Planterdrain

abg creative geosynthetic engineering

Installation Guide

General Advice

These instructions should be read in conjunction with the contract specification and drawings. They are intended to provide guidance in normal installation situations and are addressed to the installer on site. If there are any questions related to the design, unusual installation challenges, or any doubt, consult ABG for further advice. In all situations, responsibility for installation remains with the Installer.

Description

Planterdrain 25 is a drainage layer for planters comprising of a 25mm HDPE perforated cuspated core, produced as 900 x 900mm sheets and scored into 9 tear-off squares of 300 x 300mm. (Fig. 1). **Planterdrain 25** can be laid as large sheets for large planters and as small squares for smaller planters. The sheets and squares interlock and the amount of interlock can be varied to avoid cutting.

Planterdrain is then overlaid with a geotextile before the soil infill is placed into the planter. The geotextile is available either as **Terrex ABG NW88** sheets (10m long x 1m wide) or a 100m long x 1m or 4.5m wide roll of **Terrex NW9**. (Fig. 2).

The perforated cuspated core of **Planterdrain** allows water to pass through the core, but also retains some water in the cusps. The retained water helps to keep the soil moist by transpiration back up into the soil in dry periods. (Fig. 3).

Supply

Planterdrain 25 comes on a full pallet of 500 sheets, 900 x 900mm and weighs 486kg. (Fig. 4). Part pallets also available.

Equipment Required (Fig.5).

- Safety Knife
- Jointing tape (if required)
- Sandbags for large planter areas
- Terrex geotextile

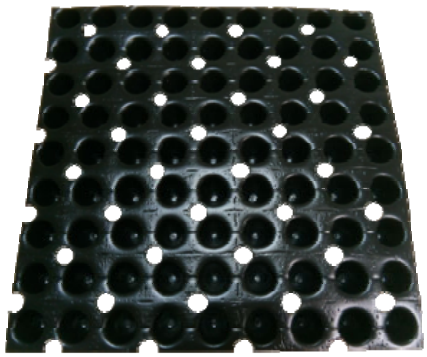

Fig. 1: Planterdrain 25

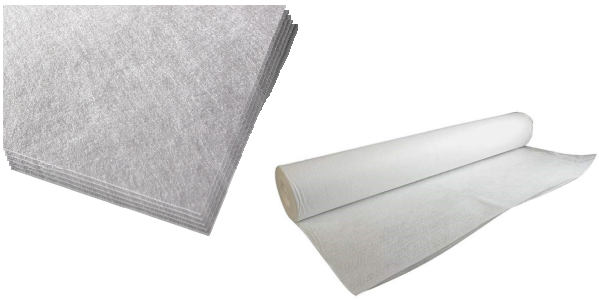

Fig. 2: Geotextile available in Terrex ABG NW88 sheet (10m long x 1m wide) & Terrex NW9 roll (100m long x 1m or 4.5m wide)

Fig. 3: Retained water in the cusps to help keep soil moist in dry periods.

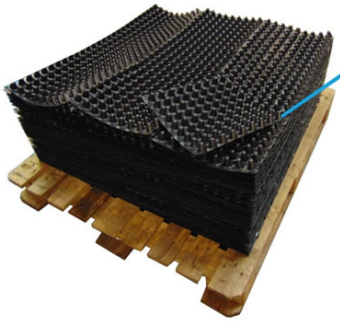

Fig. 4: Planterdrain supplied 500 sheets to a pallet. Cuspates stacked on top of each other to save space in transit and the sheets are scored so that individual squares can be detached (9 x 300x 300mm squares per sheet)

Fig. 5: Equipment required.

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Step 1
Place the **Planterdrain** sheet to the base and sides of the waterproofed planter, with the bottom of the cups facing down. (Fig. 6).

Step 2
Place the next **Planterdrain** sheet such that the cores interlock together. (Fig. 7).

