

# GSE TenFlow 8.9 mm Geocomposite

METRIC

GSE TenFlow geocomposite consists of an 8.9 mm thick GSE TenFlow geonet heat-laminated on both sides with a GSE nonwoven needle-punched geotextile. TenFlow 8.9 is a T-shape tri-axial geonet comprised of HDPE strands forming a three dimensional structure to provide planar water flow. The geotextile is available in mass per unit area range of 200 g/m<sup>2</sup> to 540 g/m<sup>2</sup>. TenFlow 8.9 geocomposite provides high transmissivity under high and low loads.

## Product Specifications

Tested Property	Test Method	Frequency	Minimum Average Roll Value <sup>(1)</sup>	
<b>Geocomposite<sup>(6)</sup></b>			<b>200 g/m<sup>2</sup></b>	<b>270 g/m<sup>2</sup></b>
Transmissivity <sup>(2)</sup> , m <sup>2</sup> /sec at gradient=0.1 Double-Sided Composite	ASTM D 4716	1/50,000 m <sup>2</sup>	6.5x10 <sup>-3</sup>	6.5x10 <sup>-3</sup>
Transmissivity <sup>(2)</sup> , m <sup>2</sup> /sec at gradient=0.33 Double-Sided Composite Single-Sided Composite	ASTM D 4716	1/50,000 m <sup>2</sup>	3.5x10 <sup>-3</sup>	3.5x10 <sup>-3</sup>
Ply Adhesion, g/cm	ASTM D 7005	1/4,600 m <sup>2</sup>	89	89
<b>Geonet Core<sup>(1,3)</sup> - GSE TenFlow</b>				
Geonet Core Thickness, mm	ASTM D 5199	1/4,600 m <sup>2</sup>	8.9	8.9
Density, g/cm <sup>3</sup>	ASTM D 1505	1/4,600 m <sup>2</sup>	0.94	0.94
Carbon Black Content, %	ASTM D4218	1/4,600 m <sup>2</sup>	2.0	2.0
Creep Reduction Factor <sup>(4)</sup>	GRI-GC8	per formulation	1.05	1.05
<b>Geotextile<sup>(1,3)</sup></b>				
Mass per Unit Area, g/m <sup>2</sup>	ASTM D 5261	1/8,300 m <sup>2</sup>	200	270
Grab Tensile Strength, N	ASTM D 4632	1/8,300 m <sup>2</sup>	710	975
Grab Elongation, %	ASTM D 4632	1/8,300 m <sup>2</sup>	50	50
CBR Puncture Strength, N	ASTM D 6241	1/50,000 m <sup>2</sup>	1,936	2,557
Trapezoidal Tear Strength, N	ASTM D 4435	1/8,300 m <sup>2</sup>	290	395
AOS, US sieve <sup>(1)</sup> (mm)	ASTM D 4751	1/50,000 m <sup>2</sup>	0.212	0.180
Permittivity, (sec <sup>-1</sup> )	ASTM D 4491	1/50,000 m <sup>2</sup>	1.5	1.3
Water Flow Rate, lpm/m <sup>2</sup>	ASTM D 4491	1/50,000 m <sup>2</sup>	4,480	3,865
UV Resistance, % Retained	ASTM D 4355 (after 500 hours)	per formulation	70	70
<b>NOMINAL ROLL DIMENSIONS<sup>(5)</sup></b>				
Roll Width, m			3.8	3.8
Roll Length, m			45.7	45.7
Roll Area, m <sup>2</sup>			174	174

NOTES:

- <sup>(1)</sup> All geotextile properties are minimum average roll values except AOS which is maximum average roll value and UV resistance is typical value. Geonet core thickness is minimum average value.
- <sup>(2)</sup> Normal load of 48 kPa, boundary condition: plate/sand/geocomposite/geomembrane/plate, water at 21°C for 1 hour.
- <sup>(3)</sup> Component properties prior to lamination.
- <sup>(4)</sup> 10,000 hour creep test under 100 kPa at 20°C temperature.
- <sup>(5)</sup> Roll widths and lengths have a tolerance of ±1%
- <sup>(6)</sup> The Tenflow geonet has a circular aperture side and a cusped side. The side with circular apertures should be placed against the soil while the cusped side should be placed against the geomembrane.

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.



**AT THE CORE:**

A 8.9 mm thick TenFlow geonet heat-laminated on both sides with a nonwoven needlepunched geotextile.