

Terram - Standard Geotextiles GT

1. Description - Nonwoven geotextile manufactured from UV stabilised, high tenacity, virgin polypropylene fibres that have been both mechanically and thermally bonded to provide high strength and excellent abrasion characteristics.

2. Application - Typical uses for Terram standard geotextiles include ground stabilisation (between the sub-base and subgrade) and around drainage materials.

Terram filters/separators are used extensively in the construction of:

- Paved and unpaved roads
- Railways
- Car parks and hardstandings
- Cycleways and footpaths
- SuDS installations

3. Features - Engineered to provide high strength and high elongation at break to ensure excellent resistance to damage during construction. Terram standard geotextiles are manufactured to performance properties, not weight, sufficient fibre will be added to achieve these properties. Manufactured from high tenacity UV stabilised virgin polypropylene fibres which have been heavily drawn to ensure excellent long term durability in all soil types. Manufactured using a randomly orientated web to provide completely isotropic properties, ensuring that high strength is not limited to a single direction. Excellent uniformity with high permeability and low pore size for soil filtration. Supplied to a maximum width of 6mts, ensuring minimum waste over large construction areas.

			Mean Value (Applied Tolerance Value)									
	Test Method	Unit	T700 GT	T900 GT	T1000 GT	T1300 GT	T1500 GT	T2000 GT	T3000 GT	T4000 GT	T4500 GT	
4. Mechanical Properties	Tensile Strength	kN/m	6.0 (-0.6)	7.5 (-0.75)	8.0 (-0.8)	10.5 (-1.05)	12.5 (-1.25)	14.5 (-1.45)	18.0 (-1.8)	22.0 (-2.2)	30.0 (-3.0)	
			Tensile Elongation	60 (±20)	60 (±20)	60 (±20)	60 (±20)	60 (±20)	60 (±20)	60 (±20)	60 (±20)	60 (±20)
	CBR Puncture Resistance	EN ISO 12236	N	1050 (-105)	1350 (-135)	1500 (-150)	2000 (-200)	2250 (-225)	2750 (-275)	3250 (-325)	4300 (-430)	5250 (-535)
	Cone Drop	EN ISO 13433	mm	42 (+8)	40 (+8)	38 (+6)	34 (+6)	32 (+6)	26 (+5)	24 (+4)	22 (+4)	14 (+3)
5. Hydraulic Properties	Pore Size - Mean AOS	EN ISO 12956	µm	95 (±20)	75 (±20)	75 (±20)	65 (±20)	65 (±20)	65 (±20)	60 (±20)	60 (±20)	60 (±20)
	Permeability - (H50)	EN ISO 11058	l/m2s	100 (-30)	95 (-28)	90 (-27)	75 (-23)	65 (-23)	55 (-17)	50 (-15)	30 (-9)	30 (-9)

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			Retained Strength								
	Test Method	Unit	All Grades								
6. Properties relating to durability Weathering 50MJ/m ² exposure (1month EU) Microbiological resistance Resistance to acids and alkalis Oxidation at 85 days (100 years)	EN 12224	%	> 90								
	EN 12225	%	No loss								
	EN 14030	%	No loss								
	EN 12226	%	>90								
	Test Method	Unit	T700 GT	T900 GT	T1000 GT	T1300 GT	T1500 GT	T2000 GT	T3000 GT	T4000 GT	T4500 GT
7. Physical properties (nominal) Thickness @ 2kPa	EN ISO 9863-1	mm	0.9	1.0	1.1	1.4	1.6	1.7	1.8	2.0	2.4
8. Material dimensions Standard roll length		m	150	150	100	100	100	100	100	50	50
Standard roll width		m	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Maximum roll width		m	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Gross roll weight (nominal)		kg	65	85	60	75	85	100	120	80	95

9. Packaging and Identification - Terram Standard Geotextiles are supplied on cardboard cores and wrapped in Polyethylene sheeting with identification labels in accordance with ISO 10320.

10. Storage - The rolls of geotextile shall be stored on stable/ level ground and stacked not more than five rolls high and no other materials shall be stacked on top. The rolls can be stored outdoors when packaged, but should be protected from exposure to UV. All materials should be stored in accordance with good health and safety practice and in accordance with local laws. For additional information please refer to Terram Geotextiles MSDS.

11. Notes: a. Reported values are arithmetic mean values unless otherwise stated, A set of test results shall be those results derived from specimens cut from one sample and taken across the full width of the roll. For sampling, EN ISO 9862 should be applied, i.e. samples should be taken not less than 5m from the end of the roll in machine direction and over the whole width in the cross machine direction. The location of the sample should be described exactly.

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Applied tolerances are based on 95% Confidence limits, this is the value below which not more than 5% of the test results may be expected to fall. This represents the value at 1.645 standard deviations below the mean value. For evaluation of conformance, statistical procedure should be used in line with section 5.2 of CEN/TR 15019: 2004. The tolerance value provided for tensile elongation is based on an absolute value; e.g. 60% \pm 20% = 40%-80%.

b. Reported values are based on durability testing on the lowest grade product within a family, no loss indicates that there is no notable effect due to exposure, laboratory sample variation may identify a small change in properties.

c. A Nominal value indicates that the value is not part of the performance specification and is provided for guidance only.

d. Gross roll weight is based on 4.5m rolls at standard length, information provided is for lifting guidance only and does not for part of quality control.

12. Additional Information - Refer to the Terram Jointing Methods (downloadable from www.terram.com) for when simple overlaps are required for subsequent and adjacent roll lengths. However, pegging, sewing, stapling or gluing can also be used depending upon the application, the sub-grade conditions, the loading, the convenience and the cost. These figures relate to standard product weights and roll sizes. Other weights, sizes and colours may be available on request. For further information please contact Fiberweb Geosynthetics' Technical Support.

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