

# Hydrotex™ Geocomposite

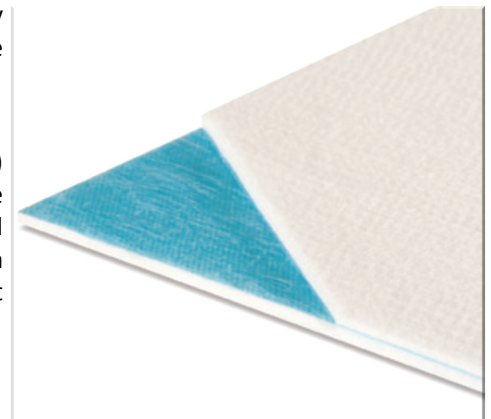
PDS010 Issue 11—Sept 2021

**DESCRIPTION:**

A patented flexible multi-layer anti-clay pumping geocomposite for use in rail ballasted track bed applications where there is a risk of clay slurry formation. Terram Hydrotex™ consists of a micro filter core thermally laminated between two outer protective non woven needle punched and thermally bonded robust geotextiles manufactured from UV stabilised, high tenacity, virgin polypropylene fibres. Terram Hydrotex™ is specifically designed to filter fine silt and clay particles yet remain sufficiently permeable to permit the passage of water particles under very low hydraulic gradients.

**APPLICATION:**

Terram Hydrotex™ is a sand blanket replacement (anti-pumping) geocomposite (SBRG) specifically developed to prevent severe subgrade erosion in clay ground conditions by providing separation and filtration of all soil types including clay particles. Terram Hydrotex™ is installed instead of a traditional sand blinding layer and a separation geotextile prior to placement of ballast layers for track renewals, widening and new lines.

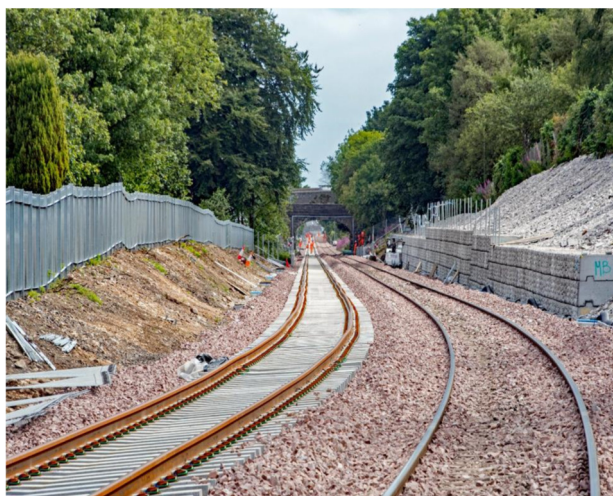


**FEATURES & BENEFITS:**

- Micro filter core stops movement of clay particles in suspension (slurry) yet allows the passage of water molecules preventing severe formation erosion and ballast contamination.
- Highest permeability of all SBRGs available, does not require train loading to allow water to pass through the material.
- Flexible material follows formation contours further reducing the risk of clay slurry forming in depressions.
- Manufactured from inert high tenacity UV stabilised virgin polypropylene fibres giving excellent long term durability in all soil types.
- Mechanical bonding using needle punching technology and secondary thermal treatment gives very high abrasion, static and dynamic puncture resistance ensuring a very low risk of damage during and post construction.

**APPROVAL:**

Network Rail Product acceptance certificate PA05/05451.



European Association of Geosynthetic product Manufacturers



## INTENDED USE/FUNCTIONS:



## INTENDED APPLICATION:



MECHANICAL PROPERTIES	Test Method	Unit	Mean Value		
			Hydrotex 4		
Tensile Strength	EN ISO 10319	kN/m	95.0		
Tensile Elongation	EN ISO 10319	%	75		
CBR Puncture Resistance	EN ISO 12236	kN	18.0		
Cone Drop	EN ISO 13433	mm	0		
<b>HYDRAULIC PROPERTIES</b>					
Pore Size - Mean AOS	ASTM F316-03	µm	<10		
Permeability (0.28m head)	EN ISO 11058	l/m <sup>2</sup> s	0.35		
<b>DURABILITY PROPERTIES</b>					
Weathering (UV Exposure)	EN 12224	Days	30		
Combined ageing (Oxidation, temperature & moisture)	EN ISO 13438	Service Life (Yrs)	100		
Abrasion resistance	EN ISO 13427		>80% retained strength		
<b>PHYSICAL PROPERTIES</b>					
Thickness (Nominal)	EN ISO 9863-1	mm	9		
<b>MATERIAL DIMENSIONS</b>					
Width		m	3.5	3.7	3.9
Length		m	25	25	25
Gross Roll Weight (Nominal)		kg	148	157	165
Network Rail PADS (Parts and Drawings System) Item Code			057/101455	057/101454	057/101453

### PACKAGING & IDENTIFICATION STORAGE

Terram geosynthetics are supplied on cardboard cores and wrapped in Polyethylene sheeting with identification labels in accordance with ISO 10320.

The rolls of geosynthetics shall be stored on stable/ level ground and stacked no more than two 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.

### QUALITY

Terram geosynthetics are supplied having met internal quality requirements in accordance with our Quality Management system which is certified to BS EN ISO 9001:2015.

### NOTES

Reported values are arithmetic mean values unless otherwise stated. For further details on physical parameters please refer to the individual Declaration of Performance certificates available for download from [www.terram.com](http://www.terram.com)

Reported values related to durability testing are generally based on the lowest grade product within a family. A Nominal value indicates that the value is not part of the performance specification and is provided for guidance only. Gross roll weights are provided for lifting guidance only and does not form part of quality control.

### 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 Terram Technical Support.

How else can we help? Get in touch with us

+44 (0) 1621 874200    info@terram.com    www.terram.com

