

## DO I NEED A GEOFABRIC?

Geofabrics provide a variety of functions, including assisting with separation, filtration, drainage, protection and reinforcement; so the addition of a nonwoven geotextile can be quite beneficial to the installation.

### A geofabric can be installed:

- beneath the base material (on top of the sub-grade) in loose or reactive soils;
- on top of the base beneath the Geohex to contain the infill material and create a drainage and filter medium; or
- at both levels depending on the sub-grade, base and infill being utilised, and the final duty cycle.



## INSTALLATION GUIDELINES

## TIPS & HINTS

- Mechanical compaction is recommended for all installations.
- The addition of water during compaction will aid settling through the matrix.
- Overfilling is acceptable (10-15mm only), except on steep inclines.
- The use of ground pins is recommended on inclines greater than 10 degrees.
- Type 17 Bugle Head Screws (galvanised, minimum 150mm long) are the most cost effective and can be screwed into the sub-grade without the need to hammer a pin through the cell material.
- Edge restraints made of a solid material (ie. timber, metal or concrete) are required if the pavers finish above the surrounding ground. Restraints should be continuous and flush with the top edge of the Geohex pavers.
- The easiest and most practical solution is to have the Geohex pavers finish level with the existing ground allowing for a smooth, trip free transition, and to retain the Geohex where required.



**Disclaimer:** The information provided herein is for reference purposes only. It is intended as a guide and will not apply to every circumstance as both site conditions and intended use varies. Determination of the suitability of use of the product given the site conditions and intended function is the sole responsibility of the user. We recommend the user seek the advice of a Civil Engineer to assess site conditions and recommend a suitable site preparation procedure using locally available materials and machinery to ensure a successful installation.

## STEP 1: SITE EXCAVATION



Geohex requires a firm foundation (base). The heavier the load or the weaker the original soil, the stronger the base must be to support the Geohex pavers.

- Road base with a clay content is generally recommended as it will compact and bind into a solid foundation on top of the sub-grade of original soil. This will support the underside of the product as it carries the traffic load.
- Geohex should be considered as a paver. Certain factors such as the load bearing capacity and plasticity of the soil used in the installation location, and the load, frequency and duration of the traffic over the finished product will affect the installation procedure and guide material selection.

### A BASIC GUIDE

#### Domestic Pedestrian Traffic:

In solid, free draining conditions, excavate 100mm down from surrounding finish levels, install a 60mm thick base, compact, then lay Geohex.

#### Light Vehicle Traffic:

In solid, free draining conditions, excavate 140mm down from surrounding finish levels, install a 100mm thick base, compact, then lay Geohex.

#### Heavy Vehicle & Machinery Traffic:

For a firm sub-grade, excavate to a depth of 200mm, install a 160mm thick base, compact, then lay Geohex.

**Note:** Excavation to be determined by the existing ground material in the installation area. The weaker the original soil structure, the stronger the base must be over the sub-grade to support the load. For example, water soaked mud and very sandy soils will require a thicker base than solid clays and rock bases.

## STEP 2: ESTABLISH REQUIRED LEVELS



Geohex needs to sit flush with the surrounding ground level, so ensure that final finishing levels have been established during the excavation stage.

- Ensure the base material on which the Geohex pavers sit maintains a consistent level that is 40mm below the required finishing level.
- Compact the base material to create a strong foundation for Geohex to be installed upon.
- The prepared base should have an overall uniform finish. It does not need to be perfect as the Geohex infill material will fill any voids on the underside.

## LAYING GEOHEX STEP 3:



Geohex can be laid in a variety of combinations as each paver has a long side and a short end that consists of male pins and female gate lugs.

- To start, the female gate lugs should be pointing towards the area to be laid on both side and end (**Picture 3.1**). Once the start point has been determined lay the pavers in the format desired and click into place (best achieved by standing on the paver till it clicks into place).
- Once connected there is a small amount of flexibility allowing for some movement to make minor adjustments and for the pavers to follow ground contours.
- Geohex can be cut with a range of different tools. A circular saw is quick and will deliver reasonably straight edges, while a reciprocating saw will allow trimming around curves.

Start point paver, lay first paver with female joining lugs pointing in direction of pavers to be laid



Picture 3.1

## GEOHEX INFILL STEP 4:



Geohex features a 65mm hexagonal void that allows for a range of infill material in both size and variant.

- An aggregate that is 15mm or smaller is ideal. Anything larger than 25mm will not settle into the hexagonal void.
- To fill a laid Geohex paver start at the most accessible edge and push the infill material into the paver with a rake or using machinery assistance.

**Note:** While in most cases a local product is considered an acceptable infill, a coarse granulate material with a mix of size and grade that 'packs down' into the matrix will deliver the most effective result.