

# Tenax HM Grids

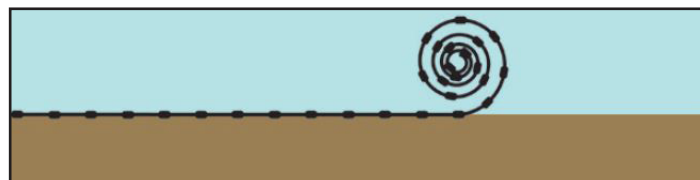
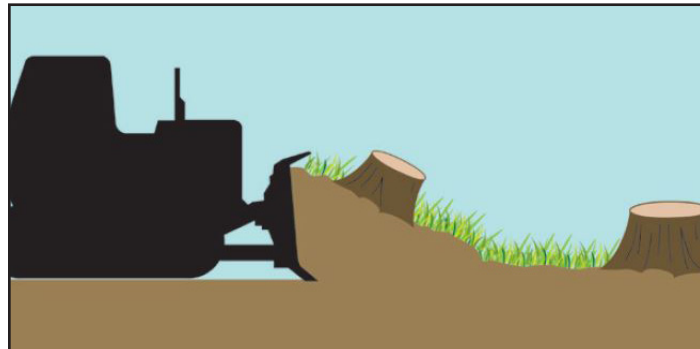
## Installation Guide

### 1. Prepare the Surface

- Clean the ground from debris, tree trunks, etc. Smooth and level the subgrade to the prescribed elevation as required by the contract.

### 2. Laying

- Unroll the Tenax geogrids on site and apply tension by hand to minimize wrinkles. Geogrid panel overlap requirements, either side-by-side, or end-to-end, shall depend on the strength of the subgrade. Seek advice from the Engineer or alternatively use Table 1 below for guidance.
- The overlapping shall be made in the direction of soil spreading to avoid geogrid uplift. The Tenax geogrids may be tensioned and fixed along the outer edges with "U" bars or with stones.



CBR (%)	Overlap
> 3	300mm
1 - 3	500mm
< 1	750mm

Table 1: Recommended Overlapping

- The fill grain size distribution should be carefully selected in order to optimise geogrid performances.
- Two distinctive installation procedures should be used based upon the existing subgrade shear strength encountered at the site:



### Filling over firm subgrade:

- When applying the fill material over relatively competent subgrade (CBR > 3), rubber tyre trucks can drive directly on the geogrid at very slow speeds (less than 10 km/h) and dump the fill material as they go. Operators must not turn or apply any excessive braking when driving across the geogrid.
- Tracked vehicles should not be driven directly on the geogrid. A minimum of 150mm of fill material should be placed between the geogrid and tracks.
- Base course material should be placed in lift thicknesses and compacted in accordance with the design requirements.
- Any ruts developed during spreading or compacting must be filled with additional fill material to reach the design thickness.
- Repeat as required



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### Filling over soft subgrade::

- For weak sub grade (CBR between 1 - 2) or very weak subgrade (CBR <1), an initial fill lift of 300mm is recommended to support equipment. Low ground pressure equipment is recommended for spreading the fill over soft subgrade. Back dump specified fill materials onto the geogrid where the subgrade is most stable, and then spread the fill over the geogrid out towards the weaker subgrade. Tight turns, excessive breaking, or spinning should be prohibited.
- Loaded haul trucks or any heavy equipment should avoid riding over fill material until the total compacted fill thickness has been achieved and capable of supporting the load.
- Compaction of the fill material to the prescribed density should be conducted without overstressing the subgrade. Use only light equipment for compacting the first course on very soft subgrade. If required, wrap around the geogrids at the outer edges to enhance performances.
- Any ruts developed during spreading or compacting must be filled with additional fill material to reach the design thickness.
- Repeat as required

### 4. Notes

#### Repairing

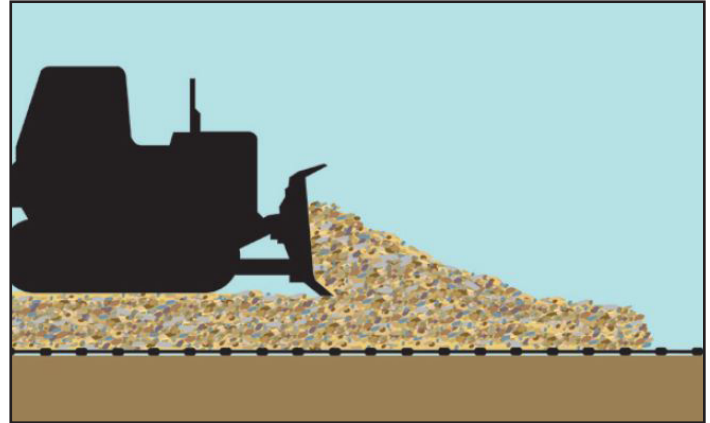
- Geogrid sections damaged during installation must be repaired by patching.
- Remove fill from the surface of the geogrid extending 500mm surrounding the damage area and then place a geogrid patch to cover damaged geogrid area, assuring it extends 500mm in all directions.

#### Cutting

- Tenax geogrids can be easily cut with sharp shears to accommodate manhole covers, curves, etc.

#### Protection

- The geogrid shall be protected from long-term exposure to direct sunlight during transport and storage. After placement, the geogrid shall be covered as soon as possible.



**Contact Geosynthetics Ltd if more specific advice is required on 01455 617 139**



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