

## PW4.LA – Reinforcement Geocomposite

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- 1. DESCRIPTION** PW4- LA is a bi-orientated polypropylene geogrid (Tensar™ SSLA30 G) bonded to a PW1 geotextile
- 2. APPLICATION** A reinforced trackbed separator designed where the sub-grade is weak, i.e. Soft and boggy conditions.
- 3. FEATURES**

The structure and composition of PW4 provides a long term mechanical performance and chemical resistance, even when used in very aggressive conditions.

Improves the load bearing capacity of soil when placed at the base of ballast, constraining the aggregate by laterally confining it, providing the necessary support.

Manufactured using large aperture bi-axially orientated geogrid developed specifically for railway applications and use under ballast. PW4-LA provides the ideal dimensional characteristics for the effective interlocking of ballast within the geogrid apertures.

Network Rail approved PADS No. 057/100779.

	Test Method	Unit	Mean Value (Applied Tolerance Value <sup>[a]</sup> )
			PW4.LA
<b>4. MECHANICAL PROPERTIES</b>			
Tensile Strength	EN ISO 10319	kN/m	30.0 (-3)
CBR Puncture Resistance	EN ISO 12236	N	4300 (-430)
<b>5. HYDRAULIC PROPERTIES</b>			
Pore Size - Mean AOS	EN ISO 12956	µm	60 (±20)
Permeability—(H <sub>50</sub> )	EN ISO 11058	l/m <sup>2</sup> s	30 (-9)

	Test Method	Unit	Retained Strength <sup>[b]</sup>
			Terram PW4.LA
<b>6. PROPERTIES REALTING TO DURABILITY</b>			
Weathering 50MJ/m <sup>2</sup> 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

	Test Method	Unit	
<b>7. PHYSICAL PROPERTIES (nominal)</b>			
Geotextile Thickness @ 2kPa	EN ISO 9863-1	mm	2.5
<b>8. MATERIAL DIMENSIONS</b>			
Standard Roll Length		m	25
Standard Roll Width		m	4.0

**9. PACKAGING & IDENTIFICATION**

Terram PW4-LA 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.

**12. ADDITIONAL INFORMATION**

Refer to the Terram Jointing Methods (downloadable from [www.terram.com](http://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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