

# GSE PermaNet TRx Geocomposite

GSE PermaNet TRx high flow geocomposite is produced with a unique one step coextrusion process that generates a triaxial geonet structure with creep resistant columns connected to an intrusion resistant roof. This product achieves high in-situ transmissivity from optimally oriented flow channels that maintain porosity because of the intrusion and creep resistant nature of the triaxial structure. The geocomposite has a strand structure that is specifically designed to withstand high stresses. It also provides durable performance over a broad range of conditions that are ideal for extremely high compressive stress applications.



**AT THE CORE:**  
A high flow geonet that provides durable performance over a broad range of conditions and is ideal for extremely high compressive stress applications.

## Product Specifications

Tested Property	Test Method	Frequency	Minimum Average Roll Value		
<b>Geocomposite</b>			<b>4 oz/yd<sup>2</sup></b>	<b>6 oz/yd<sup>2</sup></b>	<b>8 oz/yd<sup>2</sup></b>
Transmissivity <sup>(1)</sup> , gal/min/ft (m <sup>2</sup> /sec) Double-Sided Composite Single-Sided Composite	ASTM D 4716	1/540,000 ft <sup>2</sup>	4.8 (1 x 10 <sup>-3</sup> ) 6.2 (1.3 x 10 <sup>-3</sup> )	4.8 (1 x 10 <sup>-3</sup> ) 6.2 (1.3 x 10 <sup>-3</sup> )	4.8 (1 x 10 <sup>-3</sup> ) 6.2 (1.3 x 10 <sup>-3</sup> )
Ply Adhesion, lb/in	ASTM D 7005	1/50,000 ft <sup>2</sup>	1.0	1.0	1.0
<b>Geonet Core - GSE PermaNet TRx (prior to lamination)<sup>(3)</sup></b>					
Transmissivity <sup>(1)</sup> , gal/min/ft (m <sup>2</sup> /sec)	ASTM D 4716		19.2 (4 x 10 <sup>-3</sup> )	19.2 (4 x 10 <sup>-3</sup> )	19.2 (4 x 10 <sup>-3</sup> )
Creep Reduction Factor	ASTM D 7406/7361	per formulation	1.2 @ 15,000 psf	1.2 @ 15,000 psf	1.2 @ 15,000 psf
Density, g/cm <sup>3</sup>	ASTM D 1505	1/50,000 ft <sup>2</sup>	0.94	0.94	0.94
Tensile Strength <sup>(2)</sup> , lb/in	ASTM D 5035/7179	1/50,000 ft <sup>2</sup>	75	75	75
Carbon Black Content, %	ASTM D 1603 <sup>(5)</sup> /4218	1/50,000 ft <sup>2</sup>	2.0	2.0	2.0
<b>Geotextile (prior to lamination)<sup>(3)</sup></b>					
Mass per Unit Area, oz/yd <sup>2</sup>	ASTM D 5261	1/90,000 ft <sup>2</sup>	4	6	8
Grab Tensile, lb	ASTM D 4632	1/90,000 ft <sup>2</sup>	120	160	220
Puncture Strength, lb	ASTM D 4833	1/90,000 ft <sup>2</sup>	60	90	120
AOS, US Sieve (mm)	ASTM D 4751	1/540,000 ft <sup>2</sup>	70 (0.212)	70 (0.212)	80 (0.180)
Permittivity, sec <sup>-1</sup>	ASTM D 4491	1/540,000 ft <sup>2</sup>	1.8	1.5	1.3
Flow Rate, gpm/ft <sup>2</sup>	ASTM D 4491	1/540,000 ft <sup>2</sup>	135	110	95
UV Resistance, % retained	ASTM D 4355 (after 500 hours)	per formulation	70	70	70
<b>NOMINAL ROLL DIMENSIONS</b>					
Geonet Core Thickness, mil	ASTM D 5199	1/50,000 ft <sup>2</sup>	300	300	300
Roll Width <sup>(4)</sup> , ft			15	15	15
Roll Length <sup>(4)</sup> , ft	Double-Sided Composite Single-Sided Composite		170 190	160 190	160 180
Roll Area, ft <sup>2</sup>	Double-Sided Composite Single-Sided Composite		2,550 2,850	2,400 2,850	2,400 2,700

[Product specifications continued on back]



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**Product Specifications [continued]**

NOTES:

- <sup>(1)</sup>This is an index transmissivity value measured at stress = 10,000 psf; gradient = 0.1; time = 15 minutes; boundary conditions = between plates. Contact GSE for performance transmissivity value for use in design.
- <sup>(2)</sup>Tested in machine direction (MD).
- <sup>(3)</sup>All properties are minimum average roll values except AOS (mm) which is a maximum average roll value and UV resistance which is a typical value.
- <sup>(4)</sup>Roll widths and lengths have a tolerance of ±1%.
- <sup>(5)</sup>Modified.

GSE is a leading manufacturer and marketer of geosynthetic lining products and services. We've built a reputation of reliability through our dedication to providing consistency of product, price and protection to our global customers.

Our commitment to innovation, our focus on quality and our industry expertise allow us the flexibility to collaborate with our clients to develop a custom, purpose-fit solution.



**[ DURABILITY RUNS DEEP ]** For more information on this product and others, please visit us at [GSEworld.com](http://GSEworld.com), call 800.435.2008 or contact your local sales office.