TERRAM
Geosynthetics you can trust

PW1—Standard Rail Geotextile

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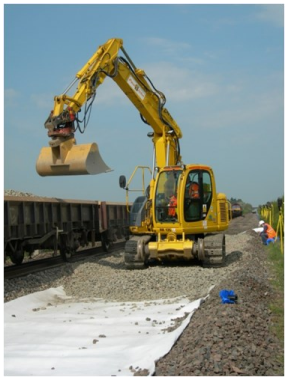

1. DESCRIPTION

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

Terram PW1 filter/separator is designed to maintain separation between the adjacent sand/sub-grade and ballast layers within the trackbed construction, preventing the upward movement of fine sub-grade particles and the intermixing of ballast with the sub-base.

TERRAM PW1 is suitable for where sub-grade soils are good, have sufficient strength and the particles are of even size, standard recommendations are based on with a small percentage of coarse particles. <10% by weight >14mm.

3. FEATURES

Engineered to provide high strength and high elongation at break to ensure excellent resistance to damage during construction and under the dynamic loading applied within trackbed. Terram PW1 is 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.

Network Rail approved PADS No. 057/100555.

	Test Method	Unit	Mean Value (Applied Tolerance Value [a]) PW1
4. MECHANICAL PROPERTIES			
Tensile Strength	EN ISO 10319	kN/m	24.0 (-2.2)
Tensile Elongation		%	60 (±20)
CBR Puncture Resistance	EN ISO 12236	N	4300 (-430)
Cone Drop	EN ISO 13433	mm	22 (+4)
5. HYDRAULIC PROPERTIES			
Pore Size - Mean AOS	EN ISO 12956	µm	60 (±20)
Permeability—(H_{50})	EN ISO 11058	l/m²s	30 (-9)

	Test Method	Unit	Retained Strength [b] Terram PW1
6. PROPERTIES REALTING TO DURABILITY			
Weathering 50MJ/m² exposure (1 month EU)	EN 12224	%	>90
Microbiological resistance	EN 12225	%	No loss
Resistance to acids & alkalis	EN 14030	%	No loss
Oxidation at 85 days (100 years)	EN 12226	%	>90

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	Test Method	Unit	
7. PHYSCIAL PROPERTIES (nominal)			
Thickness @ 2kPa	EN ISO 9863-1	mm	2.5
8. MATERIAL DIMENSIONS			
Standard Roll Length		m	50
Standard Roll Width		m	4.0
Maximum Roll Width		m	6.0
Gross Roll Weight (nominal)[c]		kg	80

9. PACKAGING & IDENTIFICATION

Terram PW1 is 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. 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% ±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.

As part of its continual improvement process Fiberweb Geosynthetics Ltd reserve the right to change the properties listed on this data sheet without prior notice.

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