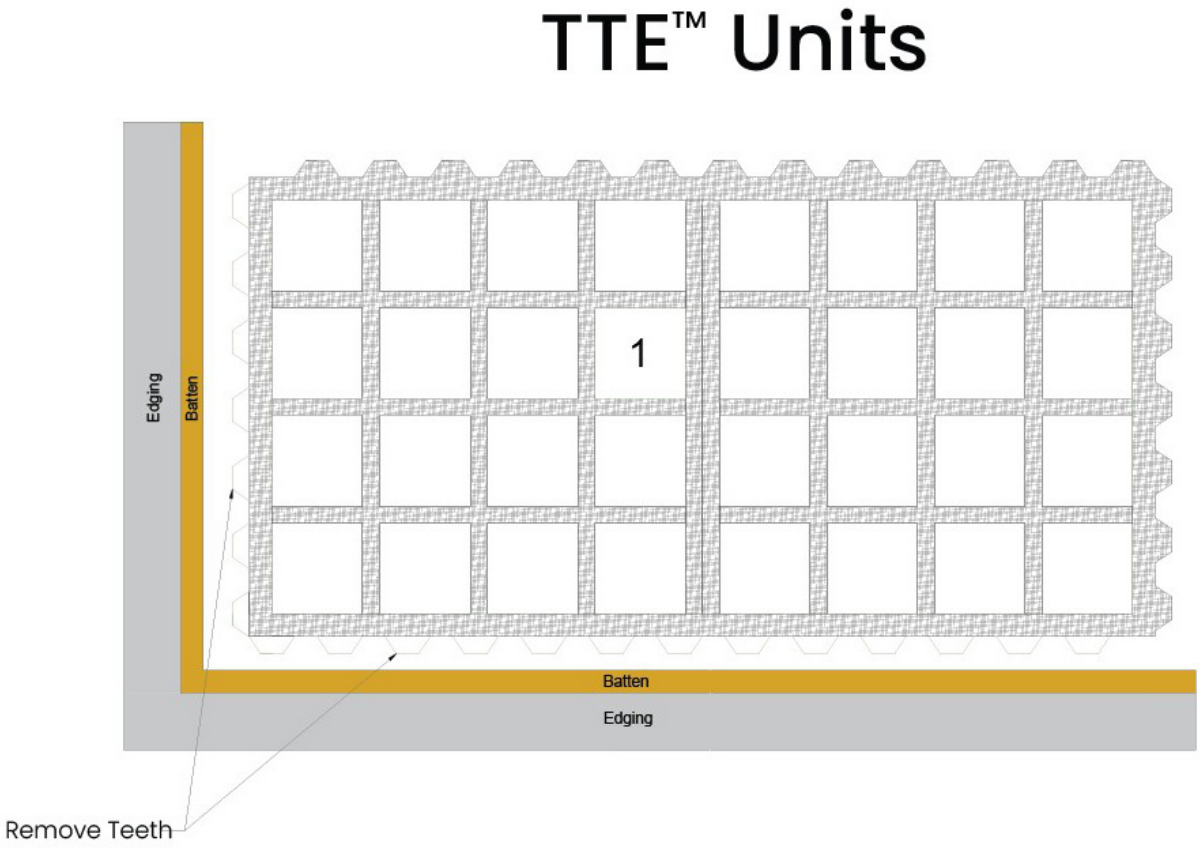
8. Laying of TTE™ Blocks



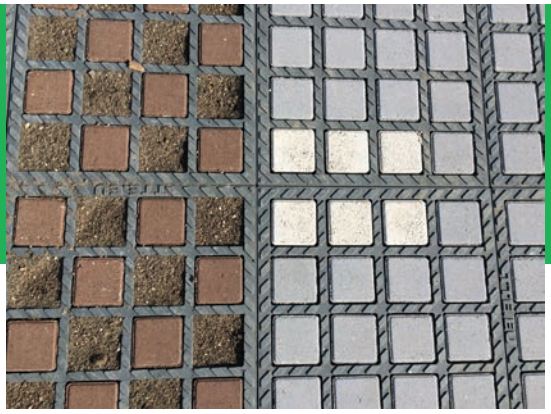
- Use a batten to create a 20mm expansion gap between the edge and first row of TTE™ units.
- Lay the installation mesh, overlapping each piece by 200mm at the joints.
- Using units from a mixture of pallets, begin laying in the chosen bond.
- After cutting the connecting 'teeth', see above, lay the first row against the batten.
- Continue laying units in the preferred bond, checking lines and gaps, tamp if necessary.
- Create a 10mm expansion gap every 20 linear metres, fill with foam sponge strip/sand/topsoil.
- When the area is finished, remove the battens and fill the expansion gaps with sand/topsoil.
- Before starting filling, compact the units with a medium weight vibrating plate.

