1. Description

GPT 7 geocomposite is comprised of longitudinal band drains incorporated within a needlepunched geotextile to provide low-cost area drainage and protection to a membrane. All components are manufactured from 100% virgin polymer for assured durability and compliance with EA guidance documents.

2. Features

- Guaranteed as 100% Prime Grade Virgin Polymer – contains no post-consumer or post-industrial recycled polymer
- High interface friction with soils for optimum stability on slopes
- 5.9m wide for rapid installation
- Reliable drainage and protection with a single product
- UV protected (1% active carbon black)
- Chemically inert
- Simple jointing

### Test Standard | Unit | Mean Values
--- | --- | ---
3. Mechanical Properties – Composite
Static puncture (CBR) | kN | 7
Tensile strength (MD/CMD) | kN/m | 40
Tensile elongation (MD/CMD) | % | 80
Cone drop | mm | 3
Protection efficiency | kN/m² | 2.5 x 10⁻¹

4. Filter Properties – Protection Geotextile
Apparent opening size | µm | <69
Water permeability | l/(m²·s) | 35
Coefficient of permeability | m/s | 3.6 x 10⁻¹

5. Physical Properties – Protection Geotextile
Thickness @ 2kPa (Nominal) | mm | 5.2
Carbon black content | % | 1% active carbon black
Standard colour | | Black
Polymer | | 100% virgin polypropylene
Construction | | Needlepunched

6. Physical Properties – Band Drain
Core material | | Virgin polypropylene
Width | mm | 100
Thickness | mm | 5.0

7. Hydraulic Properties – Band Drain
In plane flow capacity | l/(m·s) | Band drain per meter width = 1
\( j = 1 \) @ 20kPa | | 0.25
\( j = 1 \) @ 200kPa | | 0.19
\( j = 1 \) @ 300kPa | | 0.15

Notes:

a) Mean values indicate the arithmetic mean derived from the samples taken for any one test as defined in the standard – usually an overall mean of five samples.

b) Mean values are subject to tolerances based on 95% confidence limits as published on the product CE declaration of performance.

c) Nominal Value (indicates an average manufacturing norm and not a controlled performance parameter).

d) MD: Machine Direction (longitudinal to the roll).

e) CMD: Cross Machine Direction (across the roll).

f) In plane flow capacity tested using soft/soft platens.

8. Durability – Composite
Weathering 50 MJ/m² (1 month) | EN ISO 12224 | >90% Retained Strength
Microbiological resistance | EN ISO 12225 | No loss in strength
Resistance to acids & alkalis | EN ISO 14030 | No loss in strength
Oxidation at 112 days (100 years) | EN ISO 13438 | >90% Retained Strength
9. Needle Detection

During manufacture, the protection geotextile passes close to three sets of magnets which remove metal particles up to 12g and >2mm. Just before the roll up, the geotextile passes through an electronic metal detection field. Audio and visual alarms indicate if metal particles are detected. Rolls are sent to stock if they pass through the field without an alarm event or, in the case of an alarm event, the operator inspects the suspect area, locates any metal particles and removes them. If unsuccessful, or if any doubt remains as to the presence of metal particles, then the roll goes to the re-inspection facility.

10. Testing

All materials are tested every 6000m² in an UKAS accredited ISO 17025 laboratory to all mechanical properties prior to release.

11. Storage

The geocomposites are supplied in packaging designed to protect the product from damage during handling, storage and degradation as a result of UV exposure. The product should be kept in appropriate packaging until such time that it is required for installation. The product is clearly and indelibly marked with the product name along the edge of the roll at regular intervals no greater than 5m. The packaging is labelled clearly to identify the product supplied in accordance with EN ISO 10320: Geotextile and Geotextile related products – Identification on site. Use slings where provided. Product weights are given on roll tickets. Use equipment appropriate to weight and dimension. Store and handle in accordance with good occupational hygiene and safety practice.

12. Dimensions

<table>
<thead>
<tr>
<th>Unit</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard roll length</td>
<td>m</td>
</tr>
<tr>
<td>Standard roll width</td>
<td>m</td>
</tr>
<tr>
<td>Approximate roll weight</td>
<td>Kg</td>
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</tbody>
</table>