Fildrain Type 10



geosynthetic engineering

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.

Description

Fildrain Type 10 is a BBA approved high strength preformed cuspated drainage geocomposite consisting of a HDPE core with the upper side impermeable and the lower side laminated to a geotextile filter. The Fildrain Type 10 drain collects water from the pavement edge and transmits this horizontally to the vertical edge of carriageway fin drain.

Supply

Fildrain Type 10 is supplied in rolls preformed to bespoke widths to suit the requirements of the carriageway.

Equipment Required

- **Appropriate PPE**
- Sharp Knife
- ABG Cross Weave Jointing Tape

Site Preparation and Setting Out

Step 1

Do not remove the protective wrapping from Fildrain Type 10 rolls until ready to install.

Step 2

Set out the line of the Fildrain Type 10 within the tolerances allowed in the specification.

Step 3

Carefully roll or carry Fildrain Type 10 in the protective wrapping to the place of work. Do not drag as this may cause damage to the geotextile (Note 1).



Fig. 1: Completed Project

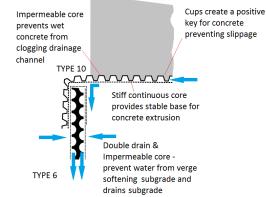


Fig. 2: ABG Fildrain Type 10 and ABG Fildrain Type 6 integrated under channel drainage



Fig. 3: Rolls supplied to site

Fig. 4: Cutting materials on site with a sharp knife



Fig. 5: Fildrain held down by sand bags to prevent wind uplift

UK t 01484 852096 e geo@abgltd.com Export t +44(0)1484 852250 e export@abgltd.com www.abgltd.com

abg ltd. E7 Meltham Mills Rd, Meltham, West Yorkshire, HD9 4DS

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Application of Fildrain Type 10

Step 1

Unroll the Fildrain Type 10 into position with the black flat side facing upward to accept the concrete. One edge should extend 50mm into the carriageway beyond the line of the channel edge as shown on HCD F21 (Fig2). The Fildrain Type 10 may need to be temporarily held down with sand bags or ballast blocks in windy conditions (Fig 5).

Step 2

On straight alignments the rolls can be laid out end to end but on curving alignments the rolls will need to be cut to length on site and each length positioned according to the horizontal curve.

Step 3

Lengths of Fildrain Type 10 can be stapled together to hold them in place during slip-forming.

Step 4

Seal all joints with ABG jointing tape. No gaps should be left anywhere in the textile or in the core through which concrete could enter the core.

Notes

1. In the event that Fildrain Type 10 geotextile covering is damaged it can be repaired using a patch of geotextile of similar type to the original taped into position over the hole. If the black core is damaged this should be cut out and a new piece of Fildrain Type 10 inserted and securely taped into position.

2. Fildrain Type 10 is designed to be sufficiently robust for a slip form paving machine to operate on top of it without damage to the fildrain.

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.



Fig. 6: Upstand nailed to base layer



Fig. 7: Fildrain installed and ready for extruded channel



Fig. 8: Casting extruded channel detailed view



Fig. 9: Casting extruded channel overview