Geosynthetics
Engineered Solutions

# TTE Installation Guide
## TTE Grass, Gravel and Block

## 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**
- **Further advice is contained in the guide and available from Geosynthetics Ltd 01455 617139**

### 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.

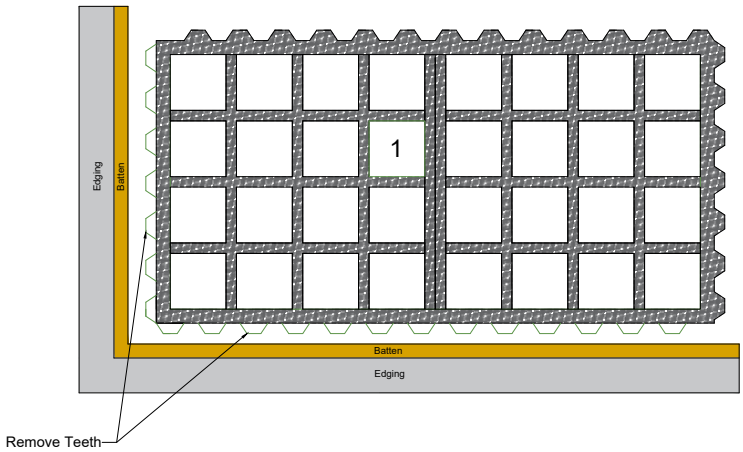
**For Grass surface:** Lay second layer of Turftex geotextile and then a 50mm layer of 50/50 mixture of graded topsoil/2-6mm grit. Just rolled not compacted.

**In both cases:** Cover the bedding with the installation mesh before laying the TTE units, see 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 Ltd.
- Check regularly that lines are straight and gaps between units are minimised.
- If installing when outside temperature is high (above 20 degrees) 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.

## 8. Laying of TTE units



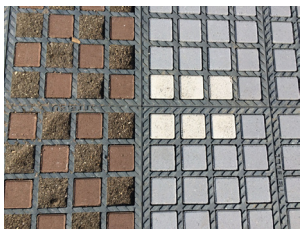

TTE Units

- 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.

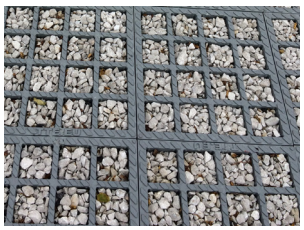
## 9. Filling of TTE units

**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, ask Geosynthetics.**

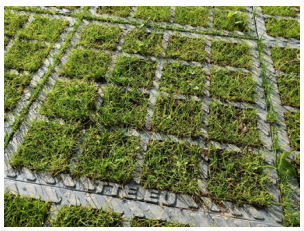
For Block surface. Using blocks from a mixture of pallets insert into chambers for paved areas, pathways and demarcation.



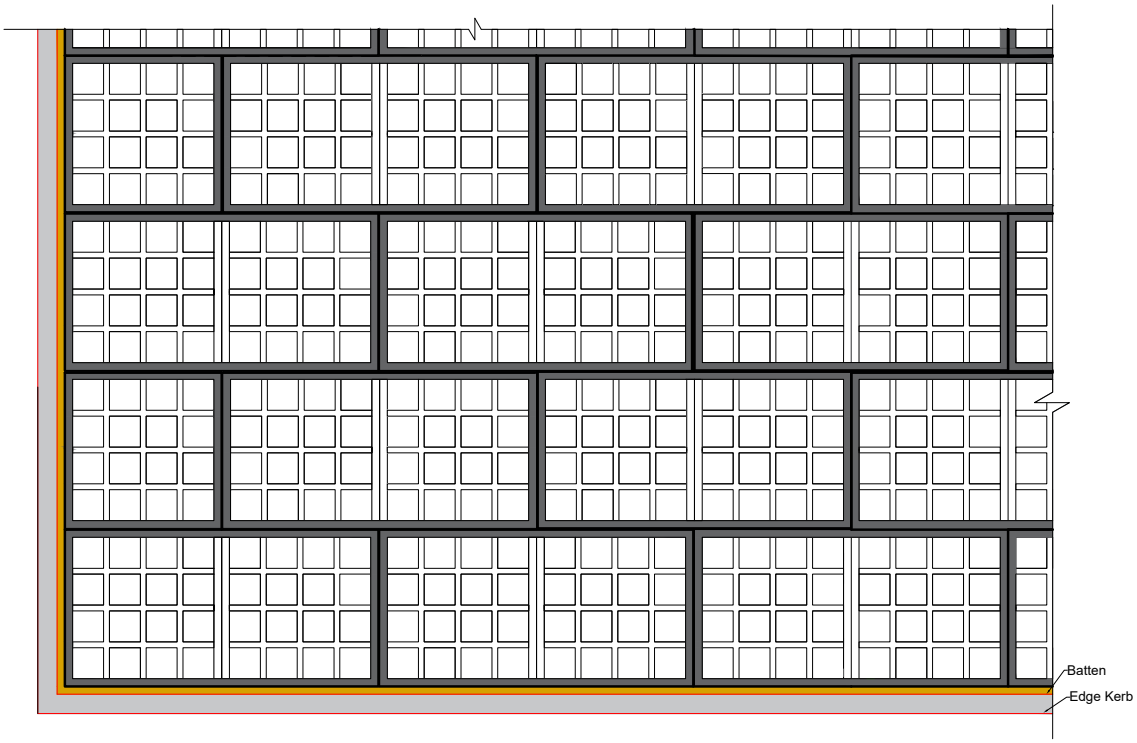
For Gravel surface. Use a hard angular stone in the size range 16 to 22mm to completely fill the units. Pea shingle and smaller size aggregates should be avoided.



For Grass surface. 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.



## Stretcher Bond




## Herringbone Bond