



## DATA SHEET

### Geotextile Only

All Pro Earth/ProCleanSorb manufactured products

**Manufacture:** Geo-fabrics  
**Specification:** 3.3 Needlepunched Nonwoven

**1. Description** Thick needlepunched nonwoven geotextile manufactured from 100% virgin polypropylene high tenacity fibres containing 1% active carbon.

**2. Applications** Typical applications include, but are not limited to:

- Membrane protection in landfill cells and cover systems
- Soil filtration and separation beneath rock armour in coastal defence
- Soil filtration within landfill cells
- Heavy duty soil filters in civil applications

**3. Features**

- \* Optimised for maximum strength and performance – not mass
- \* Manufactured from a unique blend of high tenacity fibres providing class leading durability
- \* 100% virgin propylene fibres for guaranteed durability
- \* Carbon black for UV stability

	Test	Unit	Mean Values
<b>4. Mechanical Properties</b>			
Static puncture (CBR)	EN ISO 12236	kN	3.3
Push through displacement	EN ISO 12236	mm	65
Tensile strength (MD/CMD)	EN ISO 12236	Kn/m	22
Tensile elongation (MD/CMD)	EN ISO 12236	%	80
Cone drop	EN ISO 13433	mm	13
Projection efficiency (10 <sup>3</sup> )	EN ISO 13719	Kn/m <sup>2</sup>	-
<b>5. Filter Properties</b>			
Apparent opening size	EN ISO 12956	µm	60
Water permeability <sub>VH50</sub>	EN ISO 11058	l/(m <sup>2</sup> ·s)	85
Coefficient of permeability (10 <sup>-3</sup> )	EN ISO 11058	m/s	6.6
<b>6. Physical Properties</b>			
Thickness @ 2kPa (Nominal)	EN ISO 9863-1	mm	3.0
Black carbon content			1% active carbon black
Standard colour			Black
Polymer			100% virgin polypropylene

Notes:

- a) Mean values indicate the arithmetic mean derived from the samples taken from any one test as defined by the standard – usual an overall mean of five samples.  
Mean values are subject to tolerances based on 95% confidence limits as published on the product CE declaration of performance.
- b) Normal Value (indicates an average manufacturing norm and not a controlled performance parameter).
- c) MD: Machine Direction (longitudinal to the roll).
- d) CMD: Cross Machine Direction (across the roll).
- e) Tensile testing is performed using extensometers.

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	Test	VALUES
<b>7. Durability</b>		
Weathering 50 MJ/m <sup>2</sup> (1 month)	EN ISO 12224	>90% Retained Strength
Microbiological Resistance	EN ISO 12225	No loss in strength
Resistance to acids and alkalis	EN ISO 14030	No loss in strength
Oxidation at 112 days (100 years)	EN ISO 13438	>90% Retained Strength

**8. Needle Detection** During the 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, 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.

**9. Testing** All materials are tested every 6000 m<sup>2</sup> in an UKAS accredited ISO 17025 laboratory to all mechanical properties prior to release.

**10. Storage** The geotextiles 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 as it is required for installation / manufacture / deployment.