NOTE that there must be an outlet in the base of the planter through which the water can escape.

Step 3
Install the **Terrex** geotextile on the flat surface of the **Planterdrain** sheet cutting to size with a safety knife. Overlap the geotextile at the edges and if necessary the sheet can be fixed in position with jointing tape. (Fig. 8).

Step 4
When **Planterdrain** is to be laid up the wall, place the vertical section of **Planterdrain** directly onto the base layer. (Fig. 8). Cover with geotextile paying attention to detail so that soil cannot get into the Planterdrain.

Step 5
For larger planting areas, lay **Planterdrain** sheets to create a continuous blanket. It is advisable to consider loading the rolls with sandbags or other ballast if working on an exposed site as wind can easily lift the lightweight geotextile. (Fig. 9).

Step 6
Before backfilling, inspect the installation to make sure that there are no gaps in the geotextile where soil can enter the Planterdrain. Backfill with good quality topsoil. (Fig. 10).

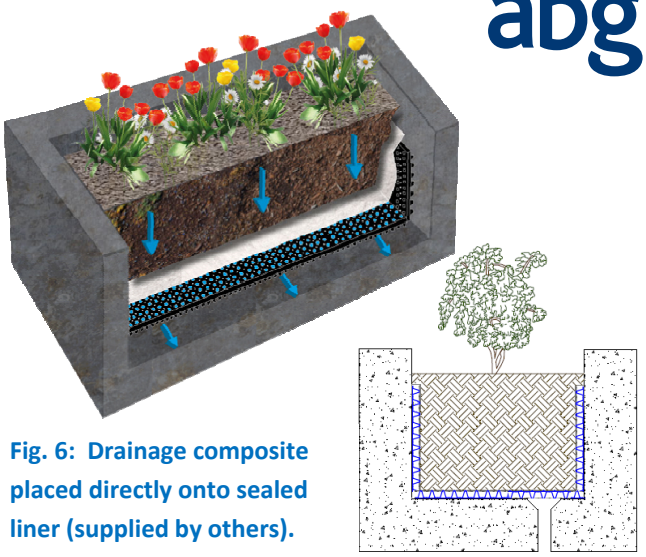

Fig. 6: Drainage composite placed directly onto sealed liner (supplied by others).

Fig. 7: Cuspates interlocking (e.g. 1 & 2 cusps).

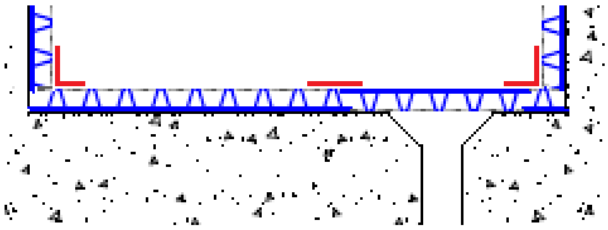

Fig. 8: Tape any geotextile joints to prevent ingress of soil and place wall sections directly onto the base layer

Fig. 9: Large planted areas - ensure geotextile flap overlaps next section. Weight with sandbags in windy conditions.

Fig. 10: Finished upstand planter

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Notes

1. Standard **Planterdrain** contains a UV stabiliser which means that it can be exposed to sunlight for up to 28 days in temperate climates. In climates with high UV exposure, limit to 3 days. Prolonged exposure will cause some loss of strength. Please contact our technical department for more specific advice and details of special enhanced UV resistance.

2. Do not drive vehicles or mini excavators directly on the **Planterdrain**. Use protection boards or 150mm of cover soil. (**Fig. 11**).

3. There are no known COSHH hazards associated with the installation of **Planterdrain**.

Fig. 11: Use boards or 150mm cover soil to prevent vehicles from damaging Planterdrain layer

Terms and Conditions

Site specific engineering design should be carried out after site investigation has provided all the necessary information.

The assessment of suitable safety factors in relation to each particular project must always remain the responsibility of the design engineer.

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