9. Filling the TTE™ Blocks

For some applications, combinations of grass and block or gravel and block may be required for additional strength. Partial or full block fill may be required for heavy vehicles, please call us for confirmation.

For block surfaces

Using blocks from a mixture of pallets, insert into chambers for paved areas, pathways and demarcation.



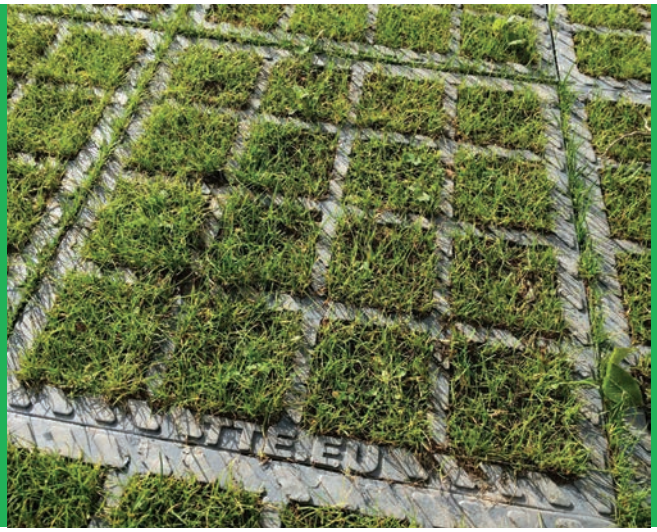
For gravel surfaces

For Gravel surface. Use a clean angular aggregate in the size range 10/20 to completely fill the units. Pea shingle and smaller size aggregates should be avoided

For grass surfaces

Use a quality assured friable mixture of topsoil/sand/compost to fill the units. DO NOT compact.

Remove any overfill and allow to settle (settlement can be assisted with a vibrating plate). This will leave a 10-15mm gap and should NOT be topped up. Apply grass seed.



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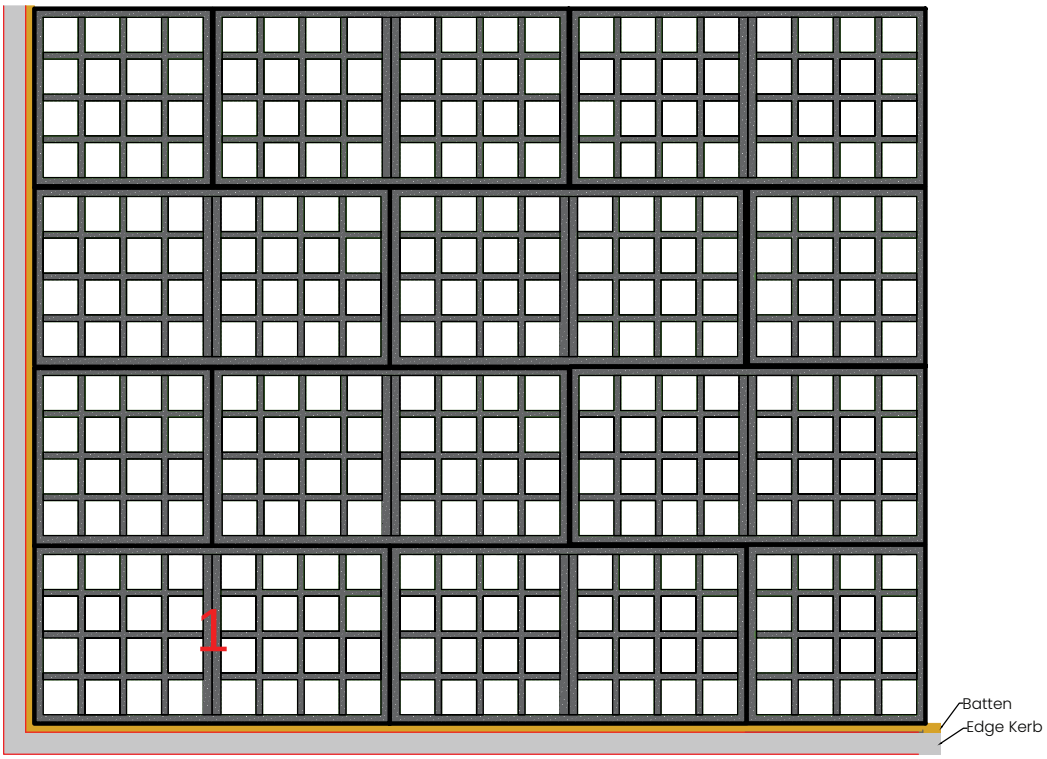
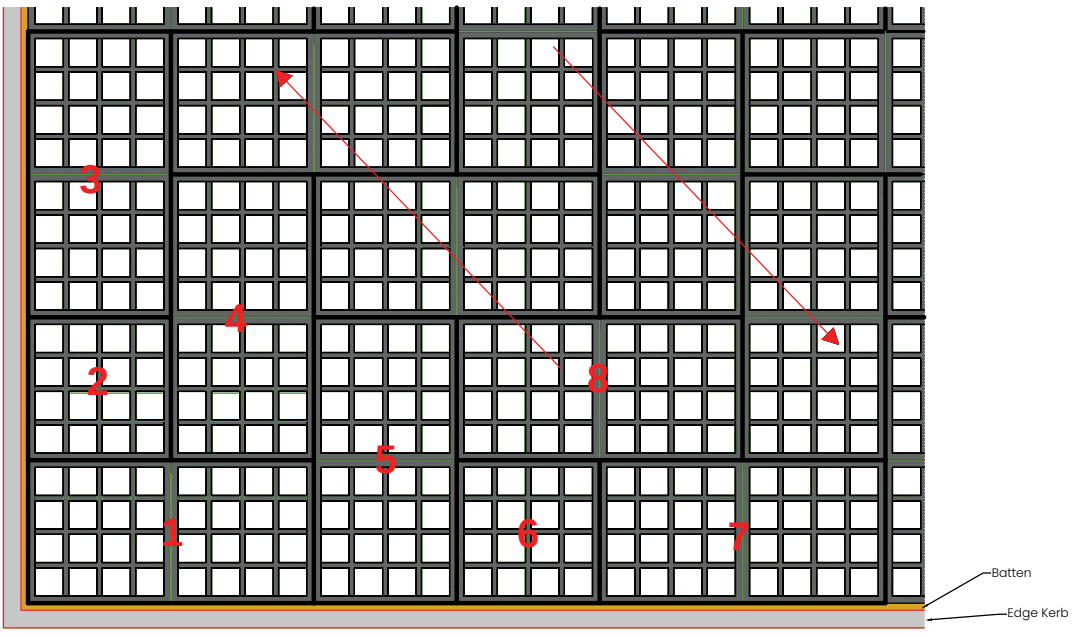
10. Recommended bonds for installation

Please call Geosynthetics Limited for further guidance if required.

Stretcher Bond



Herringbone Bond



Maintenance & Repair

The TTE™ grass, gravel and block reinforcement system is designed to need minimal maintenance but the following should be carried out periodically to ensure the surface is safe and to preserve its appearance.

For grass filled areas:

- Cut the grass as required during the growing season.
- When mowing, keep blades above 4cm.
- Remove grass cuttings to prevent any compaction in the surface.
- Apply a fertiliser once a year in the Spring time.
- Watering should be undertaken, when necessary and more frequently during warmer periods.
- Any patches that appear can be re-seeded with a top dressing.

For gravel filled areas:

- Top up any 'pockets' in the TTE® units with 10/20 clean angular aggregate to avoid any trip hazards.
- Any build-up of gravel where vehicles have been cornering should be swept back into the units.

For block filled areas:

- Remove any large areas of dirt from the joints in order to maintain the water permeability using a high-pressure cleaner.

General Points

- Replace any pavers showing visible signs of damage or wear. Ensure the sub-base is properly reinstalled according to our guidelines bedffore placing the new pavers.
- During Winter, use Grit instead of road salt as this has a negative effect on the vegetation, the soil and the ground water.
- Maintain the expansion strip around the perimeter of the area at all times.

TTE™ Technical Services

Geosynthetics Limited can provide free technical support on all TTE™ projects from concept right through to construction. The engineering team can offer site-specific solutions to provide our clients with the most cost effective and environmentally sympathetic results. Technical Recommendations will provide preliminary calculations and CAD details showing a range of build ups for each of our design proposals.

On site support

Geosynthetics offer free on site support to clients and contractors who would like additional support.

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About Geosynthetics

About Us

Not just a product supplier, Geosynthetics Limited promotes and leads innovation throughout the UK to deliver sustainable geosynthetic solutions for an improved environment.

Using extensive knowledge of product and applications the company have an enviable reputation for technical excellence and customer service, offering next day delivery and free engineering support to achieve the desired objectives, save time, reduce carbon and cost wherever possible.

Our Best Service

Next Day Delivery
Our fully stocked distribution center established in the East Midlands makes UK direct to site next day deliveries possible.

Free Engineering Service
Our Engineering Department (Staffed by fully qualified civil engineers) has been created to give you free technical support and to provide solutions involving our range of products.

Large Stock Holding
We hold over £2m worth of stock in our East Midlands distribution centre allowing us to enable quick order turnarounds.

Site Visits
Our team includes industry experts offering you support & advice throughout your order process. This enables us to offer services such as site visits to assist you with choosing the best solution for your project.

Get in touch

01455 617139

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